Yifan Si

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EDUCATION

University of California, Santa Cruz — Santa Cruz, CA
Ph.D. in Economics (passed Ph.D. candidacy defense with honor) — Sep 2020 — Jun 2026 (expected)
Yeshiva University — New York, NY
M.S. in Quantitative Economics (financial economics track) — Aug 2017 — Sep 2018
Stony Brook University, SUNY — Stony Brook, NY
M.A. in Economics — Aug 2015 — May 2017
Jinan University (暨南大学) — Guangzhou, China
B.A. in Economics (excellent graduation thesis award) — Sep 2010 — Jun 2014

RESEARCH INTERESTS

Macro-Finance, Macroeconomics, Financial Markets and Intermediation, Monetary Economics

RESEARCH PROJECTS

Credit Disruptions, Debt Maturity and Investment Dynamics — job market paper
with Tianyue Zhao

Abstract: This paper investigates the impact of bank credit disruptions on firm investment through the corporate debt maturity channel during the 2008–2009 financial crisis. Using detailed firm-bank data from Compustat and Dealscan, we construct firm-specific measures of exposure to bank credit tightening following the Lehman Brothers collapse. Using a difference-in-differences empirical approach, we discover that companies borrowing from banks that experienced more substantial decreases in credit availability tend to shorten their debt maturities, thereby increasing their dependence on short-term liabilities. This forced shift toward shorter maturities substantially reduces firms' investment, accounting for a large fraction of the overall decline observed during the crisis. To study the mechanism behind these empirical relationships, we develop a structural model in which firms optimally select debt maturities and investment levels under varying credit market conditions. Quantitative simulations highlight that pro-cyclical fluctuations in credit supply influence firm investment by exacerbating rollover risks through shortened debt maturities. Our findings underscore the importance of the debt maturity channel in propagating credit supply shocks to the macroeconomy and have clear implications for policies aimed at stabilizing corporate credit markets during financial downturns.

Time to Build and Optimal Debt Maturity Choice

Abstract: Kydland and Prescott's (1982) seminal "time-to-build" framework posits that firms require time to complete investment projects and produce final goods, leading to varying funding needs at different stages of production. However, their model limits debt financing to short-term debt alone. This paper revisits the original time-to-build setup, extending it to include long-term debt and allowing firms to choose their debt maturity structure endogenously. By introducing these features, the model enables a deeper examination of maturity mismatch and its implications for business cycle fluctuations. The findings highlight how incorporating long-term debt and endogenous maturity choices can fundamentally alter investment dynamics and offer new insights into the interplay between financing structures and macroeconomic outcomes.

Reversing the Flow: How Does Monetary Policy Transmit from Firms to Financial Intermediaries? *work in progress*
with Harrison Shieh and Bhavyaa Sharma
Abstract: When the central bank raises the policy rate, banks engaged in maturity transformation face increased interest rate risk. Although most studies emphasize the direct transmission of monetary policy from banks to firms, the indirect "loan demand" channel has received comparatively little attention. This paper investigates how monetary tightening influences firms' loan demand and, in turn, affects banks' health indicators. Using Bank Holding Company (BHC) Call Reports from the Federal Reserve Bank of Chicago and data on banks' unused credit lines from Uniform Bank Performance Reports (UBPR), we developed a local projection instrumental variable (LP-IV) design, with an additional step of Double Machine Learning (DML), which flexibly residualizes macroeconomic and balance-sheet controls prior to the instrumental variable (IV) stages, further enhances the causal inference, offering a cleaner assessment of how monetary policy operates through firms' loan demand. The findings highlight the importance of this indirect transmission channel and suggest that bank risk profiles and resilience are closely tied to fluctuations in firms' loan demand during periods of monetary tightening.

Policy News Shocks and Monetary Policy: Evidence from China — work in progress
with Harrison Shieh

EMPLOYMENT

University of California, Santa Cruz Santa Cruz, CA
Instructor and Teaching Assistant Jan 2021 - present
United Nations, DESA–EAPD, Global Economic Monitoring Branch New York, NY
Macroeconomic Research Assistant Nov 2018 – May 2019
Huaying Securities, Department of Structure Financing Shanghai, China
Financial Analysis Intern Mar 2015 – Jul 2015

TEACHING

Pedagogy Training

Active Learning Training (Spring 2025, Department of Economics, UC Santa Cruz)

Teaching Experience

University of California, Santa Cruz:

Instructor:
Introductory Macroeconomics (Summer 2024)
Applied Economics and Finance Laboratory - R Programming (Winter 2025, graduate level)

Teaching Assistant:
Graduate Level Course:
Macroeconomics Analysis (Spring 2023, Spring 2024, Spring 2025)
Finance I (Fall 2024)
Undergraduate Level Course:
Introductory Macroeconomics (Winter 2021, Winter 2024)
Intermediate Macroeconomics (Summer 2021, Winter 2022, Winter 2023, Fall 2025)
Intermediate Microeconomics (Winter 2023)
Security Markets and Financial Institutions (Spring 2022, Summer 2023, Summer 2024)
International Finance (Fall 2023)
Introduction to Econometrics (Summer 2022)
Is There Truth in Numbers: The Role of Statistics in Economics - Undergraduate Level Causal Inference Class (Fall 2021)
Personal Finance and Investing (Summer 2022, Summer 2023, Summer 2025)
Why Economies Succeed or Fail: Lessons from Western and Japanese History (Fall 2022)

Yeshiva University:

Teaching Assistant:
Principles of Economics (Fall 2017)

FELLOWSHIPS & AWARDS

Dissertation Completion Fellowship (UC Santa Cruz, Department of Economics) June 2025
Excellent Teaching Award (UC Santa Cruz, Department of Economics) June 2025
Excellent Teaching Award (UC Santa Cruz, Department of Economics) June 2024
Teaching Assistantship (Yeshiva University, Department of Economics) January 2018
Merit-Based Fellowship (Jinan University) May 2014
Excellent Graduation Thesis Award (Jinan University) May 2014

CONFERENCE Presentations

AEA Annual Conference (scheduled presentation for January 2026) Philadelphia, PA
WEAI Annual Conference (June 2025) San Francisco, CA

Professional Memberships

American Economic Association, American Finance Association, Western Economic Association International

SKILLS

- **Programming:** Matlab, Julia, R, LaTeX, Fortran, Stata, Python, SQL.
- **Software:** Microsoft Excel, PowerPoint, and Word.
- **Language:** English (advanced), Chinese (native)

References

Alonso Villacorta (co-chair)
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