

# PAUL W. DAI

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## Education

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2024 -	Incoming Ph.D Student in Finance, MIT Sloan School of Management
2021 - 2022	M.A. in Economics, University of Chicago
2017 - 2021	B.A. in Economics and Literature, Peking University
2020 Spring	Visiting Undergraduate Student, University of Pennsylvania

## Research Areas

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Finance, Macroeconomics, Development

## Working Papers

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1. “Financial Kuznets Facts” with (with [Karsten Müller](#) and [Emil Verner](#))

*Abstract:* This paper studies the interaction between the sectoral allocation of credit and long-run economic development. The starting point is a new set of *Financial Kuznets Facts*: as countries get richer, the share of manufacturing credit falls relative to value added, and the opposite is true for credit to the real estate sector. To jointly explain this structural transformation in the credit market and the real economy, we build a two-sector model with heterogeneous collateral constraints in which real estate output supports collateralized borrowing. In a quantitative calibration of our model, differences in sectoral productivity explain most of the structural change in the real economy, while the slackness of the sectoral collateral constraint accounts more for structural change in credit markets. We provide empirical evidence supporting the relevance of these mechanisms and show that the share of manufacturing credit is positively correlated with long-run growth. To understand the potential role of government interventions, we show that liberalizations of directed credit policies that channel credit to “priority sectors” are associated with a redistribution of credit from manufacturing to real estate. Taken together, our analysis suggests that financial frictions play an important role in structural transformation and long-run economic growth by influencing the allocation of credit.

## Pre-PhD Research

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2. “Peers Matter: The Heterogeneous Effects of Female Peers on Scientists’ Research Focus” (with [Hongyuan Xia](#))

*Abstract:* Despite the importance of research on women’s issues, scientific studies often neglect them. We exploit quasi-random year-to-year fluctuations in the female ratio within PhD programs to causally estimate the impact of increasing female representation in doctoral studies on the research direction of PhD students in the same cohort. Scrutinizing the dissertations and research trajectories of nearly all US healthcare and biology PhD recipients from 1985 to 2015, we find positive female peer effects on female students conducting

gender-related research—defined as research related to women, gender, and sex—through collaboration and informal interaction. In contrast, such peer effects are diminished or negative for male students, driven by heightened competitive pressures. Taken together, our findings suggest that peer effect is an important factor in resolving the scarcity-substance puzzle of gender-related research production.

### 3. “Childlessness and Development”

*Abstract:* This paper documents the relation between childlessness (the extensive margin of fertility) and development leveraging household surveys from 78 countries over all income level. Childlessness rate displays a U-shaped relationship with development, and accounts for 1/3 of global fertility variation. Females are selected into childlessness differently across countries, mostly explained by the differences in childlessness-age profiles. I disentangle age, cohort and year effect, finding that females in richer countries delay their fertility due to career costs stem from life-cycle wage growth. A model is developed to highlight counterbalancing forces for fertility delay and motives for childlessness and to explain these empirical findings jointly.

### 4. “Life-Cycle Remittance of Rural-to-Urban Migrants”

*Abstract:* Using China Household Income Survey data, I document an inverse U-shaped income and a declining remittance profile over life cycle for rural-to-urban migrants to their family members left in the rural sector. I formulate and calibrate a life-cycle model with agents heterogeneous in demographical characteristics, making migration and remittance decision, motivated by the altruism to family members. I identify a huge migration cost associated with land, a fixed benefit of living in the urban and an exogenous exit rate out of urban. My decomposition exercise indicates that evolution of household characteristics is determinant for declining remittance over ages. Policy related counterfactual analysis suggests abolishing land associated cost and exogenous exit from urban result in migration rates of 12.87% and 83.31% respectively compared with current rate of 27.51%.

## Awards, Fellowships, and Grants

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2022	Quadrangle Scholar Research Award Scholarship (2/3 Tuition Waiver), University of Chicago
2021	Outstanding Undergraduate Research, Peking University
2021	Chancellor’s Undergraduate Research Funds in Economics, Peking University
2018-2019	Award for Scientific Research, Peking University

## Presentation (\* presented by coauthor)

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2024	NBER Investment in Early Career Scientist*
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## Research Employment

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2022 - 2024	Predoc Research Assistant for Daniel Greenwald and Emil Verner, MIT
2021 - 2022	Part-Time Research Assistant for Rodrigo Adão, University of Chicago
2020 - 2021	Part-Time Research Assistant for Ying Feng, National University of Singapore
2018 - 2020	Part-Time Research Assistant for Yong Wang and Jiajun Xu, Peking University

## Technical Skill

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Programming Python, STATA, Matlab, SQL, R, LaTeX  
Language Mandarin, English, Arabic