Motivation

European debt crisis and the sovereign-bank nexus:
- Mutually reinforcing negative effects of sovereign risk, financial instability and depressed economic activity

Results

Crisis events: model vs. data

Counterfactual 1: riskless sovereign debt
-> Contribution of sovereign risk explains ~60% of the drop in output during crises

Counterfactual 2: higher capital requirements (sovereign risk weights)
-> Ameliorate banks’ risk-shifting incentives and mitigate the effects of higher sovereign risk on macro outcomes but constrain credit supply

This paper

Non-linear DSGE model sheds light on the mechanisms behind:
- Endogenous feedback between bank failure and sovereign default risk
- Macropudential implications of regulating banks’ sovereign exposures

Model overview:

Key ingredients:
- Distortions associated with external debt financing drive banks’ risk-taking:
  ▶ Limited liability: banks’ losses limited to their equity contribution
  ▶ Govt. guarantees: mispricing of risk at the margin
  → Risk-shifting channel

- Capital regulation + limited participation in equity markets: bank intermediation is constrained by endogenous accumulation of capital
  → Net worth channel

- Main trade-off: Higher capital requirements mitigate banks’ risk-shifting incentives at the cost of constraining credit supply

Quantitative exercise: calibration based on a peripheral EU country (Spain 1999-2018)