Mario Maggi

Current position

Associate Professor of *Mathematical Methods for Economics and Finance* (SSD SECS-S/06), University of Pavia, Department of Economics and Management.

Research topics

- Portfolio theory
- Financial risk
- Benford’s law
- Expected Utility, Prospect Theory, Emotion-base choice

Education

- **PhD** in *Mathematics for the Analysis of Financisal Markets*, University of Brescia, 2002.
- **MS** in *Economics*, University of Pavia, 1998.
- **Diplôme Supérieur de Français des Affaires**, Chambre de Commerce et d'Industrie de Paris, 1998.

Visiting

- September 1999 - May 2000, visiting PhD student, DEA (Diplôme d'Études Approfondies) *Gestion Financière*, Ecole Supérieure des Affaires, Grenoble (France).
- May - June 2017, visiting scholar at the Departamento de Análisis Económico y Finanzas, dell’Universidad de Castilla-La Mancha, Albacete (Spain).

Past positions

- From 2005 to 2015, Assistant Professor of *Mathematical Methods for Economics and Finance* (SSD SECS-S/06), University of Pavia.
- Faculty member of the PhD in Economics and Management, University of Pavia, a.a. 2012/2013.
- Faculty member of the PhD in Economics and Management of Technology, University of Bergamo, dal 2013 al 2017
- Faculty member of the PhD in Applied Economics and Management, University of Bergamo, dal 2017 al 2020.

Partecipation to research projects

- PRIN (cod. 2010RHAHPL) MISURA: coordinator Paolo Giudici, at the University of Pavia.
- From 2007 to 2009 research group of the Department of Economics and Quantitative Methods of the University of Pavia "EUREKA! un'idea per l'energia", research program Enel University: "Valuation of gas storage".
- COFIN 2003/04 University of Brescia, Economics.
- Cariplo 2004 - University of Pavia, Department of Business Studies: "Asset allocation con informazione condizionante".
- Cariplo 2003 - University of Pavia, Department of Business Studies: "Valutazione delle commissioni d’incentivo nei fondi speculativi".

- Cariplo 2002 - University of Pavia, Department of Business Studies: "Teoria delle opzioni e valutazione delle garanzie sui depositi bancari".
- FAR from 2002 to 2015 la Faculty of Sciences of the University of Eastern Piedmont "Amedeo Avogadro" and Faculty of Economics, University of Pavia.

Publications

International journals

- Cerqueti, R., Maggi, M. A Rényi-type quasimetric with random interference detection. Knowledge and Information Systems (2024). https://doi.org/10.1007/s10115-024-02078-7
- Pierni, Pierluigi, Dennis Marco Montagna, and Mario Maggi. 2022. Founding Family Ownership and Firm Performance: Some Evidence from the Italian Stock Market. Journal of Risk and Financial Management 15: 231. https://doi.org/10.3390/jrfm15050231
- Cerqueti, R., Maggi, M. & Riccioni, J. Statistical methods for decision support systems in finance: how Benford’s law predicts financial risk. *Annals of Operations Researc* (2022). https://doi.org/10.1007/s10479-022-04742-z
- Alemanni B, Maggi M, Uberti P. (2021). Unleveraged Portfolios and Pure Allocation Return. Journal of Risk and Financial Management. 2021; 14(11):550 (https://doi.org/10.3390/jrfm14110550).
- Argentiero, A., Cerqueti, R., Maggi, M. (2021). Outdoor light pollution and COVID-19: The Italian case. Environmental Impact Assessment Review. Volume 90, September 2021, 106602 (https://doi.org/10.1016/j.eiar.2021.106602).
- Cerqueti, R., Maggi, M. (2021). Data validity and statistical conformity with Benford's Law, Chaos, Solitons and Fractals, 144, 110740.
- Maggi, M., Torrente, M. L., & Uberti, P. (2020). Proper measures of connectedness. Annals of Finance, 16(4), 547-571.
- Maggi, M., Uberti, P., Portfolio Leverage in Asset Allocation Problems. In Paolucci, M., Sciomachen, A., & Uberti, P. (Eds.). (2020). Advances in Optimization and Decision Science for Society, Services and Enterprises: ODS, Genoa, Italy, September 4-7, 2019 (Vol. 3). Springer Nature.
- Maggi, M., Uberti, P., Google search volumes for portfolio management: performances and asset concentration, Annals of Operations Research (2019) (https://doi.org/10.1007/s10479-019-03424-7).
- M. Maggi, P. Uberti, A Note on Statistical Arbitrage and Long Term market Efficiency, Journal of Modern Economy, 2019, 2:8.
- Escribano, A., Maggi, M., Intersectoral default contagion: A multivariate Poisson autoregression analysis, Economic Modelling, 82(2019), 376-400.
- Amendola, A., Montagna, D.M., Maggi, M., Analysis of Equity components: New Results and Prospectives in a Low Beta Framework, Journal of Economics and Financial Analysis 3.1 (2019): 1-26.
- Maggi, M., Uberti, P., Google Searches for Portfolio Management: A Risk and Return Analysis, in: M. Corazza, M Durban, A. Grané, C. Perna, M. Sibillo (Eds.), Mathematical and Statistical Methods for Actuarial Sciences and Finance, Springer International Publishing AG, Cham Switzerland, 2018, 461-466.
- Figini, S., Maggi, M., Uberti, P., The market rank indicator to detect financial distress, Econometrics and Statistics (available online 2018). doi:10.1016/j.ecosta.2017.12.001
- Cavaliere, A., Maggi, M., Stroffolini, F., Water Losses and Optimal Network Investments: Price Regulation Effects with Municipalization and Privatization, Water Resources and Economics, 2017(18), 1-19.
- Cavaliere, A., Maggi, M., Stroffolini, F., Investment-driven mixed firms: partial privatization by local governments. International Tax and Public Finance (2017), 24(3), 459-483.
- C. Lucarelli, P. Uberti, G. Brighetti, M. Maggi, Risky choices and emotion-based learning Journal of Economic Psychology, 2015(49), 59-73.
- Fantazzini D., Maggi M. Proposed Coal Power Plants and Coal-To-Liquids Plants: Which Ones Survive

and Why? Energy Strategy Review, 2014(7), 9-17.

- Cavaliere, A., Giust, V., Maggi, M., Efficient Mechanisms for Access to Storage when Competition in Gas Markets is Imperfect, Energy Economics, (2013) 36, 481-490.
- Bianchi, C., Fantazzini, D., De Giuli, M.E., Maggi, M., Small Sample Properties of Copula-GARCH Modelling: A Monte Carlo Study, Applied Financial Economics, 2011, 21, 1587-1597.
- De Giuli, M.E., Maggi, M., Tarantola, C., Bayesian outlier detection in Capital Asset Pricing Model, Statistical Modelling, 2010, 10(4), 375-390.
- Bianchi, C., Carta, A., De Giuli, M.E., Fantazzini, D., Maggi, M., A Copula-VAR-X Approach for Industrial Production Modelling, Applied Economics, 2010, 42(25), 3267-3277.
- De Giuli, M.E., Maggi, M., Paris, F.. Deposit Guarantee Evaluation and incentives Analysis in a Mutual Guarantee System. Journal of Banking and Finance, 2009, 33(6), 1058-1068.
- Carta, A., Fantazzini, D., Maggi, M., Discretete-time affine term structure models: an ARCH formulation. International Journal of Risk Assessment and Management, 2009, 11(1), pp. 164-179.
- De Giuli, M.E., Maggi, M., Fantazzini, D., A new approach for firm value and default probability estimation beyond Merton models, Computational Economics, 2008, 31(2), pp 161-180.
- Maggi, M., U. Magnani, M. Menegatti, On the Relationships between Absolute Prudence and Absolute Risk Aversion, Decisions in Economics and Finance, 2006, Vol. 29, N. 2, 155-160.
- Maggi, M., Loss aversion and perceptual risk aversion, Journal of Mathematical Psychology, 2006, Vol. 50, Issue 4, pp. 426-430.

Chapters in international books

- Lucarelli, C., Maggi, M., Uberti, P., Risk Seeking or Risk aversion? Phenomenology and Perception, in: Viale, R., Filotto, U., Alemanni, B., Shabnam, M., Financial Education and Risk Literacy, Elgar, 2020.
- Maggi, M. and Fantazzini, D., Computing Reliable Default Probabilities in Turbulent Times. In: Wehn, C., Hoppe, C., Gregoriou, G. (Eds), Rethinking Valuation and Pricing Models, Elsevier, Oxford, 2013.
- Maggi, M. and Fantazzini, D., Short Selling in Emerging Markets: A Comparison of Market Performance during the Global Financial Crisis. In: Greg N. Gregoriou (Ed), Handbook of Short Selling, Elsevier, Oxford 2012.
- Bianchi, C., De Giuli, M.E., Fantazzini, D., Maggi, M., Copula-VAR and Copula-VAR-GARCH Modeling: Dangers for Value at Risk and Impulse Response Functions. In: G. N. Gregoriou, C. Hoppe, C.S. Wehn (Eds), The Risk Modeling Evaluation Handbook: Rethinking Financial Risk Management Methodologies in the Global Capital Markets. McGraw-Hill, New York, 2010.

Italian books

- M.E. De Giuli, G. Giorgi, M.A. Maggi, U. Magnani, Matematica per l'Economia e la Finanza, Zanichelli 2008.
- M.E. De Giuli, M.A. Maggi, F.M. Paris, Lezioni di Matematica Finanziaria, Giappichelli Editore, Torino, 2014.
- M.E. De Giuli, M.A. Maggi, F.M. Paris, Lezioni di Matematica Finanziaria ed Attuariale, Corso Base, Giappichelli Editore, Torino, 2002.
- M.E. De Giuli, M.A. Maggi, U. Magnani, E. Rossi, Derivati: Teoria e Applicazioni, Giappichelli Editore, Torino, 2002.

Chapters in Italian books

- M.E. De Giuli, M.A. Maggi, U. Magnani, *On super-replication and profitability in incomplete markets*, in: Liber Amicorum [Scritti in Onore del Prof. A. Di Lorenzo], Prontostampa, Napoli, 2002, 155-168.

Working papers

- Pierni, P., Maggi, M, Montagna, D., Founding family ownership and firm performance: some evidence from the Italian stock market.
- Dondoni, A., Montagna, D. Maggi, M., VIX Index Strategies: Shorting Volatility As a Portfolio Enhancing Strategy (January 18, 2018). Available at SSRN: https://ssrn.com/abstract=3104407.
- Lucarelli, C., Maggi, M., Uberti, P., Risk Seeking or Risk Aversion? Phenomenology and Perception (January 29, 2016). Available at SSRN: https://ssrn.com/abstract=2724635.
- Figini S., Maggi M. Performance of credit risk prediction models via proper loss functions. DEM Working Papers #64 (01-14) 2014. Department of Economics and Management, University of Pavia.
- Cavaliere, A., Giust, V., Maggi, M., Efficient Mechanisms for Access to Storage with Imperfect Competition in Gas Markets, Quaderni del Dipartimento di Economia Politica e Metodi Quantitativi, 151(07-11).
- Kösters M.R., S.T.M. Straetmans and M. Maggi. Pricing Full Deposit Insurance in Germany amidst the Financial Crisis 2008- 2010, Quaderni del Dipartimento di Economia Politica e Metodi Quantitativi, 143(05-11).
- Maggi, M., Uberti, P., A general optimization method for non-continuoud functions, Quaderno di Ricerca, luglio 2007, Dipartimento di Ricerche Aziendali, University of Pavia.
- Fantazzini, D., Maggi, M., Discretete-time affine term structure models: an econometric formulation, Quaderno di Ricerca n. 5, luglio 2005, Dipartimento di Ricerche Aziendali, University of Pavia.
- Maggi, M., A characterization of S-shaped utility functions displaying loss aversion, Quaderni del Dipartimento di Economia Politica e Metodi Quantitativi (#165), Università degli Studi di Pavia, 2004.
- De Giuli, M.E., Maggi, M., Paris, F.M., Pricing incentive fee of hedge fund managers: a discussion of moral hazard, Quaderni del Dipartimento di Metodi quantitativi n. 225, Università degli Studi di Brescia, 2004.
- Maggi, M., Magnani, U., Menegatti, M., On the Relationships between Absolute Prudence and Absolute Risk Aversion, Quaderni del Dipartimento di Economia Politica e Metodi Quantitativi (#157), Università degli Studi di Pavia, 2003.
- Maggi, M., Immunization in an affine term structure framework, Quaderni del Dipartimento di Economia Politica e Metodi Quantitativi (#139), Università degli Studi di Pavia, 2002.

International conferences

- Maggi, M., Qyrana, M. , Uberti, P., Torrente, M-L, Effective Diversification Losses and Market Risk, ECSO-CMS 2022 (European Conference on Stochastic Optimization - Computational Management Science), Venice, 29-30 June - 1 July, 2022.
- Maggi, M., Asset allocation determinants under different decision models, EURO 2021 - 31st European Conference on Operational Research – Hybrid/Athens. (invited)
- Maggi, M., Uberti, P., Portfolio Leverage in Asset Allocation Problems. Optimization and Decision Science, XLIX AIRO Conference, Genova, September 2019. (invited)
- Torrente, M.L., Maggi, M., Uberti, P., A new measure of multicollinearity and an application to financial systemic risk. 29th European Conference on Operational Research, session New Challenges in Investment Strategies, Risk and Financial Modelling, Dublin (Ireland), June 2019. (invited)
- Escribano, A., Díaz, A., Jareño, F., Maggi, M., The intraday order dynamics: A multivariate Poisson autoregression analysis. 29th European Conference on Operational Research, session New Challenges in Investment Strategies, Risk and Financial Modelling, Dublin (Ireland), June 2019. (invited)
- Maggi, M., Uberti, P., Efficient portfolios and leverage analysis. 29th European Conference on Operational Research, session New Challenges in Investment Strategies, Risk and Financial Modelling, Dublin (Ireland), June 2019. (invited)

- Lucarelli, C., Maggi, M. and Uberti, P. Risk seeking or risk aversion? Phenomenology and perception. 2nd Workshop of Behavioural Financial Regulation and Policy. Bank of Italy, Roma, December 2018.
- A. Amendola, D.M. Montagna, M. Maggi A beta decomposition to set up a low beta asset allocation strategy. 29th European Conference on Operational Research, session New Challenges in Investment Strategies, Risk and Financial Modelling, Valencia (Spain), July 2018. (invited)
- A. Escribano, M. Maggi Multivariate count processes analysis of defaults 29th European Conference on Operational Research, session New Challenges in Investment Strategies, Risk and Financial Modelling, Valencia (Spain), July 2018. (invited)
- Maggi, M. and Uberti, P. Google searches for portfolio management: a risk and return analysis, VIII International Conference on Mathematical and Statistical Methods for Actuarial Sciences and Finance (MAF 2018), April 4-6, 2018, Madrid, Spain. (peer reviewed proceedings, Springer)
- S. Figini, M. Maggi, P. Uberti, New indicators in systemic risk analytics: Theory and applications. 11th International Conference on Computational and Financial Econometrics (CFE 2017), London.
- A. Escribano, M. Maggi Intersectorial default contagion: A multivariate Poisson auto-regression analysis. 11th International Conference on Computational and Financial Econometrics (CFE 2017), London.
- C. Lucarelli, M. Maggi, P. Uberti, Risk Seeking or Risk aversion? Phenomenology and Perception. Invited submission for the 28th European Conference on Operational Research, session Financial and Commodities Modeling, Poznan (Poland), July 2016. (invited)
- D. Fantazzini, M Maggi, Banks' Default Probabilities and Credit Rating. Invited submission for the CFE - ERCIM Conference, session Multivariate models for financial risk assessment, London December 2013. (invited)
- A. Carta, D Fantazzini, M.A. Maggi, Discrete-time affine term structure models: an ARCH formulation, Forecasting Financial Markets 2007, Aix-en-Provence, France, 2007.
- M.E. De Giuli, M.A. Maggi, D. Fantazzini, A New Approach for Firm Value and Default Probability Estimation Beyond Merton Models:
  – Forecasting Financial Markets 2007, Aix-en-Provence, France, 30th May - 1st June 2007;
  – 5th Infiniti Conference on International Finance, Trinity College, Dublin, 11-12 June 2007.
- M.E. De Giuli, M.A. Maggi, D. Fantazzini, A new framework for firm value using copulas, XII International Conference on Computing in Economics and Finance, Limassol, Cyprus, June 22-24 2006.
- C. Bianchi, D. Fantazzini, M.E. De Giuli, M.A. Maggi, A Copula-VAR Approach for Industrial Production Modelling and Generalized Impulse Response Functions, Forecasting Financial Markets 2006, Aix-en-Provence, France, 2006.
- M.E. De Giuli, M.A. Maggi, F.M. Paris, Pricing incentive fee of hedge fund managers: a discussion of moral hazard, VIII Annual Congress of the Academy of Administration Science, Acapulco, Mexico, 2004.
- M.E. De Giuli, M.A. Maggi, F.M. Paris, Pricing mutual bank deposit guarantees, Tenth annual conference of the Multinational Finance Society, 28.6-4.7.2003, Montreal, Canada, paper MCF-136.

Italian conferences

- Maggi, M. and Uberti, P. How to Improve Benchmark Performances through Pseudo-Principal Portfolios 47° Annual Meeting of the AMASES, Milano, September 2023. (invited)
- Maggi, M. and Uberti, P. Can Google search data contribute to portfolio management? 42° Annual Meeting of the AMASES, Napoli, September 2018. (invited)
- Maggi, M. and Uberti, P. The out-of-sample performances of equally weighted portfolio: Theoretical results. 42° Annual Meeting of the AMASES, Napoli, September 2018.
- A. Cavaliere, M. Maggi, F. Spazzini, Evaluation of Gas Storage in Exemption of Third Part Access. XXXIV Convegno AMASES, Macerata, 1-4 settembre 2010.
- M. Maggi, Asset allocation determinants under cumulative prospect theory. XXXII Convegno AMASES, Trento, 1-4 settembre 2008.
- M. Maggi, P. Uberti, A simple method for unconstrained optimization without using derivatives, XXX

Convegno AMASES, Trieste, 4-7 settembre 2006.

- D. Fantazzini, M. Maggi, Discretete-time affine term structure models: an econometric formulation, XXIX Convegno AMASES, Palermo 12-15 settembre 2005.
- M. Maggi, Loss aversion and perceptional risk aversion, XXVIII Convegno AMASES, Modena, 8-12 settembre 2004.
- M.E. DeGiuli, M.A. Maggi, F.M. Paris, Pricing mutual bank deposit guarantees, Giornata di Studio Metodi Numerici per la Finanza, Università Ca' Foscari, Dipartimento di Matematica Applicata, Ca' Dolfin, Venezia, 2003.
- M.E. DeGiuli, M.A. Maggi, F.M. Paris, Un modello per la valutazione dell'assicurazione mutualistica dei depositi bancari, Atti XXVI Convegno AMASES, Verona, 11-14 settembre 2002, 193-196.
- M.E. DeGiuli, M.A. Maggi, U. Magnani, A puzzle in the value of the firm, Atti XXIV Convegno AMASES, Padenghe sul Garda, 6-9 settembre 2000, 253-260.
- M.E. DeGiuli, M.A. Maggi, U. Magnani, Non-linear leverage and the value of the firm, Atti XXIII Convegno AMASES, Rende, 8-11 settembre 1999, 159-174.

Editorial activity

- Member of the editorial board of the Journal of Risk and Financial Management and the Journal of Applied Quantitative Methods.
- Referee: Annals of Operation Research, Structural Change and Economic Dynamics, Journal of the Operational Research Society, Communications in Nonlinear Science and Numerical Simulation, Resource Policy, Econometrics, Managerial Finance, Data, Mathematics, Entropy, Information, International Journal of Financial Studies, Journal of Economic Interaction and Coordination, the International Review of Economics and Finance, Sustainability, Energy Strategy Review, International Journal of Computational Economics and Econometrics, Rivista di Politica Economca.
- Referee for the Italian national research evaluation VQR 2011-2014, and VQR 2015-2019.
- Session organizer: Computational and Financial Econometrics conference (Pisa, 2014), European Conference on Operational Research (Valencia, 2018; Dublin, 2019; Athens 2021).

Scientific societies:

- AMASES
- CFE (Computational and Financial Econometrics) Network

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