

Call for Papers

Joint Bank of Canada and Irving Fisher Committee Satellite Meeting **Granular data: new horizons and challenges for central banks**

Satellite event to the ISI 64th World Statistics Congress

15 July 2023

Bank of Canada, Ottawa

Submission deadline: 15 April 2023

The Bank of Canada and the BIS's Irving Fisher Committee on Central Bank Statistics (IFC) are pleased to organize a Satellite Seminar on "Granular data: new horizons and challenges for central banks".¹ Held in conjunction with the 64th World Statistics Congress (WSC) of the International Statistical Institute (ISI) in Ottawa (July 16-20, 2023), the Seminar will take place in person in Ottawa on Saturday, July 15, 2023 (with possibility of virtual participation for non-presenters).

The WSC Satellite Seminar aims to take an integrated view of the use of granular data by central banks, highlighting the analytical value, the tools and approaches needed to unlock its value as well as the challenges it poses. Historically, central banks have heavily relied upon traditional sources of data such as censuses and official statistical surveys to answer policy, research and operational questions. These data sources provide many advantages such as accuracy, reliability, and consistency of collection methodology. However, they also come with some challenges, for example in terms of their frequency of data collection, timeliness and granularity. Over the past few years, the significant growth of available granular data, along with the development of sophisticated techniques for handling and analyzing them, have opened the door to enhancing and complementing traditional central banking data and statistical domains. The Satellite Seminar will bring together central bank economists and statisticians, as well as others who want to participate in discussing statistical issues of interest to central banks, providing an opportunity to learn from each other's experiences and share ideas for the future of granular data as a valuable source of information and insight.

The event will be structured into three sessions and conclude with a panel discussion.

1. The first session will highlight opportunities offered by granular data in central bank research and policy. It will showcase central bank applications of research projects and policy analysis where the use of microdata can provide valuable insights and answers where aggregate/consolidated data could not.
2. Granular data pushes the limits of traditional analytical approaches, techniques and tools, which are poorly suited for its volume and complexity. The second session will focus on advances in data science and technology that can unlock the significant potential value of granular data.
3. The third session will offer views on privacy, data and metadata management, governance, which are but a few of the challenges the use of granular data pose to central banks. While data-related risks have

¹ The term *granular data* is used to describe micro data at a high level of granularity, such as account, instrument and/or transaction-level data. It can be formally defined as *comprising disaggregated data and micro data*, with *disaggregated data* being "data below the level of aggregated data and with a higher likelihood of identifying individual reporting units than in the aggregated data" - cf Inter-Agency Group on Economic and Financial Statistics (IAG) (2017): *Update on the Data Gaps Initiative and the outcome of the Workshop on Data Sharing*, March.

always been a key consideration for central bankers, granular data elevates them and creates layers of complexity for effective mitigation.

4. The seminar will conclude with a panel discussion bringing together the considerations discussed in the earlier sessions.

Call for papers

We welcome submissions on topics related, but not limited, to:

- Concrete applications – policy or research – of using granular (instrument and/or transaction) level data to provide analytical insight on traditional or emerging central bank questions beyond the limitations of more aggregated data. These could include:
 - Granular information covering businesses, households, financial markets, labor markets, climate change analysis, crypto, digital currencies.
 - The use of large, granular structured or unstructured data sources to predict or understand the state of the economy.
 - Using payments, mobility and other granular data for macroeconomic research and financial sector monitoring.
- Advanced data analytics, data science tools and approaches that are successfully contributing to exploring the potential of large granular (structured or unstructured) data sets.
- New computational methods, including machine learning and natural language processing that allow granular data value extraction for macroeconomic, financial stability, and climate economic research.
- Managing challenges and mitigating risks associated with key considerations such as privacy and confidentiality in the collection, sharing, use and governance of granular data, and interpretability of new techniques such as machine learning.
- Data governance, data sharing and management issues and approaches for effective protection of sensitive data while maximizing its use.
- Transparency and communication related to granular data collection, holdings, sharing, findings in a privacy-aware environment.

Please send your abstract proposal for a paper / presentation, preferably in a pdf format, by April 15, 2023, to both BoCDataEvents@bank-banque-canada.ca and ifc.secretariat@bis.org. Authors of accepted contributions will be notified as soon as decisions are made and at the latest by end of April.

Key dates:

- 15 April 2023: Submission deadline (abstract)
- 30 April 2023: Notification of selected presentations
- 1 July 2023: Submission of the presentations / papers
- 1 September 2023: Final paper submission for publication in the special edition of the *IFC Bulletin* series.