NBER Entrepreneurship Research Boot Camp 2026

Application Summary

Name: Yikai Cao

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Phone: (+1) 650-248-8824

School: Stanford University

Department: Management Science and Engineering

Area of Interest: Entrepreneurial Finance, Venture Capital, Innovation Policy

Current Year in PhD: 2nd year (started Fall 2024)

Expected Completion: 2029

Advisor: Prof. Charles (Chuck) Eesley

Affiliations: Stanford Technology Ventures Program (STVP)

YIKAI CAO

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EDUCATION

Stanford University
Ph.D. in Management Science and Engineering 2024 – 2029

- Advisor: Prof. Chuck Eesley
- Affiliations: Stanford Technology Ventures Program (STVP)
- Research Focus: Entrepreneurship, Venture Capital, Innovation Policy
- Coursework: Causal Machine Learning; Applied Causal Inference with Machine Learning and AI; Mining Massive Datasets

Tsinghua University
B.S. in Statistics | *B.E. in Industrial Engineering* 2020 – 2024

- Thesis: Strategic Responses of Startups to Policy Uncertainty
- Coursework: Probability Theory; Statistical Inference; Time Series; Nonparametric Statistics; Machine Learning; Modeling and Simulation

WORKING PAPERS

1. **Cao, Y.**, Deng, W., Zhai, G., Eesley, C. "When External Shocks Attract Capital: Export Controls and Venture Capital Allocation in China." *Working paper*.
   - Examines how institutional interventions that reclassify technologies reshape venture capital opportunity structures
   - Finds export controls increase financing likelihood by 6% and deal size by 12%, with government VC serving as "opportunity coordinator" that facilitates private capital reallocation
2. **Cao, Y.**, Eesley, C., Jain, R., Moorjani, D. "Industrial Policy Reshapes Venture Capital Allocation and Growth Trajectories in Climate Technologies." *Working paper*.
   - Investigates how the Inflation Reduction Act affects VC entry, capital reallocation, and startup financing trajectories
   - Finds policy-induced VC entry increases financing likelihood by 8%, with effects operating through credibility rather than cash-flow channels

RESEARCH IN PROGRESS

How Do Institutional Shocks Reshape Venture Capital Markets and Firm Growth?
Dissertation Theme

- Central question: How do policy interventions and institutional changes reshape venture capital allocation, investor coordination, and startup growth trajectories?
- Theoretical contributions: Extending theories of opportunity structures in entrepreneurial finance; understanding how government and private investors coordinate in response to institutional shocks

GRANTS & AWARDS

- *Stanford Doerr School Sustainability Accelerator Fellowship* 2025
- *SCCEI Graduate Student Research Grant* 2024
- *Stanford Technology Ventures Program Research Funding* 2024
- *The Fan Charitable Foundation Engineering Graduate Fellowship* 2024
- *Stanford Visiting Undergraduate Research Fellowship* 2023
- *National Scholarship, China* (Top 0.2% nationally) 2020

PRESENTATIONS & SERVICES

- Stanford SCCEI Young Researcher Workshop 2025
- Stanford Causal Science Center Conference 2025
- Stanford Data Science Conference 2025
- Judge, Stanford Green AI Hackathon (Green-by-AI Track) 2025

Research Statement

Yikai Cao | Stanford University

How do policy interventions reshape venture capital markets? When governments enact industrial policies or trade restrictions, they do more than redirect public resources—they fundamentally alter the opportunity structures that guide private investment decisions. My research investigates how institutional shocks transform venture capital allocation, investor coordination, and startup growth trajectories in high-technology industries.

My first project examines how U.S. export controls on semiconductors transformed venture capital investment in China's chip industry. Rather than viewing these restrictions purely as sources of uncertainty, I conceptualize them as *institutional interventions that reclassify technologies and redefine investment opportunity structures*. Using a difference-in-differences design, my co-authors and I find that export controls paradoxically *increased* financing likelihood by 6% and deal sizes by 12% for affected startups. Crucially, we document that government venture capital (GVC) serves as an "opportunity coordinator"—by investing first in targeted firms, GVC signals legitimacy and attracts subsequent private capital. This coordination mechanism explains how institutional shocks can attract rather than deter private investment when accompanied by credible government commitment.

My second project turns to U.S. industrial policy, investigating how the Inflation Reduction Act reshapes venture capital flows to climate technology startups. We find that IRA-induced venture capital entry increases financing likelihood by 8%, but this effect operates primarily through a *credibility channel* rather than direct cash-flow benefits. Policy-aligned technologies experience shifts in their financing trajectories, with ventures moving more rapidly toward later funding stages. However, the benefits concentrate among mitigation technologies that align with IRA incentives, while adaptation technologies see more modest effects—raising important questions about whether current policy design inadvertently shapes which clean technologies reach scale.

Together, these projects contribute to our understanding of how institutional environments shape entrepreneurial finance. They extend theory on opportunity structures in venture capital markets, document the mechanisms through which government and private investors coordinate in response to policy shocks, and reveal how institutional interventions influence not just capital allocation but startup growth trajectories. My future work will examine how policy credibility and durability shape investor behavior over time, and how financing systems can be designed to support high-impact ventures currently excluded from capital flows.

The NBER Entrepreneurship Research Boot Camp offers an ideal opportunity to deepen my theoretical foundations in entrepreneurial finance. While my training in statistics and engineering has equipped me with strong empirical skills, I am eager to engage more deeply with the theoretical frameworks that animate entrepreneurship research. Scholars like Josh Lerner, whose work on venture capital and government programs directly informs my research, and Sabrina Howell, whose studies of how public interventions affect entrepreneurial outcomes parallel my interests, exemplify the intellectual tradition I hope to join. I am committed to preparing thoroughly by engaging with the syllabus readings, and I look forward to contributing my perspective on how institutional shocks reshape venture capital markets.

February 2, 2026

To the Selection Committee:

I am delighted to recommend **Yikai Cao** for the NBER Entrepreneurship Research Boot Camp. As Yikai's doctoral advisor at Stanford University's Management Science & Engineering department and Faculty Director of the Stanford Technology Ventures Program, I have worked closely with him since he began his PhD in Fall 2024. Based on both his research accomplishments and intellectual trajectory, I believe he is an exceptionally strong candidate for this program.

Yikai represents the kind of early-career scholar who will benefit most from—and contribute most to—the Boot Camp. He combines rigorous quantitative training with substantive questions about how institutional interventions reshape entrepreneurial finance. His dissertation examines a deceptively simple yet profound puzzle: when governments intervene in technology markets through policy shocks, how do venture capital investors respond, and what mechanisms govern the coordination between public and private capital?

His first paper, examining U.S. export controls on China's semiconductor industry, exemplifies the intellectual maturity he has achieved despite being early in his doctoral training. Rather than treating export controls as straightforward supply shocks that should deter investment, Yikai conceptualizes them as institutional interventions that fundamentally reclassify technologies and redefine opportunity structures. The finding that export controls increased rather than decreased venture capital investment—with financing likelihood rising 6% and deal sizes growing 12%—challenges conventional wisdom about how restrictions affect capital flows. More importantly, his identification of government venture capital as an "opportunity coordinator" that signals legitimacy and attracts private investment reveals a mechanism with broad theoretical implications for understanding public-private coordination in entrepreneurial finance.

His second project on the Inflation Reduction Act displays similar theoretical sophistication. By distinguishing between credibility channels and cash-flow channels through which industrial policy affects venture capital allocation, and by documenting differential effects on mitigation versus adaptation technologies, Yikai demonstrates an ability to move beyond descriptive findings toward mechanism identification—precisely the kind of analytical clarity that distinguishes strong empirical work.

What particularly impresses me is Yikai's intellectual honesty about what he needs to develop further. His research statement candidly acknowledges that while his statistical and engineering training provides strong empirical foundations, he seeks deeper engagement with theoretical frameworks in entrepreneurship. This self-awareness, combined with his genuine enthusiasm for learning from scholars like Josh Lerner and

Sabrina Howell, suggests he will approach the Boot Camp with the intellectual humility and openness that makes such programs most valuable.

The timing is ideal. Yikai has completed sufficient coursework and made enough research progress to engage meaningfully with advanced theoretical content, yet he is early enough in his career that exposure to foundational frameworks will shape his entire dissertation. The Boot Camp's focus on entrepreneurship theory, combined with its emphasis on research design and scholarly community-building, addresses precisely the developmental needs Yikai has identified.

Beyond his research, Yikai has demonstrated commitment to the broader scholarly community. He has presented at multiple Stanford conferences, served as a judge for the Green AI Hackathon, and secured competitive fellowships including the Stanford Doerr School Sustainability Accelerator Fellowship. He balances ambition with collegiality, and I expect he will contribute substantively to discussions while learning from fellow participants.

I give Yikai my strongest possible recommendation. He is exactly the kind of promising young scholar the NBER Boot Camp is designed to support—intellectually curious, methodologically sophisticated, theoretically engaged, and committed to research questions with both academic significance and policy relevance. I am confident he will make excellent use of this opportunity and emerge as a stronger, more theoretically grounded scholar.

Please do not hesitate to contact me if you need any additional information.

Sincerely,

Chuck

Chuck Eesley<http://chuckeesley.com>
Management Science & Engineering
Dept.<https://msande.stanford.edu/admissions/graduate/phd>
Stanford Technology Ventures Program<https://stvp.stanford.edu>
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