

Dr Marco Pelliccia

Economist — Managing Consultant at SQW

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PROFESSIONAL SUMMARY

Applied economist and Managing Consultant at SQW, with a PhD from Birkbeck, University of London, and over ten years' experience in microeconomics, game theory, network analysis, and policy analysis. Combines rigorous quantitative modelling with Python-based data science, including credit-risk and lead-conversion projects through the MIT Applied Data Science Program. Experienced in translating technical analysis into decision-focused outputs for teaching, research, and programme delivery.

APPLIED DATA SCIENCE PROJECTS

Loan Default Prediction (MIT Capstone) — [GitHub](#) Oct 2025

- Built a credit-risk decision prototype for HMEQ home-equity loans, comparing six classifiers to identify borrowers with elevated default risk.
- Selected XGBoost as the strongest held-out model (ROC-AUC 0.964; default recall 0.832; F1 0.814), then optimised the lending threshold to minimise expected losses.
- Used SHAP to translate predictions into explainable risk drivers: debt burden, credit history, loan size, and property variables.

Predicting Potential Customers (MIT Elective) — [Portfolio](#) Oct 2025

- Built a lead-prioritisation pipeline for 4,612 ExtraaLearn leads, selecting the contact threshold on validation data before final test evaluation.
- Delivered an operational lead-scoring file with predicted conversion probabilities, priority bands, and recommended outreach actions.
- On the test set, achieved ROC-AUC 0.926 and average precision 0.839; the top 10% of scored leads converted at 91.4%, about 3.1x the base rate.

PROFESSIONAL EXPERIENCE

Managing Consultant Oct 2026 – Present *SQW*

Assistant Professor in Economics Apr 2020 – Present *Edinburgh Business School, Heriot-Watt University* Edinburgh, UK *Continuing part-time teaching through December 2026.*

- Apply microeconomic theory, policy analysis, and quantitative reasoning in UG/PG teaching, using Python-based case studies to connect formal models to applied decision problems.
- As **Programme Director**, led curriculum modernization of three undergraduate economics programmes, producing clearer learning outcomes and quality-assurance documentation aligned with professional standards.
- Coordinated teaching teams and programme delivery across multiple campuses, maintaining academic standards across planning, workload allocation, and assessment processes.
- Supervise PhD candidates, guiding research projects from methodology design to final thesis delivery.

Assistant Professor in Economics Jan 2016 – Apr 2020 *Bangor Business School, Bangor University* Bangor, UK

- Designed and delivered microeconomics and game theory courses focused on strategic reasoning, mathematical modelling, and policy applications.
- Supervised student dissertations and produced research-led teaching materials translating formal economic models into applied decision problems.

Senior Teaching Fellow Sept 2014 – Jun 2015 *SOAS, University of London* London, UK

- Designed and delivered quantitative methods courses, communicating technical material to diverse UG/PG student cohorts.

SKILLS

Programming & Data: Python (pandas, scikit-learn, XGBoost, matplotlib, SHAP), Java, Wolfram Mathematica.

Economics & Statistics: Econometrics, causal inference, game theory, network analysis, behavioural economics, economic modelling.

Tools: MS Office, GitHub, UciNet, Gephi.

Languages: Italian (native), English (fluent), French (fluent), Spanish (fair).

EDUCATION

Applied Data Science Program , MIT Professional Education (Top 1% of cohort).	2025
PhD in Economics (Economics of Networks) , Birkbeck, University of London	2016
MSc in Economics , Queen Mary College, University of London	2010
MSc in Economics , University of Siena	2009
BSc in Economics and Finance , Polytechnic University of Marche	2007

SELECTED RESEARCH

Selected research on incentive design, networks, network security, and mechanism design.

- **Too Much Finance: Mechanisms That Harm Growth and Policy Implications** (with A. Daripa and S. Kapur), *The Manchester School*: 1–20. <https://doi.org/10.1111/manc.70060> (2026).
- **Incentive Design on Networks** (with A. Daripa and S. Kapur), SSRN 4312506 (2022).
- **Network Structures and Credit Rating** (with A. Daripa and S. Kapur), SSRN 3446432 (2019).
- **Decentralized Defence of a (Directed) Network Structure**, *Defence and Peace Economics*, 2020.
- **Centrality in Trade Networks and Investment in Security**, (with V. Bove, and L. Elia), *Peace Economics, Peace Science and Public Policy* 2016.

AWARDS & PROFESSIONAL DEVELOPMENT

- **Academic Excellence Award**, Birkbeck College (Top of PhD cohort).
- **Excellence in Teaching Award**, Birkbeck College.
- **ARS'11 Master Thesis Award**.
- **Professional development**: Cambridge-INET and HCEO-Chicago Summer School (2014); Fundamentals of Teaching; Social Learning and Policy Design; Associate Fellow of the Higher Education Academy.