Macroprudential Regulation and Cross-Country Spillovers: Reciprocity and Leakage

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Introduction

- In a globally interconnected banking system, there can be **spillovers from domestic macroprudential policies to foreign banks** and vice-versa
- The **lack of reciprocity** of some macroprudential instruments may result in an increase in bank flows to countries with lower regulatory levels
- This may decrease the **effectiveness of macroprudential policies** in the pursuit of global **financial stability**

Research Questions

- How do macroprudential policies change the composition of debt between **domestic and foreign**?
- How does the **lack of reciprocity** affect welfare and financial stability?
- What is the **optimal macroprudential policy** that maximizes welfare?

Model Overview

- Two-country **DSGE** with entrepreneurs (borrowers) and households (savers)
- **Collateral constraints** for entrepreneurs
- Entrepreneurs choose whether to **borrow from domestic or foreign households**
- **ALPHA** is the share of borrowing which is pledged to domestic lenders
- In the steady state, **ALPHA will be positively related to the domestic LTV** (mH) and inversely related to the foreign LTV (mF)

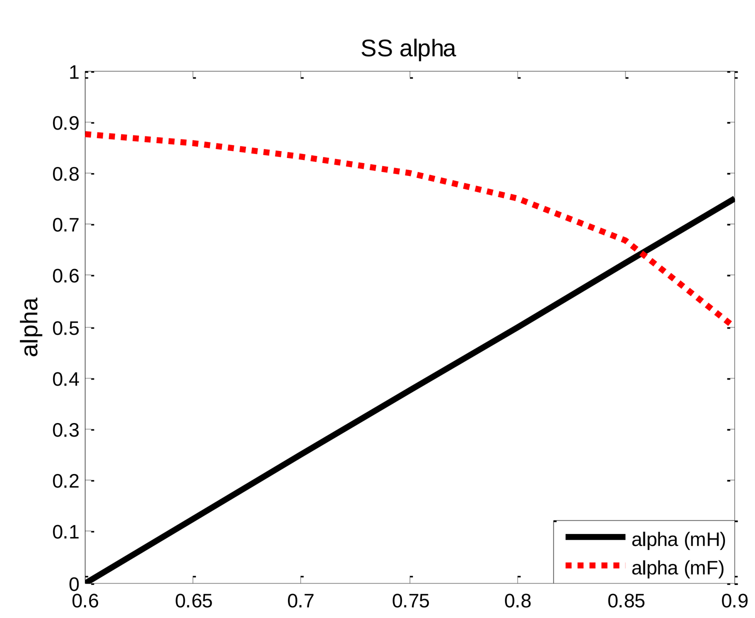

Figure: Steady state value of alpha for different domestic and foreign LTVs

- Dynamically, under a benchmark calibration, **a domestic technology shock makes the proportion of domestic borrowing increase**

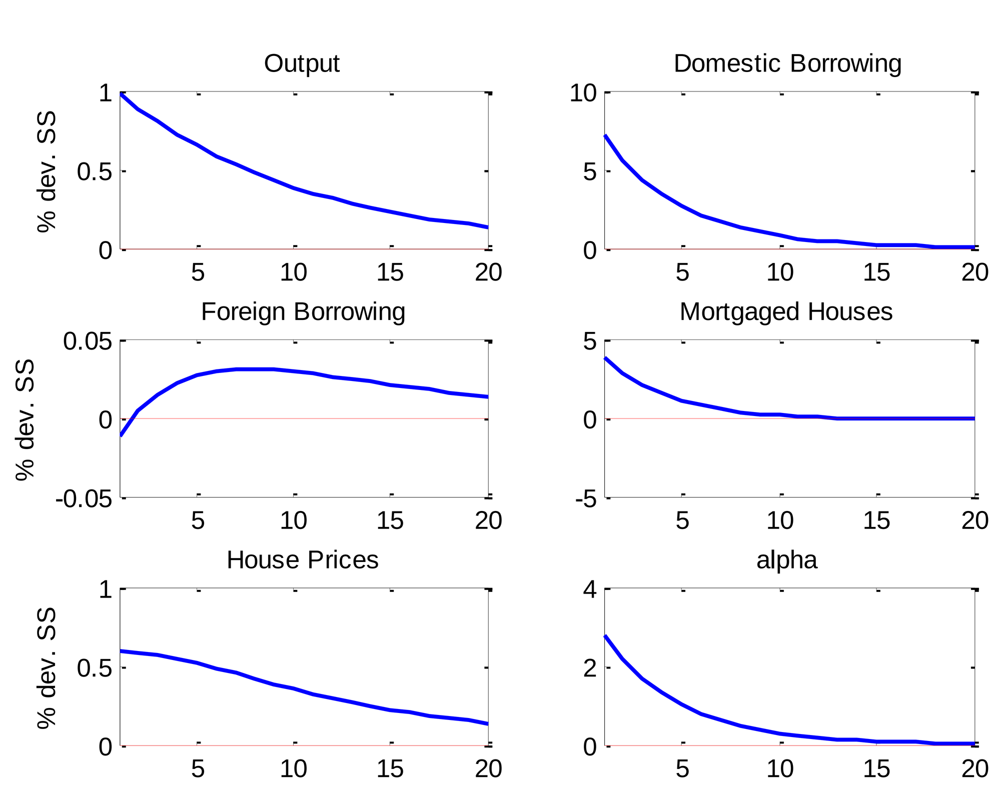

Figure: Impulse-Responses to a Domestic Productivity Shock

Macroprudential Policy

- **Countercyclical rule on the LTV (m)** responding to house prices (q)

m=m_SS-phi*q

  - **NO RECIPROCITY**: The rule applied only to domestic LTV (mH) ->phi_f=0
  - **RECIPROCITY**: The rule applied to domestic LTV (mH) and foreign LTV (mF)

Results

Optimal MPru Policy

phi_h*	phi_f*	stdev(b)	Welfare gain
8.5	0.2	0.102	1.32

- **MACROPRU INCREASES WELFARE AND FINANCIAL STABILITY**
- **GAINS ARE LARGER IF THERE IS RECIPROCITY**
- **OPTIMAL MACROPRU INVOLVES REGULATING BOTH DOMESTIC AND FOREIGN BANKS**

Financial Stability and Welfare

	stdev (bh)	stdev (bf)	stdev (b)	Welfare gain
No MPru (Benchmark)	6.90	0.101	5.16	–
Mpru No Reciprocity phi_h=8.5;phi_f=0	5.48	0.106	3.818	0.97
MPru Optimal phi_h=8.5;phi_f=0.2	1.45	0.011	0.104	1.32

- Non reciprocity in macroprudential policies can partly "undo" their purpose of achieving financial stability and high welfare

Conclusions

- **DSGE** model with **domestic and foreign lending**
- Borrowing tends to migrate to the less regulated country
- When macroprudential policies are applied just to domestic borrowing, financial stability and welfare increase but not as much as if foreign branches are also regulated (reciprocity)
- **Optimal macroprudential policy involves regulating both domestic and foreign banks**
- In order to enhance the effectiveness of macroprudential policies and achieve its goal of global financial stability, **reciprocity is desirable**

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