### FRANCESCO RAVAZZOLO

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### PROFESSIONAL EXPERIENCES

• Jan/16-Present Free University of Bozen/Bolzano

Oct/18- Present Full Professor of Econometrics

Jan/12- Sep/18 Associate Professor of Econometrics

Apr/12-Present BI Norwegian Business School and Centre for Applied Macro and Petroleum Economics

Jan/16- Present Visiting Professor Jul/14- Dec/15 Adjunct Professor

Apr/12- Jun/14 Researcher II

• Sep/07-Dec/15 Norges Bank.

Aug/14- Dec/15 **Principal Researcher**Jul/11- Jul/14 **Senior Researcher** 

Sep/07- Jun/11 Researcher

• Sep/10-Present Center for Applied Macroeconomic Analysis Research (CAMA) Associate, Australian

**National University** 

• Mar/03-Jul/03 Research Analyst, Greta Consulting, Venice

### **EDUCATION**

• Sep/03-Aug/07 **PhD in Economics, Erasmus University Rotterdam.** 

• Oct/98-Dec/02 Laurea in Economics & Business, Ca' Foscari University of Venice.

### JOURNAL PUBLICATIONS

- Catania, L., S. Grassi and F. Ravazzolo (2018). "Forecasting Cryptocurrencies Financial Time Series". International Journal of Forecasting, forthcoming.
- Casarin, R., C. Foroni, M. Marcellino and F. Ravazzolo (2018), "Uncertainty Through the Lenses of a Mixed-Frequency Bayesian Panel Markov Switching Model". *Annals of Applied Statistics*, forthcoming.
- Bassetti, F., R. Casarin and F. Ravazzolo (2018), "Bayesian Nonparametric Calibration and Combination of Predictive Distributions", *Journal of American Statistical Association*, 113(522), 675-685.
- Caporin, M., L. Pelizzon, F. Ravazzolo and R. Rigobon (2018), "Measuring Sovereign Contagion in Europe", *Journal of Financial Stability*, 34, 150-181.
- Foroni, C., F. Ravazzolo and B. Sadaba (2018), "Assessing the Predictive Ability of Sovereign Default Risk on Exchange Rate Returns", *Journal of International Money and Finance*, 81, 241-264.
- Aastveit, K.A., F. Ravazzolo and H.K. van Dijk (2018), "Combined Density Nowcasting in an Uncertain Economic Environment". *Journal of Business and Economic Statistics*, 36(1), 131-145.
- Bianchi, D., M. Guidolin, and F. Ravazzolo (2017), "Dissecting the 2007-2009 real estate market bust: systematic pricing correction or just a housing fad?", *Journal of Financial Econometrics*, forthcoming.
- Furlanetto, F., F. Ravazzolo and S. Sarferaz (2017), "Identification of financial factors in economic fluctuations", *Economic Journal*, forthcoming.
- Lerch, S., T. Thorarinsdottir, F. Ravazzolo and T. Gneiting (2017), "Forecaster's Dilemma: Extreme Events and Forecast Evaluation", *Statistical Science*, 32(1), 106-127.
- Bjørnland, H.C., F. Ravazzolo and L. A. Thorsrud (2017), "Forecasting GDP with Global Components. This time is different", *International Journal of Forecasting*, 33(1), 153-173.
- Bianchi, D., M. Guidolin, and F. Ravazzolo (2017), "Macroeconomic Factors Strike Back: A Bayesian Change-Point Model of Time-Varying Risk Exposures and Premia in the U.S. Cross-Section", Journal of Business and Economic Statistics, 35(1), 110-129.
- Aastveit, K.A., C. Foroni and F. Ravazzolo (2016), "Density forecasts with MIDAS models", *Journal of Applied Econometrics*, 32(4), 783–801.
- Lombardi, M. and F. Ravazzolo (2016), "On the correlation between commodity and equity returns: implications for portfolio allocation", *Journal of Commodity Markets*, 2(1), 45-57.

- Ravazzolo, F. and P. Rothman (2016), "Oil-price Density Forecasts of US GDP". *Studies in Nonlinear Dynamics and Econometrics*, 20(4), 441-453.
- Casarin, R. and Ravazzolo, F., (2016), "A discussion on: Of Quantiles and Expectiles: Consistent Scoring Functions, Choquet Representations, and Forecast Ranking", by W. Ehm, T. Gneiting, A. Jordan, and A. Krueger. *Journal of the Royal Statistical Society, Series B*, 78(3), 538-539.
- Casarin, R., G. Mantoan and F. Ravazzolo (2016), "Bayesian Calibration of Generalized Pools of Predictive Distributions", *Econometrics*, 4(1), 17.
- Aastveit, K.A., A.S. Jore and F. Ravazzolo (2016), "Identification and real-time forecasting of Norwegian business cycles", *International Journal of Forecasting*, 32(2), 283-292.
- Pettenuzzo, D. and F. Ravazzolo (2016), "Optimal Portfolio Choice under Decision-Based Model Combinations". *Journal of Applied Econometrics*, 31(7), 1312:1332.
- Billio M., R. Casarin, F. Ravazzolo and H.K. van Dijk (2016), "Interactions between Eurozone and US Booms and Busts: A Bayesian Panel Markov-switching VAR Model", *Journal of Applied Econometrics*, 31(7), 1352:1370.
- Kruger, F., T. Clark and F. Ravazzolo (2015), "Using Entropic Tilting to Combine BVAR Forecasts with External Nowcasts". *Journal of Business and Economic Statistics*, forthcoming.
- Casarin, R, S. Grassi, F. Ravazzolo and H.K. van Dijk (2015), "Parallel Sequential Monte Carlo for Efficient Density Combination: the DeCo Matlab Toolbox", *Journal of Statistical Software*, 68(3).
- Clark T. and F. Ravazzolo (2015), "The Macroeconomic Forecasting Performance of Autoregressive Models with Alternative Specifications of Time-Varying Volatility", *Journal of Applied Econometrics*, 30(4), 551-575.
- Monticini, A. and F. Ravazzolo (2014), "Forecasting the Intraday Price of Money", *Journal of Empirical Finance*, 29, 304-315.
- Martisen K., F. Ravazzolo and F. Wulfsberg (2014), "Forecasting Macroeconomic Variables Using Disaggregate Survey Data", *International Journal of Forecasting*, 30(1), 65-77.
- Ravazzolo F. and S.P. Vahey (2014), "Forecast Densities for Economic Aggregates from Disaggregate Ensembles", *Studies in Nonlinear Dynamics and Econometrics*, 18(4), 367–381.
- Billio M., R. Casarin, F. Ravazzolo and H.K. van Dijk (2013), "Time-varying Combinations of Predictive Densities using Nonlinear Filtering", *Journal of Econometrics*, 177(2), 213-232.
- Guidolin M., F. Ravazzolo and A. Donato Tortora (2013), "Alternative Econometric Implementations of Multi-Factor Models of the US Financial Markets", *Quarterly Review of Finance and Economics*, 53(2), 87-111.
- Groen, J.J.J., R. Paap and F. Ravazzolo (2013), "Real-time Inflation Forecasting in a Changing World", *Journal of Business and Economic Statistics*, 31(1), 29-44.
- Guidolin M., F. Ravazzolo and A. Donato Tortora (2013), "Myths and Facts about the Alleged Over-Pricing of U.S. Real Estate", *Journal of Real Estate Economics and Finance*.
- Ravazzolo F. and P. Rothman (2012), "Oil and US GDP: A Real-time Out-Of-Sample Examination", *Journal of Money, Credit and Banking*, 45(2-3), 449-463.
- Billio M., R. Casarin, F. Ravazzolo and H.K. van Dijk (2012), "Combination Schemes for Turning Point Predictions", *Quarterly Review of Finance and Economics*, 52(4), 402-412.
- Hoogerheide L., F. Ravazzolo and H.K. van Dijk (2012), "Backtesting Value-at-Risk Using Forecasts for Multiple Horizons: a Comment on the Forecast rationality Tests Based on Multi-horizon Bounds by A.J. Patton and A. Timmermann", *Journal of Business and Economic Statistics*, 30(1).
- Huurman C., F. Ravazzolo and C. Zhou (2012), "The Power of Weather", *Computational Statistics and Data Analysis*, 56(11), 3793-3807.
- Ravazzolo F. and Ø. Røisland (2011), "Why Do People Give Less Weight to Advice the Further It Is from their Initial Opinion?", *Economics Letters*, 112(1), 63-66.
- Kascha C. and F. Ravazzolo (2010), "Combining Inflation Density Forecasts", *Journal of Forecasting* 29, 231-250
- Hoogerheide L., R. Kleijn, F. Ravazzolo, H.K. van Dijk and M. Verbeek (2010), "Forecast Accuracy and Economic Gains from Bayesian Model Averaging using Time-varying Weights", *Journal of Forecasting* 29, 251-269.
- De Pooter M., F. Ravazzolo, R. Segers and H.K. van Dijk (2008), "Bayesian Near-boundary Analysis in Basic Macroeconomic Time Series Models", *Advances in Econometrics* 23, 331-432.

## **BOOK CONTRIBUTIONS**

• Aastveit, K.A., J. Mitchell, F. Ravazzolo and H.K. van Dijk (2018). "The Evolution of Forecast Density Combinations in Economics", Oxford Research Encyclopedia of Economics and Finance.

- Catania, L., S. Grassi and F. Ravazzolo (2018). "Predicting the Volatility of Cryptocurrency Time-Series", Springer volume.
- Bache I. W., J. Mitchell, F. Ravazzolo, and S. P. Vahey (2010). "Macro Modeling with Many Models", in D. Cobham, Ø. Eitrheim, S. Gerlach, and J. Qvigstad (Eds.), Twenty Years of Inflation Targeting: Lessons Learned and Future Prospects. Cambridge University Press, 398-418.
- Ravazzolo F., R. Paap, D. van Dijk and P.H. Franses (2008), "Bayesian Model Averaging in the Presence of Structural Breaks", in M. Wohar and D. Rapach (eds.), Forecasting in the Presence of Structural Breaks and Model Uncertainty – Frontiers of Economic and Globalization Series Vol.3, Emerald Publishing Group, 561-594.

### PROCEEDINGS AND OTHER PUBLICATIONS

- Casarin, R., Gneiting T. and Ravazzolo, F., (2014), Probabilistic Calibration of Predictive Distributions, in *Proceedings of the XLVII Scientific Meeting of the Italian Statistical Society*, Cagliari, CUEC.
- Ravazzolo F. and S. P. Vahey (2009), "Measuring Core Inflation in Australia with Disaggregate Ensembles", *Proceedings of 2009 RBA Conference*, 178-195.
- Billio M., R. Casarin, F. Ravazzolo and H.K. van Dijk (2011), "Bayesian Combinations of Stock Prices Predictions with an Applications to the Amsterdam Exchange index", *Medium for Econometric Applications*.

#### **WORKING PAPERS**

- Casarin, R, F. Corradin, F. Ravazzolo and D. Sartore (2018), "A Scoring Rule for Factor and Autoregressive Models under Misspecification". *University of Venice Ca' Foscari working paper 2018:18*.
- Gainfreda, A., F. Ravazzolo and L. Rossini (2018), "Comparing the Forecasting Performances of Linear Models for Electricity Prices with High RES Penetration". *CAMP working paper 2/2018*.
- Agudze, K. M., M. Billio, R. Casarin and F. Ravazzolo (2018), "Markov Switching Panel with Network Interaction Effects". *CAMP working paper 1/2018*.
- Caporin, M., G. Natvik, F. Ravazzolo and P. Santucci de Magistris (2017), "The Bank-Sovereign Nexus: Evidence from a non-Bailout Episode". CREATES Research Paper 2017-25.
- Ravazzolo, F., T. Sveen and S. K. Zahiri (2016), "Commodity Futures and Forecasting Commodity Currencies". *CAMP working paper 7/2016*.
- Foroni, C., F. Ravazzolo and P. J. Ribeiro (2015), "Forecasting Commodity Currencies: the Role of Fundamentals with Short-lived Predictive Content". *Norges Bank working paper 14/2015*.
- Casarin, R, S. Grassi, F. Ravazzolo and H.K. van Dijk (2015), "Dynamic Predictive Density Combinations for Large Data Sets in Economics and Finance". *Tinbergen Institute Discussion Paper 15-084/III*.
- Ravazzolo, F. and J.L. Vespignani (2015), "A New Monthly Indicator of Global Real Economic Activity". Norges Bank working paper No. 6/2016.
- De Pooter, M., F. Ravazzolo and D. van Dijk (2010), "Term Structure Forecasting using Macro Factors and Forecast Combination", *Norges Bank working paper 2010/01*.
- De Pooter, M., F. Ravazzolo and D. van Dijk (2007), "Predicting the Term Structure of US Interest Rates", Tinbergen Institute working paper 07-028/4.
- van Dijk D., P.H. Franses and F. Ravazzolo (2007), "Evaluating real-time Forecasts in Real-time", *Econometric Institute Report EI2007-33*.

# **TEACHING EXPERIENCES**

- Dec/17-Present Quantitative Research Methods; PhD course, Free University of Bozen/Bolzano.
- Feb/17 Applied Econometrics Methods; PhD course, Free University of Bozen/Bolzano.
- Sep/16, Aug/18 Advance Bayesian Econometrics; SIdE PhD course.
- Feb/16- Present Econometrics; bachelor course, Free University of Bozen/Bolzano.
- Jun/14 Central bankers' course on Monetary Policy and Commodity Price; External lecture; Study Center Gerzensee.
- Feb/13 Bayesian Inference and MCMC Simulation Methods; BI Norwegian Business School.
- Feb/10 The Term Structure of Interest Rates: Definitions, Models and Applications; University of Venice.
- Sep/05-Aug/07 Assistant lecturer in Microeconomics and Markets; International Business Administration Bachelor program, Erasmus University Rotterdam.

### EDITORIAL WORK AND OTHER AFFILITATIONS

• Oct/17-Sept/20 Member of the Executive Committee of the Society of Nonlinear Dynamics and Econometrics.

Member of the Editorial Board for Econometrics. • Mar/16--Present

**Guest Editor for Econometrics.** • Jan/16

• Sep/16-Present Associate Editor for International Journal of Forecasting.

Associate Editor for Studies in Nonlinear Dynamics and Econometrics. • Nov/15-Present

**Associate Editor for Journal of Applied Econometrics.** • Oct/15-Present

• Oct/13-Present Associate Editor for Annals of Applied Statistics.

Annals of Applied Statistics; Computational Statistics and Data Analysis; Econometrics; • Referee for:

> Econometric Reviews; Economic Modelling; Energy Economics; Empirical Economics; International Journal of Forecasting; Journal of Applied Econometrics; Journal of Banking and Finance; Journal of Business and Economic Statistics; Journal of Econometrics; Journal of Empirical Finance; Journal of Forecasting; Journal of International Financial Markets, Institutions & Money; Journal of Macroeconomics; Quarterly Review of Finance and Economics; Review of World Economics; Studies in Nonlinear Dynamics and Econometrics;

Statistica Nederlandica.

#### PhD ADVISORY COMMITTEE

- 2018: Francesco Corsello, Bocconi University; Valerio Nispi Landi, Bocconi University.
- 2017: Luis Uzeda, Australian National University; Changhan Hou, Australian National University.
- 2016: Komla Mawulom Agudze, Ca' Foscari University of Venice; Barbara Maria Sadaba, Erasmus University Rotterdam and Tinbergen Institute.
- 2015: Daniel Felix Ahelegbey, Ca' Foscari University of Venice.
- 2014: Leif Anders Thorsrud, BI Norwegian Business School; Benjamin Wong, Australian National University.

# CONFERENCE AND WORKSHOP ORGANIZER

• Jul/18	Free University of Bozen/Bolzano workshop: Energy Economics.
• Dec/17	CAMA workshop: Applied macroeconometric workshop.
• Oct/16	7 <sup>th</sup> Annual ESOBE meeting, Venice, Italy.
• Sep/16	Free University of Bozen/Bolzano workshop: Forecasting in Finance and Macroeconomics.
• Dec/15	University of Melbourne workshop: Bayesian Analysis and Modeling Summer Workshop.
• Mar/15	23 <sup>rd</sup> Annual Symposium of the Society for Nonlinear Dynamics and Econometrics.
• Jun/14	CAMP workshop: Commodity Price Dynamics and Financialization.
• Aug/13	4th <b>Annual ESOBE meeting</b> , Oslo, Norway.
• May/13	CAMP workshop: Oil and Macroeconomics.
• Mar/12	ECB and Norges Bank joint workshop: Monetary Policy and Commodity Prices.
• Mar/12	Norges Bank conference: Modeling and Forecasting Oil Prices.

5<sup>th</sup> JEuBES meeting, Oslo, Norway. • Aug/11 • May/11 ICEF workshop: Density Forecasting.

• Jun/10 Norges Bank conference: Recent Developments in the Econometrics of Macroeconomics and Finance.

• Nov/07 Tinbergen workshop: Modelling and Managing Risk.

### VISITING PROGRAMS

• Dec/13	Centre for Applied Macrosco	nomic Analycic	Australian National University.

Norwegian School of Management, Department of Economics. • Oct/10 – Apr/12

Centre for Applied Macroeconomic Analysis, Australian National University. • Mar/10

• Nov/08 DNB visiting scholars program. • July/08 Reserve Bank of New Zealand.

• May/07-Aug/07 Marie Curie Early Stage Training fellowship at Manchester Business School.

# **EXTERNAL FUNDING**

<ul> <li>May/17</li> </ul>	OPTIMUM (dynamic optimization of programmable hydroelectric plants), funded by
	European Commission, Province of Bozen/Bolzano, Alperia Energy.
• Dag/16	Econometries models for the nuising of European electricity more forded by Europe

• Dec/16 **Econometrics models for the pricing of European electricity markets,** funded by Europe Energy.