Experts Meeting on Big Data applications and Data Analytics in central banking
Madrid, 1st, 2nd and 3rd of June 2022

Location: Digital-Webex format
Language: Spanish (simultaneous translation into English)
Time: Mexico City local time

Wednesday, 1st of June

08:45 – 09:00 Opening
CEMLA - Banco de España

Session 1: Applications of Data Science in statistical output and quality control
Chair: Nicolás Forteza (Banco de España)

09:00 – 09:25 Invoice Text Classification and Aggregate Price Indices
- Dagoberto Quevedo y Matías Pizarro. Banco Central de Chile

09:25 – 09:50 Creation of Unit Value Indices for goods trading in Mexico
- Pedro Ortiz. Banco de México

09:50 – 10:15 Creation of a Data Base with sustainability indices (ESG) drawn from accountability report of non-financial companies
- Natividad Pérez. Banco de España

10:15 - 10:45 Questions and answers

10:45 – 11:00 Break

Session 2: Applications of natural language processing techniques
Chair: Rodolfo Ostolaza (CEMLA)

11:00 – 11:25 Predicting financial instability by using Twitter
- María Victoria Landaberry. Banco Central del Uruguay

11:25 – 11:50 Twitter-Based Economic Policy Uncertainty Index for Chile
- J. Sebastián Becerra. Banco Central de Chile
11:50 – 12:15 Use of unstructured data deriving from surveys for monetary policy analysis
  • Andrea Barón. Banco Central del Uruguay
12:15 – 12:45 Questions and answers

Thursday, 2nd of June

Session 3: Economic forecast (nowcast) with Data Science techniques
Chair: Sandra García Uribe (Banco de España)
09:00 – 09:25 Nowcasting of economic dynamic in the Dominican Republic: approach based on large datasets and machine learning techniques
  • Lisette J. Santana Jiménez (ponente) y Juan Salvador Quiñonez Wu. Banco Central de la República Dominicana
09:25 – 09:50 Sentiment indices estimated on the basis of regional economies report and associated with the relevant economic activity indices in Mexico: 2015-2020
  • Leonardo Torre. Banco de México
09:50 – 10:15 Conflict, social unrest and policy uncertainty measures are useful for macroeconomic forecasting
  • Marina Diakonova. Banco de España
10:15 – 10:45 Questions and answers
10:45 – 11:00 Break

Session 3 (follow-up): Economic review (nowcast) with Data Science techniques
11:00 – 11:25 Application of web scraping techniques for wage increases forecasting
  • Mario Izquierdo. Banco de España
11:25 – 11:50 Monitoring of labor demand through job advertisements in web portals
  • Katherine Jara y Benjamin Vásquez. Banco Central de Chile
11:50 - 12:15 Use of Central Balance Sheet Office data with machine learning models
  • José Luis Herrera. Banco de España
12:15 – 12:45 Questions and answers

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Friday, 3rd of June

**Session 4: Other applications (RegTech, SupTech, geospatial datasets, cash)**

Chair: Bruno Coutinho (Banco de España)

09:00 – 09:25  **Data Analytics applied to cash**
- Beatriz García Bardera y Eduardo Kropnick. Banco de España

09:25 – 09:50 **Climate change impact on economic activity in the Dominican Republic: a description based on geospatial datasets and machine learning models**

09:50 – 10:15 **Monitoring informal sector evolution from the space: a local approach 2013-2020**
- Irving Llamosas. Banco de México

10:15 – 10:40 **Bitcoin price drivers: An analysis of machine learning models and interpretability techniques**
- José Manuel Carbó. Banco de España

10:40 – 11:15 **Questions and answers**

11:15 – 11:30 **Closing**