



## MATEI Marius



**CURRENT POSITION:** Associate Professor; Member of Management Team Bachelor Programme, English stream; Mini-track chair ICBE

**AFFILIATION/DEPARTMENT:** Department of Business Administration in foreign languages (UNESCO chair)

**ORCID RESEARCHER ID:** <https://orcid.org/0000-0002-9151-129X>

**URL FOR PERSONAL WEBSITE:** <https://www.mariusmatei.com>

<https://sites.google.com/view/mariusmatei/> <https://mateimar.wixsite.com/website>

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### PROFILE

Associate Professor, Principal Economist, Senior Researcher, Financial Stability / Quant / Econometrician / High Frequency Finance Specialist

PhD in Financial Econometrics (ESADE Business School, Spain) and in Economics (Romanian Academy). Master in Economics (Carleton University, Canada), in Management Sciences (ESADE, Spain) and in International Relations (SNSPA, Romania). Visiting researcher at Stanford University (USA) and CReATES (Denmark). Publications in Journal of Econometrics, Journal of International Financial Markets, Institutions & Money, Econometrics, Economic Record and Romanian Journal of Economic Forecasting. Author of two books. Formerly Principal Economist at the National Bank of Romania, Financial Stability Department, Senior Quantitative Analyst (Asset Allocation) in Mine Super (Australia), Senior Economist in the Government of New South Wales (Australia) and Senior Economist at UniCredit Bank Romania. He taught Econometrics, Finance, Economics, Business and Applications of AI at Macquarie University, University of New South Wales and University of Tasmania (Australia), Barcelona Business School and Valencia Business School (Spain), Carleton University (Canada) and Bucharest University of Economic Studies. He worked in various research projects at the University of Tasmania, Macquarie University, ESADE Business School and Romanian Academy. Marius is member of the Editorial Board of Open Economics journal, Journal of Risk and Financial Management, and Romanian Journal of Economic



Forecasting. He also served as reviewer for the Journal of International Financial Markets, Institutions & Money, Quantitative Finance, Journal of Empirical Finance, European Journal of Operational Research, Computational Management Science, Australian Journal of the Agricultural and Resource Economics, Journal of Contemporary Accounting and Economics, and Romanian Journal of Economic Forecasting. Research interests: Econometrics | Financial Econometrics | High Frequency Finance | Macroeconomics | Financial Volatility | Financial Stability | Financial Crisis and Contagion Modelling | Systemic Risk | Financial Flights | Network Analysis | Quantitative Finance | Macroeconometrics | Empirical Finance | Portfolio Choice | Time Series Analysis | Multivariate forecasting | Jumps and Cojumps | Investments



## EDUCATION

<b>Habilitation</b>	<b>2024</b> , Business Administration field, Bucharest University of Economic Studies
<b>Post-Doc</b>	<b>2012 - 2015</b> , Postdoctoral Research Fellow   Lecturer   Tasmanian School of Business and Economics   University of Tasmania   Australia   Research in two projects: <ul style="list-style-type: none"><li>□ 'Detecting Financial Contagion Using High Frequency Data'   ARC grant</li><li>□ 'Detecting Systemically Important Risk'   CIFR grant</li></ul> <b>2010 - 2012</b> , Postdoctoral Research Fellow   National Institute for Economic Research   Romanian Academy   Romania
<b>PhD (Doctorate)</b>	<b>2012</b> PhD in Financial Econometrics   ESADE Business School   Ramon Llull University   Spain Thesis: 'A contribution to multivariate volatility modelling with high frequency data' Advisors: Prof. Xari Rovira; Prof. Núria Agell Thesis Committee: <ul style="list-style-type: none"><li>• Peter R. Hansen, Henry A. Latané Distinguished Professor of Economics at the University of NorthCarolina at Chapel Hill &amp; CReATES (previous appointments at Stanford University &amp; European University Institute)</li><li>• Mònica Sánchez, Prof. Universitat Politècnica de Catalunya -BarcelonaTech</li><li>• Modest Fluvià, Prof. Universitat de Girona</li></ul> <b>2010</b> PhD in Economics   National Institute for Economic Research, Romanian Academy   Romania Thesis: 'Risk Analysis in the Evaluation of the International Investment Opportunities. Advances in Modelling and Forecasting Volatility for Risk Assessment Purposes' Advisor: Prof. Mircea Ciumara
<b>Master</b>	<b>2008</b> Master in Management Sciences (Finance)   ESADE Business School   Ramon Llull University   Spain <b>2007</b> Master in Economics with Advanced Distinction   Carleton University   Canada <b>2001</b> Master in International Relations and European Integration   National University for Political and Administrative Studies   Romania <b>2002</b> Certificate in Business Administration   International Management Semester   ESSCA (École Supérieure des Sciences Commerciales d'Angers)   France
<b>Bachelor</b>	<b>1999</b> bachelor's in international business   Bucharest University of Economic Studies   Romania



## PROFESSIONAL TRAINING

**2019** – Certificate IV in Programming | TAFE NSW | Australia

**2017** – Certificate in Tutoring | University of New South Wales | Australia

**2021** – Macroprudential Surveillance course | online expert panel | Deutsche Bundesbank

**2021** – Macroprudential Framework course | online expert panel | Bank of England

**2012** – OMI (Oxford-Man Institute) – SoFiE (Society for Financial Econometrics) Financial Econometrics Summer School | Oxford University | United Kingdom

**2011** – Visiting Postdoc | Center for Research in Econometric Analysis of Time Series (CREATES) | Århus University | Denmark

**2010** – Visiting Scholar | Stanford University | Department of Economics | USA

**2009** – ‘New Advances in Modelling and Forecasting Volatility’ Summer School | NOVA University | Portugal

**1998** – International Summer Study Program | University of Economics and Business Administration, Vienna | Austria

**1998** – L’Université D’Été de la Nouvelle Économie | University of Aix-en-Provence | France

## ACADEMIC MANAGEMENT

**2024 and 2025** – Academic leader of CFA Research Challenge team of FABIZ, ASE. In 2024 we won the national and regional semifinals, while in 2025 we placed on the 2nd position of the national finals.

International Conference on Business Excellence, Bucharest University of Economic Studies – chair of Applying ML and AI to Finance, Business, and Society session

I have actively participated at the organisation of the ESAM / ACE Conference (Econometric Society Australasian Meeting and Australian Conference of Economists) which took place at the University of Tasmania, in Hobart, on 1-4.07.2014. I have reviewed and selected some of the submitted papers and I have participated to the program design, the organisation of the visiting programs for professors and researchers, and other related assignments. I have also chaired some of the sessions of the conference..

Organisation of the Young Research Workshop, Tasmanian School of Business and Economics, University of Tasmania, on 30.6.2014.

## ACADEMIC EXPERIENCE

**Feb 2022** – present Associate Professor | Bucharest University of Economic Studies | The Faculty of Business Administration (in Foreign Languages) | The Department of Business Administration (UNESCO) | Romania

Disciplines taught: Financial Management, Risk Management, Artificial Intelligence Strategy and Digital Transformation, Ethics and Academic Integrity, Scientific Seminar

**2018** – present Senior Researcher, grade 1 | National Institute for Economic Research | Romanian Academy | Romania



**2019 – 2020** Lecturer in Econometrics | Bucharest University of Economic Studies | School of Finance and Banking | Department of Money and Banking | Romania  
Teaching (Master level): Financial Econometrics and Advanced Econometrics courses in the Master of Advanced Research in Finance (CEFIN) program (unit convenor, teaching both courses and tutorials)

**2017 – 2019** Sessional Academic | Macquarie University | Macquarie Business School | Australia  
Teaching (undergraduate level): Financial Econometrics (ECON334); Economic and Business Forecasting (ECON361); Quantitative Methods in Economics, Business and Finance (ECON131) | Employed in two research projects: 'Automating the Calculation of Dispersion and Skewness Measures of Across-Sectional Distributions in Matlab' and 'Financial Modelling with High Frequency Cryptocurrencies Data'

**2017** Sessional Academic | University of New South Wales | UNSW Business School | Australia  
Teaching (undergraduate + Master): Financial Econometrics (ECON3206 /5206)

**2012 – 2015** Postdoctoral Research Fellow | Lecturer | Tasmanian School of Business and Economics | University of Tasmania | Australia | Research in two projects:

- 'Detecting Financial Contagion Using High Frequency Data' | ARC grant
- 'Detecting Systemically Important Risk' | CIFR grant

Teaching (Honours + undergraduate levels): Finance (BEA486/475); 'Principles of Economics 2' (BEA121)

**2009, 2011** Adjunct Faculty Member | UIBS United International Business Schools | Spain  
Teaching (MBA + undergraduate): Cost, Volume, Profit Analysis; Production Management; Total Quality Management

**2008 – 2012** Research Fellow | ESADE Business School | Ramon Llull University | Spain

**2010 – 2012** Postdoctoral Research Fellow | National Institute for Economic Research | Romanian Academy | Romania

**2006 – 2007** Teaching Assistant | Carleton University | Department of Economics | Canada

## RESEARCH PROFILE

Econometrics | Financial Econometrics | High Frequency Finance | Macroeconomics | Financial Volatility | Financial Stability | Financial Crisis and Contagion Modelling | Systemic Risk | Financial Flights | Network Analysis | Quantitative Finance | Macroeconometrics | Empirical Finance | Portfolio Choice | Time Series Analysis | Multivariate forecasting | Jumps and Cojumps | Investments

## LIST OF PUBLICATIONS

### **List of articles published in peer reviewed journals:**



1. 2020 – Examining Stress in Asian Currencies: A Perspective Offered by High Frequency Financial Market Data | Mardi Dungey, Marius Matei & Sirimon Treepongkaruna | Journal of International Financial Markets, Institutions & Money | Vol 67 (101200), 1-18
2. 2019 Bivariate Volatility Modelling with High-Frequency Data | Marius Matei, Xari Rovira & Núria Agell | Econometrics | 7 (3), 41
3. 2018 Testing for Mutually Exciting Jumps and Financial Flights in High Frequency Data | Mardi Dungey, Deniz Erdemlioglu, Marius Matei & Xiye Yang | Journal of Econometrics | Vol 202 (1), 18-44  
2017 Surfing through the GFC: Systemic Risk in Australia | Mardi Dungey, Matteo Luciani, Marius Matei & David Veredas | Economic Record | Vol 93 (300), 1-9
4. 2012 Price Volatility Forecast for Agricultural Commodity Futures: The Role of High Frequency Data | Marius Matei, Wen Huang, Zhuo Huang & Tianyi Wang | Romanian Journal of Economic Forecasting | Vol 15 (4), 83-103
5. 2012 Perspectives on Risk Measurement – A Critical Assessment of PC-GARCH Against the Main Volatility Forecasting Models | Marius Matei | Romanian Journal of Economic Forecasting | Vol.15(1), 95-115
6. 2011 Non-linear Volatility Modelling of Economic and Financial Time Series Using High Frequency Data | Marius Matei | Romanian Journal of Economic Forecasting | Vol. 14(2), 116-141. Also book chapter in 'Non-Linear Modelling in Economics – Beyond Standard Economics', Expert: Bucharest, 2011
7. 2009 Assessing Volatility Forecasting Models: Why GARCH Models Take the Lead | Marius Matei | Romanian Journal of Economic Forecasting | Vol.12(4), 42-65
8. 2024 The potential for sustainable biomass in the Romanian energy sector. Value chain analysis for potential black pellets investments | Cansu Birgen, Marius Matei, Sigurd Sannan and Tănase Stamule | Volume 19 (2024), Issue 4

**List of books & book chapters:**

**BOOKS:**

1. 2021 Risk and Volatility. Theory, Methods and Econometric Modelling | Marius Matei | Economica Publishing House: Bucharest, ISBN 978-973-709-989-1
2. 2012 Techniques of Forecasting Volatility and Returns of High Frequency Time Series. Macromicro Binomial from the Data Aggregation and Synthesising Perspective | Marius Matei | Expert: Bucharest, ISBN 978-973-618-380-5

**BOOK CHAPTERS**

1. 2021 Bivariate Volatility Modelling with High-Frequency Data | Marius Matei | in 'Recent Advances in Theory and Methods for the Analysis of High Dimensional and High Frequency Financial Data', MDPI: Basel, ISBN 978-3-0365-0852-8



2. 2015 Modelling and Measuring Jumps in High Frequency Data | Marius Matei | in 'Selected Issues in Macroeconomic and Regional Modelling: Romania an Emerging Country in EU', Nova Science Publishers: NY, ISBN 978-1-63484-936-4
3. 2011 Non-linear Volatility Modelling of Economic and Financial Time Series Using High Frequency Data | Marius Matei | in 'Non-Linear Modelling in Economics - Beyond Standard Economics', Expert: Bucharest, ISBN 978-973-618-260-0

## SCIENTIFIC COMMITTEES OF ACADEMIC JOURNALS / CONFERENCES, REVIEW

Member of the Editorial Board of: Open Economics journal | Journal of Risk and Financial Management | Romanian Journal of Economic Forecasting

Ad-hoc Reviewer for: Journal of International Financial Markets, Institutions & Money | Quantitative Finance | Journal of Empirical Finance | European Journal of Operational Research | Computational Management Science | Australian Journal of the Agricultural and Resource Economics | Journal of Contemporary Accounting and Economics | Romanian Journal of Economic Forecasting

ESADE Business School, Ramon Llull University, Barcelona, Spain - Member of:

- Group for Research in Economics and Finance (GREF)
- Research Group on Knowledge Engineering (GREC)

## PROJECTS

**2023-2026** *CauseFinder: Causality in the Era of Big Data and AI and its Applications to Innovation Management* | Bucharest University of Economic Sciences | Romania

**2023** *The potential for Sustainable Biomass in the Romanian Energy Sector. Value Chain Analysis for Potential Black Pellets Investments* | ASE | Romania

**2019** *'Automating the Calculation of Dispersion and Skewness Measures of Across-Sectional Distributions in Matlab'* | Macquarie University | Australia

**2017 - 2019** *'Financial Modelling with High Frequency Cryptocurrencies Data'* (with Prof. George Milunovich) | Macquarie University | Australia

**2018 - 2020** *'Methodological Problems in the Potential GDP Evaluation in the Romanian Economy'* | National Institute for Economic Research | Romanian Academy | Romania

**2012 - 2015** *'Detecting Systemically Important Risk'* project granted by CIFR (together with Prof. Mardi Dungey, Prof. David Veredas and Dr. Matteo Luciani) | Australia

**2012 - 2015** *'Detecting Financial Contagion Using High Frequency Data'* granted by the Australian Research Council (with Prof. Mardi Dungey and Prof. Sirimon Treepongkaruna) | Australia

**2012** *'HEROM Structural Model Update'* - CEROPE and National Institute for Economic Research | Romanian Academy | Poland

**2012** *'Studies on Theory and Applications of Volatility and Correlation Models Based on Realized GARCH'*



Framework' – with Prof. Zhuo Huang, National School of Development | Beijing University | China

**2009 – 2012** 'Updates in Volatility Forecasting Using High Frequency Data. A New Benchmark Analysis of Models' | ESADE Business School | Ramon Llull University | Spain

**2011** 'Financial Reporting, Ownership Structure and Quotes on the Spanish Stock Exchange', Research Project ECO2008 - 05218 | ESADE Business School | Ramon Llull University | Spain

**2010 – 2012** 'Revision of the Dobrescu Macro-model of the Romanian Economy' - National Institute for Economic Research | Romanian Academy | Bucharest

**2009 – 2010** 'Methodologies on Risk and Uncertainty Analysis, Decision Rules, Statistical and Mathematical Methods and Models, Risk and Uncertainty Quantitative Measurements' | National Institute for Economic Research | Romanian Academy

## OTHER RELEVANT PROFESSIONAL EXPERIENCE

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**2019 – 2023** Principal Economist | National Bank of Romania | Financial Stability Department | Systemic Risk Monitoring Division | Romania

**2019** Senior Economist | Department of Environment and Heritage | UNSW Government | Australia

**2016** Senior Quantitative Analyst (Asset Allocation), Investments Department | Mine Super | Australia

**2002 – 2005** Senior Economist – Head of Macroeconomic Research Department & Financial Analyst – Risk Management Department | UniCredit Bank | Member of UniCredit Group | Romania

## PROFESSIONAL ASSOCIATIONS AND MEMBERSHIPS

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Member of the European Economic Association

## INDUSTRY AND SOCIETAL ENGAGEMENT

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Sayeed Mohammad | Tasmanian School of Business and Economics | University of Tasmania

## GRANTS AND HONORS

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**2020** UEFISCDI Research Result Grant (6000 RON ~ €1200)

**2014** Two Conference Travel Grants | Tasmanian School of Business and Economics | University of Tasmania (totalling \$5228)

**2013** CFA Institute Professor Scholarship

**2009 – 2012** FI Grant | Generalitat de Catalunya | Spain

**2009** Mobility Grant | Ministry of Education of Spain

**2007 – 2008** ESADE scholarship | ESADE Business School | Spain

**2006 – 2007** Domestic Student Tuition Scholarship + Departmental Scholarship + Teaching Assistantship | Carleton University | Canada



**2002** Teaching Assistantship | École Supérieure des Sciences Commerciales d'Angers | France

**1998** Scholarship | University of Economics and Business Administration | Austria

**1995 - 1997** Scholarship | Academy of Economic Studies | International Business Faculty | Romania

## MEDIA PRESENCE

**2025** Interview with Ziarul Financiar in "What do you do with your money?" ("Ce faci cu banii tai?") podcast

**2024** Interview with Ziarul Financiar as regards the performance of FABIZ team in the CFA Research Challenge competition

**2005-2007** various interviews in mass-media on various macroeconomics topics given as Senior Economist of UniCredit Romania Bank

## INTERNATIONAL EXPERIENCE / ACADEMIC ENGAGEMENT

**Matei M.**, 'Systemic Risk Modelling with High Frequency Data Tools'

Deutsche Bundesbank | online expert panel | Germany, online | 2021

**Banulescu-Radu G. D.**, Hansen P. R., Matei M. & Huang Z., 'Volatility During the Financial Crisis Through the Lens of High Frequency Data: A Realized GARCH Approach'

61st Italian Economic Association (SIE) Conference | Italy, online | 2020

Econometric Research in Finance Workshop | SGH Warsaw School of Economics | Warsaw | 2020

**Dungey M., Erdemlioglu D.**, Matei M. & Yang X., 'Testing for Mutually Exciting Jumps and Financial Flights in High Frequency Data'

Ca' Foscari University Departmental Seminar | Venice | 2020

**Dungey M., Matei M.**, Treepongkaruna S., 'Identifying Periods of Financial Stress in Asian Currencies: The Role of High Frequency Financial Market Data'

25th New Zealand Econometrics Study Group Meeting, National Centre for Econometric Research | Queensland University of Technology | Brisbane | 2015

Frontiers in Financial Econometrics Conference | Queensland University of Technology | Brisbane

ESAM/ACE Conference (Econometric Society Australasian Meeting and Australian Conference of Economists) | Hobart | 2014

4th Emerging Markets Group Conference on Emerging Markets Finance | Cass Business School | City University | London | 2014

Skewness, Heavy Tails, Market Crashes, and Dynamics Conference | Cambridge University and SoFiE | Cambridge | 2014

Departmental Seminar | European University Institute | Department of Economics | Florence | 2014

Macro-modelling Seminar | Institute for Economic Prognosis | Romanian Academy | Bucharest | 2014

**Matei M.**, Rovira X. & Agell N. 'Bivariate Volatility Modelling with High Frequency Data'

Econometric Society Australasian Meeting | Sydney | 2013



FIRN (Financial Integrity Research Network) Annual Conference | Hobart | 2012

The Econometric Society European Meeting | Malaga | 2012

**Matei M.**, 'Multivariate Volatility Modelling with High Frequency Data'

Departmental Seminar | Center for Research in Econometric Analysis of Time Series (CREATES) |

School of Economics and Management | Århus University | Denmark | 2011

**Dungey M.**, Luciani M., Matei M., Veredas D., 'Surfing through the GFC: Systemic Risk in Australia'

Bucharest University of Economic Studies Departmental Seminar | Bucharest | 2020

Asset Allocation 2016 Conference | International Business Review Conference | Sydney | 2016

**Matei M.**, 'Insights from Volatility Modelling of the Cryptocurrencies'

Economic Scientific Research - Theoretical, Empirical and Practical Approaches ESPERA | 2019

**Matei M.**, 'Financial Stress During COVID-19 Crisis with High Frequency Data Tools'

Economic Scientific Research - Theoretical, Empirical and Practical Approaches ESPERA | 2019

## LANGUAGES

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**English** – Advanced Fluent

**French** –

**Spanish** –

**German** – Intermediate

## SKILLS

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Matlab | R | Stata | E-Views | Python | SPSS | Visual Basic (VBA) | Excel | SQL | LyX | LaTex | Scientific WorkPlace | Power Point