

CONTACT INFORMATION

Bank of Finland, Snellmaninaukio, Helsinki
PO Box 160, FI-00101 Helsinki, Finland
Mobile phone: +358 (0)50 387 0309
Email: fabio.verona@bof.fi
Webpage: <http://fabioverona.rvsteam.net>

WORK EXPERIENCE

Bank of Finland, Monetary Policy and Research Department, Research Unit
Adviser (May 2018 to present)
Senior economist (September 2014 to April 2018)
Economist (September 2012 to August 2014)

Centro de Economia e Finanças da Universidade do Porto (*CEF.UP*), Faculdade de
Economia da Universidade do Porto, University of Porto
External research affiliate (January 2011 to present)

IMFS, Goethe University Frankfurt
“Robert Solow” postdoctoral fellow (September 2011 to August 2012)

European Central Bank, Monetary Policy Strategy Division
Trainee (May 2011 to August 2011)

RESEARCH INTERESTS

Macroeconomics, DSGE modelling, financial economics and econometrics

EDUCATION

Ph. D. in Economics, University of Porto, Portugal
Thesis title: “*Macroeconomics of Investment Dynamics and Financing*”
May 2011

Visiting Ph. D. Scholar, Columbia University, New York
August 2009 to July 2010

M. Eng (*Laurea* in Ingegneria Gestionale), University of Brescia, Italy
March 2005

ADDITIONAL EDUCATION

- 2016 EABCN training school on “Advances in Bayesian analysis of DSGE models”, European University Institute, Florence
- 2015 Course on “Identification analysis and global sensitivity analysis for macroeconomic models”, Joint Research Centre and Università Cattolica, Milan
- 2013 Advanced workshop for central bankers, Center for International Macroeconomics, Northwestern University, Evanston
- 2009 Dynare summer school, CEPREMAP, Paris
- 2008 Ninth Trento summer school intensive course in “Financial instability and crises”, CEEL-University of Trento

SHORT VISIT

- 2016 Oxford University (2 weeks)

PUBLICATIONS

- 2021 “**Time-frequency forecast of the equity premium**” (with Gonçalo Faria), *Quantitative Finance*, **21**(12), December 2021, 2119-2135
- 2021 “**Bond vs bank finance and the Great Recession**” (with Manuel M. F. Martins), *Finance Research Letters*, **39**, March 2021

- 2020 **“The yield curve and the stock market: mind the long run”** (with Gonalo Faria), *Journal of Financial Markets*, **50**, September 2020
- 2020 **“Investment, Tobin’s Q, and cash flow across time and frequencies”**, *Oxford Bulletin of Economics and Statistics*, **82(2)**, April 2020, 331-346
- 2018 **“Forecasting stock market returns by summing the frequency-decomposed parts”** (with Gonalo Faria), *Journal of Empirical Finance*, **45**, 228-242
- 2017 **“Financial shocks, financial stability, and optimal Taylor rules”** (with Manuel M. F. Martins and Inês Drumond), *Journal of Macroeconomics – Special Issue on “Banking in Macroeconomic Theory and Policy”*, **54(B)**, December 2017, 187-207
- 2016 **“Time-frequency characterization of the U.S. financial cycle”**, *Economics Letters*, **144**, July 2016, 75-79
- 2014 **“Investment dynamics with information costs”**, *Journal of Money, Credit, & Banking*, **46(8)**, December 2014, 1627-1656
- 2014 **“Pervasive inattentiveness”**, *Economics Letters*, **125(2)**, November 2014, 287-290
- 2014 **“Sticky information models in Dynare”** (with Maik Wolters), *Computational Economics*, **43(3)**, March 2014, 357-370
- 2013 **“(Un)anticipated monetary policy in a DSGE model with a shadow banking system”** (with Manuel M. F. Martins and Inês Drumond), *International Journal of Central Banking*, **9(3)**, September 2013, 73-117 (this paper is available for replication in the Macroeconomic Model Data Base at <http://www.macromodelbase.com/>)

PAPERS UNDER REVIEW AT JOURNALS

“Inflation dynamics and forecast: frequency matters” (with Manuel M. F. Martins), Bank of Finland Research Discussion Paper 08 / 2021 (previously circulated as “Forecasting inflation with the New Keynesian Phillips Curve: frequency matters” (with Manuel M. F. Martins), Bank of Finland Research Discussion Paper 04 / 2020), Revise and Resubmit

“Assessing US aggregate fluctuations across time and frequencies” (with Thomas Lubik and Christian Matthes), Bank of Finland Research Discussion Paper 05 / 2019

“Which variable explains and predicts investment better: equity Q, cash flow, or bond Q?” (with Juha Kilponen) (previously circulated as “Testing the Q theory of investment in the frequency domain”, Bank of Finland Research Discussion Paper 32 / 2016)

“The economic value of frequency-domain information” (with Gonalo Faria) (previously circulated as “Frequency-domain information for active portfolio management”, Bank of Finland Research Discussion Paper 02 / 2020)

WORKING PAPERS / WORK IN PROGRESS

- 2021 **“Wavelet factor-augmented forecasts of the equity premium”**
- 2021 **“Macroeconomic effects of countercyclical capital buffers across structural models”**
- 2021 **“Dynamic asset allocation with machine learning: is it profitable to use large(r) datasets?”**
- 2021 **“Stock return predictability with time-varying coefficients and stochastic volatility models in the frequency domain”**
- 2021 **“The interaction between fiscal and macroprudential policies in the *Aino* models”**
- 2021 **“Micro-macro Phillips curves: evidence from Finland”** (with Julia Niemeläinen)
- 2021 **“Optimal bank capital buffers - what do macroeconomic models say?”** (with Adam Gulan and Esa Jokivuolle)
- 2021 **“Monetary policy and corporate debt structure in the Euro area and the US: an investigation with a medium-scale DSGE model”**
- 2021 **“DSGE models and robust monetary policy rules in the frequency domain”** (with Alexander Dück)
- 2021 **“Forecast combination in the frequency domain”** (with Gonalo Faria)
- 2021 **“Review of macroeconomic modelling in the Eurosystem: current practices and scope for improvement”** (with several coauthors from the ECB and NCBs), Occasional Paper Series 267, European Central Bank
- 2020 **“The *Aino* 3.0 model”** (with Aino Silvo), Bank of Finland Research Discussion Paper 09 / 2020

- 2016 **“The *Aino 2.0* model”** (with Juha Kilponen, Seppo Orjasniemi and Antti Ripatti), Bank of Finland Research Discussion Paper 16 / 2016 (this paper is available for replication in the Macroeconomic Model Data Base at <http://www.macromodelbase.com/>)
- 2013 **“Lumpy investment in sticky information general equilibrium”**, Bank of Finland Research Discussion Paper 16 / 2013

OTHER WORKS

- 2019 **“Moving macroeconomic analysis beyond business cycles”** (with Renee Haltom, Thomas Lubik and Christian Matthes), Federal Reserve Bank of Richmond Economic Brief, 2019, 19-04
- 2012 **“Notes on the implementation of the Christiano, Motto and Rostagno (2010) model in Dynare”**, available at http://fabioverona.rvsteam.net/research_papers_5.html

POLICY ACTIVITIES

- 2015-2016 Member of the Task Force on Operationalizing Macroprudential Research under the Macroprudential Policy Group of the European Central Bank’s Financial Stability Committee. Main task: operationalization of the ECB model for macroprudential policy analysis and simulations (known as “3D model”) to Finland
- from 2014 Developing and maintaining the DSGE models (*Aino 2.0* and *Aino 3.0*) used for forecasting and policy simulations at the Bank of Finland

CONFERENCES AND SEMINARS

- 2021 Conferences: International workshop in **Financial Markets and Nonlinear Dynamics** (online / Paris), **Big Data and Machine Learning in Finance** conference (online / Milan), **Summer Seminar of Finnish Economists** (online / Jyväskylä), **CEF** conference (online / Tokio), **International Symposium on Forecasting** (online)

Seminars: **Bank of Finland** (6x)

- 2020 Seminars: **University of Turku, Bank of Finland**

- 2019 Conferences: **ASSA** meeting (Atlanta), **Finnish Economic Association** meeting (Oulu), **HenU/INFER Workshop on Applied Macroeconomics** (Kaifeng), Research Conference of the CEPR Network on **Macroeconomic Modelling and Model Comparison** (Frankfurt), **European Economic Association** meeting (Manchester)
- Seminars: **Bank of Finland**, **ECB WGEM** meeting (Tallin), **Bundesbank**
- 2018 Conferences: **Finnish Economic Association** meeting (Turku), **Asset Pricing** Workshop (University of York), **Dynare** conference (ECB), International Conference on **Computational and Financial Econometrics** (Pisa)
- Seminars: **Bank of England**, **University of Jyväskylä**, **University of Porto**, **University of Minho**
- 2017 Conferences: **American Economic Association** meeting (Chicago), Workshop on **Financial Econometrics and Empirical Modeling of Financial Markets** (Ruhr University of Bochum), **Nordic Econometric Meeting** (Tartu), International Conference on **Econometrics and Statistics** (Hong Kong), **CEF** conference (New York)
- Seminars: **Bank of Finland** (2x), **HECER** Time Series Econometrics Seminar (Helsinki), **Kuntien takauskeskus** (Helsinki), **ECB WGEM** meeting (Frankfurt)
- 2016 Conferences: **American Economic Association** meeting (San Francisco), **FMA** European Conference (Helsinki), Annual Conferences of the **International Association for Applied Econometrics** (Milan), Annual Meeting of the **Portuguese Economic Journal** (Coimbra), **XXIV Finance Forum** (Madrid)
- Seminars: **Aalto University** Finance (2x), **Bank of Finland** (4x), **HECER** Macroeconomics and Development Seminar (Helsinki), **National Bank of Belgium**, **University of Porto**, **Helsinki Macroeconomics** Research Away Day, **Católica Porto Business School**, **University of Padova**
- 2015 Conferences: **American Economic Association** meeting (Boston), **CEUS** 2015 Workshop on “Recent Issues of European Integration” (Vallendar), **CEF** conference (Taipei), **EcoMod** (Boston), **European Economic Association** meeting (Mannheim), Workshop on **Macro, Banking and Finance** (Pavia), International Conference on **Computational and Financial Econometrics** (London)

Seminars: **Lancaster University**, **Bank of Finland (2x)**, **University of Porto**, **Helsinki Macroeconomics Research Away Day**, **Hamburg University**

2014 Conferences: **American Economic Association** meeting (Philadelphia), **Finnish Economic Association** meeting (Kuopio), **Royal Economic Society** conference (Manchester), symposium of the **Society for Nonlinear Dynamics and Econometrics** (New York), **Birmingham Macroeconomics and Econometrics** conference (Birmingham), **CEUS 2014 Workshop on “Challenges of Monetary Union at the Age of 15”** (Vallendar), International Symposium on **Money, Banking and Finance** (Lyon), **CEF** conference (Oslo), **World Finance** conference (Venice), **LACEA** meeting (São Paulo), Macroeconomics international workshop on **“DSGE Modeling and Economic Policy”** (Rennes), International Rome Conference on **Money, Banking and Finance** (Rome)

Seminars: **Bank of Finland (2x)**, **Helsinki Macroeconomics Research Away Day**

2013 Conferences: **American Economic Association** meeting (San Diego), **Finnish Economic Association** meeting (Mariehamn), **Austrian Economic Association** meeting (Innsbruck), **Midwest Macroeconomics** meeting (University of Illinois at Urbana - Champaign), **INFER** annual conference - special session on **“Aggregate Fluctuations and Firm-Level Behavior”** (Orléans), **Information Processing in Macroeconomics and Finance** conference (Toulouse), **CEF** conference (Vancouver), **European Economic Association** meeting (Gothenburg)

Seminars: **Bank of Finland (2x)**, **Helsinki Macroeconomics Research Away Day**, **University of Turku**

2012 Conferences: **RES-PhD Presentation** meeting (London), **“Financial and Macroeconomic Stability: Challenges Ahead”** conference (Istanbul), **European Workshop in Macroeconomics** (Vienna), **World Finance** conference (Rio de Janeiro), **European Economic Association** meeting (Malaga), International Rome Conference on **Money, Banking and Finance** (Rome), **Spanish Economic Association** meeting (Vigo)

Seminars: **IAE-CSIC** (Barcelona), **De Nederlandsche Bank**, **HSE/ICEF** (Moscow), **Bank of Finland**, **National Bank of Serbia**, **EESP-FGV** (São Paulo), **HECER - Helsinki Center of Economic Research** (Helsinki)

- 2011 Conferences: **RES-PhD presentation** meeting (London), **CEF** conference (San Francisco), **Dynare** conference (Atlanta FED), **Money Macro and Finance** conference (Birmingham), **Economic Policy and the Business Cycle** conference (University of Milano Bicocca), **Spanish Economic Association** meeting (Malaga)
- Seminars: **Católica-Lisbon, European Central Bank, Goethe University Frankfurt**
- 2010 Seminar: **Columbia University**
- 2009 Seminars: **University of Porto, Columbia University**

DISCUSSIONS

- 2019 “The direction and intensity of China’s monetary policy conduct: A dynamic factor modelling approach” by Funke and Tsang, Conference on *China’s progress to “moderately prosperous society”* – Helsinki
- 2017 “The transmission of US monetary policy normalization to emerging markets” by Hernandez, 15th *ESCB Emerging Markets Workshop* – Saariselkä
- 2014 “Capital regulation in a macroeconomic model with three layers of default” by Clerc, Derviz, Mendicino, Moyén, Nikolov, Stracca, Suarez and Vardoulakis, *Macroeconomics international workshop on “DSGE Modeling and Economic Policy”* – Rennes
- 2013 “Monetary and macroprudential policy in Norway” by Brubakk and Gelain, Bank of Korea Seminar on *Macrofinancial Linkages and Macropudential Policies* – Seoul

TEACHING EXPERIENCE

- 2021 “Theory and practice of DSGE modelling”, Ph.D. course at the University of Porto, Faculty of Economics
- 2018 “Macro models for macro-prudential analysis”, 4 hours lecture in the course “Systemic risk and macro-prudential policy”, Hanken University
- 2016-2018 “Macro models for macro-prudential analysis”, 4 hours lecture in the course “Financial stability, transmission of finance, and macro-prudential policy”, University of Vaasa
- 2016-2018 “Macro models for macro-prudential analysis”, 4 hours lecture in the course “Principle of banking”, University of Jyväskylä

SCHOLARSHIPS AND AWARDS

2012 Young economist best paper award, International Rome Conference on Money, Banking and Finance

2011-2012 Robert Solow postdoctoral fellowship, Cournot Foundation

2006-2010 Ph. D. scholarship, Fundação para a Ciência e a Tecnologia

2002-2003 Erasmus scholarship, University of Brescia

2000-2003 Merit scholarship, University of Brescia