

Faculty of Humanities and Social Sciences

HSS Student Bursary Project Advert 2023/24

Project title:

Macroeconomic shocks and the dynamic of Bitcoin prices

Summary/explanation of the project:

The conventional wisdom posits that Bitcoin, being purely a speculative asset which does not pay any cash flow, is uncorrelated to traditional financial markets and, as such, is not exposed to macroeconomic risk. The goal of this project is to challenge this view and explore the nexus between macroeconomic shocks and the dynamic of Bitcoin prices through the lens of structural econometric models.

Project lead:

Dr Daniele Bianchi
School of Economics & Finance
d.bianchi@qmul.ac.uk

Relationship between this project and your research or scholarship:

This project represents a significant contribution to a research agenda on the role of non-linear high-dimensional models to explain the dynamic of risk and return in financial markets. The project is still in initial stages with early stage outputs planned for this academic year.

Project work and outcomes:

The student will provide support in building and preparing the dataset as well as in constructing the econometric model needed for the preliminary empirical analysis. Depending on the student's programming skills, the support may also include assistance with the implementation of the empirical analysis. All the work can be carried out remotely if preferred by the student.

Student skills and knowledge required:

- Intermediate programming skills (Python/Matlab).
- Interest in working on large financial datasets.
- Interest in carrying out empirical research.
- Interest in cryptocurrency markets. Good communication skills.

Start date and work pattern:

- The start date for the project is flexible but will be as soon as possible 3 April 2024. Ideally the project will be completed by June 2024.
- The student is anticipated to work flexibly, for a total of 76 hours over the project period; on average 10 hours/week including meetings and with the project lead where required. There is complete flexibility in how the work is organised.
- The project will start with an initial 1-1 consultation, in which the PI will explain the detail of work and its objectives.
- After this initial meeting, there will be fortnightly 1-1 meetings (in person or online) to monitor and review the projects progress.

Students must submit applications to econ-research@qmul.ac.uk by **12 noon on 13 March 2024**.

Each School will make its own arrangements for selecting student applicants; these may include interviews if considered appropriate.

We anticipate that funding will be disbursed in two instalments, both subject to confirmation by the academic project lead that the student has been working appropriately.

The first instalment (40% of the award) will be paid at end of May 2024; the second (60% of the award) will be paid upon overall completion.