

**REPORT ON THE COMPARISON OF
IMF'S DATA QUALITY ASSESSMENT FRAMEWORK (DQAF)
AND EUROSTAT'S QUALITY DEFINITION**

“Not everything that can be counted counts, and not everything that counts can be counted”

-Albert Einstein

Issue

At the UN Statistical Commission session¹ in March 2002, the IMF and Eurostat undertook to review their respective quality approaches in response to concerns expressed by Member States about differences in the Data Quality Assessment Framework (DQAF July 2003) used by the IMF and the quality definition of Eurostat.

Goal

The goal was to analyze how the two approaches compare to one another and this was done through the following steps:

- identify and further integrate aspects that are common between the two approaches,
- provide rationale of remaining differences,
- explain how the two approaches relate to one another so that countries to make use of the two approaches.

Interested member states support was sought during the exercise, and other international organizations were supportive of the exercise.²

Findings

The main finding is that IMF and Eurostat quality approaches are complementary:

- Both approaches promote countries' data quality, with the IMF framework³ taking a holistic view of data quality compared to Eurostat's greater focus on statistical outputs;

¹ United Nations Statistical Commission Report on the thirty-third session (5-8 March 2002), Chapter VI, 57 b)

² Draft versions of the report were presented to various committees: the Statistical Programming Committee of the European Union, 2002, the Sixth meeting of the Assessment of Quality in Statistics, October 2–3, 2003, the OECD/IMF Workshop *Assessing and Improving Statistical Quality* of November 5–7, 2003, and the IMF Balance of Payments Committee on December 8, 2003. The final version incorporates comments received.

³ A data quality framework is understood as embracing the various aspects of data quality in a systematic fashion, including institutions, management, core processes, as well as characteristics of the statistical outputs.

- The IMF framework takes into account governance of statistical systems, core statistical processes, and statistical products. While focusing on the statistical outputs as viewed from the users, Eurostat works its way back to the underlying processes where the outputs do not yield a direct measurement;
- Six aspects of data quality were identified as common to the two approaches (and further harmonized as part of the reconciliation exercise): relevance, geographical comparability/methodological soundness, accuracy and reliability, consistency/coherence, timeliness, and accessibility. This leaves the institutional and organizational aspects of data production, including assurance of integrity, that are covered by the IMF framework but not the Eurostat approach.
- The two approaches provide measures of quality that complement one another, with the IMF approach referring to qualitative measures of statistical practices and Eurostat focusing on quantitative aspects. In the broader IMF framework, statistical practices are presented as part of an integral system and this permits the evaluation of the trade-offs inherent to the statistical production. This framework could also usefully serve as setting to situate the Eurostat quantitative measures in their appropriate context, especially for quantitative measures that can give ambiguous messages. For instance, “low revision ratios” can reflect either reliable statistics that incorporate results of extensive revision studies, or estimates that do not incorporate new source data.
- The IMF DQAF provides quality benchmarks in the form of internationally accepted statistical practices against which national practices can be assessed in relative terms (Observed, Largely Observed, Largely Non Observed, Non Observed). Concerning the Eurostat approach, benchmark quality assessments are yet to be developed for the absolute quality measures (e.g., user satisfaction index, unit response rates).
- By bringing out the complementary nature of the two approaches, the comparison exercise successfully paves the way to pursue the quality work in common. It is expected that the joint development of a glossary of data quality terms (already underway) and other related initiatives will lead to a further convergence of the two approaches.

Summary of the comparison exercise

The comparison exercise has been documented in “Data Quality: a Comparison of IMF’s Data Quality Assessment Framework (DQAF) and Eurostat’s Quality Definition” by Lucie Laliberté (IMF), Werner Grünewald, and Laurent Probst (Eurostat), December 2003.⁴

Part One of the report provides a summary review of each approach to quality.⁶ Part Two identifies the six aspects that both approaches have in common and that have been further

⁴ The authors are thankful for the input of Håkan Linden (Eurostat, unit A4) to the different drafts of this paper.

harmonized as part of the exercise. Focusing on these common aspects, Part Three describes the quality indicators of each approach: IMF process oriented qualitative indicators, and the Eurostat focus on quantitative output oriented indicators. The IMF indicators illustrate or document the interdependence of quality aspects and takes into account the various factors that are at play in influencing data quality. The idea of the Eurostat quality definition is to ensure that certain standards are met in those aspects of statistical production that are subject to quantifiable measures, such as standardized statistical measures (e.g., measurement errors).

The Conclusion stresses that both approaches seek meaningful and empirically supported findings, one in qualitative terms the other in quantitative terms. Because they help to shed light on data production from different viewpoints, the two approaches complement each other. The DQAF has been extensively used by IMF staff to assess the quality of countries' macroeconomic datasets through the Report on the Observance of Standards and Codes. Some countries are also known to have done self-assessments with the DQAF. The Eurostat quality definition is used by national statisticians to measure quality.

The reconciliation exercise paves the way forward for common work on data quality, with the development of a common glossary of terms currently underway. In the long run, it is expected that both approaches will further converge because both are useful to understand the complexities of the statistical world.

⁶ The DQAF available at the IMF Data Quality Reference Site
<http://dsbb.imf.org/Applications/web/dqrs/dqrswork/>.