Application Summary

NBER Entrepreneurship Research Boot Camp 2026

Name: Tingyi Lin

Contact Information: Email: hayashi@email.cufe.edu.cn

School: Central University of Finance and Economics (Visiting Student at Sun Yat-sen University)

Area of Interest: Macro Finance, FinTech & Digital Ventures, International Macroeconomics, DeFi Mechanisms

Year of Entry into PhD Program: September 2023

Expected Year of Completion: June 2027

Faculty Member Supplying Recommendation: Research Fellow Dr. Karl Yu (Boston College) and Professor Ruoran Lai(Sun Yat-sen University)

To the Selection Committee (Profs. Jorge Guzman and David T. Robinson),

I am writing to submit my application for the 19th NBER Entrepreneurship Research Boot Camp. I am a third-year PhD candidate at CUFE, currently visiting Sun Yat-sen University. My research sits at the intersection of **Macro Finance** and **FinTech**, with a specific focus on the operational risks and capital dynamics of decentralized digital ventures (DeFi protocols).

My current work investigates how ”crypto-native” startups—specifically stablecoin issuers and DeFi lending protocols—interact with traditional banking systems. Rather than viewing these entrepreneurial ventures in isolation, I model them as a shadow liquidity reservoir that inadvertently subsidizes traditional high-grade borrowers during operational crises. This perspective aligns closely with the boot camp's focus on the financing of new ventures and their broader economic implications.

Enclosed in this PDF, you will find my CV, a statement of purpose. I look forward to the opportunity to engage with the distinguished faculty and cohort in Cambridge.

Sincerely,

Tingyi Lin

TINGYI LIN

PhD Candidate in Economics
Central University of Finance and Economics
Visiting Student, Sun Yat-sen University
Email: hayashi@email.cufe.edu.cn

ACADEMIC AND BUSINESS POSITIONS

Boston College Chestnut Hill, MA
Research Assistant 2025 – Present
working with Dr. Karl Yu on the impact of decentralized finance (DeFi) on traditional money markets, algorithmic game theory, and FinTech;independently completed the core research and development of the paper under his mentorship

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

EDUCATION

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

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 – 2023
Bachelor of Business (Dual Degree) 2019 – 2023

RESEARCH FIELDS

Macro Finance, FinTech & DeFi, International Macroeconomics, Monetary Policy.

ARTICLES

Under Review

Finance and Economics

A Blessing in Disguise: How DeFi Hacks Trigger Unintended Liquidity Injections into US Money Markets

(Job Market Paper) Available at SSRN: https://dx.doi.org/10.2139/ssrn.5935576

(Formerly under review at *Quarterly Journal of Economics* [MS44851]. Revised based on constructive comments and detailed advice from **Prof. Andrei Shleifer** (Harvard University) regarding economic magnitude and narrow framing.)

Status: Under review at Journal of Financial and Quantitative Analysis (JFQA)

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

(with Yu, Karl and Lai, Ruoran and Qi, Weiyu)

Chicago Booth Center for Decision Research (Managerial & Organizational Behavior) Working Paper, Available at SSRN Research Paper Series: http://dx.doi.org/10.2139/ssrn.6152346

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

Smoothing the Cliff: Fair and Incentive-Compatible Priority Allocation via Randomized Mechanisms

(with Lin, Tingyi and Yu, Karl and Zhang, Huanxi and Qi, Weiyu)

Boston College Law School Legal Studies Research Paper, Chicago Booth Microeconomics Working Paper, Available at SSRN Research Paper Series: https://dx.doi.org/10.2139/ssrn.6148512

Status: Working Paper

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, Prof. Wanlin Lin, and Dr. Karl Yu)

PHD COURSEWORK

Core Courses: Advanced Microeconomics I & II, Advanced Macroeconomics I & II, Advanced Econometrics I & II.

Field Courses: Financial Economics, International Economics, Monetary Economics, Game Theory.

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), Machine Learning (DML, Lasso).
Languages: Chinese (Native), English (Advanced, CEFR C1), Latin (Basic).

STATEMENT OF PURPOSE

Research Background and Agenda

My journey into economics was sparked by a fascination with the "plumbing" of the global financial system—specifically, how emerging **entrepreneurial ventures** in the digital asset space interact with traditional monetary frameworks. As a third-year PhD candidate currently visiting Sun Yat-sen University, my research agenda focuses on **Macro Finance** and **Financial Frictions**. I primarily investigate how operational risks originating in the unregulated "shadow" banking system of DeFi (Decentralized Finance) 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 stablecoin ventures 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 hacks on DeFi protocols, 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 crypto-ventures is re-intermediated via Prime Money Market Funds (MMFs). This project highlights how the failure of unregulated startups can paradoxically subsidize borrowing costs for established firms in the real economy.

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 speculative assets but functional substitutes for local fiat currency. I aim to explore how this "crypto-dollarization" erodes monetary sovereignty. This research directly relates to **Entrepreneurial Finance**, as it examines how digital currency startups act as competitors to central banks, imposing hard constraints on fiscal dominance and potentially accelerating sovereign default cycles in fragile economies.

Why the NBER Entrepreneurship Boot Camp?

Attending the NBER Entrepreneurship Research Boot Camp comes at a critical juncture in my PhD training. While I have built a toolkit in reduced-form empirical methods, I need to deepen my understanding of how new ventures (like DeFi protocols) reshape market structures.

I am particularly eager to learn from organizers **Jorge Guzman** and **David T. Robinson**, as their work on the quality of entrepreneurship and organizational form is directly applicable to my study of the DeFi ecosystem. Furthermore, the focus on the interaction between new entrants and incumbent financial frameworks 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 entrepreneurship.

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 digital entrepreneurship onto the foundational structures of economic theory, I hope to become a humble contributor to the ever-evolving river of economic thought.

BOSTON COLLEGE
DEPARTMENT OF ECONOMICS

Karl Yu
Senior Researcher
Department of Economics
Email: yulin@bc.edu

February 4, 2026

Selection Committee
National Bureau of Economic Research (NBER)
1050 Massachusetts Avenue
Cambridge, MA 02138

Dear NBER committee,

I am writing to offer my strong recommendation for Tingyi Lin to attend the NBER Boot Camp. I serve as Tingyi's thesis advisor and have collaborated closely with him along with Professor Ruoran Lai at Sun Yat-sen University for the past two years.

While Tingyi's official title is Research Assistant, he operates effectively as a senior co-author. Unlike many doctoral students who primarily execute instructions, Tingyi drives the research design. He has a rare ability to independently identify econometric challenges and propose rigorous solutions.

His capability is best illustrated by our working paper, *"A Blessing in Disguise,"* which examines liquidity spillovers from DeFi hacks. Tingyi did not just handle the data; he built the identification strategy. To establish causality, he independently proposed utilizing a Stacked Dynamic Difference-in-Differences framework. Furthermore, he successfully implemented a cutting-edge Sparse Granular Instrumental Variable (GIV) approach (following Gabaix & Koijen, 2024) to address endogeneity. It is exceptional for a student to not only understand these advanced methods but to derive the logic for their application in a novel context. He is, without doubt, the most capable graduate student I have supervised in recent years.

Tingyi is technically brilliant, but the NBER Boot Camp is crucial for his next step: integrating broader theories into his empirical work. He is an intellectually curious and productive researcher who will contribute meaningfully to the cohort.

I recommend him without reservation.

Sincerely,

Karl Yu
Department of Economics
Boston College