

# “Breaking the Sovereign-Bank Nexus” by Jorge Abad

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# What the paper does

- Non-linear DSGE to assess macroeconomic effects of nexus between bank failure risk and sovereign default risk.

# The transmission mechanism

- Banks intermediate funds between households and firms, and hold sovereign bonds for liquidity management.
- Government:
  - provides bailout guarantees on bank liabilities (partial deposit insurance);
  - places its risky sovereign debt among domestic banks and international investors.

# The transmission mechanism

- Limited liability makes investing in high-yield, risky sovereign debt attractive for banks.
- Deposit insurance and opacity of banks' balance sheets: depositors do not price bank failure risk at the margin.
- There is risk-shifting channel: “excessive” leverage and “excessive” exposure of banks to sovereign risk.
- Nexus:
  - bank failure risk: banks exposed to risky private sector assets and to risky sovereign debt;
  - sovereign default risk affected by bank risk through the deposit insurance liabilities.

# Main results

- Positive risk weight for sovereign debt holdings: (i) reduces banks' exposure to sovereign risk and (ii) makes banks safer.
- If the given capital requirement is low, the socially optimal risk weight on sovereign exposures is positive.
- If policy maker chooses both (i) level of capital requirement and (ii) risk weight on sovereign, the optimal mix is higher capital requirement and zero risk-weight:  
  
⇒ positive risk weights on sovereign debt crowd out lending to non-financial sector during crises.

## Comment 1: Home bias of banks

- Coeudarcier and Rey (2013), Lewis (1999): investing in domestic securities justified by hedging, low information costs, and a reduced asymmetric information.
- Home bias of banks is not necessarily an inefficiency to be corrected (i.e., its not an “excessive” exposure); instead, it could be a second best solution to market failures.
- A fully-fledged open-economy setup (currently lacking in the model) would clarify the relevance of different inefficiencies and market failures and, thus, of alternative policy measures.

## Comment 2: Banks' role of shock absorber during a crisis

- Calvo (1988) De Grauwe and Yi (2013): probability of self-fulfilling crises is inherent in government bond markets.
- If markets under-price sovereign bonds, (long-termist) banks act as *fundamentalist* (Shleifer and Vishny, 2012): absorb excess supply of bonds and, thus, favor financial stability.
- It cannot be excluded that risk weights on sovereign exposure would limit the role of banks as shock absorber.

## Comment 3: Sound fiscal policy

- Macroeconomic disruption due to sovereign crisis can be so large that it will almost inevitably have adverse consequences for the banking system.
- Sound current and future fiscal policy, to ensure solvency of public sector, is a key precondition to overall (public and private) financial stability.
- Sound fiscal policy is likely to be a very effective way to tackle the nexus problem at its root.
- The paper would greatly benefit from the analysis of alternative fiscal and public finance strategies.



## Comment 4: Sovereign default probability not policy-invariant

- Sovereign default probability (Eq. 14 in the the paper):

$$p_t = \frac{\exp(\eta_1 + \eta_2 B_t + s_t)}{1 + \exp(\eta_1 + \eta_2 B_t + s_t)}.$$

- The equation seems to me a reduced-form relation.
- Parameters  $\eta_1, \eta_2 > 0$  ( $B$  is public debt), and the (implicit) parameter before the sovereign risk shock  $s_t$  are a convolution of structural parameters (including policy's ones).
- Thus, they would change when the risk weights on sovereign exposures are changed (new policy regime).
- If so, the counterfactual analysis is hardly trustable.

- The global solution method of the model is a plus of the paper, as it explicitly takes into account risk considerations.
- The main concerns are that:
  - i in the model, the sovereign default probability function is reduced-form, that is, it is not policy invariant;
  - ii the bias for public debt can be useful for financial stability and it is not necessarily, as assumed in the model, “excessive”.
- Thus, I would be extremely cautious in deriving strong policy implications from the counterfactual simulations.

- Thanks!