

# Xiang SHI

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Department of Economics  
School of Business and Management  
Hong Kong University of Science and Technology  
Clear Water Bay, Hong Kong

Updated: October 1, 2023  
Phone: (+852) 67655326  
Email: [xshiah@connect.ust.hk](mailto:xshiah@connect.ust.hk)  
Website: [www.shixiang.best](http://www.shixiang.best)

## Education

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### Hong Kong University of Science and Technology

Hong Kong

Doctor of Philosophy, Economics

09/2020-06/2024 (expected)

Master of Philosophy, Economics

09/2018-08/2020

Master of Science, Economics

09/2017-08/2018

### Sun Yat-sen University

Guang Zhou, China

Bachelor of Economics, Finance

09/2013-08/2017

## Research Interests

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Macroeconomics, Monetary and Macroprudential Policies, Inequality  
Quantitative Methods for Empirical (VAR) and Numerical (HANK) Analysis  
Household Finance, Real Estate

## Working Papers

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### 1. [Overbuilding and Underinvestment over Housing Boom-Bust Cycles](#)

- **Abstract:** I unveil a novel mechanism through which a housing market boom can lead to a deep recession by decreasing the physical investment and rendering capital to be scarce. This inefficiency arises from a crowd-out effect: the available liquidity, which could otherwise be channeled into firms' capital investments (e.g., factories, equipment, R&D), is redirected toward the residential sector. The crowded-out physical investment subsequently amplifies the losses of the bust and prolongs the duration of the recession. Employing a new identification method of a shock that generates housing boom-bust cycles via a structure vector regression model, this paper empirically verifies the crowd-out effect, and find that every 2% jump in housing prices can crowd out 1% physical investment at the peak. Then, I develop a heterogeneous household model to quantify this welfare effects of this novel mechanism, It documents that the crowd-out effect can account for up to 13% of the welfare losses during the recession period. Finally, I show that a macroprudential policy upon the overheated housing market can alleviate the crowd-out effect and welfare losses significantly.

- ***Presentations(Including Scheduled)*** 14th International Conference "Challenges of Europe"; 5th International Conference on European Studies; 2023 Annual Meeting of the Spanish Finance Association(With SFA Scholarship); 2023 Annual Conference of the Italian Economic Association; 16th RGS Doctoral Conference in Economics; 7th AMEF; 43rd EBES; EcoMod2023; 25th Applied Economics Meeting; 2023 ICEBRS; EconWorld2023; 2023 ICFBA; MIRDEC Rome 2023 conference; 25th INFER Annual Meeting; 16th Annual Meeting of the Portuguese Economic Journal; 10th ECINEQ; 2023 FBA; 5th Behavioral Macroeconomics Workshop; Annual Conference SITES 2023; 2023 KER International Conference; 18th East Asia Economic Association (EAEA) International Convention; SBCA European Conference 2023; 11th UECE Conference on Economic and Financial Adjustments; 33rd annual Midwest Econometrics Group Conference; BCDE14

## 2. The Power of Quantitative Easing: Liquidity Channel vs Interest Rate Channel

- **Abstract:** This paper disentangles the effectiveness of quantitative easing (QE) into two channels: Liquidity (injecting liquidity into the market) and interest rate (twisting the term yield). Through a general equilibrium model with household heterogeneity and financial friction, I demonstrate that they affect the power of QE by altering the liquidity and interest rate channel asymmetrically. Based on the model and calibration, I conclude that the effect of liquidity channel to stimulation power of QE on output is approximately 1.5 times larger than that of interest rate channel. Meanwhile, the complementarity between household heterogeneity and financial friction plays a vital role in determining the power of QE. In the end, I empirically identify these two channels and support the quantitative result by proposing a new instrument variable in IV-VAR.
- ***Presentations(Including Scheduled)*** RES 2023 Annual Conference; 2023 Africa Meeting of the Econometric Society; 29th RSEP International Conference on Economics, Finance and Business; 12th International Conference on Economics, Business and Marketing Management; 12th International Conference on Economics and Finance Research; HKUST Macro Workshop

## 3. Quantitative Easing and the Redistribution Channel \*

- **Abstract:** In this paper, I document two opposite channels that the Quantitative Easing (QE) can influence the wealth inequality in United States. On the one hand, an economic recovery, facilitated by QE, serves to reduce inequality through general equilibrium effects and labor market dynamics by elevating the lower-income cohorts to middle-class status (MPC channel). On the other hand, diminished returns on financial assets have a regressive effect, demoting middle-class households to lower income levels (MPS channel). The net impact of QE on wealth inequality, therefore, is contingent upon the relative strengths of these opposing forces. Then, by setting up a general equilibrium model with heterogeneous household and financial frictions, I demonstrate that the MPC channel overwhelms the MPS channel and the QE increases wealth inequality significantly. Meanwhile, I further show that the macroprudential policy can attenuate the exacerbation of inequality notably.

## Working in Progress

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### 1. Acceptance Default and Bank Run in Supply Side: Banking Crises over Business Cycles

with Jun YU (The University of Melbourne)

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\*Draft will be provided under requirement.

## Publications

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1. (In Chinese) Supply-side economics, essence of supply-side reform and guidance to Chinese economy under new normal, Economic Research Guide, 2018, 1673-291X(2018)-0000-02

## Teaching Experience

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### **Hong Kong University of Science and Technology**

ECON 6120W Quantitative Macroeconomics(PG), TA, Spring 2023

ECON 5330 Information Economics(PG), TA, Spring 2022

ECON 5250 Macroeconomic Theory I(PG), TA, Fall 2021, Fall 2022

ECON 2174 Mathematics for Economists(UG), TA, Fall 2020

ECON 4234 Labour Economics and Human Resources(UG), TA, Spring 2020, Spring 2021

ECON 3133 Microeconomic Theory II(UG), TA, Fall 2019

ECON 5420 Development Economics(PG), TA, Spring 2019

## Awards and Fellowships

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HKUST Postgraduate Studentship, 2018-2023

2022-23 RedBird PhD Award - Academic Excellence Award

Best thesis Award, Sun Yat-sen University, 2017

## Languages and Skills

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Language: Mandarin (native), English (Fluent)

Skills: Stata; MATLAB (Advanced); Fortran (Advanced); OpenCL (Advanced); R (Advanced)

## References

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### **Assistant Prof. Byoungchan Lee**

Department of Economics

Hong Kong University of Science and Technology

Email: [bclee@ust.hk](mailto:bclee@ust.hk)

Phone: +(852) 2358-7596

### **Associate Prof. Juanyi (Jenny) Xu**

Department of Economics

Hong Kong University of Science and Technology

Email: [jennyxu@ust.hk](mailto:jennyxu@ust.hk)

Phone: +(852) 2358-7604

### **Assistant Prof. Marc Dordal Carreras**

Department of Economics

Hong Kong University of Science and Technology

Email: [marcdordal@ust.hk](mailto:marcdordal@ust.hk)

Phone: +(852) 2358-7964