Nico Rosamilia

Legally authorized to work in Canada, EU, US
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I possess a strong aptitude for analysis, modeling, and critical thinking combined with a passion for teaching and mentoring. I efficiently communicate concepts orally and in writing, valuing collaboration with team members. My research focuses on portfolio optimization, price forecasting, risk management, and the secondary market for private equity investments

Ph.D. in Finance, *Politecnico di Milano School of Management* 2024

Awards

Recipient of the EU grant *National Operational Programme on Research and Innovation* 2021/24

Visiting Researcher

ALBA Graduate Business School, The American College of Greece — Athens, GR - 2024
University of Queensland — Brisbane, AU - 2023

References

Professor *Saša Drezgić*, University of Rijeka
Professor *Paolo Zacchia*, CERGE-EI
Professor *Giancarlo Giudici*, Politecnico di Milano SoM
Professor *David Hillier*, Strathclyde Business School

Teaching and Mentoring

Corporate Finance, Lecturer and TA, Politecnico di Milano — IT - 2021/24

Graduate Student Supervisor, Politecnico di Milano — IT - 2021/24

- Department of Mathematics: guide research topics, methodologies, and timelines. Manage the progress of students' work, offer feedback, and assist in preparing thesis documents (joint with *Daniele Marazzina*)
- Department of Management Engineering: mentoring and supervising master thesis students, creating research ideas, and implementing empirical strategies

Business Administration and ESG, Lecturer, Graduate School of Management *MBAs* — IT - 2022/23

Sustainable Finance, Case Studies, Unicredit Bank employees — IT - 2021/23

Economics and Policy of Investments, Lecturer and TA, University of Rijeka — HR - 2020/21

Microeconomics, TA, CERGE-EI — CZ - 2020

Economics and International Trade Policy, Lecturer and TA, University of Rijeka — HR - 2019/20

Public Finance, Lecturer and TA (undergraduate), University of Rijeka — HR - 2018/19

Education

M.A. in Economics, *CERGE-EI*, Chartered by The University of the State of New York — CZ - 2019/21

Researcher, University of Rijeka, References: Drezgić, S., Cvećić, I., Blažić, H. — HR - 2018/19

M.Sc. in Management Engineering, Politecnico di Milano — IT - 2013/15

B.Sc. in Management Engineering, University of Naples Federico II — IT - 2010/13

Research papers

Secondary Market for Private Equity and Venture Capital

Short Abstract: discussing the role of PE and VC secondary markets, the type of assets (trophy or trouble) traded, the information asymmetries, and the pricing challenges

Climate Risk and Brand Capital (joint work with Giudici, G., Konstantios, D.)

Short Abstract: we find that the value of a marginal dollar of cash on brand value is significantly lower in firms with high climate risk exposure compared to those with low exposure

What's News with You: Price Forecasting and Sentiment Scores (joint work with Leone, F., Marazzina, D.)

Short Abstract: we show that deep learning models (N-HiTS), when trained on sentiment data from news (with sentiment scores computed using RoBERTa), significantly outperform the baseline model in forecasting stock prices

Profit or Planet? Both! ESG Drivers of Efficient Portfolios and the Costs of Disclosure

Short Abstract: customizing a Random Forest algo, I create efficient sustainable portfolios through best-performing firms selection and identify material ESG indicators in 5 global markets

No Gambling Here! A New Comprehensive Risk Index

Short Abstract: I combine financial, macroeconomic, and ESG variables into a synthetic measure representing risk with an unsupervised neural network that overcomes linearity

Climate Shocks and Corporate Resilience: Extreme Weather Events and EU Solidarity Funds for Adaptation and Mitigation

Short Abstract: the effect of various extreme weather events on firms' financial performance is comparable in magnitude. The European solidarity funds help in the first aftermath, not necessarily in resilience for future events

Forecasting and Prediction: Bayesian Econometrics and Machine Learning

Short Abstract: Bayesian updating info and Machine Learning for prediction and forecasting in the equity market

Should I Stay or Should I go? Transfers, Trade Gains, and Capital Accumulation in a Fiscal Union

Short Abstract: the incentive compatibility of the optimal fiscal union model for countries in the European Monetary Union, comparing the trade gains in the currency union with the transfers in the fiscal union

Fiscal stimulus for EMU countries not meeting SGP criteria (joint work with Cvečić, I., Drezgić, S.)

Short Abstract: the effects of the 2010 dry-up in the credit supply for Italian non-financial firms on unemployment

Courses

Macroeconomic Forecasting and Analysis in the Machine Learning Era, Bank of Italy

Advanced Bayesian Econometrics: Bayesian Multivariate Models and Forecasting, Università Ca' Foscari

Panel Data Econometrics: Theory and Applications, Università di Bologna

Striving for Research Quality, Alma Mater Studiorum Bologna

Knowledge Dynamics, Industry Evolution, Economic Development, Université Cote D'Azure

It's Not About Teaching, It's About Learning, Università degli Studi di Bergamo

Experience

Investment Manager, GMA International Services, Inc. Fort Lauderdale FL, US - 2024

- Conducted DCF, comparable company, and precedent transaction analyses for **20+** buy-side targets, driving a 400% increase in strategic M&A recommendations in 1 year. Reduced valuation costs by 40%
- Utilized GDP lag correlations from macro fundamentals and analyzed asset return distributions and implied volatility to identify alpha opportunities through cross-sector spread trades and beta hedging, optimizing a **$4M** AUM fixed-income and equity portfolio
- Selected and executed a **$2M** income producing real estate acquisition of residential properties in Italy for *La Promessa*

External Associate, Intellico Milan, IT - 2021/24

- Implemented research-driven insights from a customized Random Forest machine learning algorithm in Python, boosting financial performance by an average of 20% for **50+** companies. *Paper*
- Leveraged AI-enabled solutions to enhance decision-making and identify material financial drivers with LASSO and Stata pooled regression with year FE and firm-level clustered st. err. to optimize ESG investment. Article: *AI and ESG*

Equity Researcher, European Regional Development Fund *NOPRI* EU & Italy - 2021/24

- Designed and implemented quantitative models using a panel dataset of 2.5M firms and 200+ variables, leading to key findings published in *A* and *B*
- Authored 9 working papers. The latest 3 under review focus on financial performance, sentiment analysis, and climate risk

Graduate Student Supervisor, Politecnico di Milano Milan, IT - 2021/24

- Research supervisor managing 30+ students and achieving 100% project completion rate and 5 published papers

AMBassadors for sustainable transITION, *AMBITION* Kenya & The Netherlands - 2023/24

- Created integrated energy models and resilient transition strategies to teach across companies in Africa and Europe

Management Consultant, SVS Marketing Toronto, CA - 2017/18

- Focused on optimizing client acquisition costs and ROI maximization for 10+ marketing initiatives

Sales Manager, David Youngson and Associates Toronto, CA - 2016/17

- Managed a team of 7 people at sales events, achieving the highest single-day sales record for the 2017 trade show

Trading Desk Analyst, *IMI Corporate & Investment Banking* - Be Shaping the Future Milan, IT - 2015/16

- Incorporated GDP correlations (lag effects) with asset prices, and conducted industry, sector, and stock analysis through fundamental, technical, and price action perspectives

Professional experience

Member of the European Economic Association

Member of the AiIG - Italian Association of Management Engineering

Canadian Securities Institute, Moody's Analytics Training Certification Services

Regulatory requirements to perform securities and mutual fund transactions in many financial services positions

Trading and Portfolio Management

Asset returns, OHLC, and implied volatility. Forex market infrastructure, fixed, floating, managed (dirty) float regimes. Directional options trading strategies and usefulness filtering. Marginal benefits of options positioning

International conferences

2023

- XXXIV AiIG - Humanizing technologies for a better society
- IAFDS - International Accounting & Finance Doctoral Symposium
- ICEE - Tenth Italian Congress of Econometrics and Empirical Economics

2022

- EEA-ESEM - 37th European Economic Association and 74th European Econometric Society meetings
- XXXIII AiIG - Redesigning networks and supply chains in times of transition
- IAFDS - International Accounting & Finance Doctoral Symposium

2019

- DIGITOMICS - International Scientific Conference Economics of Digital Transformation

Academic Skills

- Faculty and student mentorship with an emphasis on team development and academic leadership
- Proficiency in statistical testing and advanced econometric methods, tailored for applied research and instruction
- Expertise in quantitative analysis with a focus on practical interpretation and academic rigor
- Curriculum design and enhancement of academic programs in finance and related disciplines
- Development of academic-industry partnerships and collaborative research opportunities
- Effective course planning, independent project management, and multitasking in dynamic academic environments
- Strategic communication for academic publishing and conference presentations
- Analytical problem-solving and academic decision-making aligned with educational objectives
- Continuous process improvement in teaching methodologies, using student feedback and evaluation
- Cross-disciplinary collaboration and active engagement with academic and industry stakeholders
- Research project management and academic publication planning, from initial proposal to dissemination

Programming languages

Python, R, Matlab, Stata, Office, LaTeX. Electronic trading platforms

Languages

English, Italian: Fluent
Croatian, Spanish: Basic

Volunteer experience

Forum dei Giovani, Youth association that organizes entertainment and cultural events 2010/16

ACR, Association for children and teenagers organizing social events and charity initiatives 2005/10