



EUROPEAN CENTRAL BANK

EUROSYSTEM

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Discussion of
“Surviving the perfect storm: the role of the lender of last resort”, by
N. Alves, D. Bonfim and C. Soares

Monetary policy pass-through and credit markets,

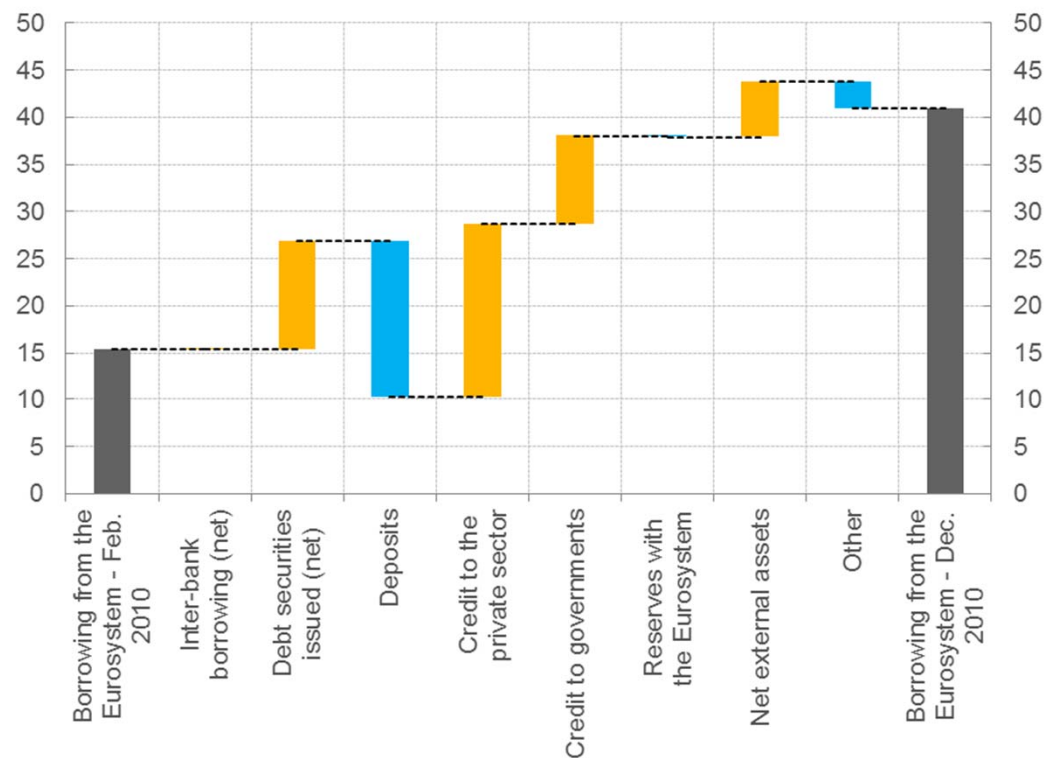
Frankfurt am Main, 28 October 2016

Overview

- Paper contributes to an underdeveloped but important part of the empirical banking literature: **role of lender of last resort**
- Paper controls for credit demand very carefully by deploying an impressive dataset of **bank-firm level lending relationships**, matched with bank and firm characteristics
- **Rich analysis**: three distinct empirical exercises and extensive testing

The episode studied

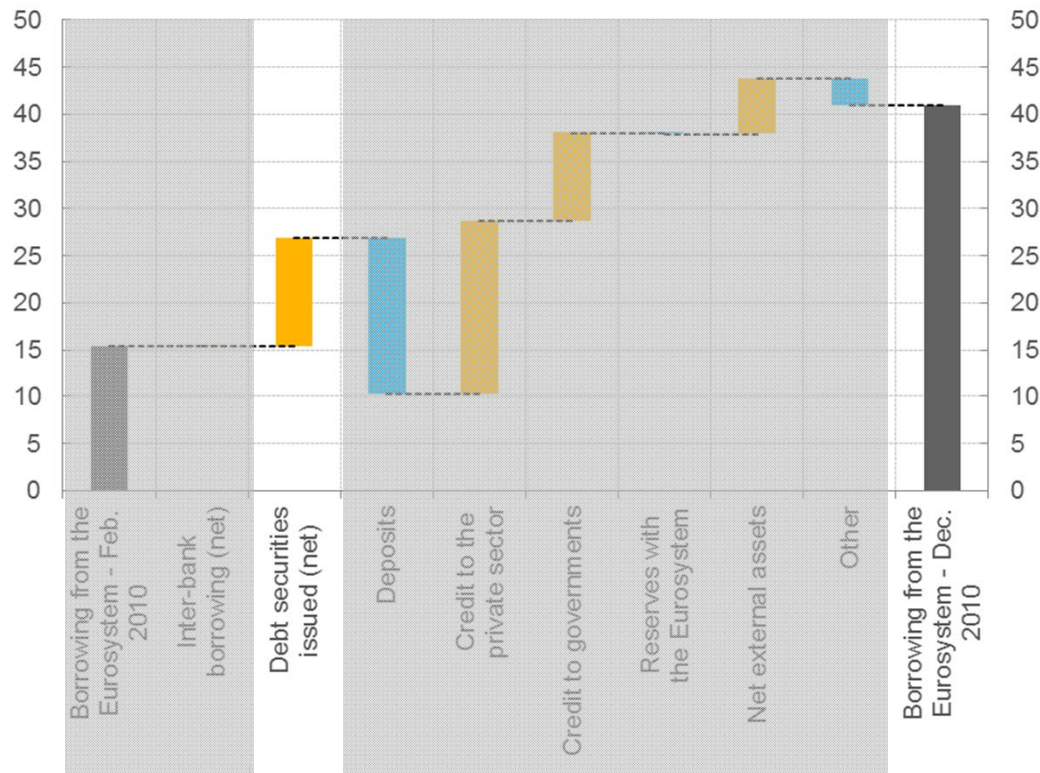
Drivers of the increase in Portuguese banks' recourse to borrowing from the Eurosystem (EUR bn)



Sources: ECB, ECB calculations.

The episode studied

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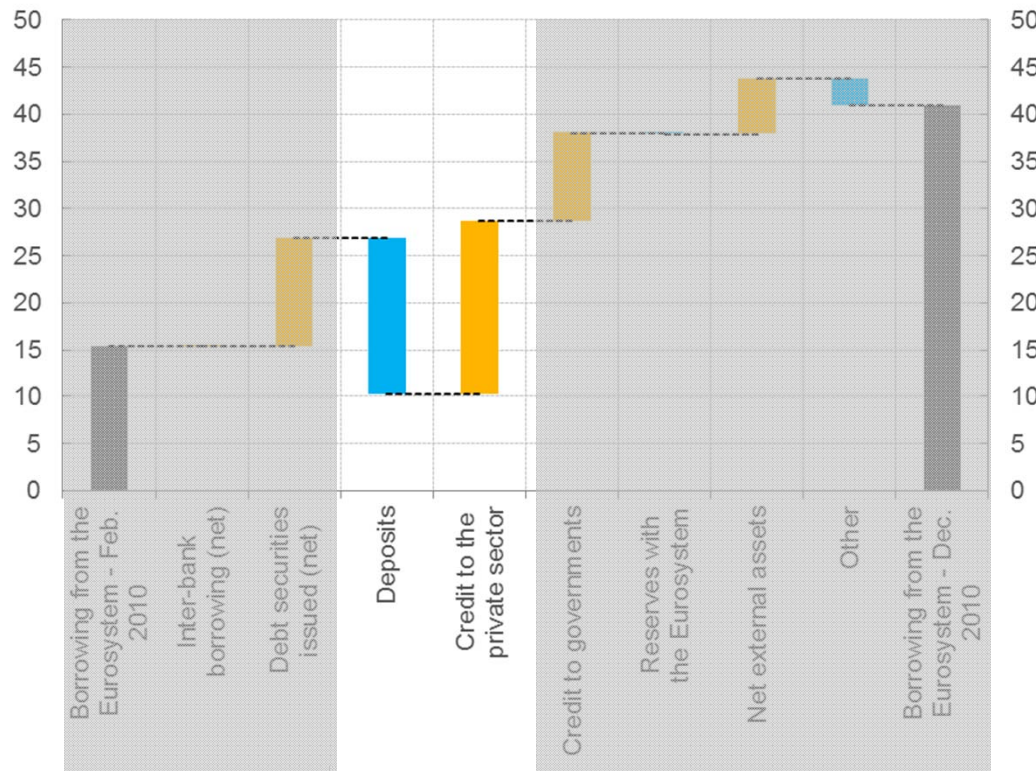


Sources: ECB, ECB calculations.

- Reversal of wholesale funding was addressed by borrowing from Eurosystem

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Drivers of the increase in Portuguese banks' recourse to borrowing from the Eurosystem (EUR bn)

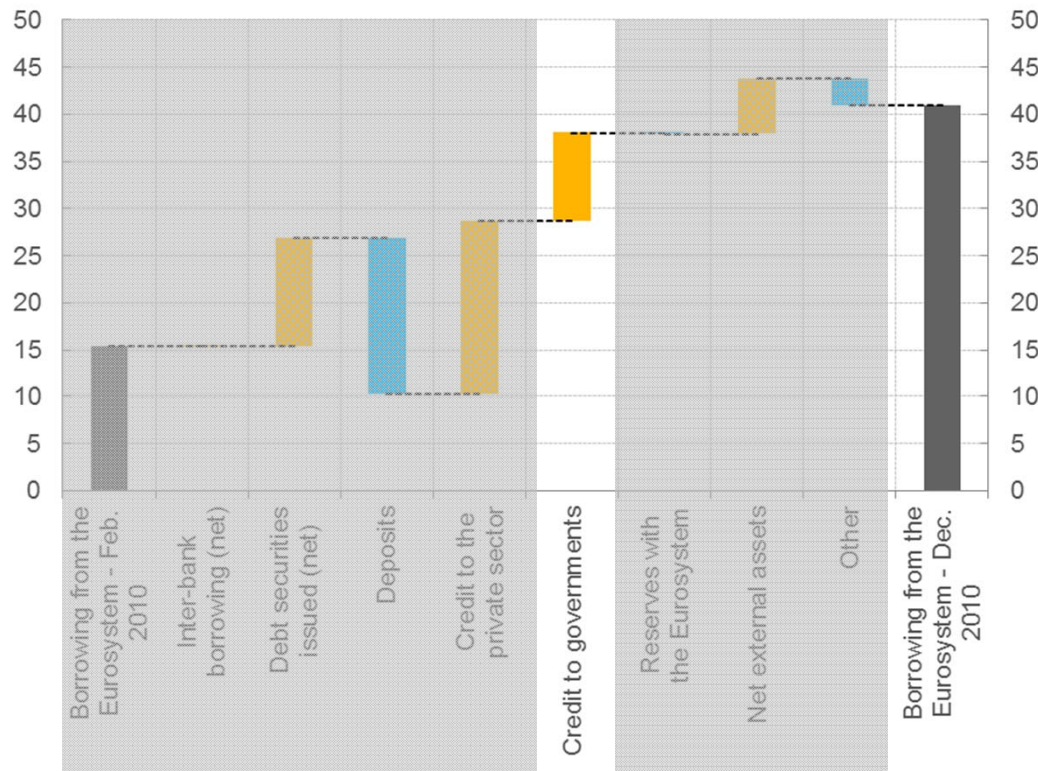


Sources: ECB, ECB calculations.

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- Meanwhile credit flows continued (*as deposits stayed in the system*)

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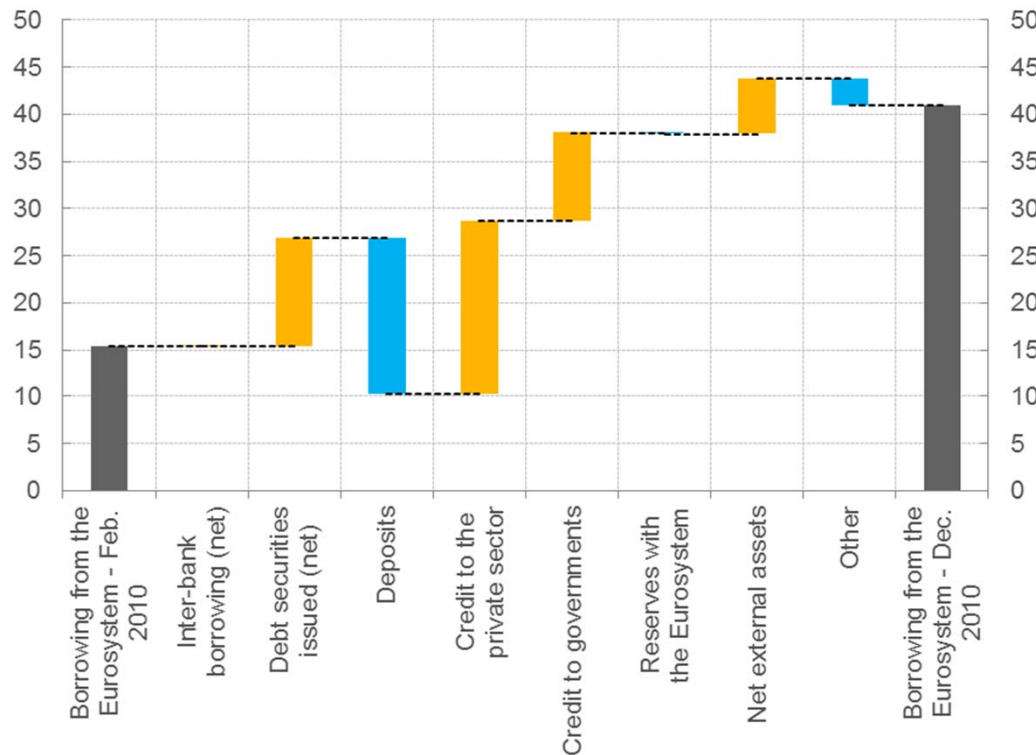


Sources: ECB, ECB calculations.

- Reversal of wholesale funding was addressed by borrowing from Eurosystem
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- Availability of Eurosystem funding also allowed an expansion of government bond portfolios

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- Meanwhile credit flows continued (*as deposits stayed in the system*)
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How to test this narrative empirically?

The inherent analytical difficulties of this episode

- Cross-sectional heterogeneity only in the intensive margin of “treatment” (recourse to Eurosystem borrowing), not in the extensive one: **no “control group”**
- Intensity of “treatment” not random: likely **determined by the size of the wholesale funding shock**

↳ **Standard econometrics of treatment effects
are difficult to apply**

The strategy adopted in the paper

- Estimate cross-sectional regressions of the following type:

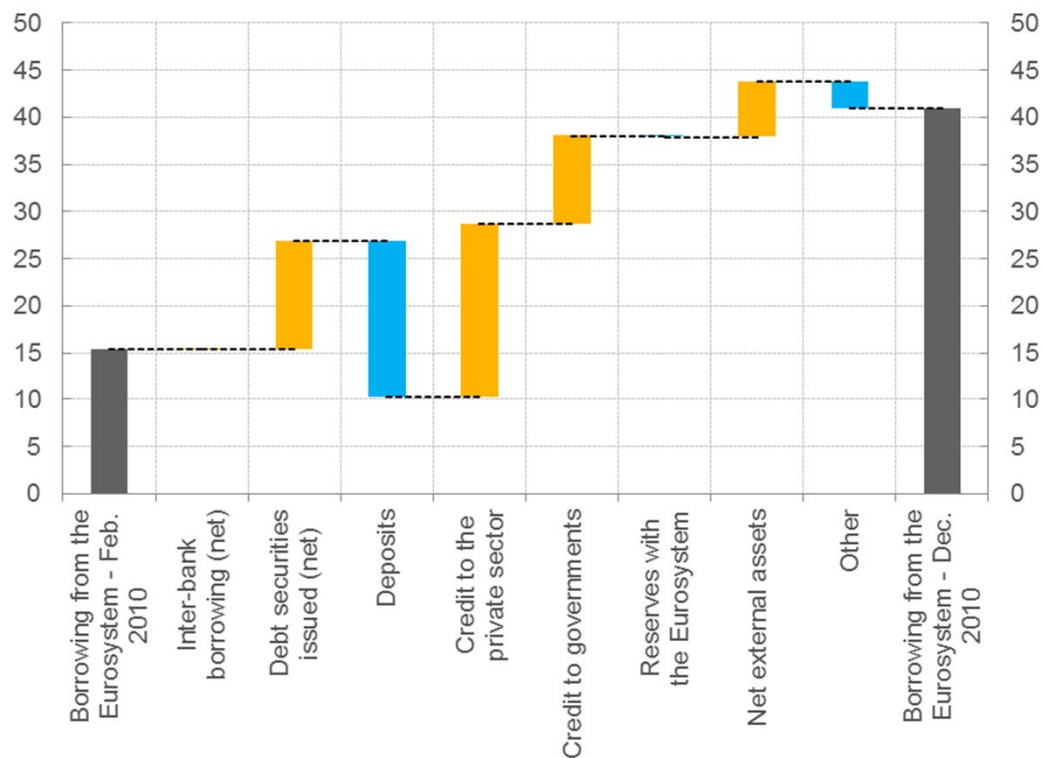
$$\Delta loan_{ijT} = c + \alpha_i + \beta \Delta ECB_funding_{jT-4} + \delta X_{T-9} + \varepsilon_{ijT}$$

- If β is **not significant**, conclude that ECB lending successful in avoiding a collapse in the Portuguese credit market
 - $\Delta loan_{ijT}$ not necessarily the most obvious candidate: loans are illiquid assets
→ Try more liquid asset classes such as securities?
 - $\Delta ECB_funding_{jT-4}$ depends on the size of the funding shock → Use the size of the shock directly?
 - Other movements can neutralise the correlation:

Is lack of significance of β enough?

Observational equivalence

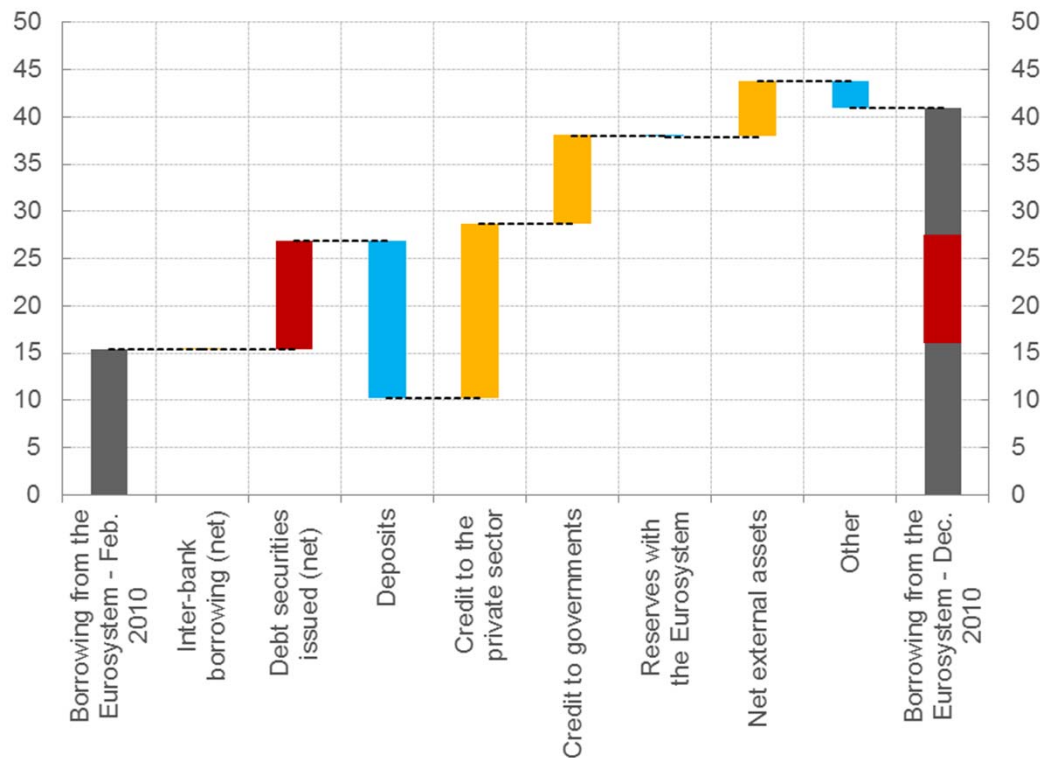
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Observational equivalence

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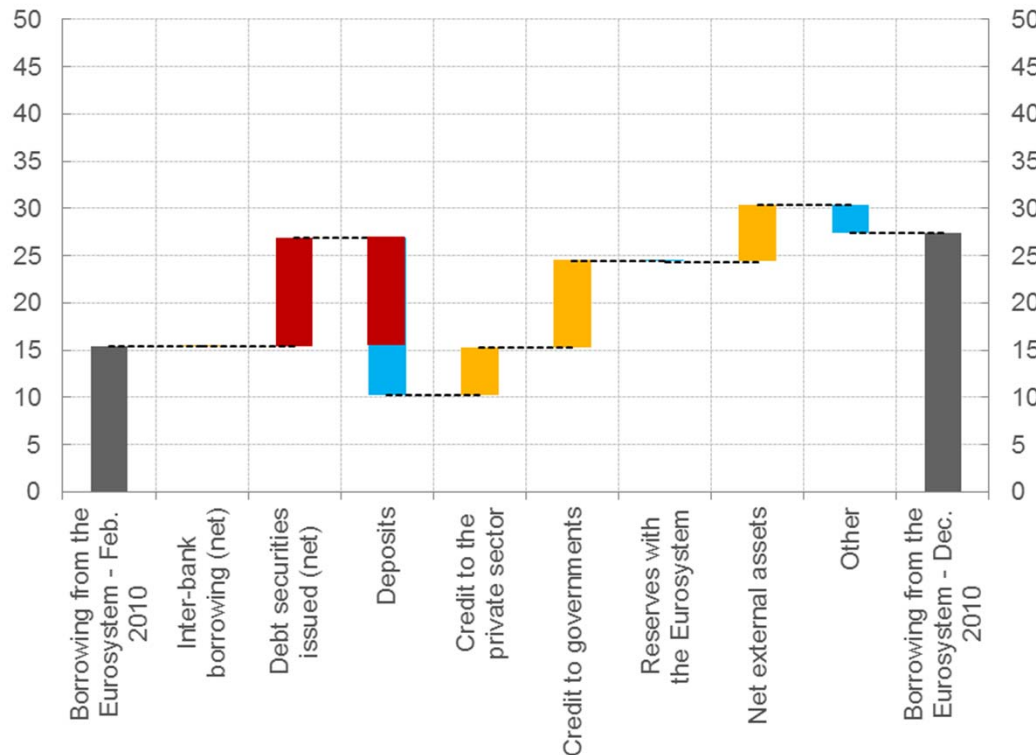


Sources: ECB, ECB calculations.

- If Eurosystem borrowing offsets the funding shock → shock and lending are unrelated

Observational equivalence

Drivers of the increase in Portuguese banks' recourse to borrowing from the Eurosystem (EUR bn)



Sources: ECB, ECB calculations.

- If Eurosystem borrowing offsets the funding shock → shock and lending are unrelated

But...

- If another adjustment offsets the funding shock → again shock and lending are unrelated

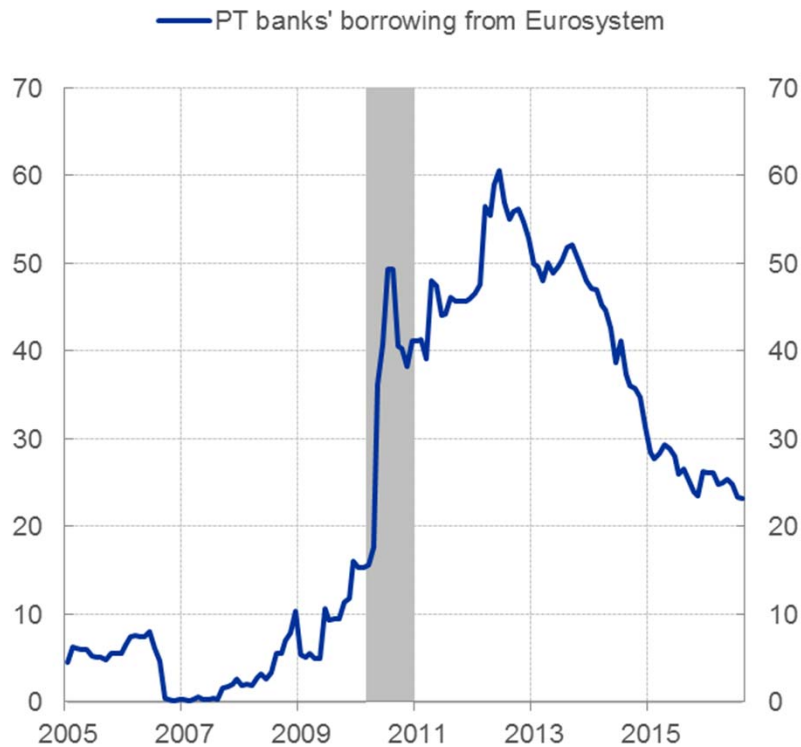
Can the two be distinguished?

Another approach?

- Exploit exogenous limits in the recourse to Eurosystem operations:
collateral availability
- Define “collateral constrained” banks as those with low buffer
- Check whether these banks exhibit different behaviour than non-constrained banks
- Need sufficient number of constrained banks!

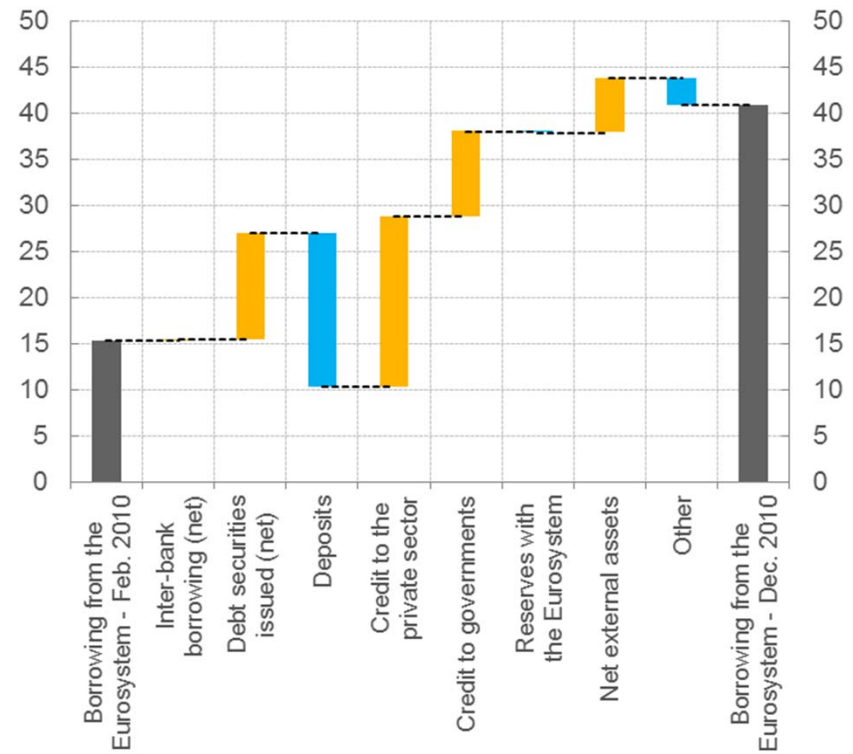
External validity

Portuguese banks' borrowing from the Eurosystem
(EUR bn)



Source: ECB.

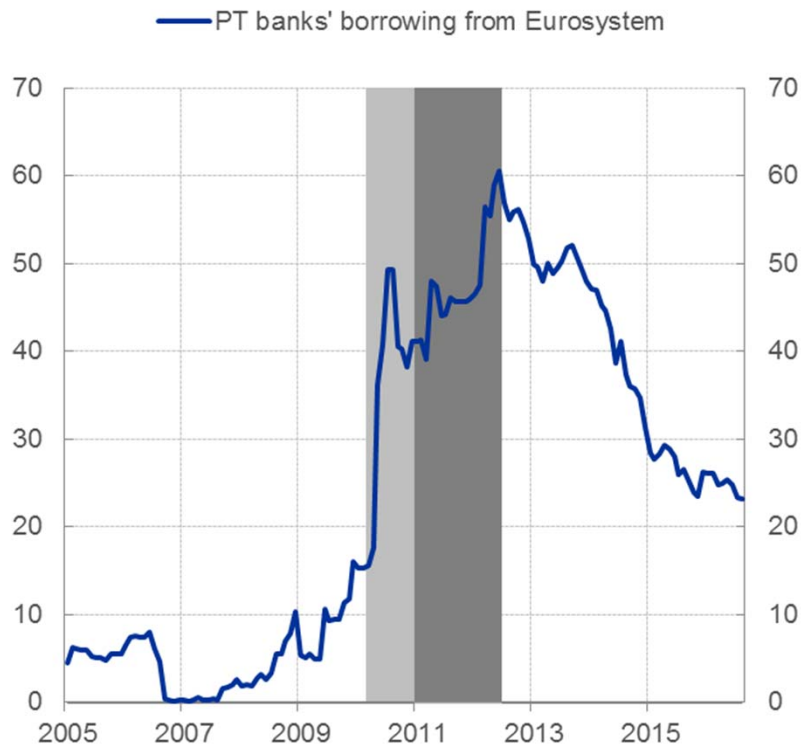
Drivers of the increase in Portuguese banks' recourse to borrowing from the Eurosystem in March – December 2010 (EUR bn)



Sources: ECB, ECB calculations.

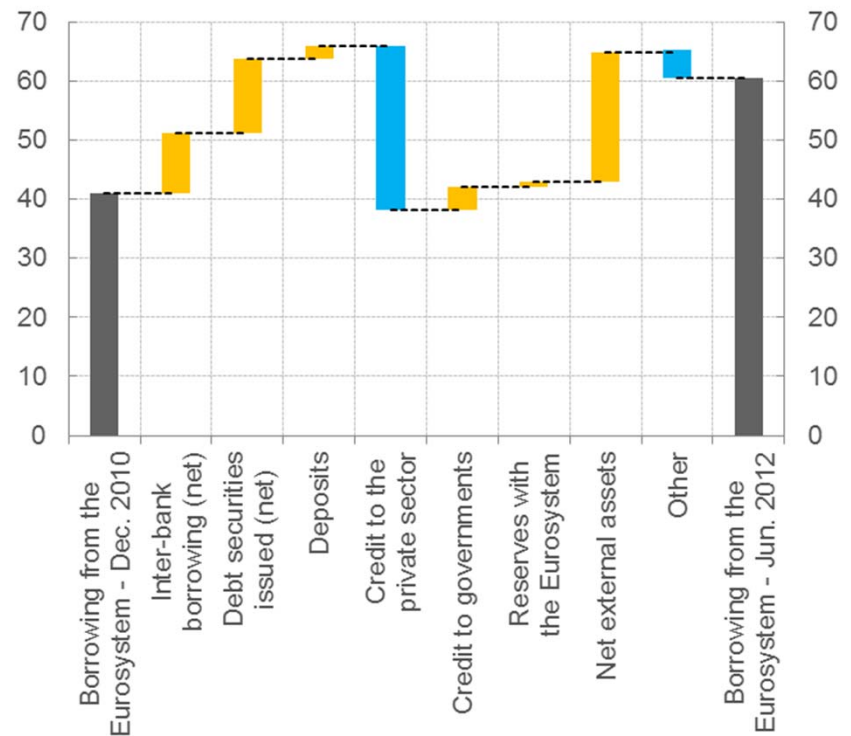
External validity

Portuguese banks' borrowing from the Eurosystem
(EUR bn)



Source: ECB.

Drivers of the increase in Portuguese banks' recourse to borrowing from the Eurosystem in December 2010 – June 2012 (EUR bn)



Sources: ECB, ECB calculations.

The counterfactual analysis

- Bank-level panel regressions:

$$Loan_{jt} = c + \alpha_j + \beta_1 securities_{jt-3} + \beta_2 X_{jt-12} + \beta_3 trend_t + \varepsilon_{jt}$$

$$Loan_{jt} = c + \alpha_j + \beta_1 (securities_{jt-3} + ECB_{jt-3}) + \beta_2 X_{jt-12} + \beta_3 trend_t + \varepsilon_{jt}$$

Pre-crisis: **0.480***** 2010-2011: **-0.110***

- Result not in line with hypothesis (controls for demand? time period issue?)
- Estimated in levels: endogeneity? driven by size?

Sovereign bond purchases and the financial repression hypothesis

- Again estimated in levels
- Significant positive coefficient on borrowing from ECB interpreted as evidence of financial repression

- Another interpretation is possible:

"At this point the bankers can tell themselves: officially these assets are safe, and if not, then we will be bankrupt anyway, so why not borrow more and invest more to earn even greater profits in the likely event that all the worriers are wrong.[...] We have seen such a process unfolding [...] for sovereign debt in the euro zone."
Myerson (2014)

- Andreeva and Vlassopoulos (2016) provide evidence for the euro area
- Differentiation along other dimensions required for identification:
 - Bank ownership, e.g. Becker & Ivashina (2014), Altavilla et al. (2016)
 - Bank “riskiness”, e.g. Acharya & Steffen (2015)

Conclusion

- Paper addresses an important gap in the empirical banking literature
- Provides a rigorous identification of loan supply vs demand
- Offers a plausible account of the role of Eurosystem funding in the early stages of the Portuguese crisis