Eduardo Rossi

Professor of Econometrics

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Personal

Born, *January 16th 1963*, Naples (Italy)

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Scopus Author ID, *26650162000*

Current position

Full Professor of Econometrics, *University of Pavia*, Italy, SECS-P05

Head of the Department of Economics and Management, *University of Pavia*, Italy

Member of the Academic Senate, *University of Pavia*

Education

1988 **Laurea**, *Discipline Economiche e Sociali, Bocconi University*, Milan, Italy, *Summa cum Laude*

1992 **Master of Arts in Economics**, *Catholic University of Louvain*, Belgium, *Grande Distinction*

Applications of bootstrap to ARCH-GARCH models for financial time series

supervisor Wolfgang Haerdle

1993 **PhD in Economics**, *University of Rome "La Sapienza"*, Italy

title *Volatilità dei tassi di cambio: un'analisi econometrica con modelli a varianza variabile*

supervisor Carlo Giannini

Fellowships

1994 **Research Fellowship**, *Bocconi University*, Milan, Italy

Visiting positions

1998–1999 **Visiting Scholar**, *Dept of Economics, Duke University*, Durham, NC

2009 **Visiting Scholar**, *Center of Econometric Analysis (CEA), Cass Business School*, London, UK

2012 **Visiting Professor**, *Moscow School of Economics*, Moscow, Russia

Professional Employment History

2019–present **Full Professor of Econometrics**, *University of Pavia*, Italy

2002–2019 **Associate Professor of Econometrics**, *University of Pavia*, Italy

2015–2017 **Senior research officer**, *Joint Research Centre, Finance and Economy Unit, European Commission*, Ispra, Italy

1995–2002 **Assistant Professor of Econometrics**, *University of Pavia*, Italy

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Research Interests

Financial Econometrics, Time Series Econometrics, Panel factor models

Teaching experience

Undergraduate

2002–present **Econometrics**, *University of Pavia*

2020–2022 **Applied Econometrics, Econometrics for Financial Markets, Econometrics for Finance**, *Free University of Bozen*

2002–2009 **Macroeconometrics**, *University of Pavia*

1999–2004 **Financial Economics**, *University of Pavia*

1999–2004 **Econometrics of financial markets**, *University of Pavia*

1992–1995 **Microeconomics and Macroeconomics**, *Libero Istituto Universitario Cattaneo (LIUC)*, Castellanza, Italy

Master

2002–present **Financial econometrics**, *University of Pavia*

2010–2016 **Econometrics for financial markets**, *Master in Quantitative Finance*, MIP, Politecnico di Milano, Milan, Italy

1999–2009 **Econometrics**, *Master in Finance*, CORIPE Piemonte, Turin, Italy

1999-2009 **Econometrics for financial markets**, *Master in Finance*, CORIPE Piemonte, Turin, Italy

2005–2008 **Econometrics**, *Master in Cooperation and International Economic Integration*, Istituto Universitario di Studi Superiori (IUSS), Pavia, Italy

2001–2005 **Econometrics II**, *Master in Economics*, CORIPE Piemonte, Turin, Italy

2005 **Economic Modelling, Analysing and Forecasting**, Istituto Universitario di Studi Superiori (IUSS), Pavia, Italy

PhD

2018–2021 **Director of the doctoral program in Economics organized by Pavia (jointly with the University of Milan)**, *Department of Economics and Management*

2011–present **Faculty member of the doctoral program in Economics organized by Pavia (jointly with the University of Milan)**, *Department of Economics and Management*

2003–2011 **Faculty member of the doctoral program in Economics**, *organized by the Department of Economics and Management*, University of Pavia

2010–2012 **Financial econometrics**, *Centro Interuniversitario di Econometria (CIdE)*, Bertinoro, Italy

2003–present **Econometrics**, *PhD in Economics*, University of Pavia

2003–present **Time series econometrics**, *PhD in Economics*, University of Pavia

PhD supervisions

2006 **Dean Fantazzini**, *Theory and Applications of Copulas in Finance*

2007 **Luca Agnello**, *Analyzing U.S. Monetary Policy over the last two decades: some empirical evidence*

2010 **Paolo Santucci de Magistris**, *Essays on Fractional Cointegration Analysis and Applications in Finance*

2016 **Marie Silvere Mbome**, *Essays on macroeconomic vulnerability financial development and economic growth*

2017 **Andrea Bucci**, *Un modello con variabili esogene per la matrice delle covarianze realizzate*

2017 **Xingzhi Yao**, External examiner, Lancaster Management University

Administrative Experience

2012-2015 **Member of the Department's Steering Committe**

2005-2012 **Member of the Department's committe for the Library**

2003-2012 **Member of the Department's committe for the IT**

2005-2008 **Director for the Master in Finance program**

Professional Service

2017 **Member of the Register of Expert Peer-Reviewers for Italian Scientific Evaluation (Reprise)**

2005-2009 **Organizer of the CIdE summer school for PhD students on Time Series Econometrics**, *Bertinoro*, Italy

2014 **Organizer of the IV International Conference in memory of Carlo Giannini**, *Pavia*, Italy, joint with banca d'Italia and SIdE

Academic Program Committee member

2011 **XI Workshop on Quantitative Finance**, *Padova*, Italy

2014 **8th International conference on Computational and Financial Econometrics**, *Pisa*, Italy

2015 **6th Italian Congress of Econometrics and Empirical Economics**, *Salerno*, Italy

2017 **7th Italian Congress on Empirical Economics and Econometrics**, *Messina*, Italy

Editorial Refereeing

Computational Statistics and Data Analysis, Econometrics and Statistics, Empirical Economics, Energy Economics, European Journal of Finance, International Review of Economics and Finance, Mathematics and Computers in Simulation, Giornale degli economisti e Annali di Economia, Journal of Applied Econometrics, Journal of Banking and Finance, Journal of Empirical Finance, Journal of Econometrics, Journal of Forecasting, Journal of International Money and Finance, Journal of Macroeconomics, Journal of Money, Credit and Banking, Journal of Royal Statistical Society series B, Mathematical Reviews, North American Journal of Economics and Finance, Oxford Bulletin of Economics and Statistics, Quantitative Finance, RISEC Rivista Italiana degli Economisti, Statistica Sinica, Statistical Modelling, Stochastic Models and Applications

Research grants

2022 **Local coordinator PRIN (MIUR)**, *Monitoring Risks in Financial Markets*

2006 **Local coordinator PRIN (MIUR)**, *The use of high-frequency data for the analysis of interdependencies among volatilities, volumes and financial returns*

2004 **Local coordinator PRIN (MIUR)**, *The term structure of interest rates and the macroeconomic variables*

2002 **Local coordinator PRIN (MIUR)**, *Analysis of the term structure of interest rates in the European financial integration process*

Conference and Seminar Presentations

CIdE, Milan 1995. Quantitative researches on economic policy, organized by Bank of Italy and CIdE, Rome 1997. University of Brescia, 1997. Duke University, 1998. University College Dublin, 1999. Inference and Prediction in Financial Risk Management, Tirano 1999. Scientific Congress of the Società Italiana di Statistica, Milan, 2002. 1st Italian Congress on Empirical Economics and Econometrics, Venice, 2005. SER2006, Rome, 2006. Annual meeting of the Italian Economic Society, Verona 2006. 13th International Conference on Panel Data, Cambridge 2006. Econometric Society European Meeting, Wien 2006. 2nd Italian Congress on Empirical Economics and Econometrics, Rimini, 2007. International Workshop on Computational and Financial Econometrics, University of Geneva, 2007. MAF Venice, 2008. University of Palermo, 2008. International Workshop on Computational and Financial Econometrics Université de Neuchatel, 2008. Econometric Society European Meeting, Bocconi University, 2008. Padua University, 2008. University of Milan, 2008. Cass Business School, 2009. XI Workshop on Quantitative Finance, University of Palermo, 2010. 4th CSDA International Workshop on Computational and Financial Econometrics, London, 2010. XII Workshop on Quantitative Finance, Padua, 2011. Financial and Time Series Econometrics Workshop, Bocconi University, Milan, 2011. Econometric Society European Meeting, Oslo (Norway), 2011. 7th Conference on Statistical Computation and Complex Systems (S.Co.), Padua, 2011. 5th CSDA International Workshop on Computational and Financial Econometrics, London, 2011. CREATES, Aarhus University (DK), 2012. Cass Business School, London, 2012, Moscow School of Economics, 2012. 6th CSDA International Workshop on Computational and Financial Econometrics, Oviedo. 7th CSDA International Workshop on Computational and Financial Econometrics, London, 2013. XV Workshop on Quantitative Finance, Florence, 2014. SoFiE Workshop on "Skewness, Heavy Tails, Market Crashes, and Dynamics", Cambridge, 2014. Conference on Indirect Estimation Methods in Finance and Economics, Allensbach, Lake Constance, Germany, 2014. International Association Applied Econometrics 2015 Annual Conference - University of Macedonia, Thessaloniki, 25-27 June 2015. 9th International Workshop on Computational and Financial Econometrics, London, 2015. Colloquia MAF, Paris 2016. 10th International Workshop on Computational and Financial Econometrics, Siviglia, 2016. 7th Italian Congress on Empirical Economics and Econometrics, Messina, 2017. 11th International Workshop on Computational and Financial Econometrics, London, 2017. Frontiers in High-Frequency Financial Econometrics Scuola Normale Superiore di Pisa, 2018. 12th International Workshop on Computational and Financial Econometrics, Pisa, 2018. *Econometrics in the Arena*, Verona, 2019. 10th Italian Congress on Empirical Economics and Econometrics, Cagliari, 2023. Society of Nonlinear Dynamics and Econometrics, 31st Annual SNDE Symposium Padova, 2024. The RCEA International Conference in Economics, Econometrics, and Finance.

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Articles

[1] A. Bucci, G. Palomba, and **E. Rossi** The role of uncertainty in forecasting volatility comovements across stock markets. *Economic Modelling* 125, 2023.

[2] A. Bucci, G. Palomba, and **E. Rossi** starvars: An R Package for Analysing Nonlinearities in Multivariate Time Series. *R Journal*, 14/1, 208-226, 2022.

[3] A. Bastianin, E. Bacchiocchi, A. Missale, and **E. Rossi** Structural analysis with mixed-frequency data: A model of US capital flows. *Economic Modelling*, 89, 427-443, 2020.

[4] C. Castagnetti, **E. Rossi**, and L.Trapani. A two-stage estimator for heterogeneous panel models with common factors. *Econometrics and Statistics*, 11:63–82, 2019.

[5] **E. Rossi**, and P.Santucci de Magistris Indirect inference with time series observed with error. *Journal of Applied Econometrics*, 33:874-–897, 2018.

[6] M. Caporin, **E. Rossi**, and P. Santucci De Magistris. Chasing volatility: A persistent multiplicative error model with jumps. *Journal of Econometrics*, 198:122–145, 2017.

[7] M. Caporin, **E. Rossi**, and P. Santucci De Magistris. Volatility jumps and their economic determinants. *Journal of Financial Econometrics*, 14:29–80, 2016. VQR 2011-2014: 1

[8] **E. Rossi** and D. Fantazzini. Long memory and periodicity in intraday volatility. *Journal of Financial Econometrics*, 13:922–961, 2015. VQR 2011-2014: 1

[9] A. Ghalanos, **E. Rossi**, and G. Urga. Independent factor autoregressive conditional density model. *Econometric Reviews*, 35:594–616, 2015.

[10] C. Castagnetti, **E. Rossi**, and L.Trapani. Testing for no factor structures: on the use of Hausman-type statistics. *Economics Letters*, 130:66–68, 2015.

[11] C. Castagnetti, **E. Rossi**, and L.Trapani. Inference on factor structures in heterogeneous panels. *Journal of Econometrics*, 184:145–157, 2015. VQR 2011-2014: 1

[12] **E. Rossi** and P. Santucci De Magistris. Estimation of long memory in integrated variance. *Econometric Reviews*, 33:785–814, 2014.

[13] **E. Rossi** and P. Santucci De Magistris. Long memory and tail dependence in trading volume and volatility. *Journal of Empirical Finance*, 22:94–112, 2013.

[14] **E. Rossi** and P. Santucci De Magistris. A no-arbitrage fractional cointegration model for futures and spot daily ranges *Journal of Futures Markets*, Vol. 33, No. 1, 77–102, 2013.

[15] C. Castagnetti and **E. Rossi**. Euro corporate bond risk factors. *Journal of Applied Econometrics*, 28:372–391, 2013. VQR 2011-2014: 1

[16] **E. Rossi** and F.Spazzini. Model and distribution uncertainty in multivariate GARCH estimation: a Monte Carlo analysis. *Computational Statistics and Data Analysis*, 54:2786–2800, 2010. VQR 2004-2010: 0.8

[17] **E. Rossi**. Univariate GARCH models: a survey. *Quantile*, 8, 2010.

[18] S. Pastorello and **E. Rossi**. Efficient importance sampling maximum likelihood estimation of stochastic differential equations. *Computational Statistics and Data Analysis*, 54:2753–2762, 2010. VQR 2004-2010: 0.8

[19] R. Lucchetti and **E. Rossi**. Artificial regression testing in the GARCH-in-mean model. *Econometrics Journal*, 8:306–322, 2005. VQR 2004-2010: 1

[20] **E. Rossi** and C. Zucca. Hedging interest rates risk with multivariate garch. *Applied Financial Economics*, 12:241–251, 2002.

[21] L. Maggi, **E. Rossi**, and C. Giannini. Stima e previsione della curva dei rendimenti italiana con i garch multivariati. *Statistica*, LXI, 2001.

[22] **E. Rossi**. Un modello GARCH multivariato per la volatilità dei tassi di cambio. *Giornale degli Economisti e Annali di Economia*, LIV:415–451, 1995.

Books

Giannini C., Dolcino F., and **E. Rossi** (1998) “Reti neurali artificiali per l’analisi e la previsione di serie finanziarie” Collana Studi di UniCredito Italiano, n.1, 8/1998.

De Giuli M.E., Maggi M.A. Magnani U. and **E. Rossi** (2002) *Derivati*, Giappichelli Editore, Torino, ISBN 88-348-2468-7.

Articles in books

E. Rossi and C. Zucca (1999) “Premio al rischio e curva dei tassi forward impliciti: una valutazione econometrica con dati giornalieri” *Ricerche quantitative per la politica economica* - Banca d’Italia, Roma.

S. Pastorello and **E. Rossi** (2002) “Statistical inference for diffusion processes with discrete data: a survey” (2002), PP.39-50, Società Italiana di Statistica, Atti della XLI Riunione Scientifica , CLEUP, Padua, ISBN 88-7178-589-4.

E. Rossi and P. Santucci de Magistris (2009) “Long memory and tail dependence in trading volume and volatility” in *Statistical methods for the analysis of large data-sets*, Italian statistical society, pp.117-120, ISBN 978-88-6129-425-7.

E. Rossi and P. Santucci de Magistris (2013) “Long memory in integrated and realized variance” in N. Torelli et al. (eds.), *Advances in Theoretical and Applied Statistics, Studies in Theoretical and Applied Statistics*, 47, pp.523-532, Springer-Verlag, Heidelberg. ISBN 978-3-642-35588-2.

E. Rossi and F.Spazzini “GARCH models for commodity markets” (2015) in Andrea Roncoroni, Gianluca Fusai, Mark Cummins (Eds) *Handbook of Multi-Commodity Markets and Products: Structuring, Trading and Risk Management*. John Wiley and Sons. ISBN: 978-0-470-74524-3.

Policy papers

Nardo M., Ndacyayisenga N., Papanagiotou and **Rossi E.** (2016), "Measuring Financial Integration in Europe: a price-based approach for equity and bond markets", EUR 27792. Luxembourg (Luxembourg): Publications Office of the European Union, JRC100791. ISBN: 978-92-79-57269-2 ISSN: 1831-9424 DOI: 10.2788/589345

Alessi L., Cannas G., Di Girolamo F., Ossola E., Papanagiotou E. Petracco Giudici M., and **Rossi E.** (2016) "Estimation of potential benefits of the implementation of the fundamental review of the trading book and leverage ratio", EUR 28269. Luxembourg (Luxembourg): Publications Office of the European Union. JRC103768 ISBN: 978-92-79-64119-0 ISSN: 1831-9424 DOI: 10.2791/988150

Nardo M., Ndacyayisenga N., Papanagiotou E., **Rossi E.** and Ossola E. (2017) "Measures and drivers of financial integration in Europe". Publications Office of the European Union. JRC105708 ISBN: 978-92-79-65709-2 ISSN: 1831-9424 DOI: 10.2760/92134

Ossola E. and **Rossi E.** (2017) "Financial integration estimation with realized measures". EUR 28646 EN. Luxembourg (Luxembourg): Publications Office of the European Union. JRC106955. ISBN: 978-92-79-69556-8, ISSN: 1831-9424, DOI: 10.2760/64493

Nardo M., Ossola E., Papanagiotou E., and **Rossi E.** (2017), "Monitoring Financial integration by using price-based indicators". Publications Office of the European Union. JRC109487 ISBN: 978-92-79-77062-3 ISSN: 1831-9424 DOI: 10.2760/915174

Submitted papers

Catania L.,**E. Rossi** and P. Santucci de Magistris (2023) "Switching Regime Integer Autoregressions".

Ghezzi F.,**E. Rossi** and L.Trapani (2024) "Fast Online Changepoint detection using heavily-weighted CUSUM and veto-Based decision rules".

Unpublished papers

Rossi, E. and F. Spazzini (2009) "Finite sample results of range-based integrated volatility estimation" Center for Econometric Analysis, Cass Business School, WP-CEA-4-2009.

Other publications

"Nobel all'arte di prevedere" *Il Domenicale*, Il Sole 24ore, 12/10/2003 (joint with F.Daveri).

Languages

English	Effective Operational Proficiency	*CEFR: C1*
French	Upper intermediate	*CEFR: B2*

Computer skills

Matlab,Gretl,GAUSS,Eviews