

Barry Quinn

BSc (Hons), PhD, CStat

Curriculum Vitae

April 2023

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Education and qualifications

B.Sc.(Hons)	Queen's University Belfast	1995
MSc	RMIT University Melbourne	2006
Ph.D.	Queen's University Belfast	2012
C.Stat.	Royal Statistical Society	2019

Fellowships

- Fellow of the Institute of Electronics, Communication and Information Technology in Queen's University Belfast (elected 2021).
- Fellow of the Centre for Responsible Banking and Finance, Edinburgh (elected 2013).

Employment history

2020–2023	Senior Lecturer , Department of Finance, Queen's Management School
2010–2020	Lecturer , Department of Finance, Queen's Management School
2009	Teaching Fellow , Business School, Ulster University
2005	Teaching Fellow , Department of Finance, RMIT University Melbourne
2000–2004	Currency Trader/Liquidity Manager , Janus Henderson Investors, London
1998–2000	Unit Trust Dealer , Janus Henderson Investors, London
1995–1998	Financial Adviser , City Financial Partners, London

Academic and research leadership

- **Director**, Finance, Technology and AI lab, Queen's University Belfast. 2022–.
- **QUB Academic Lead**, Steering group for Northern Ireland global centre in secure connected intelligence for regulatory technology in finance.
- **Programme Director**, MSc Quantitative Finance, Queen's University Belfast. 2012–2021.
- **Founder**, Queen's Student Managed Fund, 2012–2023.

Awards and honours

2016 QUB Teaching Award

Research

- Since 2012 I have authored 24 papers and reports on topics in econometrics and data science, state-of-the-art efficiency and productivity analysis, risk implications of policy actions in banking and climate finance, and association football economics.
- On Google Scholar my h-index is 7 with total citations of 354 (as at 16 April 2023).
- My current research involves the application of statistics and machine learning to complex problems in, capital regulation, systemic risk, climate risk and trade surveillance.
- I currently supervise six PhD students (one visiting PhD student). I have previously supervised an additional three PhD students and ten Masters students.

Public Teaching lectures

- PhD Seminar, *Causality and AI*, Queen's Management School, Belfast, April 2023
- PhD Seminar, *Statistical inference for business school research: Part 1*, Queen's Management School, Belfast, April 2022
- PhD Seminar, *Statistical inference for business school research: The statistics strike back*, Queen's Management School, Belfast, Aug 2022

Major conference presentations

- Keynote Speaker, *Estimating Systemic Risk*, Irish Finance Association, Maynooth University, Ireland, April 2023
- Invited Talk, *Teaching data science in the age of FinTech*, Royal Statistics Society Annual Conference, Aberdeen UK, Sep 2022.
- Invited Talk, *Carbon pricing and machine learning*, Multidisciplinary Workshop on Fintech, Islamic Finance and Sustainability (online), Hamad Bin Khalifa University, Qatar, Nov 2022.

- Invited Speaker, *Understanding fintech and financial stability*, International Workshop on Financial System Architecture and Stability, Bayes Business School, London, Sept 2018
- Invited Speaker, *Systemic Risk and Basel Compliance*, British Accounting and Finance Association Annual Conference, London, April 2018.
- Invited Speaker, *Differential regulation of Irish credit unions: Does one size fit all?*, 2nd Conference on Contemporary Issues in Banking, Centre for Responsible Banking and Finance, St Andrews, Dec 2017.
- Invited Speaker, *Business model diversity, efficiency and productivity of cooperatives*, European workshop in efficiency and productivity analysis, Aalto University, Finland, Jun 2017.
- Invited Panelist, *Statistical inference and credibility in finance*, Emerging Scholars in Banking and Finance, Bayes Business School, London, Dec 2016.
- Invited Speaker, *Capital regulation compliance and the performance of European banks*, International Workshop on Financial System Architecture and Stability, HEC Montreal, Aug 2016.
- Participant, *Bloomberg Annual Educational Symposium*, Bloomberg London HQ, Sep 2015.

Research income

I have acquired (in most cases jointly) £1.5915 million in external research grants since 2010. External research grants over £70,000 are listed below.

2018–2021	Byron, Graham. “Designing and deploying a retail analytics platform using advanced analytics and machine learning”. <i>Funding from Innovate UK</i>	£165,000
2019–2022	Paul, Miller. “Anomaly detection of large heterogeneous trading transaction and communication data”. <i>Funding from Citigroup</i>	£945,000
2021	Donal McKillop. “How AI innovation affect a highly valued financial service provision experience”. <i>Funding from Department of the Economy NI</i>	£70,000
2021–2023	Fearghal, Kearney. “Regulatory technology and portfolio analytics using state-of-the-art econometrics and financial machine learning”. <i>Funding from Innovate UK</i>	£173,000
2022	Lisa Sheenan Byron Graham. “E.S.G fair value analytics platform: using state-of-the-art financial data science and business analytics to design a fair-value ESG prediction engine”. <i>Funding from Innovate UK</i>	£173,000

Teaching

- I design and teaching advanced topics in statistics and machine learning for finance students.
- In the past I have taught courses in
 - Statistics for Business
 - Financial Econometrics and Data Science
 - Financial Institutions and Market
 - Trading Principles
- I currently teach graduate level courses in AI and trading, and Advanced Financial Analytics.
- I have also designed and delivered executive education courses in:
 - Statistical forecasting for energy markets (3-Day course for PNG Ltd demand forecasting professionals)
 - Capital Markets and Regulation (3-Day course on Axiom Ltd)
- In every year since 2012, student evaluations for my teaching have given an average rating for my teaching above 4.5 out of 5.

Consulting

- Since 2016, I have worked with several different private companies in Northern Ireland. I have produced 5 written consulting reports listed below.
- 1. Graham, B and B Quinn (2017). *Machine learning and retail analytics*. Tech. rep. Queen’s University Belfast, Management School.
- 2. French, D, D McKillop, and B Quinn (2018). *Landscape review of Northern Ireland credit unions*. Tech. rep. Queen’s University Belfast, Management School.
- 3. Graham, B and B Quinn (2019). *Price comparison and web analytics*. Tech. rep. Queen’s University Belfast, Management School.
- 4. Kearney, F and B Quinn (2020). *The theoretical foundations of value at risk modelling*. Tech. rep. Queen’s University Belfast, Management School.

Refereed research papers

1. Quinn, B and D McKillop (2009). Cost performance of Irish credit unions. *Journal of Cooperative Studies* **42**, 22–36.
2. Glass, JC, DG McKillop, B Quinn, and J Wilson (2014). Cooperative bank efficiency in Japan: a parametric distance function analysis. *The European Journal of Finance* **20**(3), 291–317.

3. Glass, J, D McKillop, and B Quinn (2015). Modelling the Performance of Irish Credit Unions, 2002-2010. *Financial Accountability & Management*.
4. McKillop, DG and B Quinn (2015). Web adoption by Irish credit unions: Performance implications. *Annals of Public and Cooperative Economics* **86**(3), 421–443.
5. Ayadi, R, SB Naceur, B Casu, and B Quinn (2016). Does Basel compliance matter for bank performance? *Journal of Financial Stability* **23**, 15–32.
6. McKillop, DG and B Quinn (2017). Irish credit unions: Differential regulation based on business model complexity. *The British Accounting Review* **49**(2), 230–241.
7. Quinn, B, A Hanna, and F MacDonald (2018). Picking up the pennies in front of the bulldozer: The profitability of gilt based trading strategies. *Finance Research Letters* **27**, 214–222.
8. Gallagher, R and B Quinn (2020). Regulatory own goals: The unintended consequences of economic regulation in professional football. *European Sport Management Quarterly* **20**(2), 151–170.
9. McKillop, D, D French, B Quinn, AL Sobiech, and JO Wilson (2020). Cooperative financial institutions: A review of the literature. *International Review of Financial Analysis* **71**, 101520.
10. Liu, J, F Papailias, and B Quinn (2021). Direction-of-change forecasting in commodity futures markets. *International Review of Financial Analysis* **74**, 101677.
11. Quinn, B, R Gallagher, and T Kuosmanen (2023). Lurking in the shadows: The impact of CO2 emissions target setting on carbon pricing in the Kyoto agreement period. *Energy Economics* **118**, 106338.

Papers in refereed conference proceedings

1. Ayadi, R, SB Nacuer, B Casu, and B Quinn (2016). The unintended systemic risk consequences of regulatory compliance. In: *Proceedings of 2nd International Workshop on Financial System Architecture and Stability*. IWFSAS.

Unpublished working papers

1. McKillop, DG and B Quinn (2013). “Cooperative traits of technology adoption: website adoption in Irish Credit Unions”.
2. McKillop, DG and B Quinn (2015). “A Sustainable Business Model Strategy for Irish Credit Unions: Does One Size Fit All?”
3. Gallagher, R, T Kuosmanen, and B Quinn (2017). “Lurking in the Shadows: Testing For Shadow Price Differences with Applications in Economic Regulation”.
4. Quinn, B (2022). “Teaching open science analytics in the age of financial technology”.
5. Liu, W, Y Zhang, K Liu, B Quinn, X Yang, and Q Peng (2023). “Evolutionary multi-objective optimisation for large-scale portfolio selection with both random and uncertain returns”.

Software (R packages)

1. Quinn, B (2020). *Financial Machine Learning*. Version 2.0.4. <https://github.com/quinfer/fml>.
2. Quinn, B (2022). *Time Series Econometrics Software*. Version 0.2.0. <https://github.com/quinfer/tsfe>.