Mai Wo
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Reference: Prof. Fabrizio Zilibotti

Dear Selection Committee,

I am writing to express my strong interest in attending the NBER Innovation Research Boot Camp 2025. As a PhD student in Economics at Yale University, I am deeply interested in the economics of innovation and its intersection with firm dynamics, labor markets, etc. This boot camp presents a valuable opportunity for me to deepen my understanding of the field and engage with leading researchers and peers who share similar academic interests.

My current research explores the relationship between foreign political risk and innovation, examining how uncertainty in foreign policy environments influences domestic innovation. Through this research, I aim to contribute to the broader understanding of innovation economics by shedding light on the conditions that foster or hinder technological advancement. Given the NBER Innovation Research Boot Camp's emphasis on frontier questions in innovation policy, attending this program would provide me with the theoretical foundation and research community engagement necessary to refine my analysis and expand my contribution to the field.

Furthermore, I am eager to attend the NBER Summer Institute Innovation Policy meeting, where I can gain insights into contemporary research discussions and build connections with experts in the field. The opportunity to interact with esteemed faculty members, including Pierre Azoulay, Heidi Williams, and Chad Jones, among others, is particularly exciting, as their work has significantly shaped my research perspective.

I have completed two years of PhD coursework in economics, including advanced courses in macroeconomics, trade, and development. My CV and a list of completed PhD courses are attached below for your review. Additionally, Prof. Fabrizio Zilibotti will be my reference, who can attest to my qualifications and enthusiasm for this opportunity.

I am excited about the possibility of contributing to and learning from this vibrant academic community. Thank you for your time and consideration. I look forward to the opportunity to participate in the boot camp and further my research in the economics of innovation.

Sincerely,
Mai Wo

My current research explores the relationship between political risk and innovation, focusing on how uncertainty in foreign policy environments influences domestic innovation. Innovation is a critical driver of economic growth, and my work aims to understand how external shocks, particularly those arising from geopolitical tensions, shape technological advancement. By leveraging sector-level data on global innovation and political risk exposure, I examine how domestic innovation responds to disruptions in supply chains. My findings suggest that heightened foreign political risk encourages firms to reduce reliance on international inputs and invest in local technological capabilities. This contributes to the broader literature on directed technological change and the role of uncertainty in shaping innovation trajectories.

A key component of my future research will focus on directed innovation—examining how firms and policymakers can shape technological progress toward strategic sectors in response to external shocks. Specifically, I aim to investigate the mechanisms through which targeted policies, such as mission-oriented R&D programs or incentives for specific technologies, drive innovation in areas critical to national security and economic resilience. By integrating insights from directed technological change, my work will provide a framework for understanding how innovation can be steered toward socially and economically valuable objectives.

Attending the NBER Innovation Research Boot Camp will provide me with an invaluable opportunity to refine my research approach and deepen my understanding of key theoretical and empirical methodologies in the field. Engaging with leading scholars and peers will allow me to receive constructive feedback on my work and explore new directions for my research. Furthermore, the chance to attend the NBER Summer Institute Innovation Policy meeting will enable me to stay informed about the latest developments in the field and build connections with experts whose work aligns with my research interests. This program will be instrumental in advancing my academic and professional growth, equipping me with the tools and network necessary to make meaningful contributions to the economics of innovation.

Mai WO (沃迈)

（*Last updated: Jan.30th , 2025*）

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EDUCATION

2022-2028 PhD in Economics, Yale University
2020-2022 M.A. in Economics, National School of Development, Peking University
2016-2020 B.A. in Economics, School of Economics, Peking University (with honors)

WORKING PAPERS

- "Foreign Political Risk and Technological Change", with Joel Flynn, Antoine Levy, and Jacob Moscona

Abstract: This paper studies how innovation reacts to foreign political risk and shapes its economic consequences. We develop a model of innovation in which foreign political shocks can disrupt the supply of traded inputs, predicting that greater sector-level political risk exposure abroad leads to increased domestic innovation efforts and endogenously lower reliance on foreign inputs. We combine data on sector-level technology development with time-varying measures of sector-level exposure to foreign political risk and report three sets of empirical findings. First, sectors with higher exposure to foreign political risk exhibit significantly greater innovative activity, both in the US and globally. Second, the response of innovation is particularly strong when the risk emanates from geopolitical adversaries, consistent with the finding that policy barriers to trade are more likely to emerge between geopolitical foes in response to a rise in political risk in either country. Third, country-sector pairs that export to more innovation-intensive destinations see a greater reduction in exports following a rise in domestic political risk. This finding suggests that endogenous technological change limits reliance on risky foreign markets and thus amplifies the negative effects of political turmoil on export performance.

- "Firm-Level Exposure to Trade War: Measurement and Effects", with Ting Chen, Chong Liu, and Jimmy Mingzhi Xu

Abstract: We develop a text-based measure on Chinese listed firms' exposure to the trade war using earning conference transcripts. Not only does our measure effectively capture firm level trade war exposure, proven by the fact that around March 2018, firms with higher our exposure measure experienced larger declines in market values, it also has a unique advantage to measure the impact on the domestic market firms that do not directly participate in international trade but are indirectly affected through the supply chain. We then use this new measure to study the impact of the U.S.-China trade war on Chinese firms. We find firms with higher trade war exposure expands after the trade war. This surprising positive effect comes solely from the domestic market firms. Mechanism analysis shows that supply chain adjustment drives the size expansion of domestic market firms: After the trade war, export-oriented firms turn to domestic suppliers for input purchasing, leading to their scale expansion.

WORK IN PROGRESS

- "Firm Location Choice and the Geography of Production Networks", with Seungyong Yoo

AWARDS AND FELLOWSHIPS

2022 Department of Economics Fellowship, Yale University
2021 ICBC STAR Scholarship
2019 China National Scholarship
2017 Arawana Scholarship

PROFESSIONAL SERVICE

Refereeing: *The Journal of International Economics*

TEACHING

2024 General Equilibrium Theory (ECON 350 with Prof. Geanakoplos, Undergraduate)

Yale University

Unofficial Academic Transcript

ⓘ This is not an official transcript. Courses which are in progress may also be included on this transcript.

Transcript Data

STUDENT INFORMATION

Name
Mai Wo

Current Program

Doctor of Philosophy

College	Major
Graduate School of Arts & Sci	Economics

DEGREE AWARDED

Sought
Doctor of Philosophy

INSTITUTION CREDIT

Term : Fall 2022

Subject	Course	Level	Title	Grade	Credit Hours	Grade Mode	R
ECON	500	GG	Gen Econ Theory:Microeconomics	H	1.000	Graduate	
ECON	510	GG	Gen Econ Theory:Macroeconomics	H	1.000	Graduate	
ECON	550	GG	Econometrics I	H	1.000	Graduate	

Term Totals	Attempt Hours	Passed Hours	Earned Hours
Current Term	3.000	3.000	3.000
Cumulative	3.000	3.000	3.000

Term : Spring 2023

Subject	Course	Level	Title	Grade	Credit Hours	Grade Mode	R
ECON	501	GG	Gen Econ Theory:Microeconomics	H	1.000	Graduate	
ECON	511	GG	Gen Econ Theory:Macroeconomics	H	1.000	Graduate	
ECON	552	GG	Econometrics III	H	1.000	Graduate	
ECON	561	GG	Computational Methods for Econ	H	1.000	Graduate	

Term Totals	Attempt Hours	Passed Hours	Earned Hours
Current Term	4.000	4.000	4.000
Cumulative	7.000	7.000	7.000

Term : Fall 2023

Subject	Course	Level	Title	Grade	Credit Hours	Grade Mode	R
ECON	525	GG	Adv Macroeconomics I	H	1.000	Graduate	
ECON	556	GG	TopicsEmpiricalEcon&PublicPlcy	HP	1.000	Graduate	
ECON	600	GG	Industrial Organization I	AUD	1.000	Audit	
ECON	720	GG	International Trade I	HP	1.000	Graduate	
ECON	730	GG	Economic Development I	H	1.000	Graduate	

Term Totals	Attempt Hours	Passed Hours	Earned Hours
Current Term	4.000	4.000	4.000
Cumulative	11.000	11.000	11.000

Term : Spring 2024

Subject	Course	Level	Title	Grade	Credit Hours	Grade Mode	R
ECON	521	GG	Adv Microeconomic Theory II	AUD	1.000	Audit	
ECON	526	GG	Adv Macroeconomics II	H	1.000	Graduate	

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Subject	Course	Level	Title	Grade	Credit Hours	Grade Mode	R
ECON	574	GG	Applied Empirical Methods	AUD	1.000	Audit	
ECON	721	GG	International Trade II	H	1.000	Graduate	
ECON	731	GG	Economic Development II	H	1.000	Graduate	

Term Totals	Attempt Hours	Passed Hours	Earned Hours
Current Term	3.000	3.000	3.000
Cumulative	14.000	14.000	14.000

Term : Fall 2024

Subject	Course	Level	Title	Grade	Credit Hours	Grade Mode	R
ECON	706	GG	ProspectusWrkshp/IntrntnlEcon	SAT	1.000	Satisfactory/Unsatisfactory	

Term Totals	Attempt Hours	Passed Hours	Earned Hours
Current Term	1.000	1.000	1.000
Cumulative	15.000	15.000	15.000

TRANSCRIPT TOTALS

Events

Distinguished Qualifying Exam

Transcript Totals - (Graduate: Graduate School)	Attempt Hours	Passed Hours	Earned Hours
Total Institution	15.000	15.000	15.000
Total Transfer	0.000	0.000	0.000
Overall	15.000	15.000	15.000

COURSE(S) IN PROGRESS

Term : Spring 2025

Subject	Course	Level	Title	Credit Hours
ECON	526	GG	Adv Macroeconomics II	1.000
ECON	540	GG	Student Wkshp Macroeconomics	1.000
ECON	703	GG	Empirical TradeandDevelopment	1.000
ECON	706	GG	ProspectusWrkshp/IntrntnlEcon	1.000

Dear Brett,

I am writing to recommend Mai Wo for the NBER Innovation Research Boot Camp 2025. Mai Wo is s PhD student at Yale University doing his research in the area of innovation, innovation policy, and growth. Michael Peters and I are his main advisor. He was the top student in his cohort in the coursework and is working on very promising research projects.

He would both tremendously benefit from the camp and provide terrific externalities to the camp itself.

I presume his application will provide details and I am writing this email under the assumption that you do not expect a description of his research. If you expect a more detailed account, I'll be happy to provide it.

I recommend Mai Wo with great enthusiasm.

Fabrizio Zilibotti