Xiaojie Liu

xiaojie.liu@kellogg.northwestern.edu
Kellogg School of Management, 2211 Campus Drive, Evanston, IL 60208, USA
https://xiaojieliu.weebly.com/

CURRENT EMPLOYMENT

Federal Reserve of Chicago
Consultant 2025.9 - 2025.12 (Expected)

EDUCATION

Kellogg School of Management, USA
Ph.D in Managerial Economics and Strategy 2019 - 2026 (expected)

Sciences Po, Paris, France
Master in Economics, Summa Cum Laude 2017 - 2019

Fudan University, Shanghai, China
B.Sc. in Electrical Engineering, with honor 2012 - 2016

RESEARCH FIELDS

PRIMARY: Macroeconomics
SECONDARY: Information Economics, Search Frictions and Innovation

REFERENCES

Professor Alireza Tahbaz-Salehi (Co-Chair)
Kellogg School of Management
Northwestern University
847-491-2359
alirezat@kellogg.northwestern.edu

Professor Lawrence Christiano (Co-Chair)
Department of Economics
Northwestern University
847-491-8231
l-christiano@northwestern.edu

Professor Benjamin Jones
Kellogg School of Management
Northwestern University
847-491-3177
bjones@kellogg.northwestern.edu

Professor George-Marios Angeletos
Department of Economics
Northwestern University
847-491-8217
angeletos@northwestern.edu

Professor Sara Moreira
Kellogg School of Management
Northwestern University
https://www.spmoreira.com
sara.moreira@kellogg.northwestern.edu

PRESENTATIONS AND CONFERENCES

Society of Economic Dynamics 2025

NBER Summer Institute, EFG meeting 2022

Northwestern Macro Lunch Series 2020-2024

Northwestern Kellogg Strategy Brownbag 2020-2024

Princeton Initiative 2021

AWARDS, HONORS AND GRANTS

Northwestern Kellogg Research Fellowship 2019-2025

Northwestern Kellogg Travel Grant 2025

Princeton Initiative Travel Grant 2022

Sciences Po Academic Scholarship 2017-2019

Hua-Meng Scholarship for Economic Studies 2017, 2024

Fudan Academic Excellence Scholarship 2012-2016

High School National Physics Competition Silver Medal 2011

RESEARCH EXPERIENCES

Research Assistant, Benjamin Jones, Kellogg School of Management 2023

Research Assistant, Sara Moreira, Kellogg School of Management 2022

Research Assistant, Alireza Tahbaz-Salehi, Kellogg School of Management 2022

Research Assistant, Mirko Wiederholt, Sciences Po, Paris 2020

Research Assistant, Changyuan Luo, Fudan University, Shanghai 2017

TEACHING EXPERIENCES

Teaching Assistant, Business Analytics [MBA/EMBA] 2021-2022

Hold office hours and review sessions on statistics, econometrics and STATA.

Teaching Assistant, Business Strategy [MBA/EMBA] 2022-2025

Grade and answer questions about class materials.

Teaching Assistant, International Trade [Undergraduate] 2017

Review papers in the TA session and grade students' comments on required readings.

JOB MARKET PAPER

"Consumer Search, Information Frictions and Monetary Non-Neutrality"

Abstract: This paper develops a model of monetary non-neutrality driven solely by consumer-side information frictions, in contrast to standard approaches that rely on firm-side nominal rigidities. Consumers face search frictions when shopping for goods and have imperfect information about the average nominal marginal cost. The key mechanism is that, following a monetary shock, consumers attribute some of the resulting price changes to firm-specific adverse shocks, inducing them to search for alternatives. To dissuade search, firms compress the markup and limit the passthrough of the shock to prices. Firms still pass through idiosyncratic shocks flexibly, while responses to aggregate shocks are dampened due to weakened strategic complementarities by consumers' information friction. Building on this mechanism, I develop a tractable medium-scale DSGE model that can be efficiently solved

using sequence-space methods. Estimating the model via impulse response matching, I find the degree of information friction to be substantial, accounting for 65% of observed monetary non-neutrality. I further consider aggregate productivity shocks and apply it to interpret the post-pandemic inflation surge. Finally, I provide two pieces of empirical evidence that support the model's core mechanisms.

PUBLICATIONS

"A Framework for Economic Growth with Capital-Embodied Technical Change" with Benjamin Jones, *American Economic Review*, May 2024

Abstract: Technological advance is often embodied in capital inputs, like computers, airplanes, and robots. This paper builds a framework where capital inputs advance through (i) increased automation and (ii) increased productivity. The interplay of these two innovation dimensions can produce balanced growth, satisfying the Uzawa Growth Theorem even though technological progress is capital-embodied. The framework can further address structural transformation, general-purpose technologies, the limited macroeconomic impact of computing, and declining productivity growth and labor shares. Overall, this tractable framework can help resolve puzzling tensions between micro-level observations of innovation and balanced growth while providing new perspectives on numerous macroeconomic phenomena.

WORKING PAPERS

"Confusion, Phillips Curves and De-anchored Inflation" with Dalton Zhang

Presentations: Northwestern Macro Lunch, Kellogg Strategy Brownbag, Chicago Fed

Abstract: How do agents respond when the origins of macroeconomic shocks are uncertain? We develop a theory of confusion between aggregate shocks. When inflation signals are more informative, agents mistake negative supply shocks for positive demand shocks—negative confusion. When output signals dominate, positive confusion arises. In New Keynesian models, negative confusion amplifies inflation after supply shocks via strategic price complementarity and muted expectations of real wage declines, while positive confusion reverses both channels and dampens inflation. Estimating the model pre- and post-1990 reveals a shift from inflation- to output-based inference, reconciling three empirical puzzles: (i) the Phillips curve's flattening post-1990 and steepening during the pandemic; (ii) a pronounced "supply view," a negative relations between expected output and inflation; and (iii) the inflation–output disconnect, wherein the two variables appear driven by distinct shocks.

"Pricing Frictions and Innovation" with Sara Moreira

Abstract: This paper examines the interplay between pricing and product innovation. Using detailed product- and firm-level data, we find that the nominal price of an existing product remains largely unchanged over its life cycle, while increases in the aggregate price index are primarily driven by the introduction of new products. New products carry a substantial initial price premium, a phenomenon we term *price-overshooting*. We develop a endogenous growth model in a monetary economy, where firms set prices upon product introduction and at random intervals thereafter a là Calvo. We show that the value of setting a new price for new products incentivizes firms to innovate. Anticipating price rigidity over a product's life cycle, firms overshoot prices at the initial stage of product introduction. Price overshooting mitigates the negative impact of pricing frictions on innovation. The optimal R&D policies should account for the role of product innovation in alleviating misallocation from pricing frictions and enhancing welfare.

"University Commercialization and Economic Growth: Evidence from University Science Parks in China" with Weizhe Wang

Abstract: How can university-based discoveries realize their social value? We focus on the role of National University Science Parks (NUSPs) in China in fostering university commercialization. Using a novel dataset linking universities, patents, inventors, entrepreneurs, and firms, we exploit the staggered designation of NUSPs by the government. We find that NUSP designation increases patenting activities and patent transfers, induces more inventors to become entrepreneurs, and shifts research

toward applied research. At the city level, it stimulates economic growth by encouraging more firm entry, and more innovation by incumbents. We develop an endogenous growth model in which university researchers can initially sell patents only to incumbent firms which are less compatible with the new technology. NUSP policies reduce search frictions by facilitating matches with capable entrants, who value patents more than incumbents. We quantify three channels through which NUSPs raise growth: (i) higher university innovation from increased patent values (32%), (ii) defensive innovation by incumbents in response to university innovation (47%), and (iii) more efficient implementation of new technologies by entrants (21%).

WORK IN PROGRESS

"Data and Automation" with Zheng Liu and Ding Dong

"Political Pressure and Behind-the-Curve Monetary Policy"

"Hunt for Superstars and Critical Innovation"

"Consumer Attention and Frequency of Price Adjustment"

OTHER EXPERIENCE

Translation to Chinese Version

"The Great Convergence: Information Technology and the New Globalization"

Authored by Richard Baldwin 2016
Translated with Zhiyuan Li and Changyuan Luo 2020
English version available here. Chinese version available here.

LANGUAGE

English (Fluent), Mandarin (Native)

Nationality

Chinese