Prof. Barry Quinn

Professor of Finance and Financial Technology

Contact Information

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Personal Statement

Professor Barry Quinn is Professor of Finance & Financial Technology at Ulster University Business School and Director of the Centre for Finance and Responsible Technology. The Centre is guided by three pillars: statistical rigour and intellectual humility; practical industry relevance; and responsible algorithmic innovation.

Barry is a Chartered Statistician and views econometrics as an applied statistical science. His work emphasises explicit assumptions, uncertainty quantification, and stress-testing—so claims remain proportionate to evidence. He values transparency and reproducibility, and focuses on methods that remain interpretable and auditable when used in real decision settings.

His research sits at the intersection of finance, statistical learning, and responsible use of algorithms, addressing markets and institutions, risk measurement, and evidence for regulation and compliance. He teaches across quantitative finance, econometrics, and AI applications in finance, emphasising ethical practice, reproducibility, and critical thinking.

Before entering academia, Barry worked in financial markets, specialising in currency trading and liquidity management. He holds a PhD in Finance and an MSc in Artificial Intelligence (Distinction) from Queen's University Belfast, and works with external partners to ensure research translates into robust practice.

Education and Professional Qualifications

Degree	Institution	Year
B.Sc.(Hons) Accounting and Finance	Queen's University Belfast	1995
MSc Quantitative Finance	RMIT University Melbourne	2006
Ph.D. Finance	Queen's University Belfast	2012

Degree	Institution	Year
Chartered Statistician	Royal Statistical Society	2019
Advanced Data Science Professional	Royal Statistical Society	2023
MSc Artificial Intelligence (Distinction)	Queen's University Belfast	2025

Research Excellence

Key Publications (Selected from 14 peer-reviewed papers)

ABS4* Journal: - Liu, Weilong, Zhang, Yong, Liu, Kailong, Quinn, Barry, Yang, Xingyu, Peng, Qiao (2024). Evolutionary Multi-Objective Optimisation for Large-Scale Portfolio Selection With Both Random and Uncertain Returns. *IEEE Transactions on Evolutionary Computation* (ABS4)

Recent ABS3 Publications: - McKillop, Donal, Liu, Kailong, Quinn, Barry, Peng, Qiao (Forthcoming). Modelling and Predicting Credit Union Failures. *International Journal of Forecasting* (ABS3) - Bouri, E., Quinn, B., Sheenan, L. & Tang, Y. (2024). Investigating extreme linkage topology in the aerospace and defence industry. *International Review of Financial Analysis* (ABS3) - Quinn, Barry, Gallagher, Ronan, Kuosmanen, Timo (2023). Lurking in the shadows: The impact of CO2 emissions target setting on carbon pricing in the Kyoto agreement period. *Energy Economics* (ABS3)

Research Impact and Funding

Table 2: Major Research Grants (Selected)

Funding Body	Role	Period	Project Title	Value
Department of the Economy NI	PI	2025	Three PhD Scholarships - Centre for Finance and Responsible Technology	£360K
UKRI/InnovateUK	PI	2024-2025	Understanding and Enhancing regulatory compliance using AI	£250K
InnovateUK	PI	2021-2023	Tail Risk Analytics and Stress Testing	£180K
InnovateUK	Co-I	2017-2019	AI and Advanced Retail Analytics	£150K
Various KTPs	PI/Co-I	2017-2023	Multiple Knowledge Transfer Partnerships	£800K+

Working Papers

- Dai, Yongsheng, Quinn, Barry, Kearney, Fearghal, Wang, Hui (Submitted). *Amplifying Market Manipulation Detection Signals*. Submitted to *Economics Letters*. Manuscript EL66561.
- Dai, Yongsheng, Quinn, Barry, Kearney, Fearghal, Liu, Weilong, Spence, Ivor, Rafferty, Karen, Wang, Hui (Submitted). *Detecting Market Manipulation with Dual-branch Self-supervised Learning: A Unified Framework Integrating Frequency-informed Anomaly Synthesis and Domain-Specific Features*. Submitted to *Information Processing and Management*. Manuscript IPM-D-25-06138.

- Quinn, Barry (2023). *Explaining AI in Finance: Past, Present, Prospects*. arXiv preprint arXiv:2306.02773.
- Hannon, James (Corresponding Author), French, Declan, Quinn, Barry, O'Hagan, Adrian (Submitted). *Geospatial modeling of vehicle crime in Northern Ireland using computer vision to identify environmental factors*. Submitted to *Insurance: Mathematics and Economics*. Manuscript IME-D-25-00419.

PhD Supervision Excellence

Completed Supervisions (6): - Dr. Jiadong Liu (2018): *Momentum in Empirical Asset Pricing* - Dr. Ashleigh Neil (2019): *Law and Financial Stability* - Dr. Colm Kelly (2021): *Machine Learning in Empirical Asset Pricing* - Dr. Qiao Peng (2021): *US Credit Union Mergers: Causes and Consequences* - Dr. Kevin Johnson (2019): *Industrial Consolidation: The Irish Credit Union Sector* - Veronica Zhang (2024): *Capital Policy and State Sponsorship in Chinese Banking*

Current Supervisions (6): Including students working on AI applications in finance, sustainable investing, and computational approaches to financial regulation.

Teaching and Academic Leadership

Teaching Excellence

- **Programme Director**, MSc Quantitative Finance (2018-2022)
- **Programme Director**, MSc Computational Finance & Trading (2014-2018)
- **Co-Founder**, Queen's Student Managed Fund (2012-2024)
- **Teaching Award**, QUB (2016)

Current Modules: Financial Data Science; Causal AI; AI in Trading; Financial Econometrics

Academic Service

- **Co-founder**, Finance and AI Research Lab (with Dr Fearghal Kearney), Queen's University Belfast (2022-2024)
- **Programme Director**, MSc Quantitative Finance (2018-2022)
- **Lead Developer**, Queen's Business School Remote Analytics Lab Platform
- **Organiser**, Symposium on AI and Future of Financial Regulation (2023)

Professional Experience

Professional Recognition

- **Chartered Statistician**, Royal Statistical Society (2019)
- **Advanced Data Science Professional**, Royal Statistical Society (2023)
- **1st Place**, CFA European Quantitative Finance Awards (2018)
- **Associate Research Fellow**, QUB Momentum One Zero (2021-2024)

Full publication list and detailed CV available upon request