Miguel C. Herculano

CONTACT Information web: mcherculano.github.io *Mobile:* (+44) 07746772796

E-mail: miguelcbherculano@gmail.com

Professional Experience

Schroders Investment Management, London, UK.

 $Quantitative\ Risk\ Analyst$

July 2022 - Aug 2023

Model development & validation with a focus on systemic investment strategies (factor models), pricing complex instruments, ESG-type climate finance models.

Reserve Bank of New Zealand, Wellington, NZ.

Visiting Researcher

Jan, 2019 - April, 2019

Consultative work on measuring financial conditions and their drivers in New Zealand. This involved writing software to routinely (monthly) compute Nowcasts/financial conditions indices for New Zealand.

Bank of Portugal, Lisbon, Portugal.

Analyst, Banking Supervision Department

Sep, 2014 - Sep, 2015

Responsible for monitoring consumer credit and structured deposit markets. Other projects included the analysis of banks annual reports.

Fidelidade Insurance, Lisbon, Portugal.

Actuary, Risk Management Department

Sep 2013 - Sep, 2014

Support the development of the Life and Non-Life Economic Capital Model for Solvency II. Assist the preparation of the annual actuarial report. Calculation and certification of Non-Life Technical Provisions.

ACADEMIC APPOINTMENTS

University of Glasgow, Adam Smith Business School, Glasgow, UK.

Lecturer in Financial Economics

Jan 2023 - Present

Teaching duties include courses in Empirical Asset Pricing (MSc), Econometrics (MRes), Machine Learning and Statistics (MSc).

University of Nottingham, School of Economics, Nottingham, UK.

Lecturer in Economics

Jan 2021 - July 2022

Development of curriculum and teaching of courses in Economics and Finance in the department of Economics and the Business School MBA programme. Earned the 2022 Teaching Excellence award at the School of Economics.

University of Freiburg, Freiburg, Germany.

Research Associate (post-doc)

Nov, 2019 - Jan 2021

Conducting research and teaching in Financial Economics.

EDUCATION

The University of Glasgow

Ph.D. Financial Economics, 2020. Dissertation: Systemic Risk and the Macroeconomy.

The University of Edinburgh

Scottish Graduate Programme in Economics (transfer to PhD), 2015/2016.

Nova School of Business and Economics

Post-Graduate degree, Banking, Financial Regulation and Supervision, 2014/2015.

University of Lisbon

M.Sc. Actuarial Science (distinction), 2011/2013.

B.Sc. Economics (distinction), 2007/2011.

TEACHING PORTFOLIO

- University of Glasgow: Empirical Asset Pricing (MSc), Econometrics (MRes), Statistical Machine Learning (MSc).
- University of Nottingham: Econometric Theory (Graduate), Big Data Economics (Graduate), Advanced Financial Economics, Business Economics (MBA programme), Economic Analysis with Excel, Undergraduate and Postgraduate dissertation supervision.
- University of Freiburg: Interest Rate Theory, Financial Applications in R, Futures & Options and Seminars in Quantitative Finance, masters dissertation supervision.
- University of Glasgow: Econometrics (Graduate), Basic Econometrics, Financial Modelling with Excel, Corporate Finance, Finance.

Publications & Working Papers

- 1 Dynamic CoVaR.
- 2 Investor Sentiment and Global Economic Conditions, Journal of Empirical Finance, Vol.73, pp.134-152.
- 3 Growth Fragility and Systemic Risk Under Model Uncertainty.

 Accepted for poster presentation in the 10th European Seminar on Bayesian Econometrics.

 Accepted for presentation in the Federal Reserve, Bank of England and King's College Conference "Modelling with Big Data and Machine Learning" held in London, 26-27 Nov 2018.
- 4 Contagion, Not Only Interconnection: Measuring the Transmission of Financial Distress,
 Early draft published in the European Systemic Risk Board Working Paper Series.
 Shortlisted for the 2018 Ieke Van Den Burg Prize, European Central Bank.
 Winner of the best poster award at the 50th Annual Conference of the Money, Macro & Finance. Media Coverage: Wall Street Journal, interview w/ Faculti.
- 5 Financial Condition Indices in an Incomplete Data Environment.
 Version with NZ data is a Reserve Bank of New Zealand Discussion Paper.
 Studies in Nonlinear Dynamics and Econometrics R&R.

Refereeing

• International Journal of Central Banking, Quantitative Finance, Journal of Commodity Markets, Macroeconomic Dynamics, Scottish Journal of Political Economy.

Conference Presentations

- Dimensionality Reduction and Inference for High-Dimensional Time Series Maastricht, July 2022.
- The 20th Conference on Research on Economic Theory and Econometrics Tinos Island, Greece, July 2022.
- SidE 3rd Italian Workshop of Econometrics and Empirical Economics: "High-dimensional and Multivariate Econometrics: Theory and Practice" University of Bologna Rimini, Jan. 2022.
- SidE 9th Congress of Econometrics and Empirical Economics Cagliari (virtual), Jan. 2021.
- 13th International Conference CMStatistics London (virtual), Dec. 2020.
- Modelling with Big Data and Machine Learning: Interpretability and Model Uncertainty Bank of England, (Nov. 2019).
- Poster Presentation 10th European Seminar on Bayesian Econometrics, St. Andrews, Sep. 2019.
- The Bank of England Conference "One Bank Research Agenda 2019" held in London, May 2019.
- Federal Reserve, Bank of England and King's College Conference "Modelling with Big Data and Machine Learning" held in London, Nov 2018.
- The 6th European Central Bank Conference on "Modelling Macro-Finance Interaction" held in Turkey, Oct. 2018.

SKILLS & LANGUAGES

Python & Matlab (Proficient), Stata, R and Eviews (Working Knowledge). Applications: Git, Github, Excel with VBA, Bloomberg, WRDS, Eikon-Datastream and LATEX.

Languages: Portuguese (Native), English (Fluent), Spanish (Working Knowledge).

PROFESSIONAL AFILLIATION, CERTIFICATES

Member of the Institute and Faculty of Actuaries, UK. Certified in the following Core Technical Examinations: CT1-CT6 and CT8; Member of the Italian Society of Econometrics; Bloomberg Market Concepts certificate.

Additional Training

High Dimension Bayesian Time-Series and State Space Models, by Prof. Sylvia Frühwirth-Schnatter, Swiss National Bank, Study Center Gerzensee (Sep. 2020).

Summer School in Gaussian Process Regressions and Machine Learning, University of Sheffield (Sep. 2018).

SoFiE Big Data in Macroeconomics, G.Primiceri and D. Giannone, University of Leuven / Central Bank of Belgium (Spring 2018).

Bayesian Econometrics MSc level course, Gary Koop, University of Edinburgh (Spring 2016).

Topics in Estimation of DSGE models, Fabio Canova, University of Glasgow (Spring 2016).

Empirical Macroeconometrics Summer School, Barcelona Graduate School of Economics (Summer 2016).

Honors and Awards

Ph.D. scholarship award granted by the College of Social Sciences, University of Glasgow, Jan. 2016.

Merit based scholarship to pursue Post-Graduate studies in Economics at the University of Edinburgh 2015/2016, awarded by the School of Economics of The University of Edinburgh.

M.Sc. merit based scholarship 2011/2013, awarded by the University of Lisbon.

Quadro de Honra ISEG, best undergraduate students, 2011 cohort.

Fundação para a Ciência e a Tecnologia, Scientific Initiation Fellowship at UECE, 2010/2011.