The BoC-IFC satellite seminar on "Granular data: new horizons and challenges for central banks" is co-organized by the Irving Fisher Committee on Central Bank Statistics (IFC) and the Bank of Canada and is held in conjunction with the 64th World Statistics Congress of the International Statistical Institute. This 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.

Notes: All times are Eastern Standard Time (ET or UTC-05:00). All meetings are held under the Chatham House Rule unless otherwise noted.

### Saturday, July 15, 2023 (Day 1)

<table>
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<tr>
<th>Time</th>
<th>Session</th>
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| 08:00–08:20 ET | Registration and Coffee  
Note that all seminar sessions and meetings will take place at the Bank of Canada, in the Conference Centre. To enter the Bank, please use the entrance to the Bank of Canada Museum, located at 30 Bank Street (corner of Bank and Wellington Streets) and bring a piece of government-approved photo identification. |
| 08:20–08:40 ET | Opening Notes  
*Julie Champagne*, Managing Director of Corporate Services and Data, Chief Data Officer, Bank of Canada  
**Introductory remarks: Bank of Canada**  
*Filipe Dinis*, Chief Operating Officer, Bank of Canada  
**Introductory remarks: IFC**  
*Pablo García*, Vice Governor of the Central Bank of Chile, Chair of the Irving Fisher Committee on Central Bank Statistics |
| 08:40–10:40 ET | Session 1: Micro data: general benefits and new insights  
**Chair:** Silke Stapel-Weber, Director General Statistics and Chief Data Officer, European Central Bank  
**Presenters:**  
- Luís Teles Dias and Lígia Maria Nunes (Banco de Portugal), “The secret ingredient of being relevant? Microdata. Making the move from ready-made to fresh statistics”.  
- Jasminka Dodeva Kovaceva (National Bank of the Republic of North Macedonia), “Granular statistical data – Are we charmed with a blessing or a curse?”.  
- Frank Mayerlen (European Central Bank), “The Eurosystem’s granular data on securities, loans and entities – How we use such information today and what we may develop differently next time”.  
- Jens Mehrhoff (International Monetary Fund), “On the need for granular, forward-looking physical risk data to support policy analysis”.  
- Tatjana Dahlhaus and Angelika Welte (Bank of Canada), “Payment habits during COVID-19: Evidence from high-frequency transaction data” |
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<th>Time</th>
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<tr>
<td>10:40–11:00 ET</td>
<td>Break</td>
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| 11:00–13:00 ET     | **Session 2a: Prices and monetary policy perspectives** | **Chair:** Li Ming Ong, Director, Data Management and Statistics, Bank Negara Malaysia | **Presenters:**  
  - José Manuel Carbó Martínez and Sergio Gorrín Rivas (Banco de España), “Determinants of the price of bitcoin: An analysis with machine learning and interpretability techniques”.  
  - Juan José Balsa and Javiera Vasquez (Banco Central de Chile), “Property classification with administrative data: The case of the Chilean Household price index”.  
  - Charles Martineau, Zissis Poulos, Yuntao Wu, Cameron Thompson, Jun Yuan, John Hull (FinHub Research Center at the Joseph L. Rotman School of Management, University of Toronto), “Monetary policy uncertainty and risk premia”.  
  - Jorge Antonio Pozo Sanchez and Youel Rojas Zea (Central Reserve Bank of Peru), “Financing imbalances and heterogeneous effects of monetary policy” |
| 13:00–14:00 ET     | Lunch                                  |                                                                      |                                                                                                                                                                                                                                                                                                                                           |
| 14:00–16:00 ET     | **Session 3a: Macroeconomic perspectives** | **Chair:** Aurel Schubert, Honorary Professor, Vienna University of Economics and Business, and Chair, European Statistical Governance Advisory Board |                                                                                                                                                                                                                                                                                                                                           |
**Presenters:**
- Guerino Ardizzi, **Giuseppe Bruno**, Roberto Ianuccone, Juri Marcucci, Filippo Moauro, Alessandra Righi and Davide Zurlo (Banca d’Italia), “The use of payment transaction data for economic forecasts.”
- **Michael Chernousov** (Financial Reserve Board), “Retail credit estimates in Federal Reserve Board’s G.19 “Consumer Credit” statistical release”.
- Joshua Brault, Maryam Haghighi (Bank of Canada), Hashmat Khan (Carleton University), and **Masoud Nasari** (Bank of Canada), “Labour productivity in Canada”.
- **Michael Boutros** (Bank of Canada) and Andrej Mijakovic (European University Institute), “The Macroeconomic Implications of Coholding Liquid Assets and Debt”.
- Efrem Castelnuovo (University of Padova), **Kerem Tuzcuoglu** (Bank of Canada) and Luis Uzeda (Bank of Canada), “Sectoral uncertainty”.

**14:00–16:00 ET**  
**Session 3b: Data governance and quality**

**Chair:** TBC

**Presenters:**
- **Jannick Blaschke** and **Christian Hirsch** (Deutsche Bundesbank), “Statistical Disclosure Control (SDC) for results derived from combined confidential microdata”.
- **Iker González Crespo** and Pablo Jiménez Segovia (Banco de España), “Missing values imputation for Central Balance Sheets Data Office (CSBO) accounting data”.
- **Massimo Casa** (Banca d’Italia), “Connecting the dots of the international debate on the stardization and granularity of regulatory data”.
- **Eugenia Koblents Lapteva** (Banco de España), “Utility and confidentiality assessment of synthetic company data”.
- **Ajit Desai** (Bank of Canada), Anneke Kosse (Bank for International Settlements) and Jacob Sharples (Bank of Canada), “Machine learning framework for pattern recognition and anomaly detection in payments systems”.
- Maryam Haghighi and **Vivianne Taillefer** (Bank of Canada), “Data and analytics risk management framework for central banking”.

**16:00–16:30 ET**  
**Break**

**16:30–17:45 ET**  
**Session 4: Insights on the way forward**

**Chair:** Maryam Haghighi, Director, Data Science, Bank of Canada

Panellists will share their views on the value of granular data as well as the challenges their use poses, weighing the trade-offs, and sharing their insights on the future of granular data use by central banks based on their expertise and experience.

**Panellists:**
- **Michelle Alexopoulos**, Professor of Economics, University of Toronto, and Bank of Canada Fellow
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<tr>
<td>17:45 ET</td>
<td>Closing Remarks</td>
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<tr>
<td>18:00 ET</td>
<td>Reception and Dinner – By invitation only</td>
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<td><strong>Sunday, July 16, 2023 (Day 2)</strong></td>
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<tr>
<td>09:00–10:30 ET</td>
<td>IFC Executive Meeting – By invitation only</td>
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<td><em>Continental breakfast will be provided</em></td>
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<td>10:30–11:00 ET</td>
<td>Break</td>
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<tr>
<td>11:00–12:30 ET</td>
<td>IFC Meeting – By invitation only</td>
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<tr>
<td>12:30 ET</td>
<td>Closing reception for all seminar participants</td>
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