Daojing Zhai

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EDUCATION

Yale University, New Haven, USA
Ph.D. in Financial Economics 2020 to 2026

Nanjing University, Nanjing, China
B.S. in Physics, with *Highest Honor* 2015 to 2019
Visiting student to Northwestern Kellogg (2018) and UC Berkeley Physics (2017)

RESEARCH INTERESTS

Primary: Macro-finance, Asset Pricing, Monetary Policy, Corporate Finance
Secondary: Real Estate Economics

REFERNCES

Alp Simsek (Chair)
Yale School of Management
alp.simsek@yale.edu

Paul Fontanier
Yale School of Management
paul.fontanier@yale.edu

Stefano Giglio
Yale School of Management
stefano.giglio@yale.edu

Song Ma
Yale School of Management
song.ma@yale.edu

Kelly Shue
Yale School of Management
kelly.shue@yale.edu

JOB MARKET PAPER

"When Treasuries Crowd the Debt Market: Treasury Market Inelasticity and the Basis Trade"

This paper argues that the Treasury share relative to corporate bonds in the debt market affects Treasury market elasticity—the price impact of new Treasury supply—and its pass-through to corporate bonds. I develop a segmented market model featuring bond investors with duration mandates and balance-sheet constraints. These investors transmit shocks from the Treasury market to the corporate bond market. When the Treasury share is high, investors rely more on Treasuries for duration, their balance-sheet constraints tighten, and transmission weakens, leaving supply shocks concentrated in Treasuries. The model explains elevated Treasury basis-trade activity when Treasuries are abundant relative to corporate bonds and links constraint tightness to the Treasury cash–derivatives spread. Empirically, I identify three novel Treasury supply shocks from the Treasury issuance calendar and estimate Treasury supply effects using intraday data. Consistent with the model, tighter balance-sheet constraints measured by the spread are associated with larger Treasury supply effects and weaker pass-through to corporate

bonds. I support the model with unique firm-level data on interest rate derivative positions for global mutual funds and U.S. life insurers. The mechanism implies asymmetric effects of quantitative easing (QE) and quantitative tightening (QT) and informs the optimal timing of QT.

WORKING PAPERS

"How Do Quantitative Easing and Tightening Affect Firms,"
(with Egemen Eren and Denis Gorea), 2025

We study how firms respond to quantitative easing (QE) and quantitative tightening (QT) policies of the Federal Reserve. We construct a novel time series of maturity-specific central bank balance sheet shocks covering multiple QE and QT programs. In response to central bank purchases of government bonds, we find that, on average, firms adjust their debt maturity structure, reduce interest expenses and accumulate cash, while their total debt, capital and employment remain largely unchanged. The impact of these policies differs depending on the targeted maturity segment and the credit quality of firms. Policy transmission primarily runs via bond markets. There are positive spillovers to high-rated non-US firms. Our findings can inform the design of balance sheet policies.

"The Expansion and Dynamic Equilibrium Effects of Institutional Landlords,"
(with Zhichun Wang), 2025

This paper studies how dynamically formed cost efficiencies from scope and density drive institutional landlords' expansion and, in turn, alter the distribution of welfare across heterogeneous households in single-family housing markets. Institutional landlords convert owner-occupied homes into large, spatially clustered rental portfolios. They constrain households' access to homeownership while expanding rental opportunities. This leads households to reoptimize between buying and renting, as buyers may face higher prices while renters may benefit from expanded choice sets. We build a dynamic equilibrium model of landlord investment with three key features: (i) oligopolistic landlords' investment determines the evolution of housing supply structure, (ii) portfolio size and density introduce endogenous variation in landlord costs, and (iii) households substitute within and across buying and renting in an integrated choice set. We estimate the model using firm-property-level data from 2013 to 2022 in the Atlanta metropolitan area. We find that institutional landlords' expansion achieved a 60.03% reduction in maintenance cost from economies of scope and density. Households' total welfare increased, with varying effects across renters and buyers. The majority of renters gained from expanded rental supply, while a small fraction of renters, together with most buyers, lost from diminished access to affordable homeownership. Our findings have significant policy implications for regulating institutional landlords' expansion in the single-family home market.

TEACHING EXPERIENCE

Yale University

TA for **Financial Economics I** (Finance PhD) 2022-2025

(Instructor: Prof. Stefano Giglio, Prof. Paul Fontanier)

TA for **Corporate Finance** (Yale Law School, Juris Doctor) 2023-2025

(Instructor: Prof. Kelly Shue)

TA for **Financial Markets and Macroeconomic Policy** (MBA/EMBA) 2022

(Instructor: Prof. Alp Simsek)

TA for **Capital Markets** (MBA/EMBA) 2022

(Instructor: Prof. Gary Gorton)

TA for **The Digitalization of Money** (MBA/EMBA) 2022

(Instructor: Prof. Gary Gorton)

RESEARCH AND WORK EXPERIENCE

Bank for International Settlements, Basel, Switzerland
PhD Fellow 2024, 2025

The Chinese University of Hong Kong, Shenzhen, China
Research Associate 2019-2020

Others:

Research Assistant to Stefano Giglio and Song Ma 2021-2023

Research Assistant to Markus Brunnermeier and Wei Xiong 2019-2020

Research Assistant to Zhengyang Jiang and Konstantin Milbradt 2018

SEMINAR AND PRESENTATIONS

Conferences and Seminars (= by coauthor)*

Before 2025 Yale SOM, Yale Econ*, Bank for International Settlements, De Nederlandsche Bank*, Hong Kong University*

Invited Participation

2023 Finance Theory Group Summer School

2023 NBER Entrepreneurship Research Boot Camp

AWARDS AND FELLOWSHIPS

2023 Research Grant (with Zhichun Wang), Yale Institution for Social and Policy Studies
"The Expansion of Wall Street Landlords in the United States" ($10,000 USD)

2020-2026 Graduate Student Fellowship, Yale University

2018 Undergraduate Research Grand, Ministry of Education, China

2017 China National Scholarship, Ministry of Education, China

2016-2018 Academic Excellence Scholarship (3x), Nanjing University

PROFESSIONAL SERVICES

Yale Service:
Organizer of Yale Finance Breakfast (2022-2023)
Referee:
American Economic Review: Insights; Journal of Economic Dynamics and Control (2x)

PUBLICATION

[1] D. Zhai, R. Zhu, Y. Jaluria and W. Jiang, "**Analysis of Silicon Channel Waveguide Thermo-Optic Switches by the Image Charge Method**", IEEE Photon. Technol. Lett., vol. 31, no. 8, pp 635-638, April 2019

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