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Discussion of

CROSS-BORDER INTERBANK TRANSACTIONS IN THE FINANCIAL CRISIS

A. Colangelo, D. Giannone, M. Lenza, H. Pill and L. Reichlin

P. Angelini
Banca d'Italia

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Main focus of paper

- Geographical segmentation of euro area financial markets is central to understanding how, relative to other jurisdictions, the impact of the financial crisis was magnified in the euro area

- Understanding the propagation of the financial crisis in Europe therefore requires an empirical understanding of the nature and causes of market fragmentation

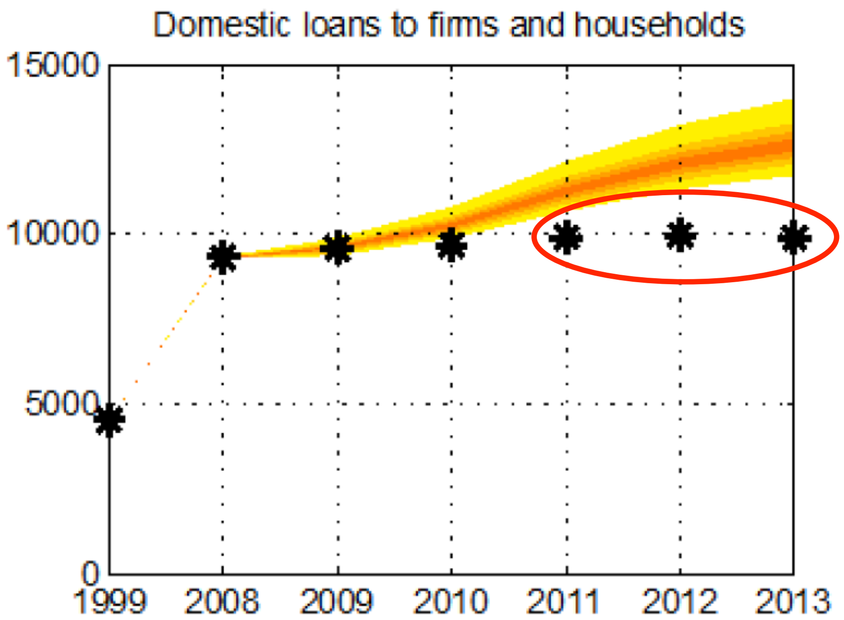
- The potentially vicious interaction between bank and sovereign balance sheets – "diabolic loop" – is widely seen as the main driver of geographical segmentation of markets along national lines

- Paper analyses empirically how the euro area financial sector balkanised along national lines as a result of the crisis and its aftermath

Methodology

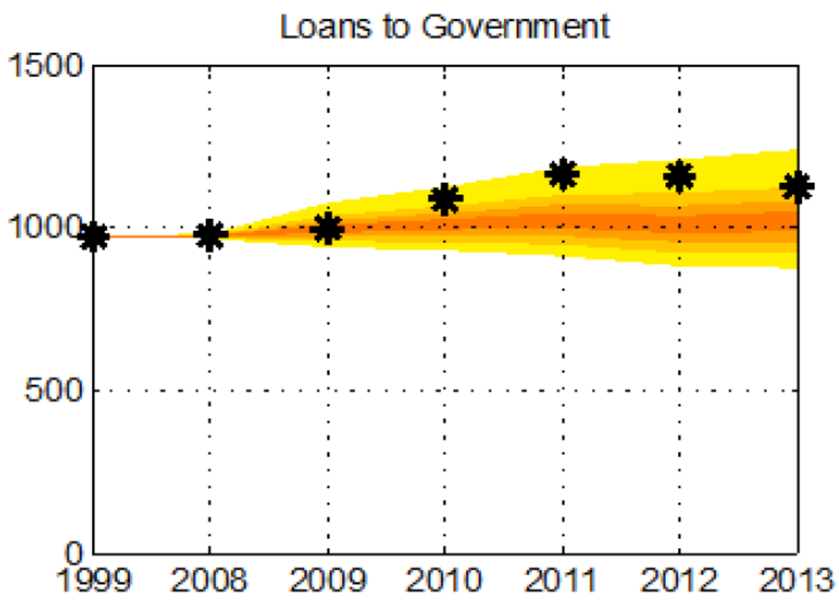
- **Counterfactual exercise:**
  - **Estimate model with monthly data for the euro area, 1999.1-2008.8**
  - **Project financial variables over 2008.9-2013 using actual realization of macro variables**
  - **Financial variables falling outside confidence bands signal "instability" of relationship between financial and real variables**

Methodology (2)



For instance:

○**This chart suggests that** “*Developments in the banking sector during the financial crisis are difficult to reconcile with those in the rest of the economy, [e.g.] due to structural changes in the financial sector brought about by the crisis*”



○**This chart is consistent with the view that** “*the relative importance of real and financial shocks has remained the same through the financial crisis*”

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Main message

The European financial crisis has two distinct phases:

First: Sept 2008 – late 2010: bank wholesale liabilities becoming overwhelmingly domestic, as cross-border wholesale transactions dried up

Second: since late 2010: banks-sovereign "diabolic bank loop" strengthened

Financial fragmentation is central to both phases, but takes different forms. Underlying driver: emergence of redenomination risk, which led banks (in both the core and the periphery of the euro area) to match their (then overwhelmingly domestic) liability profile with increasingly domestic assets, including domestic sovereign debt

Main results

1. **Stress in the Euro interbank market following the failure of Lehman have been driven by a seizing up of transactions with non-domestic wholesale counterparties, in particular banks in other euro area countries**

2. **Credit flows to the private sector were largely insulated from interbank tensions in the first phase of the financial crisis; in the second phase (from 2011 onwards) the flow of loans was disrupted**

3. **Banks built-up unusually large holdings of domestic sovereign debt during this second crisis phase, possibly reflecting substitution away from loans to the private sector, which saw the emergence of a destructive "diabolic loop" between bank and sovereign balance sheets**

Comments: general

1. Overall, results are sensible, not surprising, relatively well-known (emphasis is on statistical proof)

3. Interpretation of counterfactual exercise
   i. Signals breakdown of econom(etr)ic relationships; does not say much on its determinants
   ii. Could also run symmetric exercise (use realizations of financial variables to simulate real variables)

4. Exercise relies on sharp distinction between real and financial variables. Blurred in practice: is the sovereign spread a real or a financial variable? And the sovereign debt?

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Comments: general (2)

4. Omitted variables problem:
   i. Proxies of redenomination risk? (sovereign spreads; Google search for euro break-up?) public debt? NPLs? …

5. Euro area aggregated data have been used; why not national components, available in MFIs dataset? Cross-country heterogeneity is crucial in sovereign debt crisis
   - Examples of recent papers addressing similar issues using disaggregated data: Battistini, Pagano and Simonelli (2013), Acharya and Steffen (2013), Neri an Ropele (2014), Bologna and Caccavaio (2014)

6. To identify «unusual» behavior of financial variables, emphasis is on confidence bands; to what extent is the width of these bands dependent on Bayesian VAR technique?

Comments: cross-border interbank flows

Result 1: fall in cross-border interbank flows

- **Result is well documented (e.g. ECB Financial Integration Report, 2013)**

Chart 23 MFI loans to MFIs: outstanding amounts by residency of counterparty

(percentage of total lending excluding the Eurosystem)

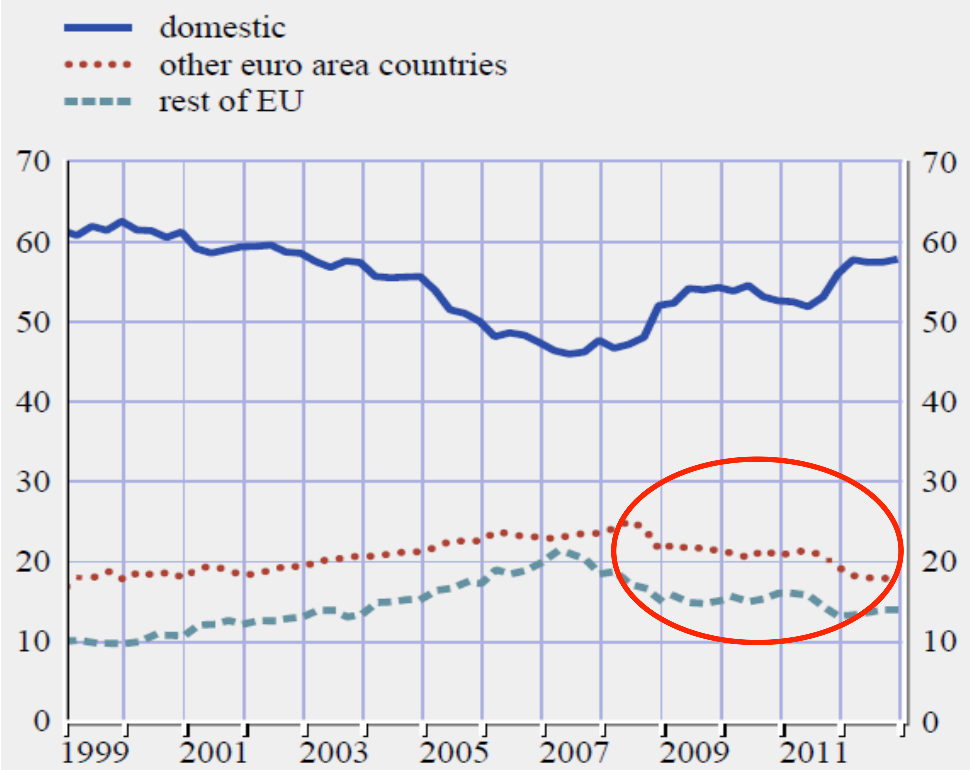
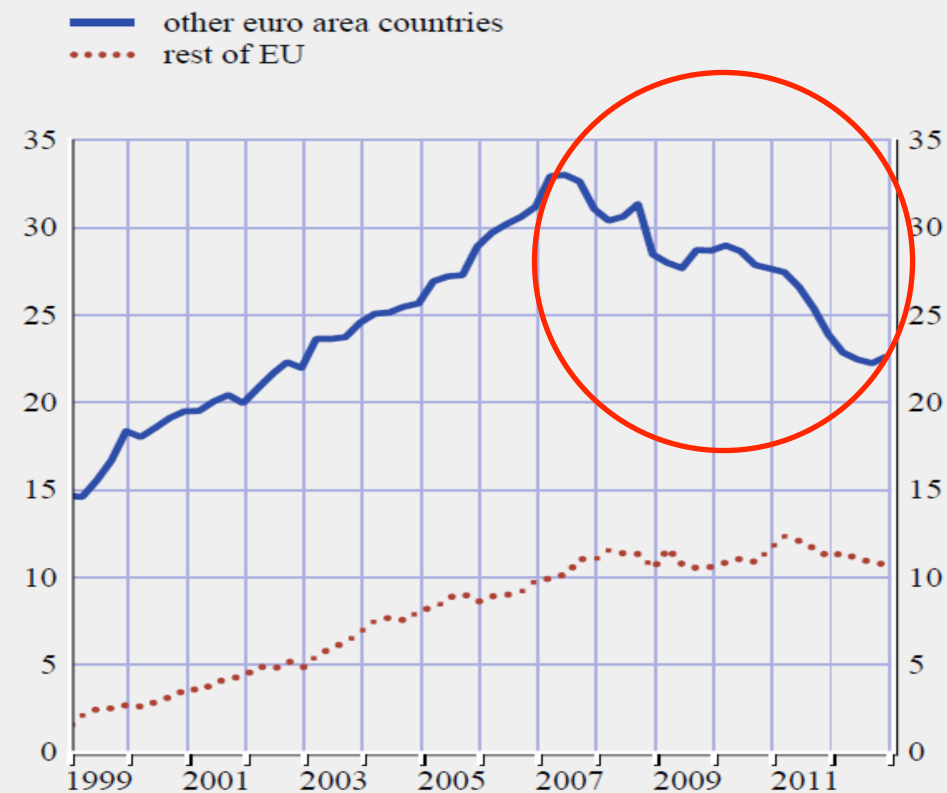


Chart 24 MFI holdings of securities issued by MFIs: outstanding amounts by residency of counterparty

(percentage of total holdings)

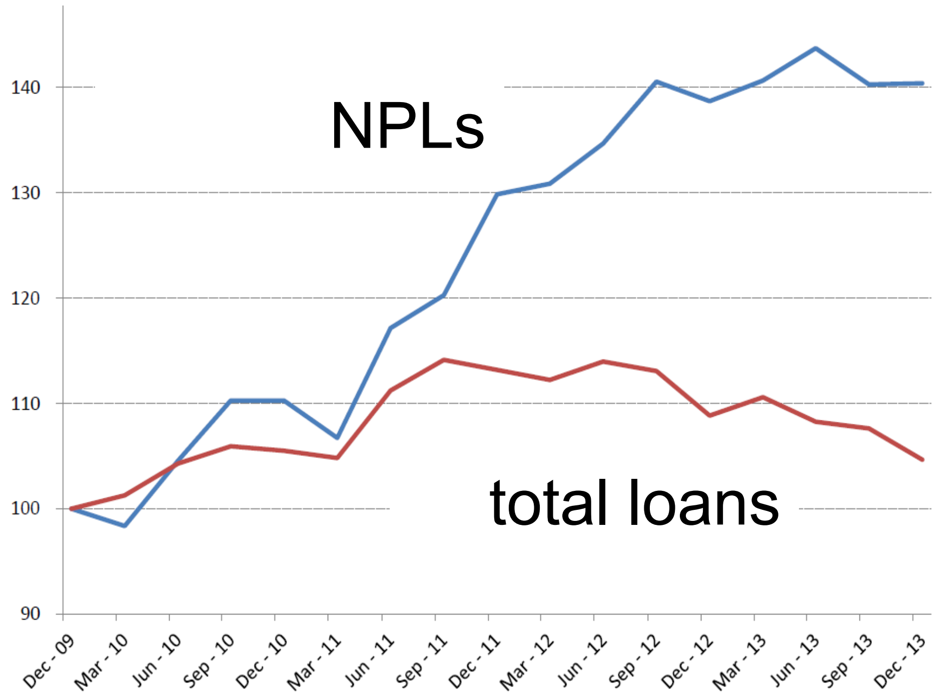


Comments: credit flows

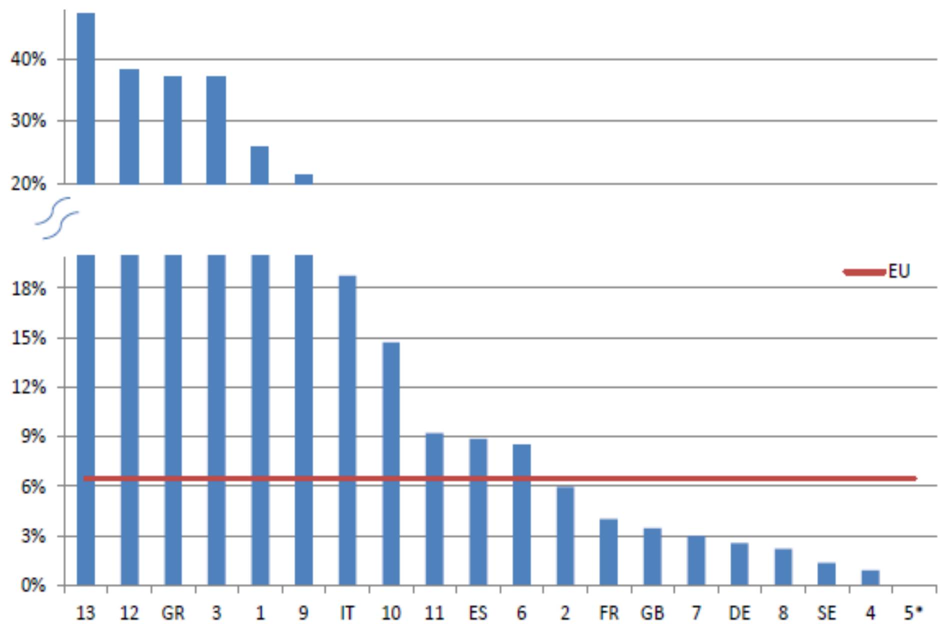
Result 2: disruption of credit flows to nonfinancial sector more severe in second phase of crisis

- Potentially important missing variable: credit risk

NPLs and total loans in the EU
(Dec 09=100)



NPLs/total loans ratio in the EU: cross-country dispersion
(Dec 13)

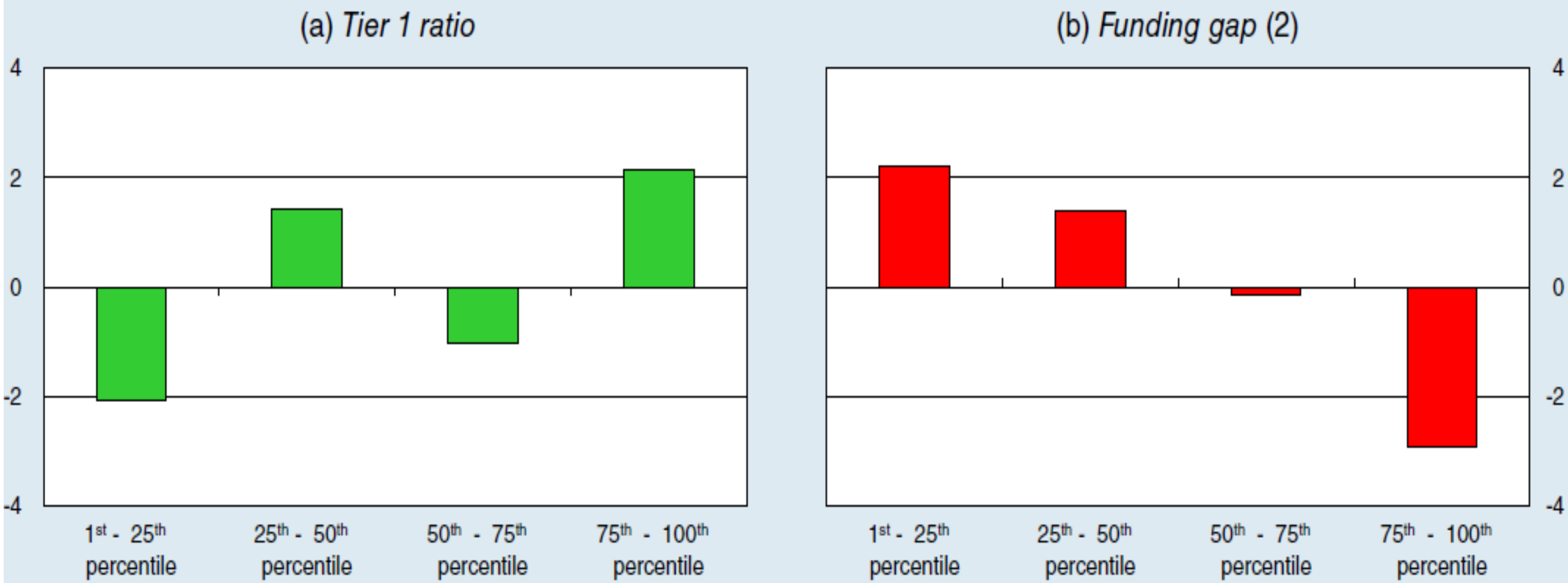


Source: EBA risk dashboard

Comments: credit flows

- **Other potentially important missing variables: funding gap, capitalization levels**

Loans to firms according to banks' tier 1 capital and funding gap (1)
(percentage changes on 12 months to December 2012)



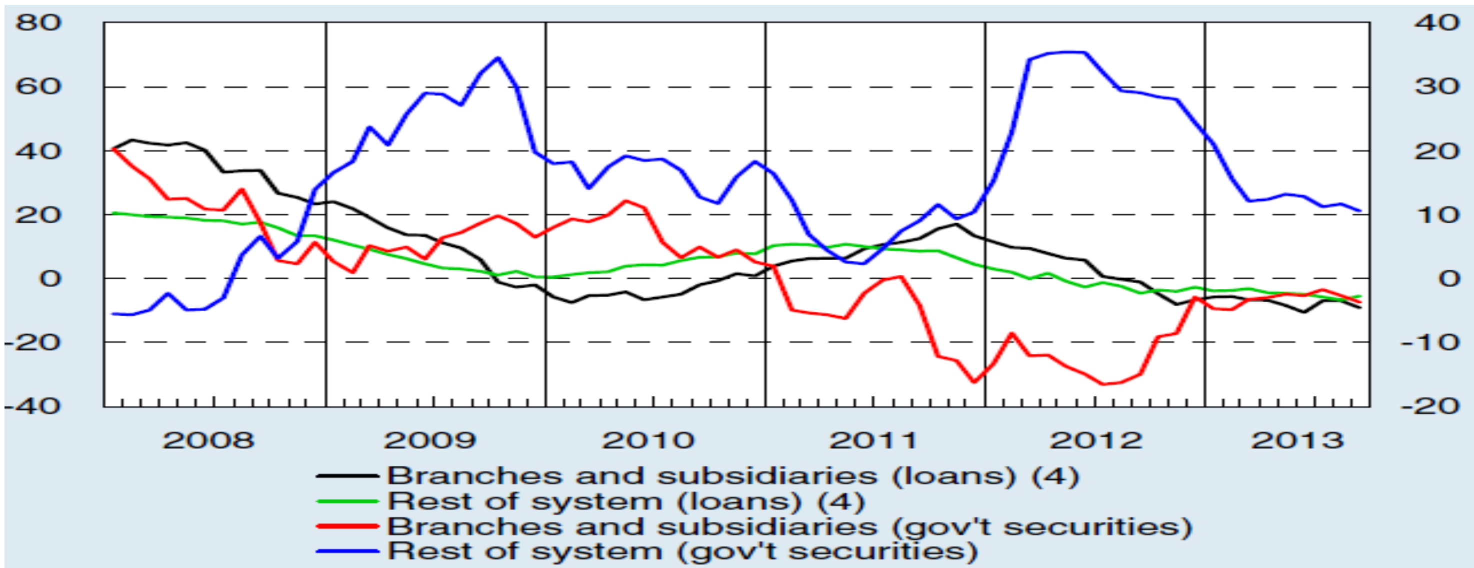
Source: Bank of Italy FSR 2013.1

Comments: the «Diabolic loop»

Result 3: Banks built-up unusually large holdings of domestic sovereign debt during the second crisis phase

- Result is well-documented
- What about causality between sovereign holdings and credit dynamics?

Italy: growth in lending to the non-financial private sector and in banks' holdings of general government securities



Source: Bank of Italy FSR 2013.2

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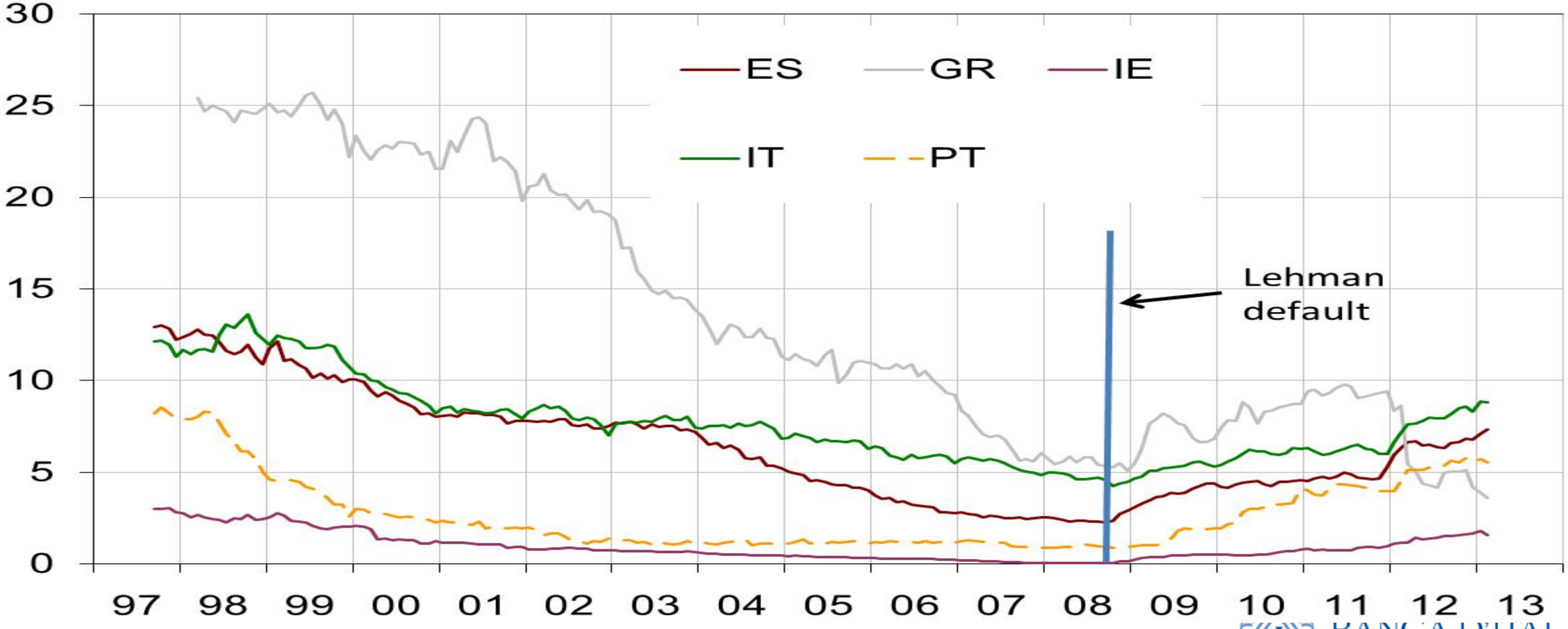
Comments: the «Diabolic loop»

- "*The deepening of banks' home bias is therefore characteristic of a second wave of financial dis-integration / market fragmentation from early 2011 onwards*". **Not quite. Phenomenon started in Sept 2008, in fiscally weak countries …**

Domestic government bonds held by banks in the euro area

(% of total assets)



Source: Angelini, Grande Panetta (2014)

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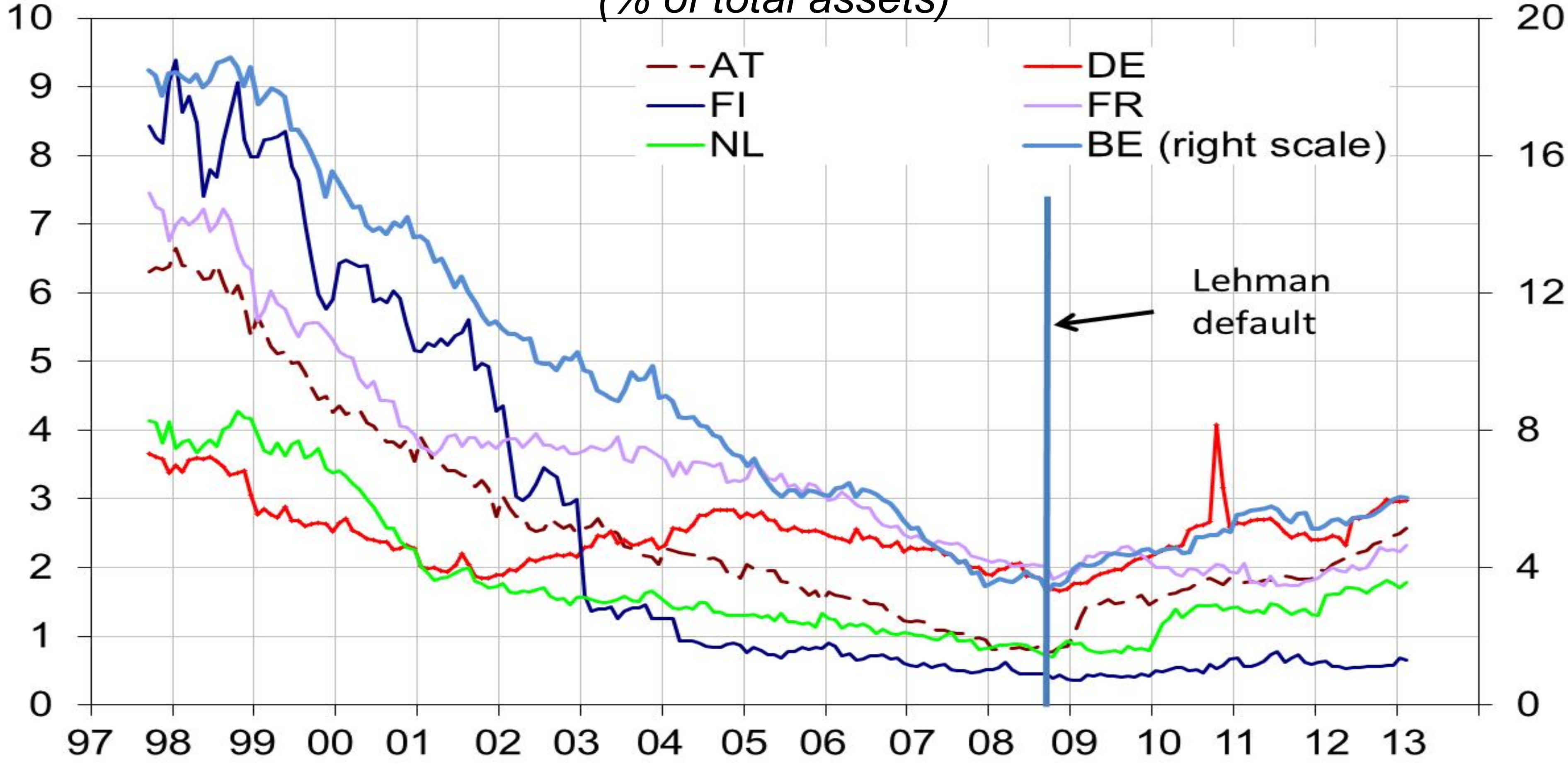
Comments: the «Diabolic loop»

- … fiscally strong countries (although to a lesser extent) ….

Domestic government bonds held by banks in the euro area
(% of total assets)

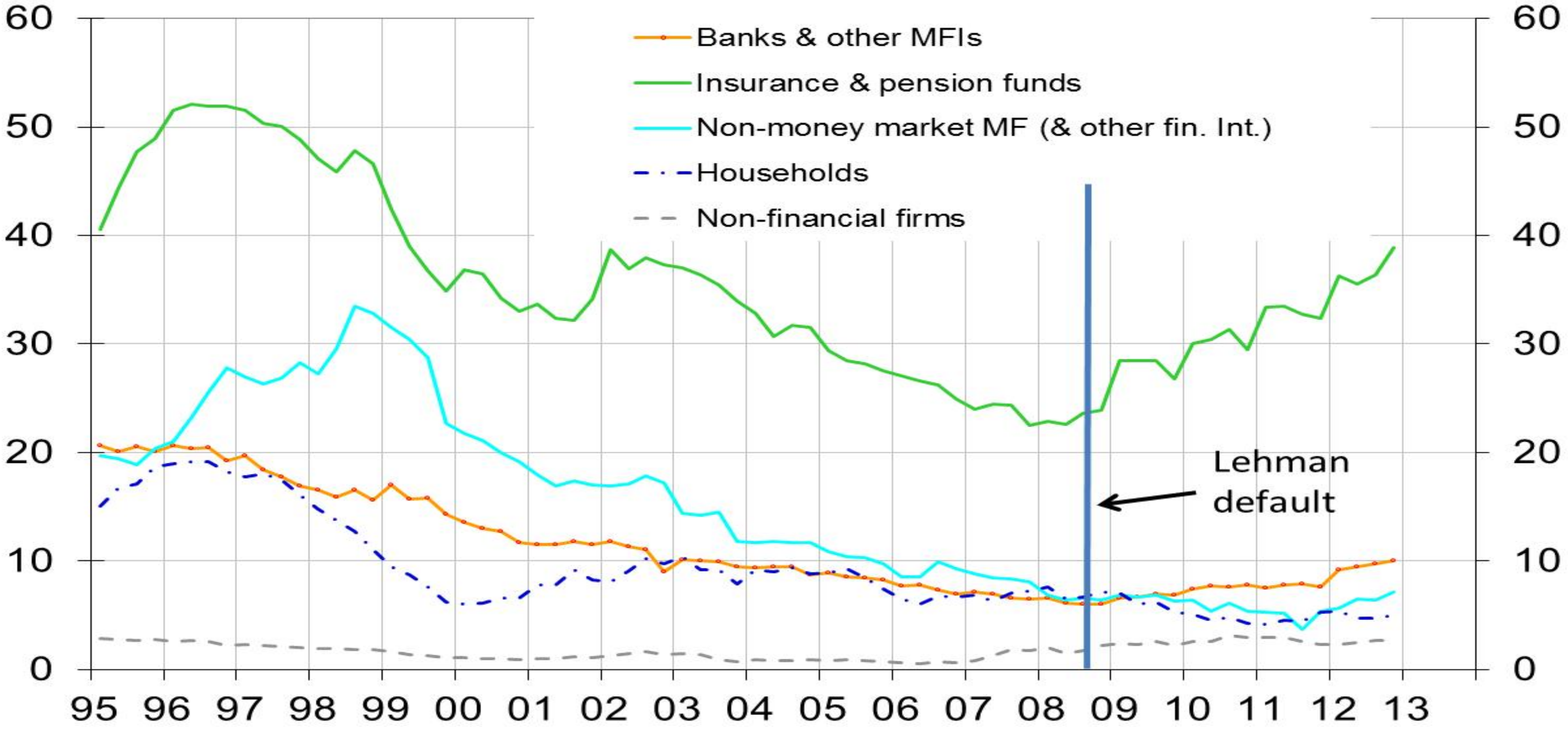


Source: Angelini, Grande Panetta (2014)

Comments: the «Diabolic loop»

- … and among non - banks

Domestic government bonds held by selected sectors in Italy
(% of total assets)



Source: Angelini, Grande Panetta (2014)

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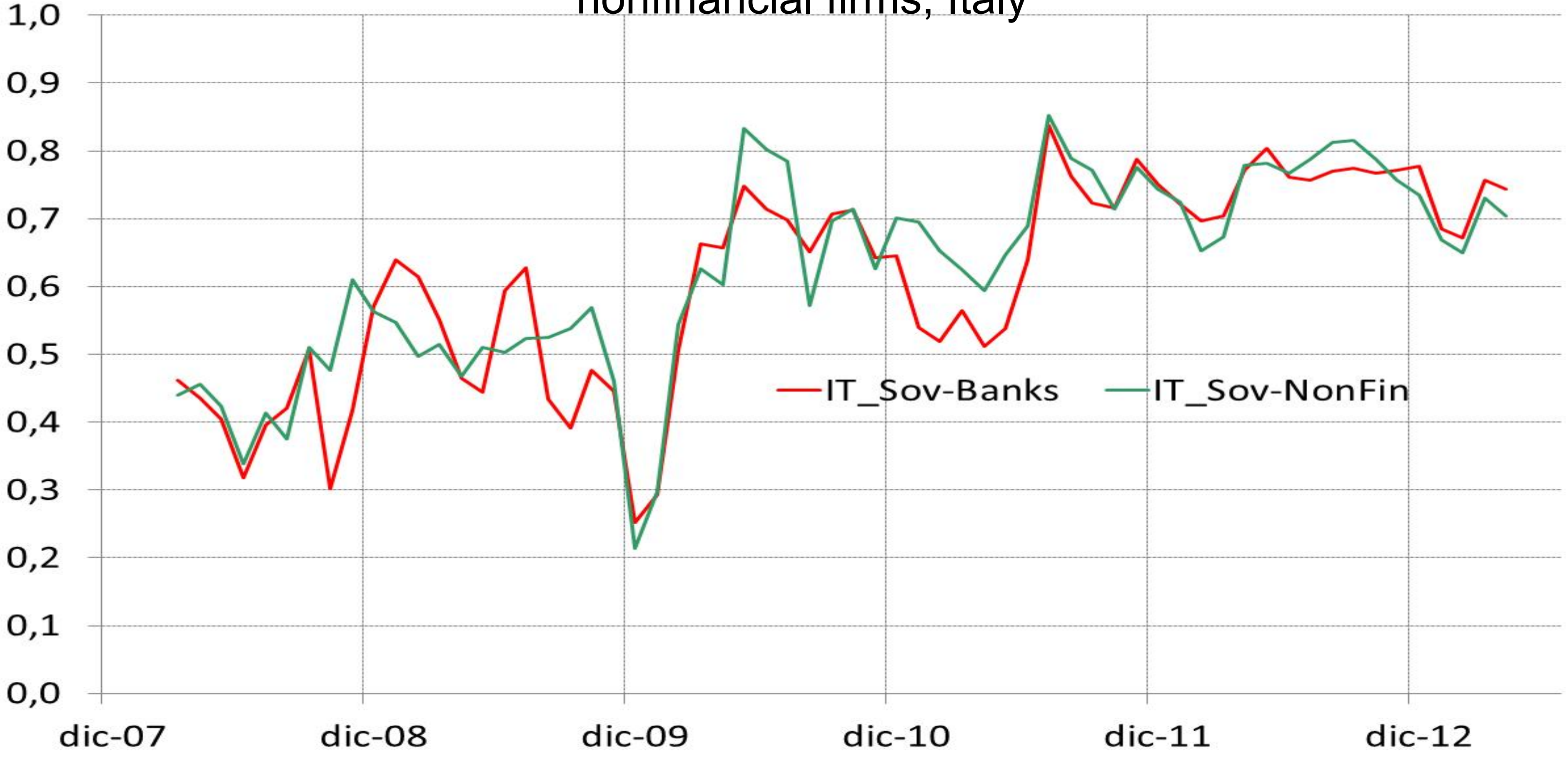
Comments: the «Diabolic loop»

- **The bank-sovereign relationship: not so special after all?**

Correlation between CDS premia: Banks-sovereign and banks-nonfinancial firms, Italy



Source: Angelini, Grande Panetta (2014)

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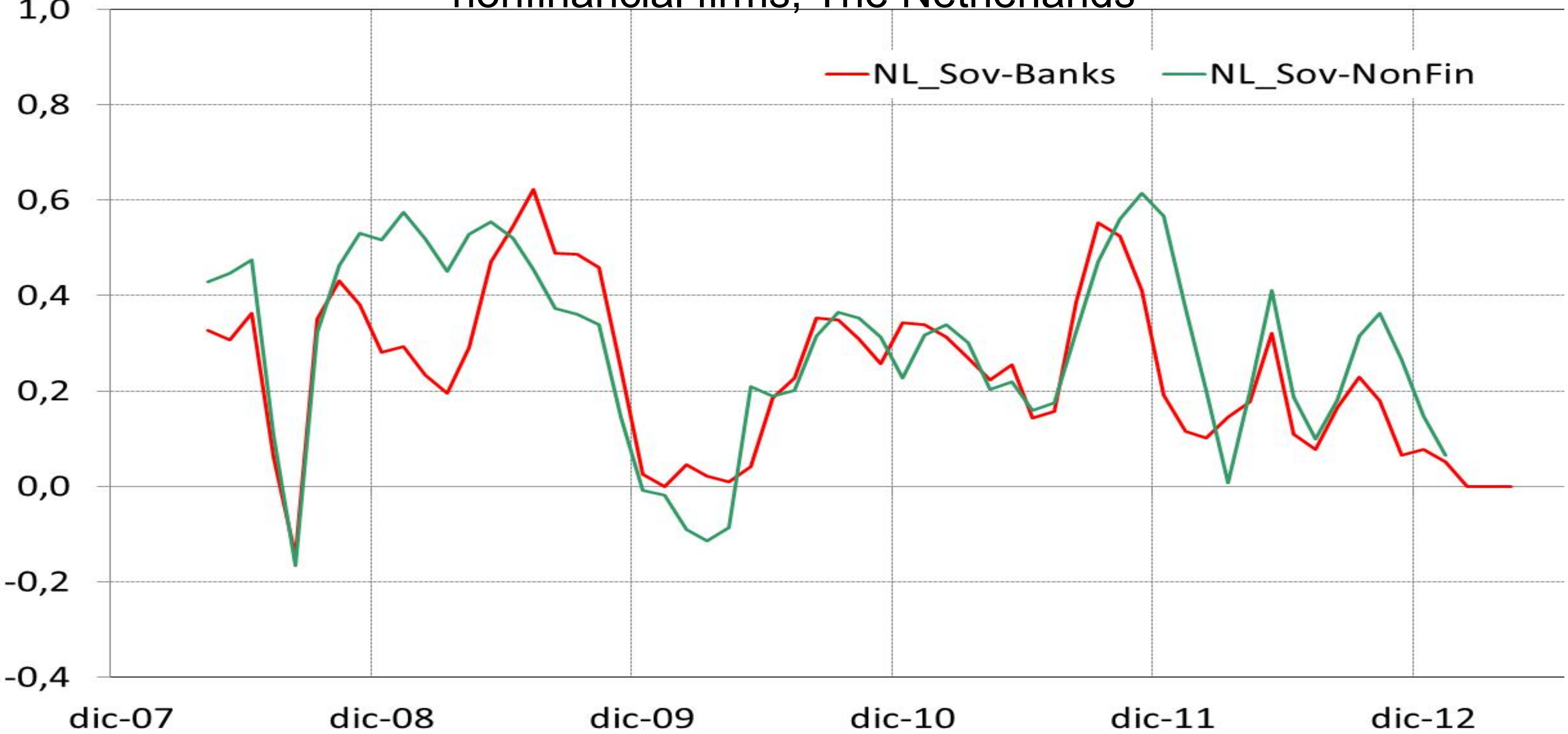
Comments: the «Diabolic loop»

- **The bank-sovereign relationship: not so special after all?**

Correlation between CDS premia: Banks-sovereign and banks-nonfinancial firms, The Netherlands



Source: Angelini, Grande Panetta (2014)

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