Discussion of
Monetary and Financial Policies in Emerging Markets
by Aoki, Benigno and Kiyotaki

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Paper Outline

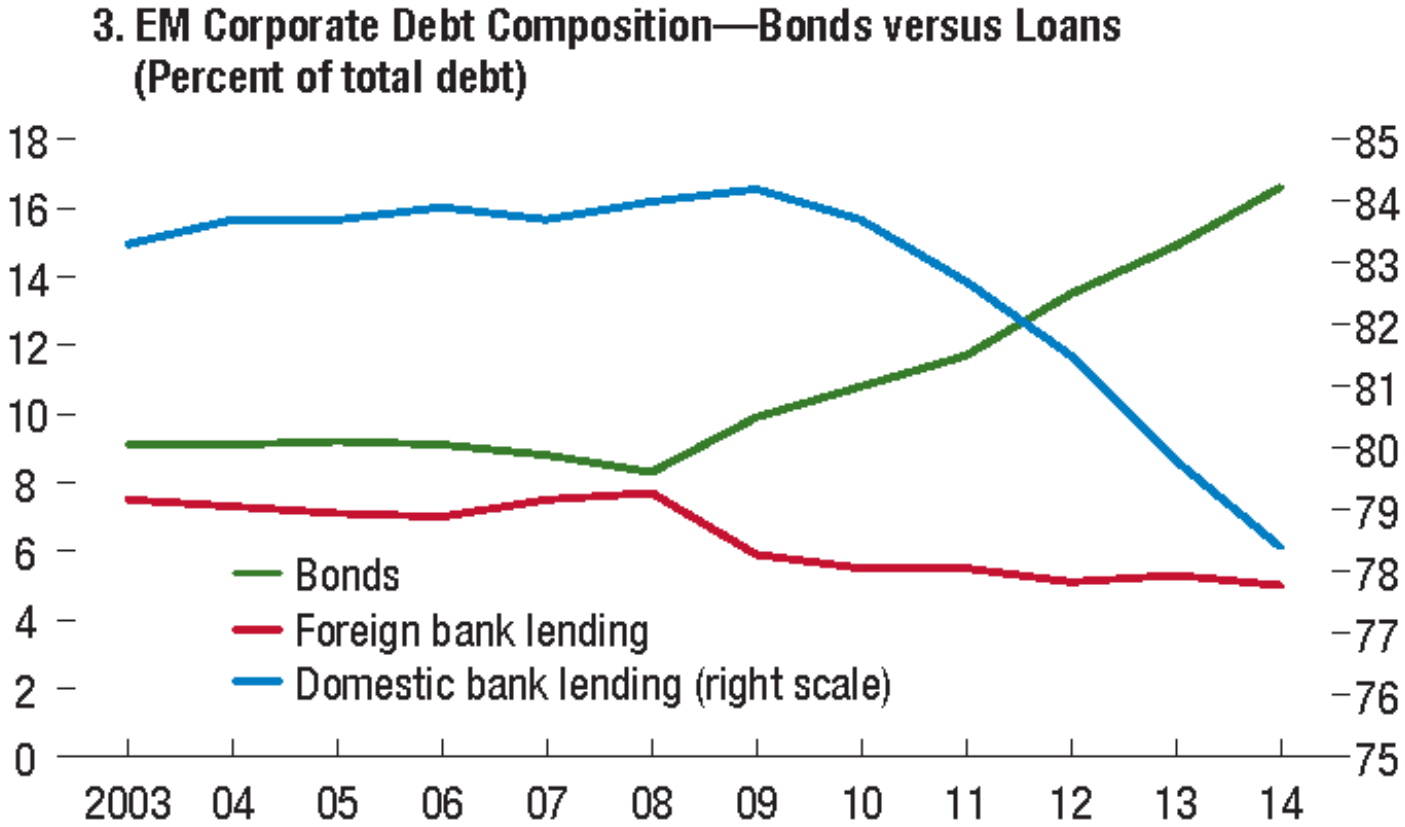
- Develop a small-open economy New Keynesian model with foreign currency debt
- Calibrate the model and analyze the impact of domestic and foreign interest rates
- Analyze the impact of shocks to taxes on foreign borrowing and taxes on risky asset holdings by banks
- Analyze the welfare effect of countercyclical taxes on foreign borrowing

Background

- Monetary policy with foreign currency debt was first developed in Aghion, Bacchetta, and Banerjee (2001)
  - In the spirit of Bernanke-Gertler
- The mechanism was introduced in a quantitative DSGE model by Gertler, Gilchrist, Natalucci (2007)
  - Based on Bernanke, Gertler, and Gilchrist (1999)
- That paper was presented at the BIS in 2003, with discussant canceling at the last minute
- This paper introduces foreign currency debt in a framework based on Gertler and Kyiotaki (2010)

What Foreign Currency Debt?

- Previous literature focused on credit-constrained firms borrowing in foreign currency
- Firms' net worth is key
- This paper focuses on constrained banks
- It is their foreign currency exposure and their net worth that matters
- Interesting alternative perspective, even though the role of domestic bank loans in EM has been declining


3. EM Corporate Debt Composition—Bonds versus Loans
(Percent of total debt)
18
16
14
12
10
8
6
4
2
0
85
84
83
82
81
80
79
78
77
76
75
Bonds
Foreign bank lending
Domestic bank lending (right scale)
2003
04
05
06
07
08
09
10
11
12
13
14

Overall Assessment

- Cool model
- The authors could do more with it
- The mechanisms are not always transparent
- Some of the experiments are not the most interesting

Basic Ingredients

- Banks balance sheets:

$$Q_t K_t^b = N_t + D_t + \epsilon_t D_t^*$$

- Total bank debt is given by $(\phi_t - 1)N_t \Longrightarrow$ The evolution of N_t is key
- Borrow with domestic and foreign currency deposits
- Lending is in the form of equity
- Balance sheet is affected by exchange rate fluctuations, but also by stock price changes

Monetary Policy Shocks

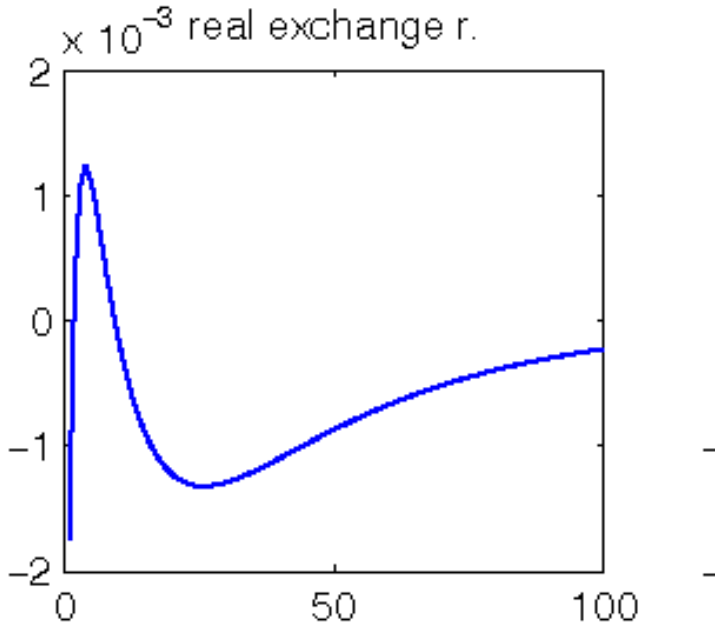
- Domestic monetary policy modeled by a rule:

$$i_t - i = (1 - \rho_i)\omega_\pi(\pi_t - 1) + \rho_i(i_{t-1} - i) + \xi_t^i$$

- First, consider domestic interest shock
- Currency appreciation should affect positively net worth, but N_t declines because of capital price decline
- Would the result be reversed with standard loans (as opposed to equity investment)?

Monetary Policy Shocks

- How to explain the real exchange rate dynamics?



- Foreign interest rate shock has negative effect because of both exchange and stock price impact

- Is foreign currency debt really important?

Tax Shocks

- Tax on foreign borrowing τ^D and tax on risky asset holding τ^K
- Impulse response functions of permanent increases in these taxes
- In the long run, welfare is higher with tax of foreign borrowing and lower with tax on investment
- Why are we interested in the dynamic response of permanent tax shock?
- What is the meaning of a tax on risky asset holding τ^K when the banks ONLY holds this asset?

Cyclical Tax on Foreign Borrowing

- τ^D increases with stock of capital held by banks K_t^b
  - Why this rule?
- Analyze the welfare impact of different degrees of cyclicality of τ^D, combined with different responsiveness of monetary policy
- Shows that a reasonable cyclicality of τ^D increases welfare
- What would happen with a tax on all deposits?

A Few Comments

- Paper considers permanent shocks and rules. Why not analyzing optimal policies?
- More policies can be analyzed
- Role of exchange rate regime
  - Add exchange rate in the interest rate rule
  - How does the exchange rate regime influences the impact of tax policies?
- Reserve requirements: same as tax on deposits?
- Capital requirements, but maybe cannot be analyzed

Conclusions

- Great model
- Could be better used
- The focus on bank financing raises some issues
- Some simple extensions would allow a richer analysis