EUROPEAN CENTRAL BANK

EUROSYSTEM

Discussion of “Deadly Embrace: Sovereign and Financial Balance Sheets Doom Loops” by E. Farhi and J. Tirole

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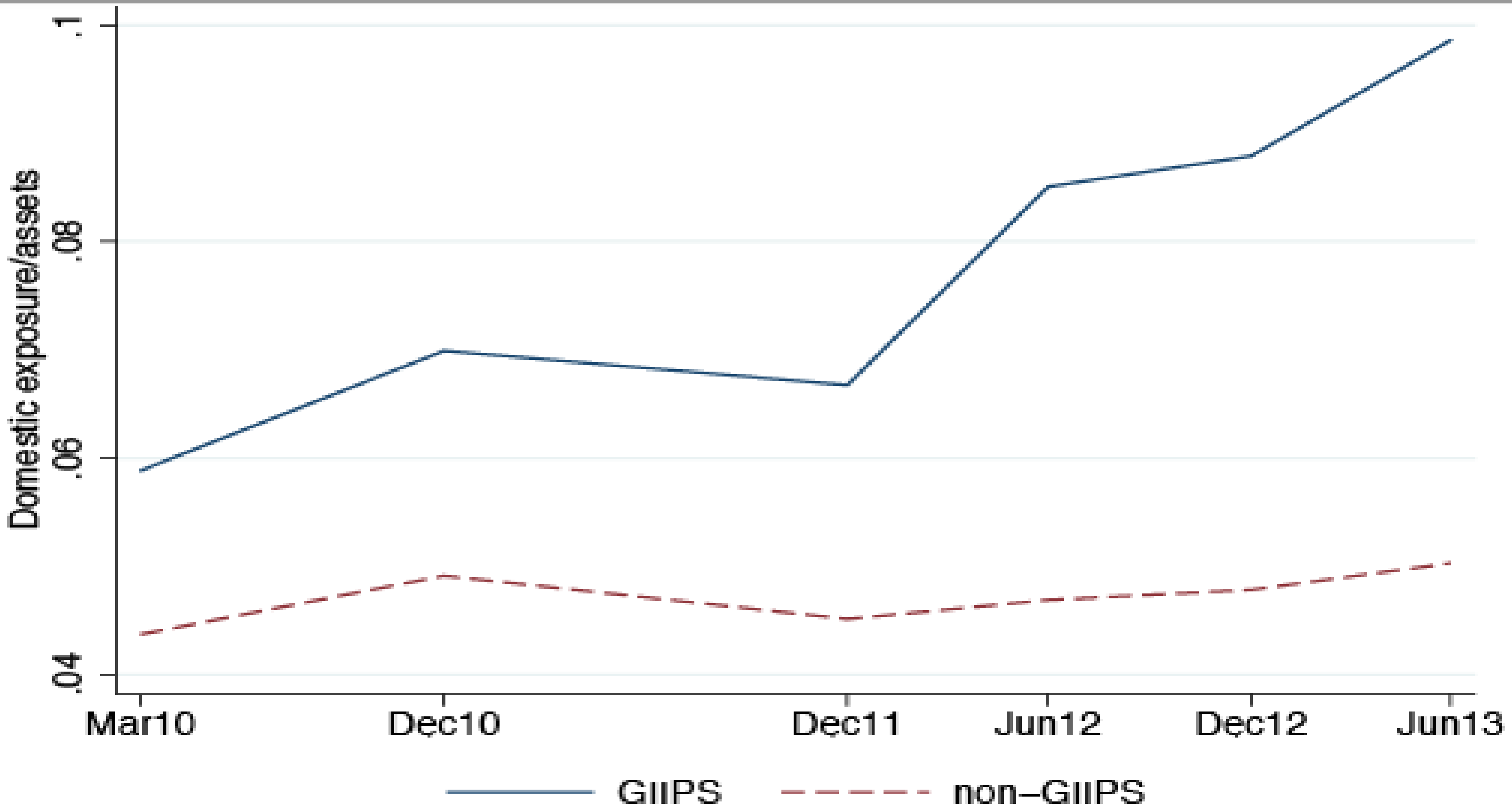
Bank exposures to domestic govt debt



The average domestic government debt to total assets ratios for banks in three GIIPS countries (Italy, Portugal, and Spain) and in 14 non-GIIPS countries. Source: Horváth, Huizinga, and Ioannidou, 2015, "Determinants and valuation effects of the home bias in European banks' sovereign debt portfolios", WP

Model ingredients

- Risk-taking by banks due to the possibility of bail-outs (investment in risky domestic govt debt); strategic complementarities
- Modelling domestic bank supervision:
  - assumed to be imperfect (holdings of domestic bonds not measurable on continuous basis)
  - can decide to be lenient (even more imperfect than imperfect)
- Government / supervisor lacks commitment
- Multiple sovereign bonds: home bias, re-nationalization of debt
- Key is the determination of domestic government bond prices; foreign creditors are marginal investors

Main mechanisms

- Doom loop bw domestic banks and the sovereign:
  - govt has incentives to bail out banks, more so the more they invest in domestic debt
  - hence, banks have incentives to invest in risky domestic govt debt
  - when bail out happens, weakens both sovereign and bank balance sheets

- "Double-decker" bail-out:
  - when fiscal prospects bleak, foreign creditors may want to forgive some debt (if on the wrong side of the Laffer curve)
  - in turn, govt allows banks to load up on domestic debt, and risk needing a bail-out, to extract larger concessions from foreigners

- Explanation for why domestic supervision may be lenient
  - if investors anticipate supervisory lenience, govt bond prices adjust, optimal for the govt to commit ex ante to be a tough supervisor ex post
  - but once the debt is issued, temptation to be lenient: a time-inconsistency problem

Take-aways

- Strategic complementarities (collective moral hazard) different from Farhi and Tirole (2012):
  - work through GE effect on sovereign debt prices and occurrence of default, rather than through how many banks are in trouble to warrant bail-out
- Lenient domestic supervision due to debt forgiveness by foreign investors
- Supranational supervisor can help:
  - weakens the temptation for lenience (puts more weight on foreign investors or is better able to commit)
  - internalizes positive externalities created by tough domestic supervision
- Who holds govt debt matters!
- Model is fully fleshed out; a number of interesting extensions considered
  - so my comments will be mostly about interpretation / applications

Govt incentives

- Govt bail-outs are undesirable in the model:
  - ban on bail-outs (Dodd-Frank Act)
  - (supranational) fiscal rules (caps on spending) to tie the hands of the government

- Consider the role of debt maturity: long-term debt (benchmark model) versus short-term debt that needs to be refinanced
  - short-term debt as a disciplining device (Calomiris and Kahn, 1991; Diamond and Rajan, 2001)
  - short maturity can substitute for lack of commitment but entails a cost in terms of fiscal hedging

- What determines the supply of safe / risky government debt? What are the consequences of sovereign risk in financially integrated economies?
  - sovereign bonds of one member state held by banks in other member states; sovereign problems can become contagious
  - safety of the government debt a public good whose provision may be inefficient (Bolton and Jeanne, 2011)

Bank incentives

- In the model, banks can hold safe liquid assets to finance future liquidity needs but they don't want to because of bail-outs / supervisory lenience
  - supervision is imperfect as bank balance sheets are opaque
- If supervision imperfect and bail-outs possible, how to discipline bankers (and reduce taxpayers' exposure)?
- If worried about the doom loop due to ex post public bail-outs...
  - set-up a private bail-out fund financed by banks ex ante using safe assets
- If worried about opaque / inadequate liquid asset holdings by banks...
  - cash reserves with the central bank make bank liquidity observable and verifiable
  - cash holdings can reduce bank risk-taking incentives (Calomiris, Heider and Hoerova, 2014)

Role of the central bank?

- The model does not feature a central bank (CB)
  - CB provides liquidity to banks
  - one reason for banks to hold govt debt is that it can be used as collateral at the CB

- Changes in govt debt exposures and central bank policies:

	change in home exposure (billion) of GIIPS	change in GIIPS exposure (billion) of euro area non-GIIPS
March '10 - Dec. '10	31	-50
Dec. '10 - Sept. '11	-2	-40
Sept. '11 - Dec. '11	-15	-20
Dec. '11 - June '12 (post LTRO)	55	-14
June '11 - Dec. '12 (post OMT)	12	4
Dec. '12 - June '13	51	8

Acharya, Pierret and Steffen, 2015, "Do central bank interventions limit the market discipline from short-term debt?," WP

Banking union discussion

- The paper provides rationales for Supranational supervision
  - supranational supervisor helps with the commitment problem
- National versus supranational supervision:
  - supranational supervisor may have better incentives but domestic supervisor may have informational advantage (local knowledge; lower monitoring costs)
  - potential tradeoff; room for joint supervision (Colliard, 2014)
- Supranational guarantees to depositors to deal with doom loops:
  - bank balance sheet concerns trigger runs, deepen funding problems and increase bail-out needs
  - likelihood of sovereign default increases, depressing govt bond prices etc.
- Supranational resolution:
  - common backstop for a resolution fund to avoid doom loops

In conclusion

- A rich framework to think about bank-sovereign doom loops and the design of supervisory architecture

- Quality of domestic supervision can have externalities on other countries
  - here: tougher supervision has positive externalities
  - if tougher domestic supervision means banks take on more risk abroad (empirically documented in Ongena, Popov and Udell, 2013), externalities can go the other way
  - points at the importance of international coordination

- In a monetary union, which policies are most effective in preventing / attenuating the sovereign-bank loops? How do they interact?
  - bank regulation
  - banking union
  - fiscal rules
  - central bank policies