Benjamin Hemingway

Contact Information

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Current Position

Research Economist *CBDC Unit, Bank of England* — 2023–

Previous Positions

Senior Economist *Research Center (CEFER), Bank of Lithuania* — 2018–2023

Research Fellow *Vilnius University* — 2018–2023

Education

PhD *Department of Economics, University College London* — 2012–2018
Advisors: Professor Morten Ravn (primary) and Dr Vincent Sterk
Examiners: Professor Xavier Mateos-Planas and Dr Frédéric Malherbe

MRes, Economics *University College London* — 2011–2012

MSc, Economics *University College London* — 2009–2010

BA, Philosophy, Politics and Economics *University of Oxford* — 2006–2009

Research Fields

Macroeconomics, Digital Currency, Money, and Banking.

Teaching Experience

Lecturer *Vilnius University*

PhD Advanced Macroeconomics	Spring 2021–2022
Quantitative Economics, Applied Macroeconomics	Autumn 2022
Quantitative Economics, Economic Theory II	Spring 2020–2023
Quantitative Economics, Economic Principles II	Spring 2019–2020
PhD Research Methods, Introduction to MATLAB	Autumn 2018–2022

Teaching Assistant *University College London*

ECONG105 *MRes Macroeconomics*	Spring 2015–2017
ECON3029 *Advanced Macroeconomics*	Spring 2015
ECON7002 *Economics of Finance*	Autumn 2013–2015
ECON3003 *Econometrics for Macroeconomics and Finance*	Spring 2014
ECON1001 *Economics*	Spring 2013

Work Experience

Research Analyst *FTI Consulting* Oct 2010–Sep 2011

Publications

Banking regulation and collateral screening in a model of information asymmetry
Journal of Financial Services Research **61**, 367-405 (2022)

This paper explores the impact of banking regulation on a competitive credit market with ex-ante asymmetric information and aggregate uncertainty. I construct a model where the government imposes a regulatory constraint that limits the losses banks make in the event of their default. I show that the addition of banking regulation results in three deviations from the standard theory. First, collateral is demanded of both high and low risk firms, even in the absence of asymmetric information. Second, if banking regulation is sufficiently strict, there may not exist an adverse selection problem. Third, a pooling Nash equilibrium can exist.

Working Papers

The role of central bank digital currency in an increasingly digital economy

The introduction of an unremunerated retail central bank digital currency (CBDC) is currently under consideration by several central banks. Motivated by the decline in transactional cash usage and the increase in online sales in the UK, this paper provides a theoretical framework to study the underlying drivers of these trends and the welfare implications of introducing an unremunerated retail CBDC. A cash credit model with physical and digital retail sectors is developed, with endogenous entry of firms and directed consumer search. Calibrating to UK data between 2010 and 2022 the model suggests that there are positive welfare gains from introducing an unremunerated retail CBDC, but these have likely declined over time.

The impact of central bank digital currency on bank deposits and the interbank market
Bank of Lithuania Working Paper No. 110

This paper investigates how the introduction of a central bank digital currency (CBDC) impacts the banking sector. The deposit market is modeled as a Salop circle and deposits are subject to liquidity shocks. Absent a CBDC the interbank market can redistribute liquidity between banks. However, the central bank does not take part in the interbank market and CBDC leads to greater reliance of the banking sector on central bank standing facilities. The model shows adjusting the remuneration rate of CBDC has little pass-through to the deposit rate set by banks and may have implications for transmission of monetary policy.

Macroeconomic implications of insolvency regimes
Bank of Lithuania Working Paper No. 77

The impacts of creditor and debtor rights following firm insolvency are studied in a firm dynamics model where defaulting firms choose between restructuring or exit. The model accounts for differing effects of productivity shocks across economies that differ in the credit/debtor rights. Following a negative shock labour productivity falls sharply in a creditor-friendly regime such as the UK while in a debtor-friendly regime such as the US, there is a larger employment response. This paper suggests a possible explanation for the different employment and labour productivity response in the UK and US since the financial crisis.

The Impact of Bank Competition on Loan Applications

How does competition in the loan market affect firm loan applications? I model competition in a loan market where firms choose between applying to a bank, an uninformed lender or neither. Banks have an informational advantage over lenders in the form of a costly creditworthiness test. The choice of lender depends on the ex ante riskiness of the borrower. Low risk borrowers apply to the uninformed lender, high risk firms do not apply for loans while intermediate risk borrowers apply for banks. The model predicts that increased bank concentration benefits higher risk borrowers at the cost of lower risk borrowers.

Works in progress

The effect of the financial crisis on bank lending to SMEs
joint with Alan Crawford

In this paper we develop a model of bank lending to small-to-medium enterprises (SMEs). Combining a bi-annual survey of European SME financing decisions with a contemporaneous EU-wide banking conditions survey, we empirical evaluate the determinants of successful loan applications during the financial crisis.

Conference and Seminar Presentations

2024: Royal Economic Society Annual Conference, RES Workshop on Central Bank Digital Currencies
2023: Bank of England, CEPR-ECB Conference "The macroeconomic implications of central bank digital currencies"
2022: Baltic Economic Conference, CEBRA Annual Meeting, MMF Annual Conference, Warsaw MMF
2021: Universidad Carlos III de Madrid Microeconomics Seminar, Baltic Economic Conference (Virtual)
2020: 22nd INFER Annual Conference, Bank of Lithuania Non-Technical Research Seminar
2019: 16th Corporate Finance Day, MMF 50th Anniversary Conference, Belgrade Young Economists Conference 2019, Economic Challenges in Enlarged Europe 2019

Professional Activities

Affiliations: Member of ECB's MPC Expert Group on CBDC (former)
Refereeing: Journal of Financial Services Research, Macroeconomic Dynamics

Scholarships and Awards

ESRC Studentship: 1+3 Award	2011-2015
UCL Economics: Outstanding Teaching Award (ECONG105)	2016-2017
UCL Economics: Outstanding Teaching Award (Best Overall)	2014-2015
UCL Economics: Outstanding Teaching Award (ECON7002)	2013-2014

References

Available upon request