Research Statement

Yang Pei

December 27, 2023

My research fields are international trade, the Chinese economy, and financial regulation. I focus my research on analyzing economic interactions over space, identifying and quantifying their driving forces, and deriving policy implications. I use both quantitative (international trade and macroeconomic models) and empirical (micro-econometrics and time series) methods to analyze relevant topics.

Specifically, my Ph.D. dissertation studies how changes in demographic structure lead to changes in comparative advantage (CA) and reallocate production across countries and sectors, which ultimately influence economic growth. I start with panel regression and the VARX model, showing the relationship between demographics and variables like TFP growth and the capital-labor ratio. I then calibrate the OLG-trade model I have developed and quantitatively show how demographics affect trade and growth in China in the past, and do model-based projections for the future. In more recent work, my 3rd-year paper, I develop a static multi-sector, multi-country, Ricardian model of trade featuring three main types of time-varying and region-sector-specific wedges (total factor productivity wedges, trade cost wedges, labor mobility wedges) and quantitatively assess the contributions of each of these forces in influencing China's trade share of GDP change during the period from 2002 to 2015.

Besides the quantitative methods, I am also skilled in common empirical methods. In the joint work with Kunyao Xu, we use a regression discontinuity method to identify the impact of consumer expectations on actual spending during COVID-19. The breakpoint used to identify the causal relations is the date of Pfizer's vaccine announcement, which acts as an exogenous factor with respect to spending. In the joint work with Alice Ouyang, we study how Chinese banks respond to different kinds of macro-prudential regulations. We build a simultaneous equations model to examine the interrelationships among banks' capital requirements, liquidity requirements, and capital quality.

I have also initiated two new projects that build on my previous research. The high quality of China's city-level IO table enables research on topics relevant to internal trade within China. In one project, 'Accounting for China's Province-Level Border Effects,' I study whether inter-city trade across the province border generates extra trade costs for city pairs with similar characteristics and identify the factors (such as the share of state-owned enterprises and local government tax policy) that contribute to these additional costs. Quantitative methods will be used to quantify the effects of these border-induced trade costs on welfare and equality across China's regions. In a second project, 'China's VAT Reforms, Distortions, and Intranational Trade,' I explore the effects of China's VAT tax reforms in terms of internal trade. The traditional Business Tax (BT) was replaced by the Value Added Tax (VAT). The tax now only applies to the value-added part, and the tax on intermediate inputs can now be returned. The project will investigate whether this tax policy reform reduces internal trade costs and increases the efficiency of domestic markets.

In future work, I plan to continue my ongoing research. I am also interested in collaborating on any research projects related to environmental issues (including climate change, energy, pollution, waste, and a multidisciplinary approach) and using both theoretical and empirical approaches with applications in developed or developing countries.