Securitization and Cross-border Spillovers from Macroprudential Policy

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**Abstract**

This paper puts forward a two-country two-period general equilibrium model with fragmented mortgage and capital markets and heterogeneous banks. I extend Goodhart et al. (2013) model by allowing for securitization and by varying risk aversion across banks in two countries. In such a set-up I test the cross-border propagation from capital and loan-to-value (LTV) regulation. I find that the re-optimization of bank balance sheets in response to a macroprudential policy innovation is crucial in determining the magnitude of cross-border spillovers. I also find that by means of securitization banks may shift risk across borders in response to rebalancing the macroprudential policy stance between the two countries, thereby weakening the effectiveness of the policy (securitization channel). In particular, an uncoordinated LTV policy may lead to unintended results as banks increase their originate-to-distribute activity in response. In this way an asymmetric macro-prudential policy innovation is leaked across borders.

**Methods and Materials**

- **Model set-up**
- **Agent P’s and P*'s optimization problem**
- **Food endowment**
  - First period budget constraint
  - Second period budget constraints
- **Second period budget constraint (bad state)**
  - Availability
  - Budget constraint
  - Second period budget constraint (good state)
  - Budget
- **Optimization problem**
- **Bank B optimisation problem**
- **Bank B* optimisation problem**

**Results**

- **First period budget constraint**
- **Profit in good state – no default**
- **First period budget constraint**
- **Profit in bad state – default**
- **Profit on the mortgage**
- **B* defaults on repo**
- **Maximize expected payoff, subject to budget constraints**
- **+ linear penalty for the default on repo**

**Conclusions**

- Adjustments of banks’ balance sheets in response to a macroprudential policy innovation is crucial in cross-border propagation
- Risk averse banks are less willing to adjust their balance sheets
- Securitization “leaks” across borders the impact of an asymmetric macroprudential policy innovation
- **LTV ratio caps relatively more efficient tool in addressing an asymmetric shock than capital regulation**
- Yet the overall efficacy of this tool needs to be assessed in the context of cross-border spillovers that may vary depending on banks attitude towards risk
- LTV regulation can result in strong cross-border spillover

**Policy discussion**

- Uncoordinated macroprudential policy may lead to sub-optimal results as banks may switch to originate-to-distribute business model
- Macroprudential policy may complement monetary policy by addressing undesirable cross-border/cross-sector shifting of risk or excessive risk taking

**References**