Insideview

Paradigm Shift in Central Bank Statistics

INTERVIEW WITH REINHOLD STAHL

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The importance of statistics at central banks has increased enormously in recent years. In response to various financial crises, new institutions have been set up at the national, European, and international level to monitor financial systems and financial stability – and these institutions need data to perform their tasks. Using statistics and data as a basis for decision-making is a frequent topic of discussion at the moment. How have central bank statistics responded to the surge in demand?

The new institutions and existing organizations identified a number of data gaps for their new analyses and monitoring tasks. Data users required highly granular, multifunctional, and flexible-use statistics that made a wide variety of analyses possible. As a result, new collections of highly granular data were set up and the European legal framework for the dissemination of data between institutions was revised. That triggered the paradigm shift from the established macrodata-oriented statistics to microdata-oriented (granular) statistics.

How are you dealing with the new diversity in data?

The surging demand for data is giving rise to increasing data variety and an expanding data volume. The greater the amount of data collected, the more important harmonization, standardization, and organizational structure become. Central banks are supporting initiatives to further harmonize and standardize the methods used to collect statistical data, with the aim of collecting data only once, where possible. This should reduce reporting agents' reporting burden. On the technical side of things, an organizational structure will be implemented by harmonizing the methodology and semantics. SDMX (Statistical Data and Metadata eXchange) will play a major part in this.

What inspired you to write your book 'Measuring the Data Universe'?

SDMX is a global ISO standard, which provides a well-functioning information model for data. But the community has long been complaining about the lack of literature providing an easy-to-read introduction to the data standard. With that in mind, I hope that my co-author Dr. Patricia Staab and I can close this gap, especially with the forthcoming English version of our book, and do our bit to make this data standard more widespread.

Is it possible to cope with the demands placed on you using this organizational system alone?

No! Harmonized statistics with a high degree of standardization in terms of methodology, semantics, and technology, as well as a good organizational system for the data, constitute an essential but by no means sufficient prerequisite for optimally supporting the analytical and research communities. We find ourselves confronted with increasingly customized analysis requirements that necessitate the sophisticated linking of multiple datasets, good documentation in a metadata system, and – in many cases – anonymization. This work cannot be completely automated; we need smart minds for it. That's why we set up the Research Data and Service Centre (RDSC) four years ago to support internal and external analysis and research activities.

What other challenges do you envisage for the future of statistics at central banks?

The "how" of our work will evolve dramatically in the years to come. In addition to the rapid increase in data variety and data volume, the role played by statistics at central banks will be radically transformed over the next few years as a result of digitalization and new technologies. This will go hand in hand with a change of skill profiles for statisticians working at central banks. In short, one could say that the way in which we deal with information may change, but the significance of facts and (statistical) evidence as a basis for decisions and how we assess them will not.

Thank you for this interesting conversation.