New Frontiers in Banking and Capital Markets

5th edition on Artificial Intelligence in Banking and Capital Markets

Conference Jointly Organized by
University of Rome ''La Sapienza''
Joint Research Centre of the European Commission

Rome, December 11th–12th, 2023
Faculty of Economics, Sapienza University
Via del Castro Laurenziano, 9 - Rome

Keynote address by

Nobel Prize Laureate Michael Spence
(Stanford)

Registration at: https://sites.google.com/view/nfbcm

Program Chairs
Marina Brogi, Sapienza University
Valentina Lagasio, Sapienza University

Conference Overview

The New Frontiers in Banking and Capital Markets Conference is aimed at providing a setting where academics and practitioners, especially regulators and supervisors can exchange views and discuss emerging issues addressed in top academic research.

Artificial Intelligence is expected to become a fundamental part of any business operations, and it is difficult to envisage an industry that will remain unaffected. The financial sector is very interested in Artificial Intelligence because of its several opportunities in applications, especially those related to machine learning methodologies.

Environmental, Social, and Governance (ESG) issues can be viewed as another area in the financial sector that is recently being investigated with Artificial Intelligence and Machine Learning approaches.

The specific goal of this conference is to identify those areas of policy concern that have been neglected and could be addressed by researchers and policymakers, and how those kinds of information are perceived by stakeholders and investors.

Draft Program

Monday 11th December

15.30 – 16.00 Registration and Welcome – *Smart Village*

16.00 – 16.15 Welcome address – *Room 4*

Antonella Polimeni*, Rector, Sapienza University

Giovanni Di Bartolomeo, Dean, Faculty of Economics, Sapienza University

Alberto Pastore, Head of Management Department, Sapienza University

16.15 – 17.30 Policy Round Table – *Room 4*

Chair: Marina Brogi, Full Professor of Banking, Sapienza University

Carlo Comporti   Consob Commissioner
Ugo Loeser   CEO, Arca Fondi SGR
Alessandra Perrazzelli Bank of Italy Member of the Governing Board and Deputy Governor

17.30 – 19.30 Keynote address by Nobel Prize Laureate Michael Spence – *Room 4*

Introduction

Marina Brogi, Full Professor of Banking and Capital Markets, Sapienza University

Nobel Prize Laureate Michael Spence (Stanford University)
"AI, Productivity Growth, and the Future of Interest Rates and the Cost of Capital"

8.00 – 8.30 Welcome coffee – *Floor -1*

8.30 – 9.30 Keynote speech by Erkki Liikanen (Chair of IFRS Trustees and co-Chair of SRC) – *Room 4*

Introduction

Marina Brogi, Full Professor of Banking and Capital Markets, Sapienza University

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9.30 – 11.00 Executive Round Table – *Room 4*

Shaping the Future: Integrating AI and ESG in the Era of Digital Transformation

Chair: *TBD*

Lucia Alessi, Joint Research Center of the European Commission

Leonardo Gambacorta, Head of Innovation and the Digital Economy, Bank for International Settlements

Valeria Sandei, CEO of Almawave

Andrea Cosentini, Data & Artificial Intelligence Office, Intesa Sanpaolo

11.00 – 11.30 Coffee Break – *Floor -1*

11.30 – 13.30 Parallel Session A - Paper presentations – *Room Fabrizi*

Advanced Analytics in Financial Markets

Chair: *TBD*

13.00 – 13.30 **Paper 1 -** Human-Robot Interactions in Investment Decisions
   Presenter: Marie Briere (Amundi)

   Discussant:

12.00 – 12.30 **Paper 2 -** Hedging BTP Italia and other inflation indexed bonds: A comparison between a standard and a Deep Learning approach using a LSTM network
   Presenter: Duccio Martelli (University of Perugia)

   Discussant:

12.30 – 13.00 **Paper 3 -** The use of switching circuits for classifying blockchains and crypto
   Presenter: Carlo Gola (Banca d'Italia)

   Discussant:

11.30 – 12.00 **Paper 4 -** Interpretable Stock Analysis Leveraging Deep Multimodal Models: State of the Art and New Research Avenues

> Presenter: Paola Bongini (Bicocca University)

> Discussant:

13.30 – 14.30 Light lunch – *Floor -1*

14.30 – 16.00 Academic Round Table – Meet the Editors! – *Room Fabrizi*

Chair: Valentina Lagasio, Sapienza University

Samuel A. Vigne	Editor in Chief, Finance Research Letters
Amedeo Pugliese	AE, Corporate Governance: An International Review
Marc Goergen	AE, British Journal of Management, European Journal of Finance
Peter G. Szilagyi	Editor in Chief, Journal of Multinational Financial Management

16.00 – 18.00 Parallel Session B - Paper presentations – *Room Parrillo*

Sustainable Finance and Technology Integration

Chair: XX

16.00 – 16.30 **Paper 5 -** Greening the Economy: How Public-Guaranteed Loans Influence Firm-Level Resource Allocation

> Presenter: Salvatore Perdichizzi (Bologna University)

> Discussant:

16.30 – 17.00 **Paper 6 -** Navigating the European Taxonomy with AI and Large Language Models: Mapping Sustainable Activities to NACE Codes

> Presenter: Monica Rossolini (Bicocca University)

> Discussant:

17.00 – 17.30 **Paper 7 -** Extracting Climate Goals from Company Reports at Scale using Large Language Model

> Presenter: Marco Wrzalik (RheinMain University of Applied Sciences)

> Discussant:

17.30 – 18.00 **Paper 8 -** Financial distress prediction of European banks using machine learning: does ESG index matter?

> Presenter: Serena Notaris (Unipolsai)

> Discussant:

16.00 – 18.00 Parallel Session C - Paper presentations – *Room Fabrizi*

Financial Systems and Crisis Management

Chair: *TBD*

16.00 – 16.30 **Paper 9 -** An eXplainable Early Warning System to Predict Systemic Financial Crises
                  Presenter: Caterina Di Tommaso (Univeristy of Bari)

                  Discussant:

16.30 – 17.00 **Paper 10 -** Lending Business Models and Fintech Efficiency
                  Presenter: Anna Grazia Quaranta (University of Macerata)

                  Discussant:

17.00 – 17.30 **Paper 11 -** Assessing the resilience of the insurance industry under Solvency II
                  Presenter: Vincenzo Russo (Generali)

                  Discussant:

17.30 – 18.00 **Paper 12 -** Unraveling Financial Uncertainty: Employing Transactional Data and
Machine Learning to Decode Real-Time Credit Risk Amidst Periods of Economic Dislocation
                  Presenter: Maria Cristina Arcuri (University of Parma)

                  Discussant:

18.00 – 18.15 Final remarks – *Room Fabrizi*