# ZHITENG ZENG

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## EDUCATION

Ph.D. in Economics, Boston University, Boston MA, 2018 (expected)
Dissertation Title: *Essays on Macroeconomics of Financial Intermediaries*
Dissertation Committee: Simon Gilchrist, Robert G. King, Stephen Terry

M.A. in Economics *(First Class Honors)*, Renmin University of China, Beijing, China, 2012

B.S. in Economics *(First Class Honors)*, Sun Yat-Sen University, Guangzhou, China, 2009

## FIELDS OF INTEREST

Macroeconomics, Monetary Economics, Asset Pricing

## WORKING PAPERS

"Firm Heterogeneity, Bank Loan Portfolios, and the Slow Recovery in the Great Recession", September 2017 (*Job Market Paper*).
"Do Shocks in Banking Sector Matter? A Bayesian Investigation", March 2015.

## WORK IN PROGRESS

"On the Procyclical Effects of Bank Capital Requirements: A DSGE Analysis".
"Imperfect Interbank Market and Bank Insolvency in Business Cycle Analysis"
"Capital Over-accumulation in a Model with Monopolistic Competition"

## FELLOWSHIPS AND AWARDS

Charles Huse Prize for the Best First Year Student, Boston University
Distinction in Micro Qualifying Exam, Boston University, 2013
Dean's Fellow, Boston University, 2012-Present
Best Graduate Award, Hanqing Advanced Institute of Economics and Finance, Renmin University of China, 2012
Excellent Student Scholarship, Renmin University of China, 2009-2012
Outstanding Graduate Award, Sun Yat-Sen University, 2009
First-Class Scholarship for Outstanding Students, Sun Yat-Sen University, 2006-2008
Philip K.H. Wong Scholarship, Sun Yat-Sen University, 2006

## WORK EXPERIENCE

Research Assistant, Professor Robert G. King, Department of Economics, Boston University, Fall 2017
Research Assistant, Professor Robert G. King, Department of Economics, Boston University, Summer 2016, Fall 2016
Research Assistant, Professor Robert G. King, Department of Economics, Boston University, Summer 2015
Research Assistant, Professor Diego Comin, Harvard Business School, Summer 2014

Research Assistant, Professor Robert G. King, Department of Economics, Boston University, Spring 2014

**TEACHING EXPERIENCE**

Teaching Fellow, Macro Theory (Master core), Department of Economics, Boston University, Spring 2017

Teaching Fellow, Macro Theory II (first year Ph.D. core), Department of Economics, Boston University, Spring 2015

Teaching Fellow, Macro Theory I (first year Ph.D. core), Department of Economics, Boston University, Fall 2014, Fall 2015

Teaching Assistant, Topics in Macroeconomics and Monetary Theory (Graduate Level), Summer School, Renmin University of China, Summer 2011

Teaching Fellow, Advanced Macroeconomics I and II (Master Level), Hanqing Advanced Institute of Economics and Finance, Renmin University of China, Fall 2010, Spring 2011, Fall 2011, Spring 2012

Teaching Assistant, Intermediate Econometrics, Department of Economics, Sun Yat-Sen University, Fall 2008

Teaching Assistant, Intermediate Macroeconomics, Department of Economics, Sun Yat-Sen University, Fall 2008

Teaching Assistant, Intermediate Microeconomics, Department of Economics, Sun Yat-Sen University, Spring 2007

**LANGUAGES:**

English (fluent), Mandarin (native), Cantonese (native), Hokkien (native), German (beginner)

**COMPUTER SKILLS:** MATLAB, STATA, LaTex, Lyx, R (beginner)

**CITIZENSHIP/VISA:** China/F1

**REFERENCES**

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# ZHITENG ZENG

### Firm Heterogeneity, Bank Loan Portfolios, and the Slow Recovery in the Great Recession (*Job Market Paper*)

When banks suffered from shocks to their net worth during the Great Recession, they shifted towards safer parties from riskier ones, which has exerted a disproportionate impact on small and risky firms. Motivated by the link between portfolio behavior of financial intermediaries and firm dynamics, which is ignored in the DSGE literature, I build up a tractable general equilibrium model with two types of firms to shed light on the aggregate effect of the 'flight-to-quality' effect. Financial intermediaries make loan portfolio decision between large firms, which have lower marginal product of capital but are subject to merely aggregate risk, and small firms, which have higher marginal product of capital but are vulnerable to idiosyncratic risks due to information problem. My quantitative analysis proposes a 'loan portfolio composition' mechanism through which banks' behavior can amplify the aggregate fluctuations: financial intermediaries are more effectively risk averse in bad times and thus will retrench more from lending to small firms, causing misallocation of financial resources and GDP losses. The injection of capital into banks can induce them to increase their risk capacities and shift their loan portfolios towards small firms, alleviating the misallocation problem.

### Do Shocks in Banking Sector Matter? A Bayesian Investigation

In this paper, I augment a standard DSGE model to include an endogenous leverage constraint in the banking sector, as in Gertler and Karadi (2011). Using Bayesian methods, I conduct a horse race between structural shocks widely used in DSGE literature, and shocks to the banking sector (shocks to banks' loan-to-value ratio and bank equity). I find that movements of most macroeconomic variables during the Great Moderation were not driven much by shocks to the banking sector. However, during the Great Recession, more than half of the decline in output and investment is driven by the combined effects of these two shocks. Our estimation results also show that investment shock, which has often been considered as the main driving force of the U.S. business cycle, plays a less important, though non-negligible role during normal times, and also become reduced to a trivial factor during the Great Recession.

### On the Procyclical Effects of Bank Capital Requirements: A DSGE Analysis

The release of Basel II Accord has raised concerns that procyclical capital requirements can lead to a greater financial amplification of the business cycle than Basel I. In this paper, I propose a general equilibrium model with financial intermediaries subject to endogenous leverage constraint and costly equity issuance. In face of an adverse shock which erodes the bank capital, the presence of a procyclical capital regulatory constraint further weakens the lending capability of banks, and thus amplifies the effects of the initial shock. I calibrate this model to U.S. data and find that the procyclical capital requirement gives rise to a quantitatively moderate, though non-negligible amplification effect on most macroeconomic variables.