NBER Entrepreneurship Research Boot Camp 2026
Application

Applicant Information

Name: Wenyi Ji

School: Tsinghua University

Department: PBC School of Finance

Email: jiwy.24@pbcsf.tsinghua.edu.cn

Phone: +86 13552622566

Mailing Address: 43 Chengfu Road, Haidian District, Beijing 100083, China

Area of Interest: Entrepreneurship, Corporate Finance, Innovation, Artificial Intelligence

Year of Entry into PhD Program: September 2024

Expected Year of Completion: June 2029

Advisor

Name: Xuan Tian

Institution: Peking University

Email: tianx@pbcsf.tsinghua.edu.cn

Wenyi Ji

email: jiwy.24@pbcsf.tsinghua.edu.cn

Educational Background

Tsinghua University, PBC School of Finance 2024 – Present
Ph.D. Candidate in Finance
Renmin University of China, School of Finance 2020 – 2024
B.Sc. in Economics and Mathematics

Research Interests

Corporate Finance, Entrepreneurship and Innovation, Political Economy, AI Economics, Supply Chain Finance

Working Papers

Reallocation Effects of Financial Regulation through Supply Chains

- Exploits the 2018 New Asset Management Regulation as an exogenous shock to shadow banking liquidity. Constructs firm-level production networks to measure supply chain centrality and implements a DID design.
- Finds that effects are driven by customers' pre-regulation exposure to shadow banking, with stronger responses among private firms substituting for formal credit.

Fiscal Incentives, Political Promotion, and Resource Misallocation

- Exploits sub-provincial VAT sharing data (1999–2013) to examine how fiscal decentralization shapes land transfer strategies.
- Constructs a spatial equilibrium model with counterfactual analysis to quantify the aggregate welfare impact of local government behavior.
- Higher VAT retention motivates officials to suppress industrial land prices to attract tax base while inflating commercial land prices for revenue. This distortion, amplified by political promotion incentives and government-firm collusion, reduces aggregate welfare by 0.56% and TFP by 0.37%.
- First Prize, Outstanding Undergraduate Thesis Award, Renmin University

Work in Progress

Tethered Intelligence: How Energy Constraints Filter AI Startups

- Builds a dataset linking AI startups' compute infrastructure to regional power availability. Develops an identification strategy exploiting exogenous variations in electricity prices and grid outages to isolate the causal effect of compute scarcity.
- Hypothesizes that infrastructure constraints force startups toward compute-efficient innovation (e.g., Small Language Models) and increase the likelihood of exit via acquisition by energy-rich incumbents.

Policy & Media Publications

- "Corporate Governance Logic of the Draft Regulation on the Supervision and Administration of Listed Companies: A Corporate Finance Perspective" *Xinhua Finance*, Dec. 2025.
- "Major Revision of the Enterprise Bankruptcy Law: Implications of the New Chapter on Financial Institution Bankruptcy" *Xinhua Finance*, Sept. 2025.
- "Key Takeaways from the Annual Meeting of the China Capital Market Institute" *Xinhua Finance*, July 2025.
- "Three Global Trends in Stabilizing the Financial Order" *Xinhua Finance*, May 2025.
- "Highlights and Outlook: Analysis of the 'Implementation Plan for Promoting Medium- and Long-Term Capital Entry"' *Xinhua Finance*, Feb. 2025.
- "Unlocking the Potential of Data Factors to Drive High-Quality Development" *Xinhua Finance*, Jan. 2025.

Note: All articles were written during a research internship at the China Economic Information Service (CEIS) and published on Xinhua Finance.

Teaching Experience

Teaching Assistant, Corporate Finance (Master's Program), Tsinghua University 2025

- **Instructor:** Prof. Xuan Tian
- Supported course instruction and grading of exams and case studies for graduate students.

Research & Policy Experience

China Economic Information Service (CEIS), Xinhua News Agency 2024 – Present

- Conducted policy-oriented economic analysis and think tank report drafting.

  Note: CEIS is an economic intelligence and policy research unit under Xinhua News Agency, widely recognized for its policy research and economic analysis.

Institute of Public Finance and Taxation, Renmin University 2023 – 2024

- Supported public finance research, including data analysis and research report preparation.

Awards

- **First-Class Comprehensive Scholarship**, Tsinghua University 2025
- **First Prize, Outstanding Undergraduate Thesis Award**, Renmin University 2024
- **Academic Excellence Scholarship**, Renmin University 2023

Tethered Intelligence: How Energy Constraints Filter AI Startups

Wenyi Ji | PBC School of Finance, Tsinghua University

MOTIVATION

Most AI startups rely on cloud services, which expose them directly to rising compute costs. As generative AI strains the grid, rising compute costs make "scaling-based" innovation trajectories economically unviable for independent firms. While many startups pivot toward efficiency—developing Small Language Models (SMLs) or distillation techniques—technical adjustments often fail to fully offset physical constraints. When efficiency-oriented R&D is insufficient, startups will adjust along organizational and financial margins. So financing is no longer merely a source of capital but a channel to access critical infrastructure.

Research Question: Do intensifying electricity constraints compel AI startups to exit through acquisition or restructure financing to integrate into organizations with superior energy advantages?

EMPIRICAL STRATEGY

Baseline. I exploit exogenous electricity shortages to identify the causal effect of compute scarcity on financial decisions. I measure each startup's *ex-ante* dependence on compute and identify whether the cloud regions they rely on experience external electricity shocks at time t. I leverage shocks such as sharp, infrastructure-driven price spikes and large-scale outages. I examine whether these shocks increase the probability of acquisition by large tech incumbents, reduce IPO likelihood, and raise the share of Corporate Venture Capital (CVC) financing.

Mechanisms. To establish the mechanism, I analyze hiring postings and patent texts to track shifts in R&D orientation—specifically, the trade-off between "compute-intensive scaling" and "compute-efficient strategies" (e.g., SMLs, distillation). I exploit the heterogeneity in financing outcomes to disentangle the role of capital: does CVC investment act as a "resource buffer" that relaxes physical constraints, allowing firms to sustain scaling trajectories? Or does it function as a "selection mechanism," where incumbents systematically acquire firms that have successfully pivoted to efficiency? By interacting the electricity shock with financing outcomes, I isolate whether organizational integration reverses or reinforces the physically induced shift in technical change. I also plan to study the spatial clustering of AI startups around regions with relatively cheap electricity, examining how energy infrastructure reshapes the geography of AI entrepreneurship.

CONTRIBUTION

First, in the context of entrepreneurial finance, this paper identifies infrastructure costs as a new entry barrier. Rising electricity and computing costs may push AI innovation toward early concentration in large firms, potentially reducing market dynamism. **Second**, contributing to the M&A literature, this paper moves beyond the motives of achieving soft synergies and shows that "infrastructure synergy" driven by the cost disparity between energy-rich incumbents and cloud-dependent startups is an important motivator for consolidation. **Third**, in the context of AI venture capital literature, this paper demonstrates that capital is heterogeneous. CVC provides bundled access to critical resources, reshaping entrepreneurial financing decisions.

REASONS FOR ATTENDING

I am highly motivated to participate in the NBER Entrepreneurship Research Boot Camp 2026. Its intensive and structured engagement with the core entrepreneurship literature, combined with its emphasis on theoretical clarity and empirical rigour, is uniquely valuable at this stage of my research agenda. I hope to sharpen how this project speaks to the entrepreneurship and firm growth literature and to develop it into a long-term research program on how entrepreneurs respond to fundamental resource and infrastructure constraints. I view ERBC not only as an opportunity to improve this paper, but as a formative step in my development as an entrepreneurship researcher.

I am grateful for your consideration of my application. I would greatly value the opportunity to participate in ERBC and to receive feedback from faculty and peers on this project. I very much look forward to the possibility of engaging with the ERBC community.

February 12, 2026

Dear Members of the NBER Entrepreneurship Research Boot Camp Selection Committee,

It is with great enthusiasm that I write to recommend **Ms. Wenyi Ji**, a second-year Ph.D. student in Finance at the PBC School of Finance, Tsinghua University, for selection to the NBER Entrepreneurship Research Boot Camp 2026. I am Wenyi's academic advisor. I also worked closely with Wenyi when she served as the teaching assistant for my Master's-level Corporate Finance course. She has demonstrated strong theoretical training, rigorous empirical skills, and a forward-looking research vision in the areas of entrepreneurial finance and innovation economics. I am confident that she would both benefit greatly from the Boot Camp and contribute meaningfully to the discussions.

Her research interests lie at the intersection of corporate finance, entrepreneurship, and AI economics. Her current work-in-progress, "Tethered Intelligence: How Energy Constraints Filter AI Startups," tackles a timely question: structural changes in entrepreneurial financing and organization when computing power and electricity become critical infrastructure resources. This project is novel because it shifts the focus from traditional capital constraints to "infrastructure constraints." She hypothesizes that energy scarcity may shift innovation's direction and accelerate the integration of startups into large tech incumbents. To test this, she is constructing a unique dataset that matches AI startups with regional power supply conditions. She plans to exploit exogenous shocks, such as electricity price spikes and grid outages, to identify causal effects on M&A exits, IPO probabilities, and CVC structures. Furthermore, her use of job posting and patent data to distinguish between "efficiency-oriented" and "integration-oriented" innovation paths demonstrates a deep understanding of the mechanisms driving entrepreneurial finance.

Beyond the AI project, Wenyi has conducted systematic research on supply chain finance and public finance. Her work successfully combines institutional shocks with network-structure analysis to identify causal effects, demonstrating strong capabilities in both empirical analysis and theoretical modeling. She received the First Prize for Outstanding Undergraduate Thesis at Renmin University of China, and she has maintained this high standard of academic performance throughout her doctoral studies.

Wenyi also brings a valuable policy perspective to her academic work. During her research internship at the China Economic Information Service (CEIS), a think tank under Xinhua News Agency, she authored policy analyses on capital markets, corporate governance, and bankruptcy reform. This experience has given her a nuanced understanding of how regulatory and institutional environments shape the entrepreneurial environment, enriching her academic

research with real-world relevance.

As my Teaching Assistant for the Master's level Corporate Finance course, Wenyi demonstrated a command of financial theory and excellent communication skills. She was responsible for grading case studies and handling daily academic inquiries, performing these duties diligently and reliably. She is an intellectually curious young scholar who thrives in collaborative environments.

For these reasons, I strongly recommend Wenyi Ji for the NBER Entrepreneurship Research Boot Camp 2026. I am confident that she will take full advantage of this opportunity to deepen her theoretical foundations, refine her research agenda, and develop into a leading scholar in entrepreneurial finance.

Please feel free to contact me if additional information would be helpful.

Sincerely,

Xuan

_____

Xuan Tian

Deputy to the 14th National People's Congress of PRC

Boya Distinguished Professor of Finance

"Cheung Kong Scholar" Distinguished Professor

Peking University

Personal website: <http://xuantian.info/> http://xuantian.info

Academic papers: <http://ssrn.com/author=464869>
http://ssrn.com/author=464869