Macroprudential Regulation and Cross-Country Spillovers

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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)

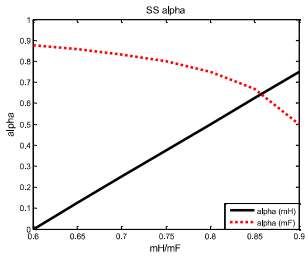

Figure: Steady state value of alpha for different domestic and foreign LTVs

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

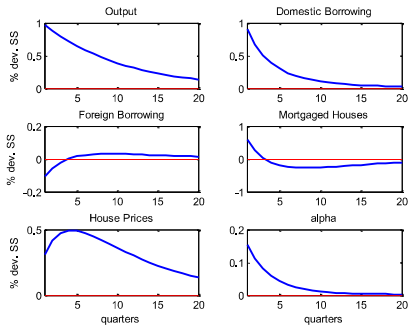

Figure: Impulse-Responses to a Domestic Productivity Shock

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)

Preliminary Results

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=0.5;phi_f=0	2.49	0.019	1.205	0.556
MPru Reciprocity phi_h=0.5;phi_f=0.1	2.45	0.012	1.202	0.583

-2.7923

- **MACROPRU INCREASE WELFARE AND FINANCIAL STABILITY**
- **GAINS ARE LARGER IF THERE IS RECIPROCITY!**

Optimal MPru Policy

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

- **OPTIMAL MACROPRU INVOLVES REGULATING BOTH DOMESTIC AND FOREIGN BANKS**

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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