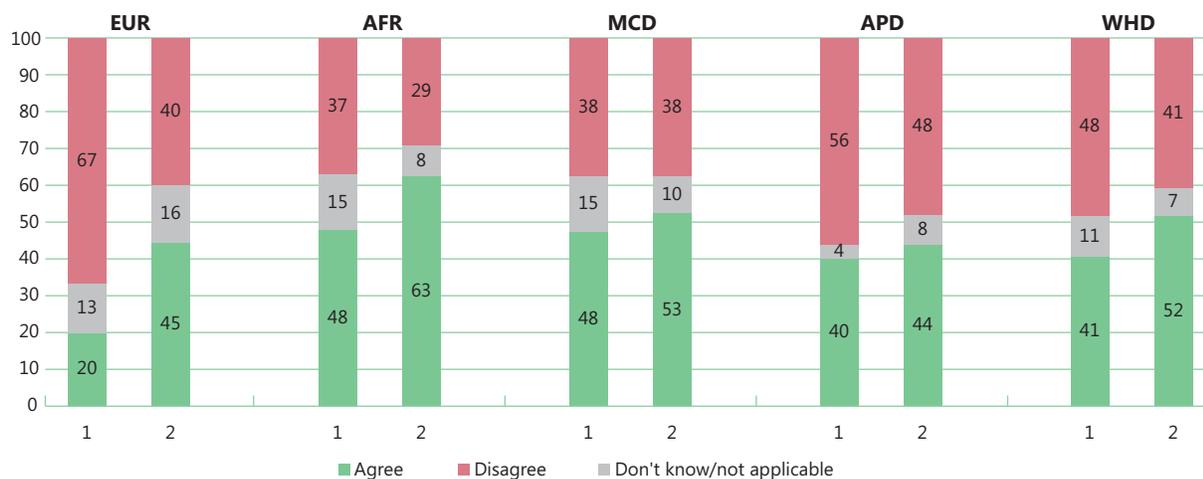


Figure 9. Staff Perceptions of Data Management Practices Across Departments
(In percent)



1. My supervisor typically discusses my work on data management as part of the APR discussion.
2. My department provides incentives for good data management.

Source: IEO Survey.

being too closely associated with managing data was seen as potentially harmful to career prospects.⁸⁴

86. Data management guidelines do not provide adequate incentives for staff. Quality audits—reviewing the work of country desks—for data and metadata in the CSDs do not meet this need, at least in the view of some EDSC/EDGG members, who expressed a rather pessimistic opinion on this issue. Nor do departmental guidelines facilitate proper data management: in practice, their complexity and length (in some cases well over a hundred pages) discourage staff from reading them, let alone applying them on a daily basis. The same guidelines call for periodic assessments on compliance to be conducted annually or semiannually, but such reports are not being prepared in the form and with the frequency mandated—in some departments, none have yet been issued—and are not widely accessible within or across departments, eliminating their presumed positive effect on discipline through peer pressure.

87. Ten years ago, the Towe Report (IMF, 2005) identified eight major recommendations present in the Fund's many previous reports on data management:

⁸⁴In the words of an interviewed senior manager: "Research papers are valued here . . . if the analysis is done right, no one will mark you down for bad data management;" and those of a senior economist: ". . . excellent data management skills? Not on my annual performance review! That would imply I'm not a strategic thinker."

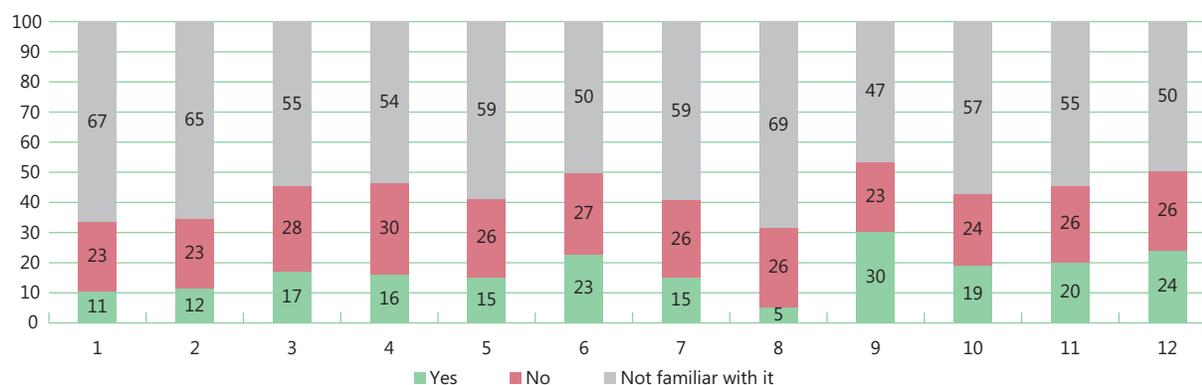
(i) improving the data of member countries; (ii) improving the tools available; (iii) staff training; (iv) establishing data management guidelines; (v) increasing incentives to follow the guidelines; (vi) shifting responsibility to research assistants; (vii) reconciling STA and country data; and (viii) centralizing the data collection process. Its diagnosis, over the previous 15 years, was that little progress had been made, except for the first two recommendations.

88. Today the diagnosis would be largely unchanged: while work on improving members' data continues apace and some improvements have been made regarding available tools, progress with the other recommendations has been limited, at risk of being unraveled, or nonexistent. During interviews, staff repeatedly expressed the view that to address the Fund's data management problems would require from Management a more forceful and mandatory approach than has been the case so far.

E. Data Dissemination and International Cooperation

The IMF disseminates large amounts of data . . .

89. The IMF is not just a collector of information for its own purposes. It also disseminates a vast array of

Figure 10. Use of IMF Specialized Databases*(In percent)*

1. Coordinated Direct Investment Survey (CDIS).
2. Coordinated Portfolio Investment Survey (CPIS).
3. Currency Composition of Official Foreign Exchange Reserves (COFER).
4. Data Template on International Reserves and Foreign Currency Liquidity.
5. Financial Access Survey (FAS).

Source: IEO Survey of Data Users.

6. Financial Soundness Indicators (FSIs).
7. Joint External Debt Hub.
8. Monitoring of Fund Arrangements Database (MONA).
9. Primary Commodity Prices.
10. Principal Global Indicators (PGI).
11. Public Sector Debt Statistics Online Centralized Database.
12. Quarterly External Debt Statistics (QEDS).

data and statistics through a variety of databases, documents, and publications. The IMF's data dissemination has grown exponentially,⁸⁵ propelled not only by the expansion of its membership, but also by technological developments and the relentless growth in the demand for information.

90. In general, the users polled for this evaluation have a positive perception of the data disseminated by the IMF and consider them better than, or at least as good as, those provided by comparable sources⁸⁶ in terms of quality, timeliness, and ease of access. There are only a few exceptions: users consider the ECB/Eurostat superior in terms of timeliness and Haver Analytics superior in timeliness and ease-of-access. IMF-provided data are heavily used by external stakeholders, with the *IFS* and the *WEO*, by a wide margin, the most commonly used resources. At the same time, aside from a few of the well-known databases, interviewees noted that it was difficult to find data on the Fund's website, a finding confirmed by the fact that the

IMF's specialized databases are largely unknown and rarely used (Figure 10).

... but the Fund is wrongly perceived as "endorsing" the data.

91. Users widely misperceive the Fund as ensuring the quality of the data it disseminates. Survey respondents consider, almost unanimously, that Fund-provided data are reliable and accurate, with an overwhelming majority believing these data are endorsed by the institution (Figure 11). But the Fund's data validation capacity is limited, and the perception of the Fund awarding a "seal of approval" could incur reputational risk for the institution.

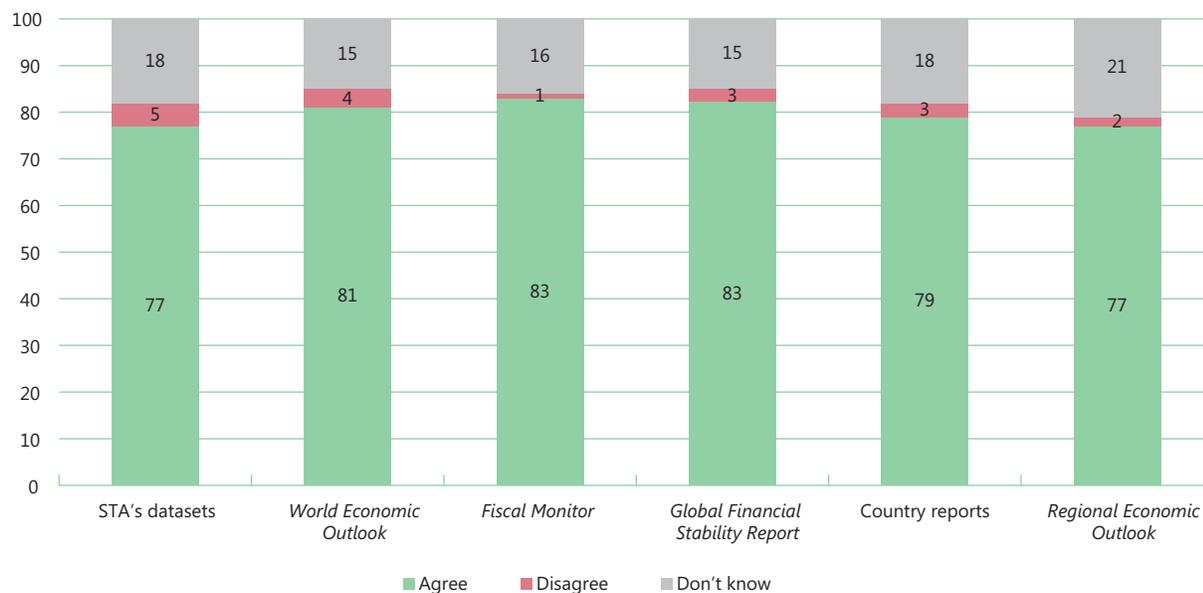
92. Concerns have also been voiced in the Fund for decades about the reputational risk stemming from data discrepancies and lack of comparability across IMF databases and publications.⁸⁷ These discrepancies reflect not only the differences among the inputs provided by countries and the different processes of

⁸⁵As of 2014, for example, the *IFS* disseminated up to 670 times series for each of 194 countries in the print version, but maintained more than 119,000 time series in its electronic database, up from 36 time series for 56 countries in its first print issue.

⁸⁶BIS, ECB, Eurostat, EIU, Haver Analytics, OECD, UN, and World Bank.

⁸⁷Initially, these concerns were expressed in terms of the *IFS* and *WEO*, as the *WEO* was the only IMF flagship document. Today, the challenge of data consistency extends across a much broader array of flagship documents, including the *WEO*, *GFSR*, *Fiscal Monitor*, *Spillover Reports*, *External Sector Reports*, and Article IV reports.

Figure 11. Survey Responses: “Data Quality is Monitored and Endorsed by the IMF”
(In percent)



Source: IEO Survey of Data Users.

Table 1. Discrepancies Among IMF Data Sources
(In percent of number of countries)¹

	Deviation Threshold (In percent)	Article IV vs. World Economic Outlook			International Financial Statistics vs. World Economic Outlook		
		Low-income countries	Advanced and emerging market economies	Total	Low-income countries	Advanced and emerging market economies	Total
Real GDP growth rate	<10	74.6	75.0	74.8	61.3	77.5	70.4
	10–30	12.7	18.8	15.1	19.4	15.0	16.9
	>30	12.7	6.3	10.1	19.4	7.5	12.7
Current account	<10	70.8	83.0	75.6	36.7	83.3	57.4
	10–30	16.7	12.8	15.1	16.7	4.2	11.1
	>30	12.5	4.3	9.2	46.7	12.5	31.5

Source: Jerven (2016).

¹Based on data for 74 low-income countries and 48 advanced and emerging market economies.

internal validation, but also the differing goals and frequencies of IMF outputs; for example, the *IFS* disseminates official data that seek to meet international definitions and standards, while country reports need to work with timely data understood by the authorities.

93. In line with the findings of previous internal IMF reports, the evaluation team found significant discrepancies in the data published by the Fund for the

same country and year in various datasets. [Table 1](#) summarizes a quantification of these discrepancies for disseminated figures of real GDP growth and the current account balance.⁸⁸ While discrepancies are typically

⁸⁸See Jerven (2016) for full results and a complete description of data sources and methodology.

wider for low-income countries, they also appear for advanced and emerging market economies.

The Fund’s recent move to providing data free of charge is an important step, but does it go far enough?

94. The Fund took a major step forward in January 2015, when it began to provide online access to its main databases free of charge.⁸⁹ This decision was praised by country authorities, academia, and other external stakeholders, and almost doubled the average number of users of Fund data during the first three months of operation. But a free data policy is not an open data policy, as the latter, despite its public good nature, could prove controversial at the Fund.

95. While often confused, *free data* are different from—and less ambitious than—*open data*. As indicated above, the Fund manages two broad types of country data: (i) *IFS*-style “official” data, which are intended to be internationally comparable and are basically a pass-through from country authorities; and (ii) operational data collected by country teams from the authorities or generally available sources. The former are the focus of the move to providing data free of charge. But it could be argued that, in the Internet era, when most countries’ official data can be found online, there is little value-added in just passing these on. The latter data, which can be more timely and “unique” to the Fund’s interaction with members, are shared only in as much as they are available in the Fund’s flagship and Article IV reports, but data as presented in the country reports are not “user-friendly.”⁹⁰

96. Other comparable organizations and academia have already adopted open data, which has become best practice. At the IMF, an open data policy—implying easy, universal access to most of the Fund’s operational data and the data underlying its research and other publications—would have positive ramifications. It would boost the Fund’s transparency and credibility, as external data users could more easily replicate and double-check the institution’s work. By the same token, it would contribute to the accountability of the Fund and member countries. A number of IMF staff interviewees believed it could also encourage IMF staff to pay greater attention to data if they knew that these data (and estimates to

“fill in the blanks”) would be subject to public scrutiny. Moreover, it could foster a move toward greater data comparability and quality in member countries if the staff’s operational data differed from the “official” data.

97. But an open data policy at the IMF would require a careful balancing of the institution’s roles as watchdog and trusted advisor. In its latter capacity, the Fund receives from member countries, as part of its operational data, confidential information that also is often market-sensitive. Such confidentiality must not be compromised, as mistrust could severely impact data provision by members, ultimately impairing the quality of the Fund’s work. Both country authorities and Fund staff raised concerns during interviews regarding these implications of open data.

The IMF also actively promotes data dissemination by member countries . . .

98. The IMF’s Data Standards Initiatives (e.g., the SDDS, GDDS, and most recently, the SDDS Plus) have played an important role in advancing data dissemination worldwide. However, after a surge of interest at the outset, these initiatives had languished for some years, with few countries graduating from the GDDS to the SDDS.⁹¹ Lately, though, these initiatives have gained some momentum (Box 9). The GDDS has been enhanced with the introduction of active monitoring of the countries’ dissemination practices—thus becoming the e-GDDS. The enhancement aims to foster dialogue during Article IV consultation missions on constraints and capacity-building needs, thereby providing incentives for countries to graduate to the SDDS and drawing policymakers’ attention to the need for statistical development (IMF, 2015a). On its part, the SDDS Plus should help address data gaps identified during the global financial crisis.

99. The dissemination initiatives, as their name indicates, focus on dissemination practices, not on verification of data quality.⁹² As indicated above, “quality” is difficult to define or assess, particularly as the IMF is not in a position to examine the production process of each specific statistic and gauge errors and events that may have influenced quality. The IMF thus chooses to leave the assessment of quality to users, prescribing the dissemination of

⁸⁹The Fund had lagged behind other international and regional organizations in its move to providing data free of charge.

⁹⁰A common wish of external data users was for the dissemination of country-report data in a downloadable format, for example, allowing the user to click on a table and immediately download the associated data.

⁹¹Some GDDS country authorities explained during interviews that, while they wanted to subscribe to the SDDS, their country was unable to graduate because of the Fund’s rigid approach to subscription and failure to understand national peculiarities.

⁹²There was debate during early Board discussion of the dissemination standards as to the appropriate focus. Indeed, one Executive Director noted that “. . . a set of standards that does not deal with the quality of statistics is empty. . . .”

Box 9. China: Subscribing to the SDDS

China's statistics have attracted unusual attention in recent years, particularly in the area of national accounts. Given China's status as the world's second largest economy, the controversy surrounding the quality of its statistics, particularly in regard to the actual size and rate of growth of the economy, is watched closely by academics, markets, and politicians the world over. The controversy is at its most heated in regard to quarterly real growth figures, where analysts often display a wide range of estimates at variance from the official preliminary figures.

Similarly, in line with the lower growth rates they estimate, some analysts believe China has overestimated the size of its economy. However, a recent study (Rosen and Bao, 2015) delved into the details of the Chinese statistical system, conducted robustness checks, and concluded that "China has made great progress in modernizing GDP statistics" and, if anything, the overall size of China's economy is underestimated. Indeed, they find that, if China were to switch from using the 1993 SNA to the 2008 version, its economic size could be as much as 13–16 percent larger—not a minor discrepancy for an economy of such global import.

The IMF has not stayed on the sidelines of these developments. Staff missions have discussed perceived data weaknesses with the authorities and included their assessment of the adequacy of the data in their reports. These assessments present a picture of slow but steady improvement over time. Whereas in the 1990s, staff raised major concerns across

virtually all sectors of the economy, viz., "... deficiencies in China's economic statistics are seriously complicating economic policy making and hampering effective surveillance . . .,"¹ by 2005, staff was balancing the discussion of weaknesses with recognition of the efforts at improvement made by the authorities. From 2008 onwards, economic statistics were deemed to be broadly adequate for surveillance (a rating of B in the Statistical Issues Appendix), despite some shortcomings, particularly in the areas of national accounts and government finance.

Part of the perceived improvement can be attributed to the technical assistance provided by the IMF and other international organizations. Over the past 25 years, the Fund sent close to 160 technical assistance missions on statistics to China. These missions covered all sectors of the economy, with an initial emphasis on the balance of payments, monetary statistics, and the national accounts. Subsequently, fiscal and financial sector statistics acquired more prominence. As an important step, on September 30, 2015, China for the first time reported the currency composition of its international reserves (COFER) to the IMF on a partial basis, with plans to gradually move to full coverage within two to three years. The progress made in the statistical area enabled China to subscribe to the SDDS on October 7, 2015.

¹ IMF (1996a).

information on methodologies and sources—monitorable proxies—to facilitate this assessment. These metadata are published in an IMF-supported bulletin board, the Dissemination Standards Bulletin Board (DSBB), "as provided to the IMF," leaving the responsibility for their accuracy and reliability with the subscribing country. This setup implies that a country may be in full observance of the standards, and reported as such in the DSBB, while at the same time providing faulty data—potentially in breach of its obligations under Article VIII, Section 5 (see Box 2 above). This could have clear repercussions for the credibility of the dissemination initiatives.

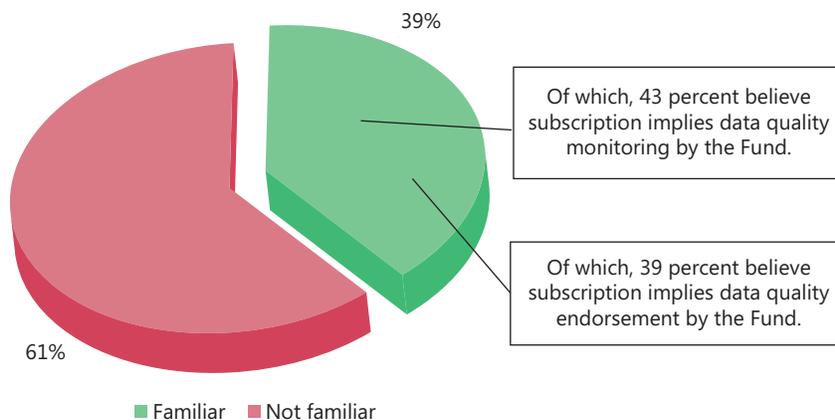
100. Data users' misperception regarding the endorsement of data quality by the Fund spreads to the dissemination initiatives. While the evaluation found a remarkable lack of familiarity with and use of the initiatives (Figure 12), more important was the finding that, among those who are familiar, a significant number believe that a country's participation in the GDDS or SDDS implies that the Fund is monitoring and/or endorsing the data quality.

101. Data producers, especially in low-income and emerging market countries, expressed positive opinions regarding the impact of subscription on dissemination practices, data quality, and third parties' perception of national data (Figure 13). Their opinions were more mixed, however, regarding the effect of these initiatives on access to financial markets. Empirical analysis for this evaluation (De Resende and Loyola, 2016) could not find convincing evidence of the effects of the SDDS on subscribers' gross foreign direct investment inflows, exchange rate volatility, or sovereign borrowing costs, in contrast to the findings in some earlier work by IMF staff.

... and collaborates with international partners in statistics.

102. In addition to its work on standards and methodologies, the IMF has a long history of collaboration with other international organizations in the statistical realm, including on allocation of data responsibilities, sharing of data, reduction of overlapping data requests

Figure 12. Familiarity with the GDDS and SDDS
(In percent)



Source: IEO Survey of Data Users.

Figure 13. Survey Results: “Subscription to the SDDS/GDDS improved my country’s ...”
(In percent)



Source: IEO Survey of Country Authorities and Data Providers.

to countries, donor coordination to address data deficiencies at the country level, and achieving data consistency among the various organizations (IMF, 1995c). This collaboration took on renewed impetus from the increased attention to statistical issues brought by the global financial crisis, and led to the launching of the G20 Data Gaps Initiative in 2009. International partners of the IMF hold, almost unanimously, a high opinion of the IMF’s collaboration. Recent examples of collaboration include:

- The Fund’s joint work with the Financial Stability Board (FSB) on the Data Gaps Initiative (DGI).

While stakeholders view positively its potential contribution to crisis prevention, the ambitious goals and open-ended nature of the DGI are creating a growing sense of fatigue among participants, with the risk of a loss of momentum.

- The Inter-Agency Group on Economic and Financial Statistics (IAG), chaired by IMF staff, was created in 2008 to address the growing need for coordination on statistical matters, including to help limit duplication of efforts at the international level. According to interviewees, the IAG has made limited progress to date in reducing countries’ data

reporting burden arising from duplicative data requests from various international organizations.⁹³ This slow progress is, in part, due to technical challenges with the Statistical Data and Metadata Exchange (SDMX) platform (see below), but also, to a lesser degree, “protecting one’s turf” among institutions.

- The Statistical Data and Metadata Exchange (SDMX)—a joint initiative by the BIS, ECB, Eurostat, IMF, OECD, World Bank, and UN—aims to foster the efficient exchange of data and metadata by adopting common standards and guidelines, together with information technology systems that would facilitate a move from the current “push” system for data reporting (i.e., countries must send their data to each institution) to a “pull” system

⁹³The survey (and interviews) of data providers indicated that 65 percent (and almost three-quarters among advanced economies) still experienced duplication in the data requests from IAG members.

(i.e., countries upload their data to a single web-based repository, and institutions draw on the data as needed). When fully implemented, this could greatly reduce the data reporting burden for member countries and facilitate a much more timely provision of data to analysts.⁹⁴

- The IMF Statistical Forum—created in 2013 and hosted by STA—is intended to become a space where data users, data providers, and policymakers come together to discuss cutting-edge statistical issues. However, so far, these events have been almost exclusively the domain of data providers.⁹⁵

⁹⁴The Open Data Platform for Africa, developed by the IMF in partnership with the African Development Bank is SDMX-based. During interviews, African authorities assessed very positively the impact of this initiative on the standardization and streamlining of data submissions, reducing the reporting burden.

⁹⁵For example, although all Fund staff have been invited to attend, non-STA Fund economists largely have ignored these forums, illustrating their indifference towards statistical issues.