

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, *Ligia 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)