

Curriculum Vitae Damiano Brigo *

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Summary

Damiano Brigo is one of the few top academics with a real knowledge of the financial industry. With more than twenty years of industry experience, Damiano has worked on risk management, valuation and hedging and quantitative methods in finance in many financial institutions, from commercial banks to investment banks, rating agencies and financial services firms. Damiano has provided executive education and cutting edge training and advice to hedge funds, banks, regulators, central banks, and institutional bodies such as ESM and EBA. At the same time, Damiano is head of group and full professor (chair) in Mathematical Finance at Imperial College London, consistently ranked among the top ten world universities. Previous roles include Managing Director and Quantitative Innovation Global Head in Fitch Ratings, Head of Credit Models in Banca IMI and Fixed Income Professor at Bocconi University. Damiano serves in the advisory board of financial services firms and published 100+ journal works in Quantitative Finance, Systems Theory, Probability and Statistics, and field reference books in Interest Rates and Credit Modelling (H-index 38, 7000 citations). Damiano has been the most cited Risk Magazine author in 1998-2017. Damiano holds a PhD in stochastic filtering with differential geometry and a BSc in Mathematics.

1 Academic roles: Imperial College, King's, Bocconi

2012 on: Imperial College: Chair & Head of Mathematical Finance

- From August 2012: Full Professor (Chair) of Mathematical Finance and Head of the MF Research Group (ten researchers) at Imperial College, London.
- Research in valuation, hedging, risk management, optimal investment and execution, market microstructure, statistical learning.
- Director of the MSc “Mathematics and Finance”
- Board of the Imperial-CFM Institute in quantitative finance.

2010-2012: King's College, Head of Financial Mathematics

- Full Professor (Gilbart Chair) and Head of the Financial Mathematics group (seven researchers) at the dept. of Mathematics at King's College, London.
- Director of the MSc in Financial Mathematics

2005-2007: External Professor at Bocconi University, Milan

External Professor (“Professore a contratto”), Bocconi University (Milan). Teaching of the advanced course “Fixed Income”, MSc level, for the CLEFIN group.

*A full version of the CV with a detailed list of publications and contact details is available upon request

2 Full Industry-Roles

2007-2010: Fitch Ratings, Managing Director & Global Head of QA

2007-2010: Managing Director and Global Head of the Quantitative Innovation team, comprising 10 quantitative analysts in London, New York and Hong Kong.

- Analysis of strategies for pension funds: FX carry trades, Credit Fund Notes
- Analysis of synthetic CDS indices and tranches risk premia: comparison of the future P&L distributions under the pricing and the historical measures.
- Refining the design of a trading liquidity scoring model for the CDS pricing service, based on the CDS contributors data, using inactivity, bid offer and dispersion measures.
- Design of a trading liquidity model for extracting a liquidity premium spread in basis points from CDS contribution, consistently with the liquidity scores.
- Pricing of multi-currency CDS and implied FX devaluation jump premium.
- Analysis of risk, ratings & valuation of Collateralized Obligations (CDO) on corporates, residential mortgages (RMBS), commercial mortgages (CMBS), corporate loans (CLOs).
- Development of a new dynamic loss model for correlation products and CDOs on corporates with consistent calibration of index tranches across maturities and consistency with single names and cluster defaults.
- Pricing of first to default baskets in emerging markets.
- Bond-CDS basis analysis, sovereign CDS analysis.
- Pricing prototypes for counterparty risk and XVA in Interest Rates, Commodities and Credit Default swap payoffs.
- Pricing of Credit Index Options and analysis during the subprime crisis.

1998-2007: Banca IMI, Head of Credit and Interest Rate Models

Banca IMI was the investment bank of the Intesa San Paolo group, the largest Italian bank.

- 1998-2002: Head of Interest-rate models, designing, prototyping and assisting production of models for risk management, valuation and hedging of fixed income products.
- In-depth study and implementation of the LIBOR market model.
- Worked also on risk management and valuation/hedging of equity derivatives and volatility smile, basket derivatives, cross currency derivatives.
- First edition of the field reference book “Interest rate models, theory and practice” (2700+ citations)
- 2002-2007: Head of Credit and Counterparty Risk Models. Work on CDS, CDS options and CDS volatility, CDOs analytics testing for Banca IMI and MureX, default baskets, dynamic loss models, iTraxx options. Valuation adjustment: Worked on CVA in a variety of trade proposals.

3 Advisory Industry-Roles

Academic Advisory board for IHS Markit (2017-on)

IHS Markit is a global provider of services, data and analytics. Assisting IHS Markit via quarterly strategy meetings and presentations.

Academic Advisory board for Credit Benchmark (from Nov 2015 on)

Credit Benchmark (CB) is a global provider of credit data and analytics. Assisting CB via quarterly strategy meetings and presentations. Provided advice in analysis and analytics related to credit migration, default probabilities, recovery and rating transition matrices analytics.

Board of CFM-Imperial Institute in Quantitative Finance (2014 on)

Capital Fund Management (CFM) is a global asset management fund that founded an institute with Imperial College in 2014. I have been in the board since its foundation. Research steering, collaboration on optimal trade execution, conferences , visitors programme.

Director of the EY GFSI Institute and Editor of EY JFP (2016-2017)

Editor in Chief of the EY Journal of Financial Perspectives and Director of the Global Financial Services Institute from June 2016 to June 2017.

Director of the Capco Research Institute (Oct 2012 to Oct 2015)

- Designed the methodology for the creation of the CEPIX Euro Exit probability index.
- Strategic Research and Thought Leadership
- Organizing three Finance conferences a year in London, NY and Euro area
- Providing methodology leadership and support in particularly sensitive projects (ETF Fund risk analysis, analytics acceleration for valuation adjustments).
- Editor in Chief of the Capco Journal of Financial Transformation

Other industry advisory roles

Fitch Academic Advisory Board (2007-2010), NumeriX Advisory Board (2010)

4 Education (BSc/MSc and PhD)

- 1993-1996: Ph.D. in Probability & Signal Processing, Free University of Amsterdam. Dissertation: "Filtering By Projection on the Manifold of Exponential Densities".
- 1991-1992: Military Service at the Missile artillery division of the Italian army.
- 1985-1990: BSc/MSc (Laurea) degree in Mathematics (4 years Laurea programme with dissertation) at the University of Padua with honors (110/110 e lode).

5 Publications, citation metrics, impact and media

Publications

- More than 100 publications in mathematical finance, probability, statistics and systems theory (list available upon request).
- Publication impact metrics: 7000+ citations in Google Scholar, H-index 38, 46000+ paper downloads in the Social Sciences Research Network.
- Most cited Risk Magazine author worldwide in the decade 1998-2017.
- Field reference books that became industry standard in interest rate modeling and credit modeling, used in financial institutions across the world.

Press and media outreach

- Authored the Bracken column (May 2018) for “The Banker”, the FT monthly magazine.
- Several comment columns authored for Risk Magazine on model risk in LIBOR-RFR transition, systemic risk, rogue traders risk limits, XVA, and the need to move beyond risk neutral valuation.
- Interviewed by Risk Magazine, The Banker, The Guardian, Thomson Reuters
- Full columns and interviews list available upon request.

Impact: REF 2014 Case

King’s College London submitted a research impact case for the Government Research Excellence Framework 2014, based on a 2011 paper by Brigo and co-authors. The case is based on the court of law of Novara in Italy citing said paper as part of a legal case. The submission is the impact case study n. 41220.

6 Teaching, Executive Education, Research Seminars

- Provided seminars, specialized training courses, lectures, executive education, summer and winter schools for a variety of institutions, providers and private clients, including *banks, hedge funds, regulators, central banks, ESM, EBA*, academic institutions, training companies. More than 120 such initiatives in 2000-2018. List available upon request.
- 150+ research seminars across academic institutions (including Columbia University, MIT, Princeton University, Oxford University, Cambridge University and many others).
- Taught several courses in quantitative finance and mathematics across institutions and levels (high school, undergraduate, MSc, PhD), from business schools to economics and mathematics departments. Consistently high rating from course participants.