



EUROPEAN CENTRAL BANK

EUROSYSTEM

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Discussion of ‘Traditional and matter-of-fact frictions in a DSGE model for Brazil: the role of macroprudential instruments and monetary policy

Mexico City
Frankfurt, 28 October 2013

Introduction

- DSGE model in which traditional financial frictions (Kiyotaki-Moore, Iacoviello, BGG) coexist with Brazil-specific frictions
 - Very rich model
- Bayesian estimation on Brazilian data
- Counterfactual simulations

General Comments

- Interesting model
 - Learned a lot about the Brazilian economy from it
- ... but not an easy read
 - Emphasis on realism rather than simplicity and intuition
- Contains many different frictions and constraints
- ... but lacks a motivation for macro-prudential policy
 - Bank defaults/Risk-taking not modelled
 - Optimal regulatory capital ratios should be zero?
- Also some missing key frictions
 - Foreign currency borrowing?

The Structure of the Model: Saver Households

- Patient Saver Households
- Habits in consumption, non-separable utility between consumption and housing
- Saving deposits and Demand deposits both in the utility function
- Also can invest in retail money funds
- Sell labour via monopolistically competitive labour unions

The Structure of the Model: Borrower Households

- Impatient Borrower Households
- Habits in consumption, non-separable utility between consumption and housing
- This household only likes Demand deposits
- Sell labour via monopolistically competitive labour unions
- Borrow for consumption and for real estate purchase
 - Housing loans have seniority over consumption loans
 - Both are at fixed interest rates
- Default when 'pledgeable labour income' falls below the value of debt
 - The defaulting borrower keeps his or her house?
 - Only loses part of labour income
 - Deadweight cost of default

The Structure of the Model: Borrower Households (cont'd)

- Exogenous LTV ratio (motivated by reality)
- Exogenous interest rates on loans
 - Dominant Federal Mortgage Bank in the housing loan market
 - Other banks forced to participate by regulation

The Structure of the Model: Entrepreneurs

- Modeled similar to Christiano, Motto and Rostagno (2010)
- Stochastic OLG structure, hold the capital stock
- Exogenous LTV ratio
- Default when the value of the firm's assets falls below the value of debt
 - Deadweight cost of default

The Structure of the Model: Banks

- Deposit branches
 - Demand deposits due to liquidity (MIU) benefits
 - Savings deposits: exogenous interest rate set by the government
 - Time deposits: buy shares in the retail money fund
 - Reserve requirements
- Corporate loan branches
 - Imperfect competition
 - Calvo-style nominal interest rate rigidities
- Mortgage loan branches: completely passive
 - Administered interest rates
 - Fraction of deposits must be given to housing loans
- Capital regulation
 - Equity through retained earnings only
 - Bank pays a cost when risk-adjusted capital deviates from the amount specified by the regulation

Counterfactual policy

- Reserve requirement
 - Large effect on the economy when raised
- Capital requirements
 - Immediate reaction from anticipated changes
 - Impact on credit smaller when changes are pre-announced

Comments

- Large model, very detailed set of frictions, a lot of attention to institutional detail
 - Useful for assessing the impact on the real economy
 - Can we use it to think about optimal regulatory policy?
- What is the purpose of capital and liquidity regulation in the model?
 - Is there a region of the parameter space for which welfare of agents in the economy actually increases as we increase capital and liquidity requirements?

Comments

- The emphasis on the public banks seems very interesting and worth exploring further
- How does their presence and non-profit objectives affect the rest of the banking system?
 - Guess: depress bank charter values and increase risk-taking by private banks. (see work by Martinez-Miera and Suarez (2012) and by Corbae and D'Erasmus (2012))
- Can the public banks amplify housing price fluctuations?
 - Guess: to promote house purchases
 - But how do they do it: low interest rates, high LTVs?
 - What happens when housing prices rise? Do public banks relax loan terms even further in order to maintain quantity objectives?
- How large is the balance sheet of the public banks?
 - Can they create a European-style sovereign-banking 'diabolic loop'?

Comments

- **The shadow banking sector in Brazil**
 - Idea: these regulations are costly so banks will try to circumvent them?
Does the circumvention lead to unintended consequences?
 - Is there a large non-bank financial intermediary sector which funds itself on the wholesale market?
- **Foreign currency borrowing**
 - Importance of open economy issue acknowledged by the authors
 - Foreign currency borrowing seems particularly important

Summary

- Nice paper
 - Models the specific features of the Brazilian financial system
 - Estimation
- Main suggestion
 - Focus on the ‘matter-of-fact’ frictions which really matter for systemic risk
 - More attention to how financial instability can occur in Brazil