The Effect of Central Bank Liquidity Injections on Bank Credit Supply

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Can Central Banks Stimulate Bank Credit by Lending to Banks?

- Central banks as liquidity providers during crises (Fed TAF, ECB LTRO, BoE FLS)
- *Theory is intuitive*: banks are liquidity mismatched and subject to runs
- Empirical evaluation is difficult: recent episodes, limited data, hard identification

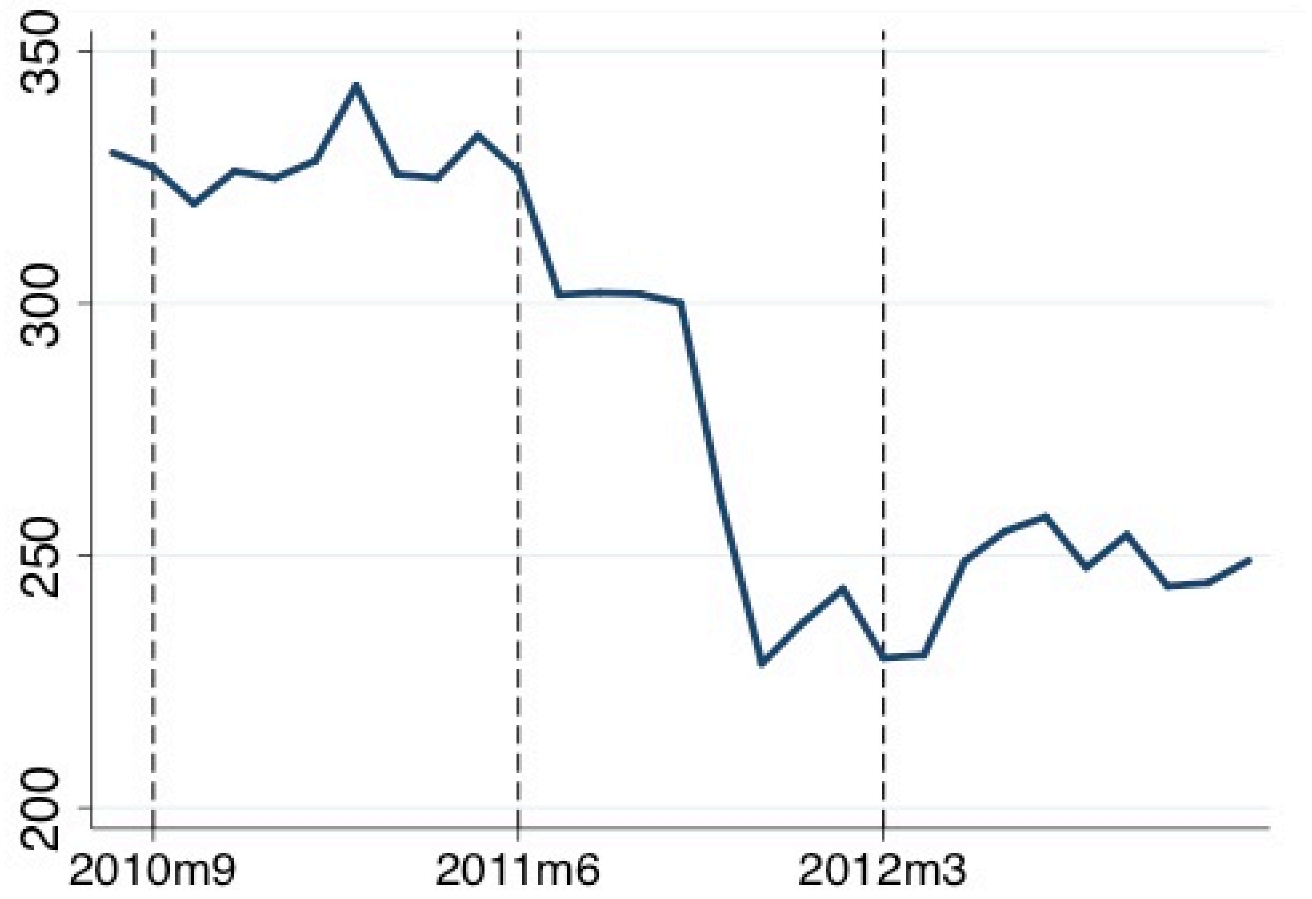
Yes, But at the Cost of Incentivizing Risk-Taking

- Transmission through banks hit the most by the crisis

ECB 3Y-LTROs and Italian banks + firms

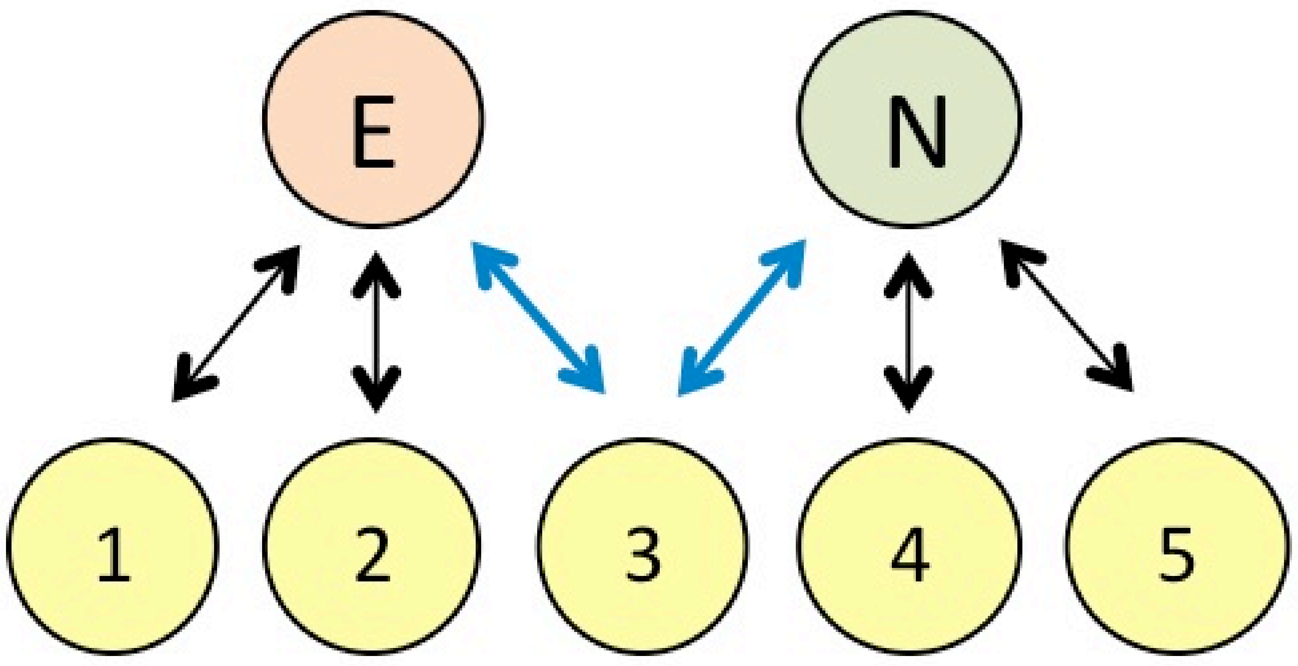
- Pre-LTRO run in wholesale market
- Data (credit registry + securities)

Wholesale Market, billion Euro



Empirical Strategy

- Exploit bank-level exposure to the run
- Compare three periods
- Firm-Time FE and Bank-Firm FE
- Balance sheet controls

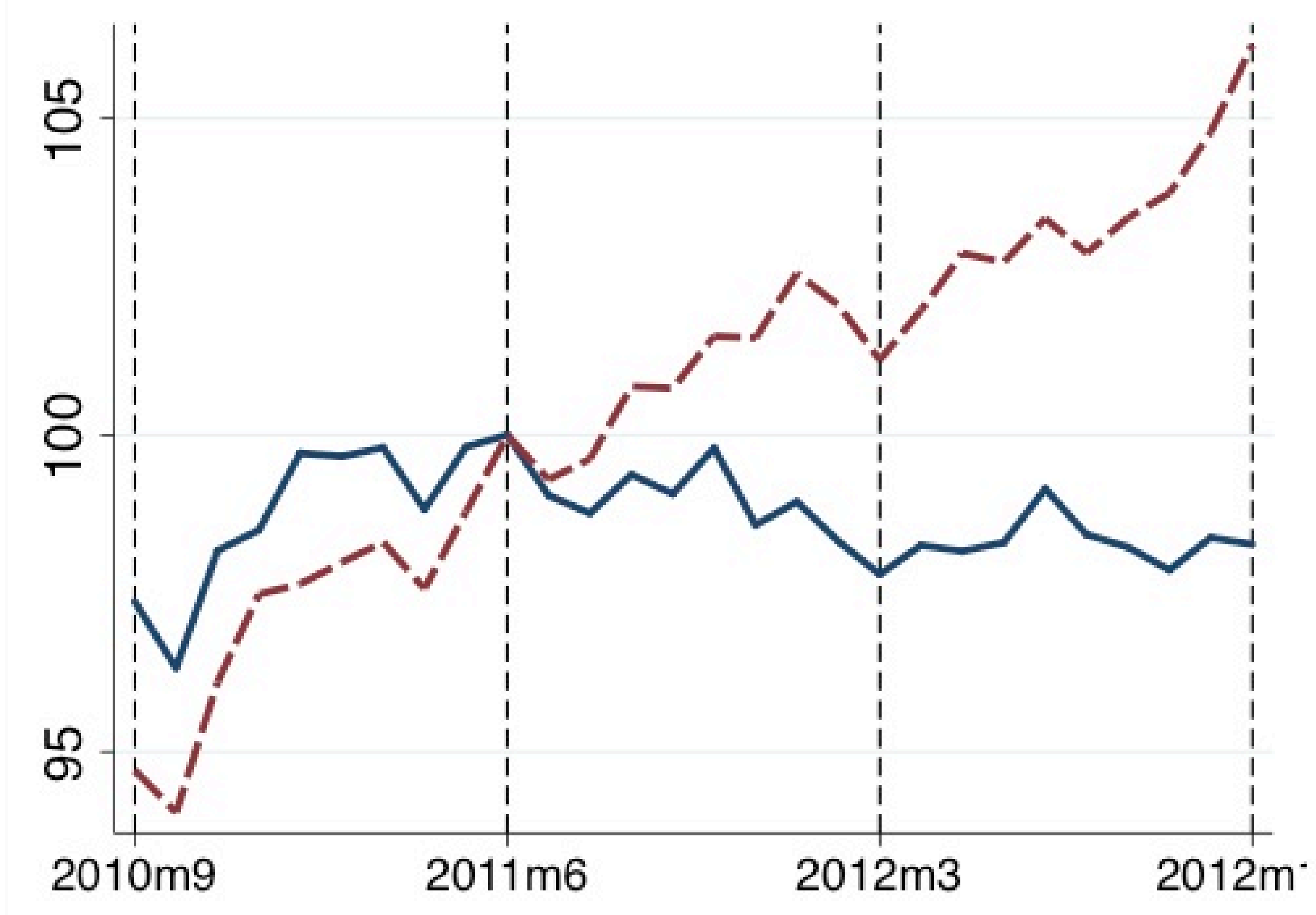


I – Restoration of Bank Credit Supply

- *Run:* negative effect on credit supply
- *LTRO*: positive effect on credit supply <u>through banks affected by run</u>

Credit to Firms

*Index Jun11=100, **exposed**/**non-exposed** banks*



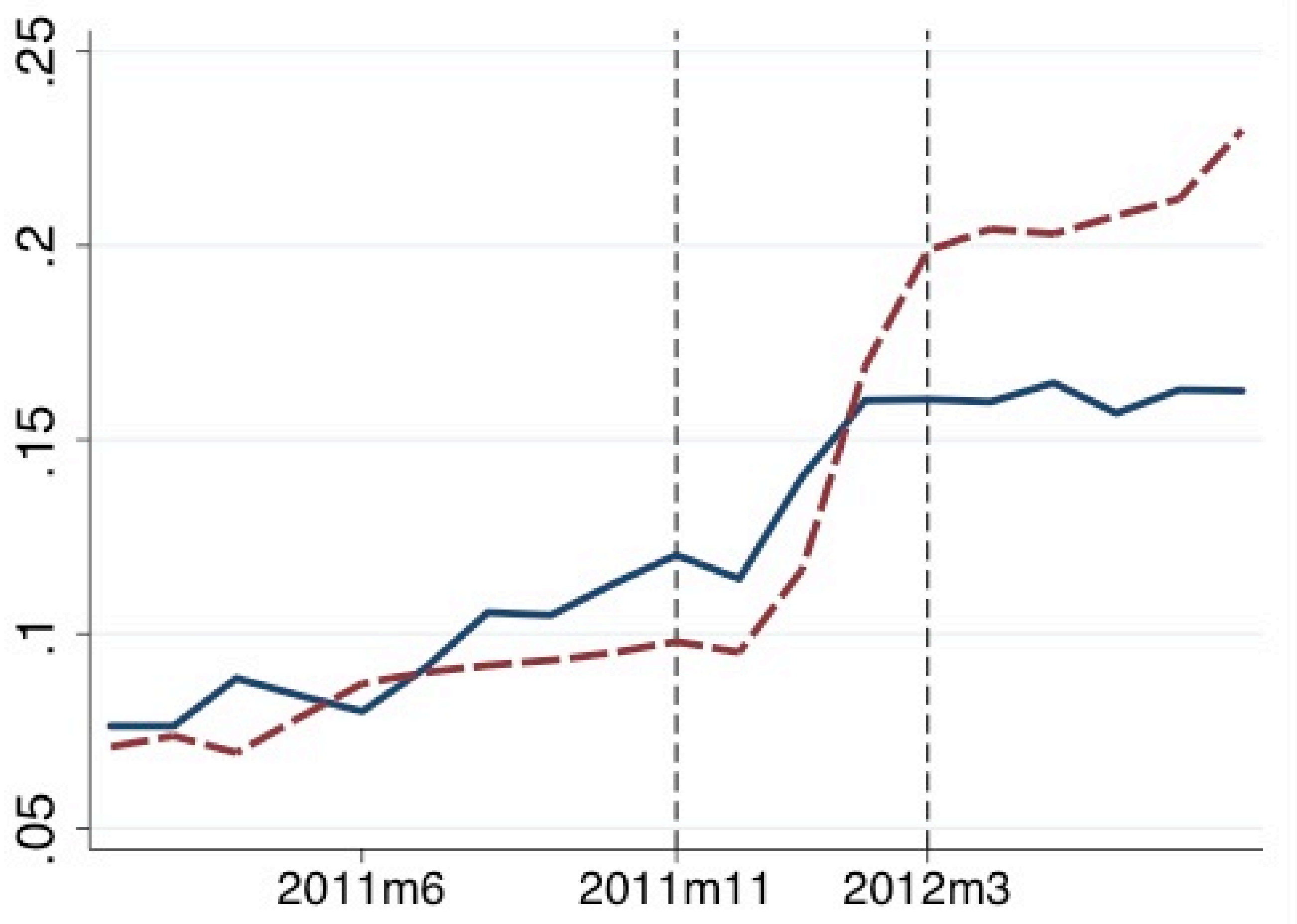
- Aggregate impact is sizable
  With no ECB credit growth -2 p.p.
- Firms take advantage of expansion
- Low leverage firms benefit the most

II – Transmission Channel

- All banks tap ECB loans
  Median uptake ≈10% total assets
- How did other banks use CB liquidity?
  Exploit type of collateral pledged and government guarantee program
- Banks less affected by run buy more domestic sovereign bonds

Government Bond Holdings

*Share of total assets, **exposed**/**non-exposed** banks*



Three Policy Implications

1) Banks hit by run have *scarce collateral* to access central bank liquidity
2) Loan *maturity matters:* with uncertainty, longer maturities decrease rollover risk
3) Below market price liquidity incentivizes reach-for-yield behavior