



**STATISTICS FOR GLOBAL ECONOMIC AND FINANCIAL STABILITY:  
THE ROLE OF THE IMF**

**Issues Paper for an Evaluation by The  
Independent Evaluation Office (IEO)**

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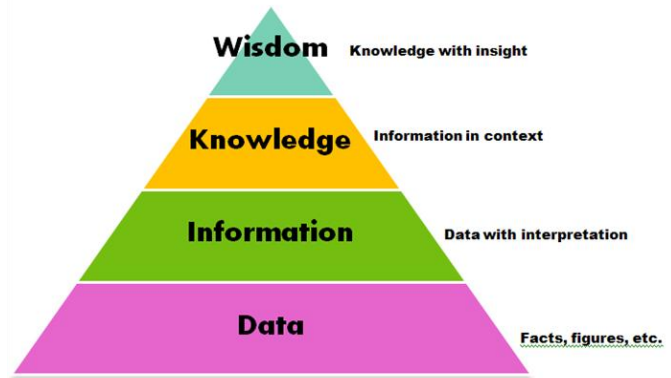
*“There is hardly any greater service the Fund can do than provide up-to-date barometers of the monetary problems of the world. We hope that the very greatest importance will be given to the statistical branch of the Fund and that they will be encouraged to make reports [for] the instruction and benefit [of] all of us on a scale that has never been possible heretofore.”*

John Maynard Keynes, Bretton Woods Conference

## I. INTRODUCTION<sup>1</sup>

1. At the very inception of the IMF, the institution’s intellectual “founding fathers” recognized the important role that data and statistics would play in its effective functioning, as evidenced by the above quote and H.D. White’s attention to data collection and management at the Fund.<sup>2</sup> Indeed, the IMF’s Articles of Agreement state that one of the functions of the Fund is to “act as a centre for the collection and exchange of information on monetary and financial problems.” Thus, as a first step to fulfilling this function, the Executive Board agreed in June 1946 that the IMF should publish a “monthly or quarterly Fund bulletin containing statistics of material bearing directly on the problems of the Fund”, and the first issue of the *International Financial Statistics* (IFS) appeared in January 1948.

2. Why did the founding fathers place such emphasis on data and statistics? Their interest rightfully went much beyond just collecting and publishing statistics. In fulfilling its mandate to foster global macroeconomic and financial stability, the Fund faces a fundamental problem—it cannot observe economic activity; it can only observe the data representing such activity. As illustrated by the figure,<sup>3</sup> data is the foundation upon which information and knowledge are built, with wisdom as the apex. Wisdom, in the context of the IMF, would represent evidence-based analysis, policy advice, and program design.



3. In a nutshell, the IMF’s effectiveness hinges fundamentally on the availability of timely and accurate data. At the most basic level, without sufficient and good quality data,

<sup>1</sup> See annex for a brief description of the IMF databases, data dissemination standards, and recent data-related initiatives mentioned in this paper.

<sup>2</sup> IMF, 1946, “Some Suggestions for a Program of Statistical and Other Information Necessary for the Fund’s Operation,” EBD/46/32.

<sup>3</sup> In information sciences, this is known as the DIKW pyramid.

the Fund would be unable to provide useful and properly-tailored policy advice to its members, or to lend its resources on solid grounds, so that programs have reasonable prospects of success.

4. When the IMF was created, the data needs and practices reflected the IMF's proposed role at that time, with the institution charged with helping to rebuild the international monetary system (characterized by a system of fixed exchange rates between countries) in a post-war environment. In the almost 70 years since the IMF's founding, the global economy and the IMF's role have evolved markedly, and the IMF's membership has expanded from 44 at the time of the Bretton Woods Conference to 188 today. What has not changed, however, is the fundamental role that data continue to play in allowing the IMF to fulfill its mandate. Indeed, the IMF's data needs have risen exponentially, reflecting the complexity entailed in an increasingly interconnected world. Recent events have again highlighted the importance of accurate and timely data for program design and for effective surveillance that can identify vulnerabilities and promote stability. At the same time, and reflecting the evolving complexity of the world economy, the IMF has assumed a major role in setting standards for the proper compilation and dissemination of economic and financial statistics.

## **II. EVALUATION FRAMEWORK**

### **A. Objectives**

5. The evaluation's overall objective will be to examine whether the IMF's activities regarding data and statistics—including data collection, management, dissemination, and policies—are adequate for fulfilling the IMF's objectives amidst a rapidly evolving global economy. The evaluation could also help bring a higher profile to these activities,<sup>4</sup> given their systemic importance to the Fund's work, and galvanize members to address any existing gaps.

6. While the evaluation's findings will primarily focus on data practices and developments during the past five years, it will need to draw on the full historical range of the Fund's activities with respect to data and statistics. In this regard, to set the stage, the evaluation will begin by reviewing the evolution of the IMF's data-related obligations, policies, and practices. Of equal importance will be an understanding of members' obligations and practices and how and why these arose.

### **B. Evaluation Questions**

7. The evaluation questions will examine two broad angles of the IMF's work with statistics: (i) from the point of view of the IMF as a user of statistics in its own surveillance,

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<sup>4</sup> "Moving statistics from the back-office to the Board room" was a phrase used at a high-level global conference on the Data Gaps Initiative to stress the persistent and widespread problem of inadequate attention given to the statistics function in many organizations and governments.

use-of-Fund resources, and other operational and analytical work; and (ii) from the point of view of the IMF as a collector and disseminator of statistics. The evaluation will thus address the following questions:

- a) Do the IMF's existing practices/policies with respect to data and statistics provide effective support for the conduct of Fund operations?
- b) Is the present set of mandates/policies/practices relevant and sufficient to meet the Fund's evolving needs and objectives?
- c) Are data and statistics managed efficiently within the IMF?
- d) Do the IMF's activities on data and statistics meet the needs and expectations of the international community? Are the Fund's relationships with various stakeholders conducive to effectively meeting the IMF's needs on data and statistics?

### **C. Evaluation Methods and Sources**

8. To answer the above questions, evidence will be gathered using the following methods and sources:

- a) Interviews of IMF staff and management, Board members, country authorities, and staff from organizations in the Inter-Agency Group on Economic and Financial Statistics (IAG)<sup>5</sup>
- b) Surveys of staff, country authorities, and select external users of economic statistics
- c) Workshops comprised of users and producers of economic and financial statistics
- d) Comparisons of the IMF's approach on data and statistics with other international and regional organizations
- e) IMF document review, including, in particular, the many Board papers issued during the past several decades on IMF data provision and management
- f) Academic literature review on recent data issues

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<sup>5</sup>The IAG was established in December 2008 to coordinate work on the improvement of economic and financial statistics (methodologies and data collection) among international agencies. Duplication of effort among international agencies is to be avoided as far as it is possible. Members of the IAG are the Bank for International Settlements (BIS), the European Central Bank (ECB), Eurostat, the IMF (chair), the Organization for Economic Co-operation and Development (OECD), the United Nations (UN), and the World Bank.

- g) Past IEO evaluations
- h) Background papers on relevant topics

### **III. SCOPE OF THE EVALUATION**

9. The following subsections elaborate on some of the issues that the evaluation will examine in its attempt to answer the evaluation questions in Section II.B above.

#### **A. Statistics in Support of Fund Operations**

*Question: Do the IMF's existing practices/policies with respect to data and statistics provide effective support for the conduct of Fund operations?*

10. Bilateral surveillance is the cornerstone of the Fund's work, with financial programming as its workhorse macroeconomic accounting framework. This framework demonstrates how the data for a country's various economic sectors—real, monetary, fiscal, financial, external—are interlinked, allowing the Fund to construct a picture of the overall economy. The evaluation will explore the role of data within this framework, including through efforts to ensure data quality. Indeed, any analysis based on this framework can only be as good as the data supporting it and the approaches used by IMF staff to address data gaps and inconsistencies.

11. Multilateral surveillance raises additional issues with respect to data. An important issue for surveillance (and cross-country research, more generally) is whether the data are homogeneous (in terms of statistical definition) across countries. That is, what is done to ensure that the IMF is not “comparing apples and oranges” in its cross-country work? Another issue arises from concerns about lack of data consistency between the IMF's flagship documents, the IFS, and country staff reports.<sup>6</sup> The evaluation will explore, among other issues, what efforts the IMF has made in addressing inconsistencies and whether they pose a reputational risk for the Fund.

12. In addition to the issues raised above for surveillance, use-of-Fund resources (UFR) pose unique data issues with respect to conditionality and monitoring. The evaluation will consider the degree to which performance criteria and structural conditionality are determined by data availability (a problem more likely in low-income countries with limited capacity/resources for data collection) rather than economic considerations (and program viability).

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<sup>6</sup> Such concerns have been voiced for decades, but initially, these were expressed in terms of the *World Economic Outlook (WEO)*, as this was the only IMF flagship document. Today, the challenge of data consistency extends across a much broader array of flagship documents, including the *WEO*, *Global Financial Stability Review*, *Fiscal Monitor*, *Spillover Reports*, and *External Sector Reports*.

13. Are sufficient data quality assurance mechanisms in place to adequately support the Fund’s operational needs? In this regard, the evaluation will investigate the extent to which Article IV, UFR, and FSAP missions candidly address the need for accurate and timely statistics.<sup>7</sup> Indeed, at times, the IMF’s analysis may have been undermined by faulty data or lack of data. The evaluation will investigate whether analysis or policy advice has been adversely affected by inadequate data.

### **B. Meeting the Fund’s Evolving Needs**

*Question: Is the present set of mandates/policies/practices relevant and sufficient to meet the Fund’s evolving needs and objectives?*

14. As noted above, as the global economic and financial system has evolved, so have the IMF’s data needs in order to be able to carry out its core operational activities. Indeed, much of the impetus for improving the IMF’s statistical toolkit has arisen after global economic crises, when shortcomings with data become particularly apparent. Thus, for example, the IMF’s Data Dissemination Standards (SDDS and GDDS) were established after the Mexican crisis in 1994; the Asian crisis of the late 1990s produced major changes with respect to data, including the push for transparency (regarding data dissemination) and the data-intensive Financial Sector Assessment Program (FSAP); and most recently, the US/global crisis of 2007-08 was the motivation behind the G20 Data Gaps Initiative (DGI) and the SDDS Plus.

15. The evaluation will assess these most recent initiatives, including the additional data requirements for some of the “new” areas of analytical focus, such as macrofinancial linkages, spillovers, labor markets, and natural resources. The evaluation will also look at the role of statistics in the Fund’s Early Warning and vulnerability exercises. It will address the following questions in this regard: are there still gaps in data (and the associated conceptual frameworks) that need to be addressed? Do the Fund’s data demands match its data analysis capacity?<sup>8</sup> That is, could the IMF be asking for too many data at times, placing an excessive burden on member countries and resulting in “not seeing the forest for the trees”? Given that many of the new initiatives require access to market-sensitive financial data, the evaluation will also explore issues related to the handling of confidential data and what can be done to

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<sup>7</sup> For example, in the context of an Article IV consultation, IMF staff are required to assess the adequacy of the member country’s data provision, the implications of any data inadequacies, and the need for remedial measures. The Fund recently issued a new guidance note—*Data Provision to the Fund for Surveillance Purposes—Operational Guidance Note*—following its *2012 Review of Data Provision*, clarifying the data categories for countries and emphasizing that any data shortcomings should be noted in the Article IV report.

<sup>8</sup> This question may be most relevant for financial sector and market data, where the demands for new and detailed data have grown enormously in recent years.

overcome reluctance on the part of some country authorities to share such data with the Fund.<sup>9</sup>

### C. Data Management in the Fund

*Question: Are data and statistics managed efficiently within the IMF?*

16. Problems with data management at the Fund have been recognized for decades, as indicated by the sheer number of Board papers and guidance notes issued on the topic. Since the 1980s alone, more than 130 papers have been issued on data-focused topics, including, most prominently, data provision and data management. As a result, there have been many attempts to strengthen both data provision and data management within the Fund.

17. The Economic Data Management Initiative (EDMI), established in April 2010, is the third such attempt to strengthen data management so far this century. Background studies for the EDM I concluded that: (i) the Fund is at the earliest stages of data management maturity; (ii) there are no clear guidance strategies; (iii) the Fund data arrangements are characterized by weak governance bodies; and (iv) data procedures are poorly executed. The resulting report had many recommendations for changing the approach to data management in the Fund, including changes in the data governance structure and a concerted effort to move to a Fund-wide structured database. The evaluation will assess progress with these recommended changes, including the incentives for staff to invest time and effort into good data management.

18. The evaluation will also investigate cooperation on data issues within the IMF. It will look first at the Statistics Department's roles—for example, data management (including serving as a central data warehouse), dissemination, quality assurances, standards-setting, capacity building, staying at the forefront of statistical methodology. The evaluation will ask how well the department is perceived as serving the needs of the broader IMF community. The evaluation will explore data sharing practices among departments within the IMF (and within departments, including how country teams handle transfers of knowledge during staff transitions), how to rationalize multiple reporting requirements imposed on countries, and how to balance the longstanding tension between quality/consistency versus timeliness (for ongoing operational needs).

19. The evaluation will draw lessons, where appropriate, from the approaches to data management used in other organizations which are heavily dependent on economic and financial data, such as the World Bank, the BIS, the OECD, and the ECB, among others.

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<sup>9</sup> For example, the 2013 IEO evaluation, "The Role of the IMF as Trusted Advisor," found that country authorities placed more trust in the BIS than the Fund in the handling of confidential data.



#### D. The IMF and the International Community

*Question: Do the IMF's activities on data and statistics meet the needs and expectations of the international community? Are the Fund's relationships with various stakeholders conducive to effectively meeting the IMF's needs on data and statistics?*

20. The evaluation will explore what the IMF does and/or could do to enhance quality assurances with respect to member countries' data. It will thus examine the IMF's efforts to acquire accurate data.<sup>10</sup> Among these efforts are those related to transparency and dissemination, such as the SDDS, GDDS; and those related to enforcing standards, such as the Reports on Standards and Codes (Data Modules) and the Data Quality Assessment Framework. It will also assess the scope to question authorities on issues of accuracy and availability (e.g., policies regarding both misreporting and breaches of obligations under Article VIII). To some degree, these entail a watchdog role on the part of the IMF in its relationship with its members. Are these initiatives well understood by the public? Is there scope for tightening reporting standards? Are there potential implications for the Fund's reputation if the Fund is seen as giving a seal of approval to the data in its publications?

21. Importantly, the Fund also plays a collaborative role in supporting high quality data. Thus, the evaluation will assess the IMF's capacity-building efforts to improve data quality, such as technical assistance (including through its Regional Technical Assistance Centers), training aimed at addressing data weaknesses, and updating the methodologies for data compilation. Among the issues the evaluation will address are how well technical assistance and/or training are tailored to a country's capacity for implementation (e.g., first-best practices vs. feasible-best practices)

22. The evaluation will explore the demand for IMF statistics among external stakeholders and ascertain whether they are satisfied with the IMF's products. It will consider whether IMF statistics should be treated as a public good and provided free of charge to the public, as is the case with most other international and regional organizations. It will also examine whether IMF databases are user-friendly and easily accessible for external stakeholders.

23. Finally, the evaluation will examine the IMF's collaboration on data issues with other international and regional organizations, with a focus on the IMF's joint work on the DGI with the Financial Stability Board and its participation in the recently-established IAG. In this regard, it will assess the allocation of data responsibilities, mechanisms to enhance data sharing, approaches to avoid overlapping data requests on countries, donor coordination to proactively address statistics deficiencies at the country level, and data consistency among the various organizations.

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<sup>10</sup> See also Section III.A on the issue of addressing data quality in surveillance and UFR.

## ANNEX

This annex provides a brief description of the IMF databases, data dissemination standards, and recent data-related initiatives mentioned in the issues paper. For more information, see <http://www.imf.org/external/data.htm>.

### IMF DATABASES

#### International Financial Statistics (IFS)

The IFS is the IMF's flagship statistical publication. Created in 1948, the IFS, published monthly and annually, is a standard source of statistics on all aspects of international and domestic finance. For most countries of the world, the IFS reports data on exchange rates, international liquidity, international banking, money and banking, interest rates, prices, production, international transactions (including balance of payments and international investment position), government finance, and national accounts. The data published in the IFS are gathered as part of an ongoing data collection effort in which member country statistical agencies provide public statistics to the IMF.

#### World Economic Outlook (WEO)

The WEO publication presents the IMF staff's analysis and projections of economic developments at the global level, in major country groups, and in many individual countries. At the same time as the release of the WEO publication, the WEO database is also updated. This cross-country database contains macroeconomic data series from the statistical appendix of the WEO publication, including data on national accounts, inflation, unemployment rates, balance of payments, fiscal indicators, trade for countries and country groups (aggregates), and commodity prices whose data are reported by the IMF. Data are available from 1980 to the present, and projections are given up to the next 5 years. Data and projections are based on the information gathered by the IMF country desk officers in the context of their missions to IMF member countries and ongoing analysis of the evolving situation in each country. IMF staff estimates continue to serve as proxies for historical series when complete information is unavailable.

### DATA DISSEMINATION STANDARDS

#### Special Data Dissemination Standard (SDDS)

The SDDS was established by the IMF in 1996 to provide guidance to country members that have, or might seek, access to international capital markets in the provision of their economic and financial data to the public. The SDDS aims to increase the availability of data, thereby contributing to the implementation of sound macroeconomic policies and a better functioning of financial markets. Participation is voluntary but, once a country has subscribed, it entails certain obligations in terms of data dissemination, including the coverage, frequency, and timeliness of data; public access; integrity; and quality. The SDDS differentiates two types of

data categories: (i) prescribed (data considered essential for the economic analysis of a country and mandatory for subscribers); and (ii) encouraged (data that are not but could increase the transparency of a country's economic performance and policy). To date, there have been 71 subscriptions to the SDDS.

### **General Data Dissemination System (GDDS)**

In 1997, the IMF established the GDDS. The purposes of the GDDS are to encourage member countries to improve data quality; and to provide a framework for evaluating needs for data improvement and setting priorities in this respect. The GDDS provides recommendations on good practice for the production and dissemination of statistics (generally less demanding than the corresponding requirements of the SDDS), with an emphasis on progress, over time, toward higher quality data that are disseminated more frequently and in a more timely fashion. Participation is voluntary and generates no obligations regarding data provision. However, it requires (i) a commitment to use the GDDS as a framework for the development of national systems for data management; and (ii) preparation of metadata on compilation and dissemination practices and the elaboration of short- and medium-term plans for improvement.

### **Data Quality Assessment Framework (DQAF)**

The DQAF provides a structure for assessing data quality by comparing country statistical practices with best practices, including internationally accepted methodologies. It focuses on the quality-related features of governance of statistical systems, core statistical processes, and statistical products. Under the DQAF, assessments have a six-part structure starting with a review of the legal and institutional environment (prerequisites of quality) and followed by an analysis of five dimensions of quality—assurances of integrity, methodological soundness, accuracy and reliability, serviceability, and accessibility.

### **Reports on the Observance of Standards and Codes (ROSC): Data Modules**

ROSCs, covering 12 areas important for the IMF's operational work, summarize the extent to which countries observe certain internationally recognized standards and codes. One of the 12 areas is data dissemination. Data ROSCs are conducted by Fund staff at the request of member countries and are, therefore, voluntary. They provide an in-depth evaluation of members' macroeconomic statistics against the SDDS or the GDDS—to assess dissemination practices—complemented by an assessment of data quality based on the DQAF. Since 1999, 89 member countries' data dissemination practices have been assessed with a Data ROSC.

## **RECENT DATA-RELATED INITIATIVES**

### **G-20 Data Gaps Initiative (DGI)**

The global financial crisis generated a surge in the demand for new and better data from policy makers and supervisors, both national and international, on financial stability, cross-border linkages, and domestic vulnerabilities. As early as April 2009, the G20 asked the IMF

and the Financial Stability Board (FSB) to lead an initiative aimed at addressing the gaps and deficiencies uncovered by the crisis. In response, they elaborated a set of twenty recommendations, organized around four areas of work—(i) build-up of risk in financial sector; (ii) cross-border financial linkages; (iii) vulnerability of domestic economies to shocks; and (iv) improving communication of official statistics—and including topics for which the development of a statistical/conceptual framework was needed, and those for which the existing framework needed enhancement.

### **SDDS Plus<sup>11</sup>**

Established in October 2012, the SDDS Plus aims at addressing some of the fissures uncovered by the global financial crisis. Like the SDDS, participation is voluntary, but those economies with systemically important financial sectors, as determined by the IMF Executive Board, are encouraged to join. In addition to the obligations associated with participation in the SDDS, SDDS Plus subscribers must observe additional requirements in nine data categories. The latter are closely related to the list of twenty recommendations under the G20 Data Gaps Initiative: (i) sectoral balance sheets; (ii) quarterly general government operations; (iii) general government gross debt; (iv) other financial corporations' survey; (v) financial soundness indicators; (vi) debt securities; (vii) participation in the Currency Composition of Foreign Exchange Reserves (COFER) database; (viii) participation in the Coordinated Portfolio Investment Survey (CPIS); and (ix) participation in the Coordinated Direct Investment Survey (CDIS).

### **Financial Sector Assessment Program (FSAP)<sup>12</sup>**

The FSAP was created in 1999 with the aim of promoting the stability and health of domestic financial sectors. Up until 2010, FSAPs were conducted on a strictly voluntary basis. However, in the aftermath of the global financial crisis, the Executive Board decided to make periodic FSAPs mandatory for 25 jurisdictions with systemically important financial sectors. The number of jurisdictions was expanded to 29 in December 2013. The mandatory financial stability assessments include three main elements: an evaluation of risks to macro-financial stability, an assessment of the country's financial stability policy framework, and the analysis of the authorities' capacity to manage a financial crisis. Consequently, a large amount of data (many of which could be market-sensitive) and metadata is provided by members in the context of FSAP exercises, including, among others, those necessary to conduct assessments of financial soundness and perform stress tests (e.g. solvency, liquidity measures).

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<sup>11</sup> While the SDDS Plus is part of the data dissemination standards, it is included under recent data initiatives, as participating countries are only expected to meet the requirements by 2019.

<sup>12</sup> While the FSAP is not technically a data initiative, it has been included in this annex owing to recent changes to the framework, together with its data-intensive nature.