

Jingxian Hu

CONTACT INFORMATION

Department of Economics, 415 Snow Hall,
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EDUCATION

2018 (Expected) Ph.D., Economics, University of Kansas, Lawrence, U.S.A.
2013 M.A., Economics, Renmin University of China, Beijing, China
2011 B.A., Economics, Shandong University, Jinan, China

RESEARCH

Research Interests

Open Macroeconomics, International Finance, Computational Economics

Working Papers

Dissertation: *Capital Control, Exchange Rate Regime and Monetary Policy: Indeterminacy and Bifurcation*, with William A. Barnett (Advisor)

Abstract: Will capital controls enhance macro economy stability? How will the results be influenced by the exchange rate regime and monetary policy reaction? Are the consequences of policy decisions involving capital controls easily predictable, or more complicated than may have been anticipated? We answer the above questions by investigating the macroeconomic dynamics of a small open economy. In recent years, these matters have become particularly important to emerging market economies, which have often adopted capital controls. We especially investigate two dynamical characteristics: indeterminacy and bifurcation. Four cases are explored, based on different exchange rate regimes and monetary policy rules.

With capital controls in place, we find that indeterminacy depends upon how inflation and output gap coordinate with each other in their feedback to interest rate setting in the Taylor rule. When forward-looking, both passive and positive monetary policy feedback can lead to indeterminacy. Compared with flexible exchange rates, fixed exchange rate regimes produce more complex indeterminacy conditions, depending upon the stickiness of prices and the elasticity of substitution between labor and consumption. We find Hopf bifurcation under capital control with fixed exchange rates and current-looking monetary policy. To determine empirical relevance, we test indeterminacy empirically using Bayesian estimation. Fixed exchange rate regimes with capital controls produce larger posterior probability of the indeterminate region than flexible exchange rate regimes. Numerically, fixed exchange rate regimes with current-looking monetary policy lead to several kinds of bifurcation under capital controls.

We provide monetary policy suggestions on achieving macroeconomic stability through financial regulation.

Exchange Rate as a Diffusion Process

Abstract: Under the floating exchange rate regime, exchange rate is known as highly volatile, nonstationary. It is also hard to be explained and predicted by fundamentals, such as output, price level and monetary supply. This paper is trying to use a continuous time diffusion process to model the above characters of exchange rate dynamics. Both nonparametric method and parametric method (MLE) are used to estimate exchange rate as a diffusion process. In line with previous literature's finding, the nonparametric drift estimators show some nonlinearity. The result of parametric estimation shows that Geometric Brownian Motion process could be a quite good capture of the exchange rate dynamics.

CONFERENCE PRESENTATIONS

- 2016 Midwest Macro Meeting, Federal Reserve Bank of Kansas City, November 4-6
Session Exchange Rates
- 2016 Midwest Econometrics Group Annual Meeting, UIUC, October 21-22
Session Dynamic Macroeconomic Models
- 2016 Society for Economic Measurement Conference, Thessaloniki, Greece, July 6-8
Session Nonlinear Dynamics in Economics and Finance

VISITING EXPERIENCE

- 2016 Hoover Institution, Stanford University, July 18-26
Initiative for Computational Economics (ICE) Conference
- 2009 Beloit College, Wisconsin, January-June
Undergraduate Exchange Student

AWARDS & HONORS

- 2016 Summer Research Fellowship, University of Kansas
- 2014 Summer Research Assistant Scholarship, University of Kansas
- 2012 First Class Scholarship, Renmin University of China
- 2011 Outstanding Graduate of Shandong Province, Shandong University

TEACHING EXPERIENCE

- 2016-2018 Instructor, University of Kansas
Econ 605 International Finance
- 2014-2016 Teaching Assistant, University of Kansas
Econ 144 Principles of Macroeconomics
Econ 142 Principles of Microeconomics
Econ 104 Introductory Economics
- 2012-2013 Teaching Assistant, Renmin University of China

Advanced Economics (Graduate)

TEACHING AREAS

Macroeconomics, International Economics, Monetary Economics, Econometrics

SERVICE

Judge, Undergraduate Research Symposium, University of Kansas, April 22, 2017

SOFTWARE SKILL

MATLAB, R, GAUSS, STATA, MATHEMATICA

LANGUAGE

English (Fluent), Chinese (Native), French (Basic)