Fei Zhou

October 2021

Department of Economics
Hong Kong Baptist University
Rm 522, WLB Bldg

Email: feizhou@hkbu.edu.hk
Office: (852) 3411-7441
Url: feizhouecon.weebly.com

Education

Ph.D. Economics, HKUST, 2020.
Advisors: Pengfei Wang (chair supervisor), Yuliy Sannikov, Yang Lu.

MSc. Economics, HKUST, 2014.

B.S. Finance, Zhejiang University, 2013.

Current Position

Assistant Professor of Economics, Hong Kong Baptist University, 2020-present

Research Interests

Macroeconomics, dynamic contract

Publications

1. **Sentiments and Business Cycles**, with Zhiwei Xu and Jing Zhou, forthcoming in JEDC

   We introduce sentiments under incomplete information into an otherwise standard real business cycle model. Individual firms receive signals about their idiosyncratic demand shocks which are also confounded by sentiments. Sentiments coordinate the optimal decisions of individuals through their extraction of the aggregate economic conditions from signals. We show that there exists a sentiment-driven rational expectations equilibrium in addition to the fundamental equilibrium. Optimistic sentiments boost the aggregate economy, leading to positive comovements among output, consumption, investment, and hours worked. We calibrate a full-blown dynamic stochastic general equilibrium model based on U.S. aggregate data and find that sentiment shocks substantially amplify the aggregate fluctuations.

Working Papers

1. **Competitive search with repeated moral hazard problem**

   This paper studies the effects of moral hazard on employment and wage dynamics. I build a continuous-time competitive search model with aggregate productivity shocks. Due to unobservable idiosyncratic shocks, employers need to design dynamic optimal contract to incentivize workers to exert efforts. To quantify the magnitude of the underlying information friction, the model is calibrated to match the volatility of individual worker's wage residual in PSID, which corresponding to wage movements that cannot be accounted by observables. I show that the unemployment rate volatility is 2-6 times larger than the case where the moral hazard problem is absent. Meanwhile, the model endogenously generates countercyclical wage dispersion. These findings are due to the following novel channel: a higher aggregate productivity reduces the importance of unobservable idiosyncratic shocks, which makes shirking easier to be detected. With a relaxed incentive constraint, firms are more willing to post vacancy, and have less need to expose workers to risk. In terms of government policy, I find that an increase of unemployment benefit or minimum wage has much stronger adverse effects on employment rate when moral hazard is taken into account.

2. **Self-fulfilling Business Cycles with Production Networks**, with Feng Dong.

   What is the role of production networks in inducing self-fulfilling business cycles? We build a continuous-time multi-sector business cycle model with input-output linkages and credit constraints to study this. Credit constraints faced by productive firms endogenously create self-fulfilling business cycles: expected drop in firm value tightens constraints and further depresses equity value, generating financial multiplier and thus self-fulfilling business cycles. Theoretically, we derive that financial multiplier nests the input-output multiplier. We illustrate that the likelihood of self-fulfilling business cycles depends on intermediate input share through "size effect" and "diluting effect": the joint of two effects on financial multiplier is U-shaped. We also illustrate that the network structure has important yet ambiguous impact on self-fulfilling business cycles. Quantitatively, we show that tightening credit constraints in sectors with higher Domar weights in the production network is more likely to lead to self-fulfilling equilibrium.

3. **A Tale of Two Dispersions: Wage and Firm Size**, with Feng Dong.

   The traditional literature treats wage dispersion and firm dynamics, which are closely connected to each other, in isolation. This paper delivers a unified treatment to wage dispersion and firm-size distribution by developing a real-option approach. The model is tractable with analytical solution, generating the following testable implications. Firstly, the distribution of firm size is a uni-modal, right-skewed with a Paretian tail, which is in line the empirical findings, in particular the Zipf Law. So is that of wage dispersion. Secondly, as in Mortensen and Pissarides (1994), the incumbents prefer to preserve the pattern of labor hoarding rather than exiting the market when hit by (not too severely) negative productivity shock. Thirdly, in addition to the effect in standard search and matching theory, the labor market tightness is also found to produce additional transition mechanisms to the unemployment rate. Fourthly, the model predicts that, the larger the firm is, the longer the firm will survive at the market.

Grants

Early Career Scheme Granted by HK Research Grants Council, *Globalization or Deglobalization: A Policy Perspective*, amount: 370,138 HKD, 2021/22

Hong Kong Ph.D Fellowship, Hong Kong government, 2014-2018.

Dean's PhD Fellowship for Research Excellence, HKUST Business School, 2019.

Conferences Attended

2021: Conference on Markets and Economies with Information Frictions (MEIF2021)

Teaching Experiences

ECON 3077 Intermediate Macroeconomics, 2021S

ECON 7280 Topics in Macroeconomics, 2021S