

Ye Sun

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EDUCATION

PhD in Economics , University of Cambridge	2023–Present
Supervisor: Vasco M. Carvalho Professor of Economics, University of Cambridge Email: vmpmdc2@cam.ac.uk	
MA in Computational Social Sciences , University of Chicago	2019–2021
BA in Economics , University of International Business and Economics	2015–2019

RESEARCH FIELDS

Macroeconomics, Production Networks, Firm Dynamics, International Trade

WORKING PAPERS

[Dynamic Endogenous Production Networks, Knowledge Diffusion, and Misallocation](#)

Abstract: I study how knowledge diffusion in supplier–customer relationships influences the structure and dynamics of production networks. I develop an optimal-stopping model that allows heterogeneous firms to endogenize the choice of staying with or switching away from the current supplier, not based solely on cost minimization but on the potential for future gains through knowledge sharing. The model predicts that higher rates of knowledge diffusion lead to a “stickier” production network. Misallocation arises due to search frictions as firms are overly patient in forming long-term relationships, but knowledge diffusion mitigates its negative effects on aggregate productivity. Empirical analysis using data from Compustat’s firm-level input-output data and USPTO patent data highlights the overlap between production and citation networks, showing that supplier-customer with citations tend to last longer and have bigger shares. Using an instrumental variable approach that leverages examiner leniency as an exogenous source of variation in patent citations, I find that supplier-customer relationships with knowledge diffusion experience significantly higher performance, indicating the existence of active learning.

[Endogenous Plucking Through Networks: The Plucking Paradox](#) (with Hanbaek Lee)

Abstract: We study an *endogenous plucking* mechanism in a parsimonious general equilibrium model where firms choose production linkages (network intensity). In expansions, high productivity encourages denser linkages, raising efficiency and output. Yet greater connectedness amplifies adverse TFP shocks, so downturns are disproportionately severe when recessions begin from a highly connected state. The model implies *network-size* and *duration dependence* of shock propagation. Due to a pecuniary externality, the decentralized equilibrium underinvests in network intensity. We characterize an optimal fiscal policy that decentralizes the constrained efficient allocation and delivers a *Plucking Paradox*: the planner prefers higher output in normal times even though it increases exposure to rare, severe disasters.

[Dynamic Trade Imbalances in a Gravity Model under Incomplete Markets](#)

Abstract: TBA

TEACHING

Teaching Assistant, University of Cambridge	2024–Present
R201 Advanced Macroeconomics II PhD21 Computational Methods	

RESEARCH EXPERIENCE

Research Assistant	2023–Present
RA to Vasco M. Carvalho, Nir Jaimovich, and Sergio Rebelo	
Pre-doc, Sciences Po Paris	2021–2023
RA to Johannes Boehm and Thomas Chaney	
Research Assistant, University of Chicago	2019–2021
RA to Jonathan Dingel and Felix Tintelnot	

SOFTWARE

Coefplots.jl — Publication-quality regression visualization in Julia

GLFixedEffectModels.jl — High-dimensional fixed effects estimation in Julia

PROGRAMMING SKILLS

Julia, Python, STATA, \LaTeX , Git, KNITRO, Gurobi, GNU Make, Bash, MATLAB

PRESENTATIONS & WORKSHOPS

External conferences

2026: SED Conference, Athens University of Economics and Business

2026: Midwest Macro Meeting

Internal seminars at University of Cambridge

Networks Workshop; Trade and Spatial Economics Workshop; PhD Macro Workshop

PERSONAL INFORMATION

Nationality: Chinese

Languages: Chinese (native), English (fluent), French (intermediate)

FUNDING & SCHOLARSHIPS

Faculty of Economics Trusts

The Janeway Institute Scholarship