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Graduate Studies

<i>Ph.D.</i> , Economics, North Carolina State University	Expected June 2022
<i>Dissertation</i> : “Essays on Business Cycles in Emerging Market Economies”	
<i>Advisor</i> : Professor James Nason	jmnason@ncsu.edu

<i>M.A.</i> , Economics, North Carolina State University	2014-2016
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Undergraduate Study

<i>BS.</i> , Economics, Northeastern University	2009-2013
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Research Fields

Primary: Macroeconomics, International Economics
Secondary: Applied Time Series (Macroeconometrics)

Research Papers

“*Are Business Cycles in Emerging Market Economies Alike?*” (Job Market Paper)

This paper explores the predictions of real business cycle theory on the roles of total factor productivity (TFP) and financial shocks to explain aggregate fluctuations in emerging market economies (EMEs). I obtain evidence about TFP and financial shocks by estimating structural vector autoregressions (SVARs) on quarterly samples of real GDP, a country-specific world real interest rate, Tobin's Q, and the trade balance-output ratio in the most recent twenty years for Brazil and Mexico. On each sample, two SVARs are estimated. One SVAR is identified on short-run restrictions, and the other is grounded in a long-run identification. Estimates of the SVARs show the Brazilian and Mexican business cycles are markedly different, as the contributions of TFP and financial shocks to aggregate fluctuations vary across the two countries. Next, TFP shocks are the main driver of business cycle movements in Brazil and Mexico conditional on the long-run identification. However, which shocks matter most for explaining business cycle dynamics in Brazil and Mexico is sensitive to identifying SVAR on the short- or long-run restrictions. The short-run restrictions render little information to better understand business cycles in Brazil and Mexico. Hence, the findings of this paper suggest that although not all business cycles are alike in EMEs, whether TFP shocks dominate aggregate fluctuations in EMEs rests on the identification.

“*Productivity Shocks, Financial Frictions, and Business Cycles in Emerging Market Economies*” (Work in Progress)

This paper addresses the question of whether business cycles in emerging market economies (EMEs) are best explained by the permanent total factor productivity (TFP) shock hypothesis or financial frictions. I build a small open economy (SOE) real business cycle (RBC) model with a permanent TFP shock to investigate the role of financial frictions at generating business cycles. The financial frictions are a Kiyotaki and Moore (1997) collateral constraint and an endogenous risk premium in the world real interest rate. The interaction of these financial frictions creates a business cycle propagation mechanism for the TFP shock in the SOE-RBC model that matches aggregate fluctuations in EMEs. The evidence for this is calibrating the SOE-RBC model to a Brazilian sample from 1999Q1 to 2018Q4 yields theoretical responses to the TFP shock that resemble responses to identified supply shocks estimated on the Brazilian sample. These results support the hypothesis that permanent TFP shocks are the main source of business cycle fluctuations in EMEs.

Teaching Experience

- **Course Instructor** North Carolina State University
– *Principles of Macroeconomics (Undergraduate)* Fall 2016 and 2017, Spring 2019

This course serves as an introduction of macroeconomics study to students. Subjects include supply and demand analysis, determinants of level and growth rate of aggregate output, inflation, business cycles fluctuations, financial system, effects of monetary and fiscal policies on stabilizing the economy, and the aggregate demand-aggregate supply model.

- *Fundamentals of Economics (Undergraduate)* Summer 2017

This course is devoted to instill fundamental concepts in economics to students. For example, macroeconomics analysis of production, employment, inflation, real and nominal variables, and monetary and fiscal policies are discussed. Microeconomics topics are also presented, such as scarcity, substitution, opportunity cost, marginal analysis, and pricing in competitive and non-competitive markets.

- **Teaching Assistant** North Carolina State University
– *Macroeconomics I (Ph.D.)* Fall 2017
Instructor: Professor Giuseppe Fiori.
– *Macroeconomics II (Ph.D.)* Spring 2018
Instructor: Professor Nora Traum.
– *Macroeconomics II (Ph.D.)* Spring 2019
Instructor: Professor Ayse Kabukcuoglu Dur.

Professional Experience

- **Truelight Energy** Boston, MA
– Data Analyst. Winter 2013-Spring 2014
- **American Institute for Economics Research** Great Barrington, MA
– Research Assistant. Summer 2013
- **Property and Portfolio Research** Boston, MA
– Research Assistant. Summer and Fall 2011

Skills

- **Computing**
– Julia, Matlab, R, Stata, and L^AT_EX.
- **Languages**
– English, Mongolian, and Chinese.

Dissertation Committee

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