

# Ke Shi

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## EDUCATION

Ph.D., (in progress), Economics, California Institute of Technology, expected in 2025.  
B.A., *summa cum laude*, Economics, Mathematics, New York University Abu Dhabi, 2020.

## FIELDS & INTERESTS

Industrial organization, finance, economic history, innovation, entrepreneurship, antitrust regulations

## ADVISORS/COMMITTEE

Matthew Shum  
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## WORKING PAPERS

1. The Impact of Privacy Protection on Online Advertising Markets (with Miguel Alcobendas, Shunto Kobayashi, and Matthew Shum), revise and resubmit to *The Review of Economics Studies*.
2. Venture Capital: A Tale of Three Networks.
3. Buying Public Offices, Bureaucratic Diversity, and Economic Development.
4. Self-Control and Commitment in Consumer Credit Markets (with Yi Xin).

## WORK IN PROGRESS

5. Labor Market Consolidation and Distorted Matching.

## GRANTS & AWARDS

Linde Institute of Economic and Management Sciences Research Grant, Caltech, 2022, 2023.  
Patrick Hummel and Harry Gray Travel Fund, Caltech, 2023.

John O. Ledyard Prize for Graduate Research in Social Science, Caltech, 2022.  
James and Karen Gerard Fellowship in Social Sciences, Caltech, 2021.  
University Honors Scholar and NYU Founders' Day Award, NYU, 2020.  
Undergraduate Research Summer Fund, NYU Abu Dhabi, 2018, 2019.

## PRESENTATIONS

2024: International Industrial Organization Conference (IIOC) (*scheduled*), Asia Meeting of the Econometric Society, China (Zhejiang ZJU) (*scheduled*)

2023: Econometric Society North American Summer Meeting (UCLA), Asia Meeting of the Econometric Society, Singapore (NTU), SUFE-Jinan Empirical IO Conference (Shanghai SUFE), 10th China Meeting on Game Theory and Its Applications (Renmin RUC), Asia Meeting of the Econometric Society, China (Tsinghua), Western Economics Association International (WEAI) Annual Conference, Workshop on Social Networks in Economics (Duke Kunshan), Asia-Pacific Industrial Organisation Conference (APIOC) (HKUST), Summer School on Structural Estimation in Corporate Finance (Wharton)\*, NBER Digital Economics and AI Tutorial (UToronto)\*

Note: \* indicates attendee, otherwise presenter.

## TEACHING

Teaching Assistant, California Institute of Technology

BEM 113 Law and Finance for Startups, Winter 2023

BEM 109 Understanding China through Finance, Fall 2023

BEM 105 Options (Financial Derivatives), Fall 2021, Fall 2022

BEM 103 Introduction to Finance, Winter 2022, Winter 2023

Note: BEM is business, economics, and management.

## MISC

Programming: Julia, MATLAB, Python, R, Stata.

Languages: English, Chinese.

## WORKING PAPER ABSTRACTS

### 1. The Impact of Privacy Protection on Online Advertising Markets (with Miguel Alcobendas, Shunto Kobayashi, and Matthew Shum)

*Abstract.* Online privacy protection has gained momentum in recent years and spurred both government policies and private initiatives. A hallmark of this movement is the ongoing removal of third-party cookies—a device widely adopted to track online user behavior and implement targeted ads—from web browsers. Using banner ad auction data from Yahoo, we study the effect of a third-party cookie ban on the online advertising market. We first document stylized facts about the value of third-party cookies to advertisers. Motivated by Google’s plan to phase out third-party cookies from Chrome, its market-leading browser, we adopt a structural approach to recover advertisers’ valuations from their bids. Our counterfactual analysis suggests that the ban would reduce publisher revenue by 51% and advertiser surplus by 41%. Furthermore, advertisers who can leverage their informational advantage over competitors would reap a surplus from the ban.

### 2. Venture Capital: A Tale of Three Networks

*Abstract.* Networks play a key role in enabling information flow and improving fund performances in the venture capital (VC) industry. However, the often-used coinvestment networks do not reflect the true social connections, *i.e.*, the informal and personal ties between VC partners. In this paper, I connect three VC networks—coinvestment, past, and social—and study their impact on VC performances with a structural network model. To address the endogeneity issues in this setting, I exploit exogenous variations in VC partners’ past connections through professional and alumni networks. Furthermore, to incorporate social networks, I endogenize network formations and structurally recover the unobserved, underlying social connections from VCs’ equilibrium performance outcomes. I find that social networks have a significant effect on VC performances. Counterfactual experiments suggest that the industry suffers in terms of both welfare and equality from this reliance on personal connections.

### 3. Buying Public Offices, Bureaucratic Diversity, and Economic Development

*Abstract.* I show that socioeconomic diversity in the government could contribute to the development of private enterprises. I study the institution of selling public offices during late imperial Qing and show that it had a positive impact on early industrialization in China. In traditional Chinese society, merchants had relatively low social status and their businesses were frequently subject to government extortion and appropriation. By taking advantage of the office-selling program, the merchants were able to gain increased representation within the imperial bureaucracy. This, in turn, had a positive spillover effect on the private sector and early industrialization. I argue that changes in bureaucratic composition did not necessarily enhance the institutional environment for businesses. Instead, a more plausible mechanism is that purchasing officials had more progressive ideologies, preferences, and relationships with business interests, ultimately reducing the occurrences of arbitrary government interference and extortion.

### 4. Self-Control and Commitment in Consumer Credit Markets (with Yi Xin)

*Abstract.* We analyze the effect of commitment devices designed to mitigate self-control problems in consumer credit markets. We draw on data from a large peer-to-peer (P2P) lending platform that introduced a “direct-pay” disbursement method for debt refinancing.

Instead of dispersing cash, the direct-pay option transfers the loan directly to the borrower's existing creditors, with the goal of curbing impulsive, discretionary spending and screening for creditworthy borrowers. We find that borrowers who choose the direct-pay option exhibit lower default rates compared to those who received cash, suggesting success in attracting creditworthy borrowers and promoting responsible financial decisions. To analyze the complicated dynamics in this setting, we further develop and estimate a dynamic structural model of borrowers' loan choice and repayment behavior. We find that self-control problems account for 10% of the defaults in the market and that introducing the direct-pay option reduces default rates by 8%. We conduct several counterfactual simulations and explore alternative strategies for alleviating self-control problems in consumer lending.