Chang Liu

Department of Economics	Phone: +1 (585) 319 1846
University of Rochester	E-mail: changliu@rochester.edu | changliu863@gmail.com

Education

Ph.D. in Economics, University of Rochester, USA	2018-2024 (expected)
M.A in Economics, Renmin University of China, China	2015-2018
B.A. in Economics, Renmin University of China, China	2011-2015

Research Fields

International Macro, Macroeconomics and Trade

Working Papers

1."Foreign Currency Borrowing and Exporter Dynamics in Emerging Markets" **[JMP]**
Tapan Mitra Prizes (best fifth-year theoretical paper), University of Rochester

2."Sovereign Risk and Intangible Investment" with Minjie Deng, ***Revise and resubmit, Journal of International Economics***

3."Trade Barriers and Sovereign Default Risk" with George Alessandria, Yan Bai and Minjie Deng

4."Incomplete Tariff Pass-Through at the Firm-level: Evidence from U.S.-China Trade Dispute" with Chengyuan He, Xiaomei Sui and Soo Kyung Woo

5."The Slowdown of TFP Declines During the Debt Crisis: Evidence from Tradable and Non-tradable Sectors", ***Conibear Memorial Prize for the Best Third Year Paper, University of Rochester***

Working In Progress

1."Sovereign Debt Crisis or Financial Crisis: Evidence from Exports" with George Alessandria, Yan Bai and Minjie Deng

2."Structural Change Following Crises"

Teaching & Research Experience

-Teaching Assistant, University of Rochester

ECO 270: International macroeconomics (Undergraduate)	Prof. Rafael Guntin (Fall 2022)
ECO 476: Macroeconomics II (Graduate)	Prof. Gaston Chaumont and Prof. Narayana Kocherlakota (Spring 2021, Spring 2022)
MKT414: Pricing Policies (Master/MBA)	Prof. Greg Shaffer (Fall 2021)

ECO 207: Intermediate Microeconomics (Undergraduate) — Prof. Steven Landsburg (Fall 2020, Fall 2021)

-Research Assistant, University of Rochester

Research Assistant for Prof. Yan Bai — 06/2020-05/2023

-Teaching Assistant, Renmin University of China

Real Estate Finance and Investments (Undergraduate) — Prof. Liang Peng (Summer 2017)

Advanced Econometrics (Graduate) — Prof. Jinghua Lei (Fall 2016, Spring 2017)

Public Finance (Undergraduate) — Prof. Rong Li (Spring 2017)

Public Finance (Undergraduate) — Prof. Shiyu Li (Spring 2015)

-Research Assistant, Renmin University of China

Research Assistant for Prof. Junxue Jia — 09/2015-06/2017

Research Assistant for Prof. Rong Li — 10/2015-06/2016

Fellowships, Scholarships, and Awards

Dean's Post-Field Research Dissertation Completion Fellowship	2023-2024
Tapan Mitra Prizes (best fifth-year theoretical paper)	2023
Summer research fellowships, University of Rochester	2023
River Campus Library Data Grant, University of Rochester	2022
Conibear Memorial Prize for the Best Third Year Paper, University of Rochester	2021
Data Research Grant, Department of Economics, University of Rochester	2021-2023
Summer Research Grant, University of Rochester	2019
Graduate Fellowship and Tuition Scholarship, University of Rochester	2018-2023
National Scholarship, Renmin University of China	2016
First-Class Graduate Fellowship, Renmin University of China	2015-2017

Conference & Seminar Presentations

The China International Conference in Finance (CICF)	2023
Society for Economic Dynamics (SED) Annual Meeting	2023
North America Summer Meeting of Econometric Society	2023
Research Symposium on Finance and Economics (RSFE)	2023
Midwest Macro Meetings	2023
Society for Economic Dynamics (SED) Annual Meeting	2022
Southern Economics Association (SEA) 91st Annual Conference	2021
Australian Meeting of the Econometric Society	2021
Asian Meeting of the Econometric Society (AMES)	2021
Third Conference on European Studies: The Future of Europe Beyond Brexit and COVID-19	2021
Future of Growth Conference	2021

Others

Special Sworn Status (SSS) Researcher, U.S. Census Bureau (2022-present)

Language: English (fluent), Chinese (native)

Programming: Stata, Python, MATLAB, LaTeX, and R.

References

Yan Bai (Advisor)
Department of Economics
University of Rochester
280 Hutchison Road
Rochester, NY 14627, USA
E-mail: yan.bai@rochester.edu

George Alessandria
Department of Economics
University of Rochester
280 Hutchison Road
Rochester, NY 14627, USA
E-mail: george.alessandria+ref@gmail.com

Narayana Kocherlakota
Department of Economics
University of Rochester
280 Hutchison Road
Rochester, NY 14627, USA
E-mail: nkocherl@ur.rochester.edu

Abstracts

1.“Foreign Currency Borrowing and Exporter Dynamics in Emerging Markets” [JMP]

Abstract: This paper studies the interaction between firms’ export and currency of financing, uncovering the underlying driving forces behind this interaction and exploring the associated policy implications. Using Indian firm-level data, I document that exporters, particularly those with a large fraction of export sales, have more foreign currency borrowing compared to non-exporting firms. These correlations are referred to as the *complementarity* between export and currency of financing. To uncover the underlying driving forces of such complementarity, I develop a heterogeneous firm model with endogenous choices of export and currency of financing. There are three potential channels for this complmentarity. Foreign currency revenues from exports can directly repay or serve as collateral for foreign currency borrowing. In addition, exporting firms could face reduced fixed costs of foreign currency borrowing. Disciplined by the observed complementarity, the model implies that exporters face 35% lower fixed costs of foreign currency borrowing. Furthermore, without accounting for this complementarity, the impact of capital control policies would be underestimated by 27% of the output losses.

2.“Sovereign Risk and Intangible Investment”, with Minjie Deng

Abstract: This paper measures the output and TFP losses from sovereign risk, considering firm-level intangible investment. Using Italian firm-level data, we show that firms reallocated from intangible assets to tangible assets during the recent sovereign debt crisis. This asset reallocation is more pronounced among small firms and high-leverage firms. This reallocation affects aggregate output and TFP. To explain the reallocation pattern and quantify the output and TFP losses of sovereign debt crises, we build a sovereign default model incorporating firm intangible investment. In our model, sovereign risk deteriorates bank balance sheets, disrupting banksâ ability to finance firms. Firms with greater external financing needs are more exposed to sovereign risk. Facing tightening financial constraints, firms shift their resources towards tangibles because they can be used as collateral. Using the estimated model, we find that elevated sovereign risk explains 40% of the observed output losses and 22% of TFP losses during the Italian sovereign debt crisis.

3.“Trade Barriers and Sovereign Default Risk”, with George Alessandria, Yan Bai and Minjie Deng

Abstract: This paper studies interactions between trade friction and sovereign default risk. Trade barriers are measured as the gap between observed trade flows and predicted trade flows using relative expenditures and prices. We build a general equilibrium sovereign default model with trade and decompose the trade barriers into one conventional trade wedge term stemming from trade friction and one financial friction component. The trade friction increases the sovereign default risk, which passes through to private sector as driving up their import financing cost. The interaction between trade and financial friction further magnifies the trade barriers. The model generates comovements

between trade and financial friction as in the data. We find that financial friction component accounts for 47% of the measured trade barriers.

4.“Incomplete Tariff Pass-Through at the Firm-level: Evidence from U.S.-China Trade Dispute”, with Chengyuan He, Xiaomei Sui and Soo Kyung Woo

Abstract: From aggregate bilateral trade data, recent studies have found that U.S. tariff increases during the U.S.-China trade war were entirely passed on to U.S. importers. Using confidential data from U.S. Census, we show that the pass-through on U.S. importers is incomplete at the disaggregated firm-product-country level. In order to reconcile the discrepancy at different levels of aggregation, we consider the firm and product heterogeneity in various aspects: sourcing countries, number of imported varieties, import intensity from China, inventories, upstreamness, order frequency, etc.

5.“The Slowdown of TFP Declines During the Debt Crisis: Evidence from Tradable and Non-tradable Sectors”

Abstract: The decline in total factor productivity (TFP) has shown a deceleration following the debt crisis. This paper studies the impact of sectoral differences on TFP dynamics, utilizing both Italilan sector-level and firm-level data. The findings reveal that non-tradable sector firms are more prone to exiting the market during the debt crisis. Conversely, high productivity firms in the tradable sector exhibited increased capital resources, maintained higher employment levels, and managed to lower costs of employees. The empirical facts suggest a potential explanation known as the "cleansing effect." By employing a local projection specification, this paper establishes that the cleansing effect in the post-crisis period is primarily influenced by the persistence effects of the debt crisis. To rationalize the empirical findings, a simple trade model with working capital requirement is introduced. The model suggests that domestic firms have difficulties in financing their working capital requirement due to the rising domestic borrowing cost during the debt crisis, thus experience a higher exit rate and a lower labor demand. Exporting firms can additionally borrow from the international market and face a lower cost of labor due to general equilibrium effect, so that they are able to produce more by hiring more labors. The exit of low productivity firms in non-tradable sector as well as a larger share of high productivity firms in tradable sector contribute to the slowdown of TFP declines since the debt crisis.