Tingyi Lin
PhD Candidate
Central University of Finance and Economics
Visiting Student, Sun Yat-sen University
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Date: January 27, 2026

Application for the 2026 NBER Innovation Research Boot Camp

Dear Selection Committee,

I am writing to submit my application for the NBER Innovation Research Boot Camp to be held in Cambridge.

I am currently a third-year PhD candidate in Economics at the Central University of Finance and Economics (CUFE). Additionally, I am currently a visiting student at Sun Yat-sen University. My research training involves close collaboration with Dr. Ruoran Lai at Sun Yat-sen University and Research Fellow Dr. Karl Yu at Boston College. My research primarily focuses on the disruptive potential of financial innovations, with a specific interest in how Stablecoins and Decentralized Finance (DeFi) serve as transformative technological tools that impact global financial markets. I am particularly focused on how these innovations challenge and reshape sovereign monetary policy within the context of failed or fragile states. This academic background provides me with a solid foundation to contribute to and benefit from the boot camp's focus on the frontier of innovation research

Enclosed in the attached single PDF file, you will find my curriculum vitae, a statement of purpose detailing my research agenda, and an abstract for a potential poster presentation.

As requested, please find below the contact information for the faculty members who can provide a recommendation should I be shortlisted for participation:

Reference Name: Dr. Ruoran Lai
Title: Assistant Professor
Institution: Sun Yat-sen University
Email: lairr5@mail2.sysu.edu.cn

Reference Name: Dr. Karl Yu
Title: Research Fellow
Institution: Boston College
Email: yulin@bc.edu

Thank you for your time and consideration. I look forward to the possibility of contributing to and learning from this intensive workshop.
Sincerely,Tingyi Lin

TINGYI LIN

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Central University of Finance and Economics
Visiting Student, Sun Yat-sen University
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ACADEMIC AND BUSINESS POSITIONS

Boston College — Chestnut Hill, MA
Research Assistant — 2025 – Present
working for Dr. Karl Yu

Central University of Finance and Economics — Beijing, China
Teaching Assistant — 2023 – 2024

Chaochein Capital — Hong Kong
Chief Macro Strategist(Part time) — 2023 – Present

EDUCATION

Central University of Finance and Economics — Beijing, China
Ph.D. Candidate in Economics — 2023

Sun Yat-sen University — Guangzhou, China
Visiting Student — 2025 – Present
Advisor: Dr. Ruoran Lai, Dr. Karl Yu

Central University of Finance and Economics — Beijing, China
Bachelor of Economics, Financial Risk Management (Magna Cum Laude) — 2019
Bachelor of Business (Dual Degree) — 2019

RESEARCH FIELDS

Game Theory and Algorithmic Game Theory , DeFi & Money Markets, FinTech, Cryptocurrency Mechanism Design

ARTICLES

Under Review

Finance and Economics

A Blessing in Disguise: How DeFi hacks Trigger Unintended Liquidity Injections into US Money Markets https://ssrn.com/abstract=5935576

(Formerly under review at *Quarterly Journal of Economics* [MS44851] with constructive positive comments and detailed Revision advice from Prof. Andrei Shleifer (Harvard University))

Status: Under review at *Journal of Financial and Quantitative Analysis*

Selected Conferences and workshops: CICF, ABFER, AsianFA, China Financial Research Conference (Tsinghua University PBCSF), HKUST Finance Symposium, EEA, NASM(Econometric Society), CEPR Luiss Finance Workshop

The Private Enforcer: Algorithmic Deterrence and the Shadow Tax on Insider Trading https://dx.doi.org/10.2139/ssrn.5998554 (with Ruoran Lai)

Status: Submitted to Review of Asset Pricing Studies

Selected Conferences and workshops: CICF, SAIF Annual Research Conference, China Financial Research Conference (Tsinghua University PBCSF), AMES-China(Econometric Society)

Computer Science

Strategic Silence: Optimal Execution and Detection Dynamics in the Presence of MEV Bots

Status: Submitted to ACM Conference on Economics and Computation (2026)

Working Papers

Sovereignty, Crypto, and shocks: The Impact of Stablecoins on Monetary Policy in Failed States (with Ruoran Lai)

The Elite School Custodianship Effect: The Impact of Super High School Group-Based Schooling on Students' Human Capital——Evidence from Peak Middle School in Beijing

In collaboration with Beijing National Day School and Prof. Wanlin Lin (Sun Yat-sen University), Dr. Karl Yu (Boston College)

PHD COURSEWORK

Core Courses: Advanced Microeconomics I & II, Advanced Macroeconomics I , Recursive Macroeconomic Theory II, Advanced Econometrics I & II.
Field Courses: International Economics, Monetary Economics, Financial Economics, Game Theory and Mechanism Design.
Mathematics: Dynamic Optimization, Stochastic Processes, Real Analysis.

CERTIFICATES

IBM: Exploratory Data Analysis for Machine Learning
Credential No. NJMFUHVO3CYA

SKILLS & LANGUAGES

Computational: Stata, Python (Pandas, Scikit-learn), R, SQL.
Methods: Causal Inference (DID, RDD, SCM, Granular IV), Structural Modeling (DSGE, Game Theory and Algorithmic Game Theory), Machine Learning (DML, Lasso).
Languages: Chinese (Native), English (Advanced, CEFR C1), Latin (Basic).

STATEMENT OF PURPOSE

Research Background and Agenda

My journey into digital world was sparked by a fascination with the "plumbing" of the global financial system—specifically, how emerging financial technologies and digital asset structures interact with traditional monetary frameworks. As a third-year PhD candidate currently visiting Sun Yat-sen University, my research agenda focuses on the Macro influence of Financial Innovation . I primarily investigate how shocks originating in the unregulated FinTech ecosystem (specifically DeFi) transmit to regulated sovereign funding markets.

Current Research: The Unintended Stabilizer

My current working paper, "A Blessing in Disguise: How DeFi Hacks Trigger Unintended Liquidity Injections into US Money Markets," challenges the prevailing regulatory narrative of "contagion." While policymakers often fear that the collapse of innovative payment instruments (like stablecoins) will destabilize traditional markets, my empirical findings suggest the opposite.

Using a stacked dynamic event study and a Granular Instrumental Variable (GIV) framework, I document a robust "Flight-to-Quality" effect. I find that following major DeFi hacks, spreads on 3-month AA-rated commercial paper actually narrow by approximately 3 basis points rather than widen. Under the guidance of Dr. Ruoran Lai and Dr. Karl Yu, I identify a "liquidity recycling" mechanism: capital fleeing risky FinTech protocols is re-intermediated via Prime Money Market Funds (MMFs). This project has taught me how to handle high-frequency granular data, yet it has also highlighted a gap in my training. I need a more rigorous structural framework to model the general equilibrium implications of these technological frictions.

Planned Research: Digital Dollarization in Failed States

Building on this work, my next project shifts focus from the "center" (US money markets) to the "periphery." I am currently developing a paper tentatively titled *"Sovereignty, Crypto, and Shocks: The Impact of Stablecoins on Monetary Policy in Failed States."*

The motivation is simple: in economies with collapsing institutions, stablecoins are not just speculative assets but functional technological substitutes for local fiat currency. I aim to explore how this "digital diffusion" erodes monetary sovereignty. Specifically, I am interested in modeling how the widespread adoption of FinTech innovations (USDT/USDC) alters the Phillips Curve in these economies and limits the central bank's ability to use inflation tax as a fiscal buffer. This research directly relates to the economics of innovation adoption, as it examines how digital currency substitution imposes a hard constraint on fiscal dominance, potentially accelerating sovereign default cycles in fragile economies.

Why the NBER Boot Camp?

Attending the NBER Innovation Research Boot Camp comes at a critical juncture in my PhD training. While I have built a toolkit in reduced-form empirical methods, I often find myself constrained when trying to map the impact of financial innovations to structural parameters.

I am particularly eager to learn from the distinguished faculty about the diffusion of new technologies and the interaction between innovation policy and market structure. The boot camp's focus on how new technologies reshape economic dynamics is exactly the theoretical grounding I need to elevate my "Blessing in Disguise" paper from a localized market microstructure study to a broader analysis of financial innovation.

I am looking for an opportunity to step out of my current research silo, receive critical feedback from leading scholars, and connect with peers who are tackling similar "frontier" problems in the economics of innovation. I believe my focus on the intersection of digital assets and traditional policy frameworks would bring a unique perspective to the cohort.

Overall, as Kehoe et al. (2018) eloquently put it, modern economics operates under a 'big tent'—one that welcomes creative inquiries provided they are disciplined by consistency. It is my sincere aspiration to step into this tent. By rigorously mapping the novel frictions of DeFi innovations onto the foundational structures of economic theory, I hope to become a humble contributor to the ever-evolving river of economic thought. I look forward to the privilege of engaging with you—the very architects of this intellectual tradition—to learn how to better uphold the standards of clarity and rigor that define our discipline.