

## 12th biennial IFC conference

### “Statistics and beyond: new data for decision making in central banks”

BIS, Basel, 22-23 August 2024

#### Programme

#### IFC Annual Meeting

Thematic presentations:

- Empowering carbon accounting: from data to action, Deutsche Bundesbank
- On compilers' methodological autonomy, Central Bank of Brazil
- Progress on World Bank agenda on making debt data transparent and sustainable amidst debt distress
- International Statistical Institute activities

#### Session 1 – Data governance: collaboration and communication

Chair Kate Kolich, Assistant Governor/General Manager Information, Data and Analytics, Reserve Bank of New Zealand

Papers: **Together we go further: designing a common statistical literacy strategy for the ESCB**  
Maria Carolina Campos, *Lígia Maria Nunes*, Banco de Portugal, *Matthias Rumpf*, European Central Bank (ECB) and Laura Belli, Organisation for Economic Co-operation and Development (OECD)

**Empowering public-private data partnership for data on digital economy: case of Bank Indonesia**

*Okiriza Wibisono, Anggraini Widjanarti and Alvin Andhika Zulen*, Bank Indonesia

**Main outcomes of the INEXDA working group on Statistical Disclosure Control (SDC)**

*Ricardo Arcos, Ana Esteban, Eugenia Koblents and Emma Pérez*, Bank of Spain

**BCChAPI: A python interface to the Central Bank of Chile statistical database API**

*Ricardo Villarreal Zan*, Central Bank of Chile

**Implementing Statistical Data Metadata Exchange (SDMX) in Centralised Information Management System (CIMS) – challenges, solution design and benefits**

*Prakash Madda and Debasis Nandi*, Reserve Bank of India

#### Keynote speech: Is there a future for traditional stochastic models in business and industry in the AI and ML era?

Fabrizio Ruggeri, President-Elect, International Statistical Institute

#### Session 2 – Improving data quality

Chair: Michael Manamela, Head of Economic Statistics Department, South African Reserve Bank

Papers: **A scalable, explainable machine learning approach for granular-level credit dataset's quality assurance**

*Nontawit Cheewaruangroj, Peranut Nimitsurachat, Supachai Saengthong and Anak Yodpinyanee*, Bank of Thailand

**Machine learning for anomaly detection in money services business outlets using data by geolocation**

*Shariff Abu Bakar Sarip Abidinsa and Vincent Lee Wai Seng, Central Bank of Malaysia (Winner of the IFC award for the best paper presented by a young statistician)*

**Variational autoencoders for multivariate time series outlier detection**

*Tamara Fajt Mayer, Giovanni Raimondo Quaratino and Juan Francisco Javier Cordero Romero, ECB*

**How to use Trade Repository data on OTC derivatives for analysis – a practical framework**

*Henry Chan and Silvia Pezzini, Hong Kong Monetary Authority*

**Session 3 – Advancements in compilation of macroeconomic statistics**

Chair: Fernando Alberto Rocha, Head of Department of Statistics, Central Bank of Brazil

Papers: **Improving the quality of balance of payments statistics via granular bilateral analysis - trilateral comparison: Austria, Italy and Spain**

*Nadia Accoto, Bank of Italy, Erza Aruqaj, European Commission, María García del Riego, Bank of Spain, Jorge Diz Dias, Milena Matteo and Fausto Pastoris, ECB*

**Special Purpose Entities (SPEs) in external statistics: the journey to data publication in the euro area and first analytical insights**

*Jorge Diz Dias, Fausto Pastoris and Carmen Picon-Aguilar, ECB*

**Direct investment positions held by Captive Financial Institutions in Luxembourg affiliated to investment funds focusing on private equity or real estate**

*Gabriele Di Filippo, Central Bank of Luxembourg*

**50 years of quality and transparency of the World Bank Debtor Reporting System ... counting**

*Joao Falcao Silva and Rubena Sukaj, World Bank*

**Building financial accounts by using “From-whom-to-whom (FWTW)” approach and its analytical value – NBRNM case**

*Nada Ciriviri, Biljana Petrushevska and Snezhana Janeska Popovska, National Bank of the Republic of North Macedonia*

**Session 4 – Generative AI and large language models**

Chair: Ole Rummel, Director, South East Asian Central Banks (SEACEN) Research and Training Centre

Papers: **Reading between the lines - uncovering asymmetry in the central bank loss function**

*Markus Haavio, Joni Heikkinen, Pirkka Jalasjoki, Juha Kilponen, Maritta Paloviita and Ilona Vänni, Bank of Finland*

**Generative AI and official statistics: the project of the UNECE High-Level Group for the Modernisation of Official Statistics**

*InKyung Choi and Amilina Kipkeeva, United Nations Economic Commission for Europe (UNECE), Olivier Sirello, Bank for International Settlements (BIS) and Vytas Vaiciulis, Central Statistics Office Ireland*

**Leveraging custom large language model for economic insights**

*Nik Ahmad Akram and Eilyn Chong, Central Bank of Malaysia*

**Bi-dimensional sentiment indicators based on new generative AI capabilities – a pilot study in the housing market in Israel**

Alon Bartal, Michael Gurkov, *Ariel Mantzura*, Yulia Nudelman, Darin Vaisman and Inbal Yahav Shenberger, Bank of Israel

**Enhancing metadata with generative AI: the case of BIS statistics**

Bilyana Bogdanova, Magdalena Erdem, Bianca Ligani and *Olivier Sirello*, BIS

**Session 5 – Historical monetary and financial statistics**

Chair: Claudio Borio, Head of the Monetary and Economic Department, BIS

Papers: **The League of Nations and the production of international statistics on central banking**

Marc Flandreau, University of Pennsylvania and *Clemens Jobst*, University of Vienna

**Using archival data at the Bank of England to understand the evolution of central bank balance sheets**

*Ryland Thomas*, Bank of England

**Accounting for the first 223 years of Banque de France balance sheet: a proposal for retrospective balance sheet construction**

*Vincent Bignon*, Bank of France and Jonas Plüss, University of Geneva

**Opportunities and challenges in compiling long series: the BIS central bank statistics**

*Bilyana Bogdanova*, Archana Dilip, *Olivier Sirello*, Robert Szemere, BIS and Marc Flandreau, University of Pennsylvania

**Session 6 – Big data and data science**

Chair: Om Prakash Mall, Executive Director, Reserve Bank of India

Papers: **Development of a Labor Market Intelligence System (LMIS) using big data: the Philippine case**

*Mary Grace Del Rosario*, Bangko Sentral ng Pilipinas

**Unlocking insights: harnessing card data to measure Namibia's cross-border digital purchases**

Joel Kagola, Brian Mbazuvara, Isabel Nghinamupika, Metilda Ntomwa and *Sanette Schulze Struchtrup*, Bank of Namibia

**Mobile phone data and the travel time in the Balance of Payments: the Bank of Italy's experience**

Andrea Carboni, Claudio Doria and *Valeria Valletta*, Bank of Italy

**Tracking consumer sentiment in real time in the Dominican Republic: an approach based on granular data and a topology of neural networks**

*Lisette Josefina Santana Jiménez*, Central Bank of the Dominican Republic

**Session 7 – Use of granular data**

Chair: Matias Ossandon Busch, Center for Latin American Monetary Studies (CEMLA)

Paper: **Expanding carbon indicator scope by looking-through investment funds**

*Annemarie Berkhout*, Martijn Boermans, Justin Dijk, Wim Goossens and Trond Husby, De Nederlandsche Bank

**Granular data for the needs of central banks: the case of Central Bank of Morocco**

*Mohamed Amine Chadib* and Mohamed El Khaoua, Bank Al-Maghrib (Central Bank of Morocco)

**Pricing implication of centrality in an OTC derivative market: an empirical analysis using transaction-level CDS data**

Kohei Maehashi, Daisuke Miyakawa and *Kana Sasamoto*, Bank of Japan

**A closer look at new housing loans in Portugal: unlocking the power of credit microdata**

Diana Martins and *Ana Reis*, Banco de Portugal

**Session 8 – Globalisation and digitalisation: new data demands**

Chair: Luís Teles Dias, Deputy Director of Statistics Department, Banco de Portugal

Papers: **Evolving NZ's expectations surveys for emerging data needs**

Alan Bentley and *Matt Haigh*, Reserve Bank of New Zealand

**New data: digging into the net-inflow analysis with the Rest of the World**

*Gonçalo Amado*, Banco de Portugal

**Issues in measuring digital assets based on the 2025SNA – focusing on the discussions regarding crypto assets**

*Yoshiko Sato*, Bank of Japan

**Assessing Fintech credit activity in Spain: an approach through the Fintech Observatory**

*Ramón Ruiz*, Bank of Spain

**Session 9 – Sustainability statistics**

Chair: Robert Kirchner, Deputy Director General, Data and Statistics, Deutsche Bundesbank

Papers: **The network of experts on machine learning and the climate change challenge**

*Edwige Burdeau*, Bank of France and *Zlatina Hofmeister*, ECB

**The climate data iceberg – a depth of information to integrate**

*Hendrik Christian Doll*, Emily Kormanyos, Susanne Walter and Gabriela Alves Werb, Deutsche Bundesbank

**Addressing sustainability data gaps for SMEs: challenges, alternative solutions, and data-sharing**

*Borja Fernández-Rosillo*, Bank of Spain

**Session 10 – Statistics for monetary and financial stability policies**

Chair: Ichiro Muto, Associate Director-General of the Research and Statistics Department, Bank of Japan

Papers: **Information impact: shaping inflation expectations in Armenia**

*Ardash Kilejian*, Central Bank of Armenia

**Inflation and price dynamics analysis using high-frequency data from supermarkets: evidence from Peru**

*Gonzalo Bueno*, Central Reserve Bank of Peru

**High-frequency indicators for financial stability: a methodology utilising big data in payment system data**

*Renardi Ardiya Bimantoro*, Mohammad Khoyrul Hidayat and Charvin Lim, Bank Indonesia

**Monitoring of the non-financial companies at the Central Bank of Morocco**

*Walid Bakrim*, Bank Al-Maghrib (Central Bank of Morocco)