Central Bank Interventions, Demand for Collateral, and Sovereign Borrowing Costs

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This paper

Research Question: Study the effect of unconventional monetary policy, in the form of collateralized lending to banks, on sovereign borrowing costs

Strategy: Analyze the impact of the ECB 3-Year Long-Term Refinancing Operations (vLTRO) on Portuguese yields and public debt management

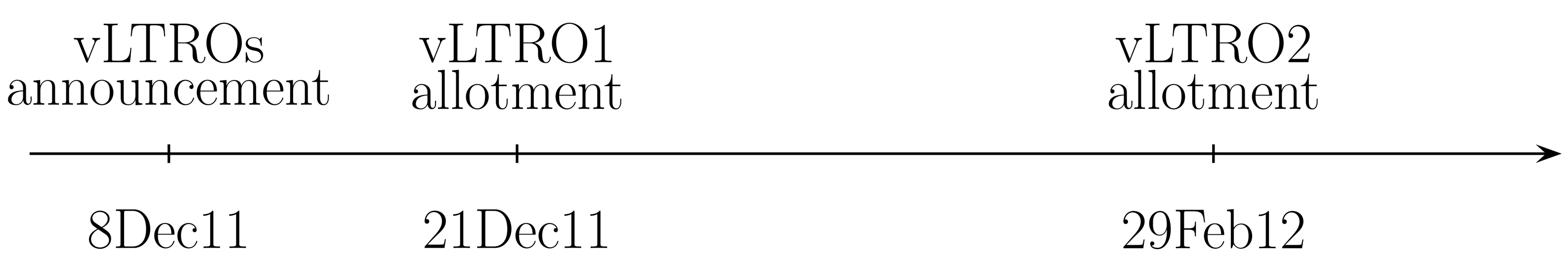
vLTRO announced → Collateral constrained banks buy short govt bonds to tap the facility → Yield curve steepens → Debt agency resumes issuance auctioning short bonds

Main Finding

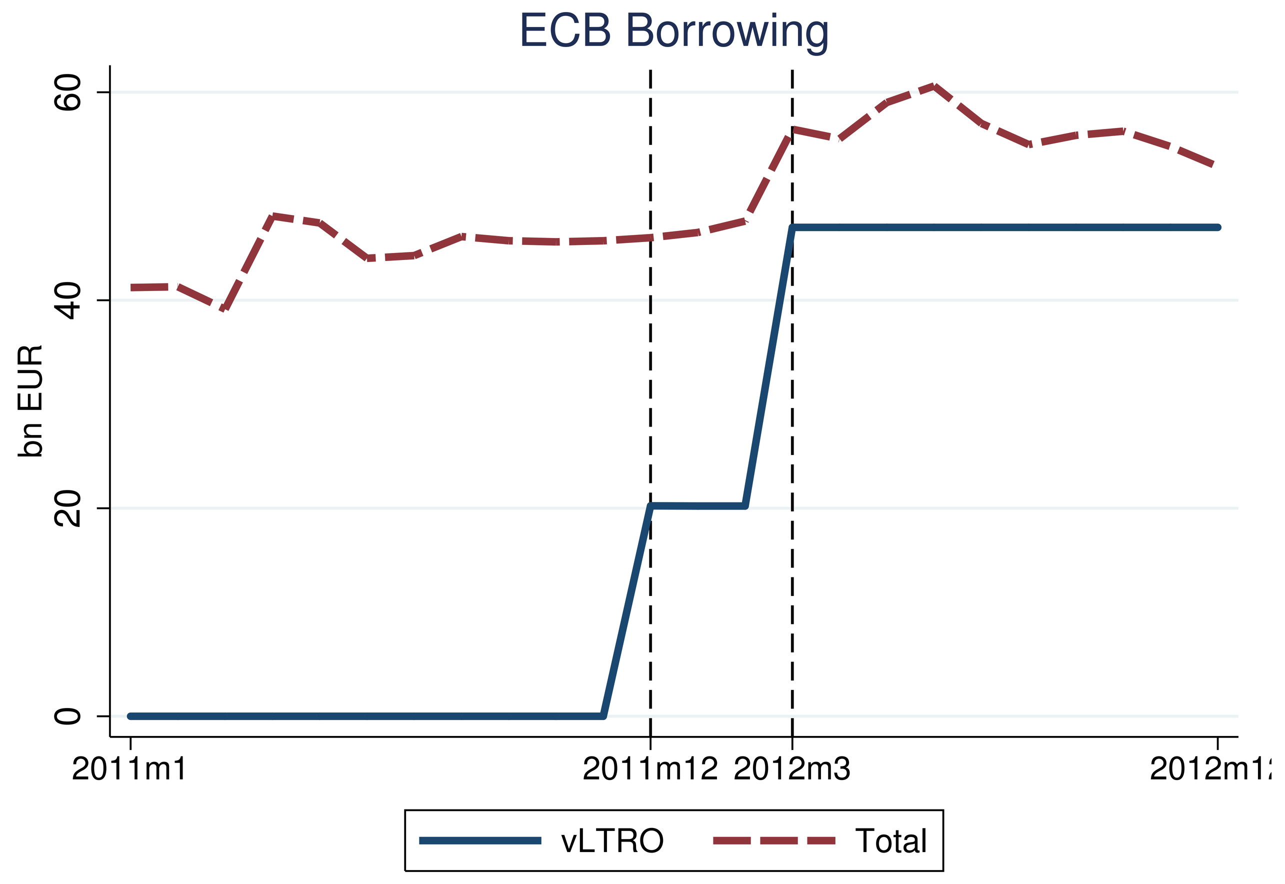
vLTRO stimulated demand of short-term (ST) bonds by 21-24 p.p and long-term (LT) by 2 p.p.

Central Bank Interventions: vLTRO

- 3-Year Maturity, low interest rates, two "full allotments"

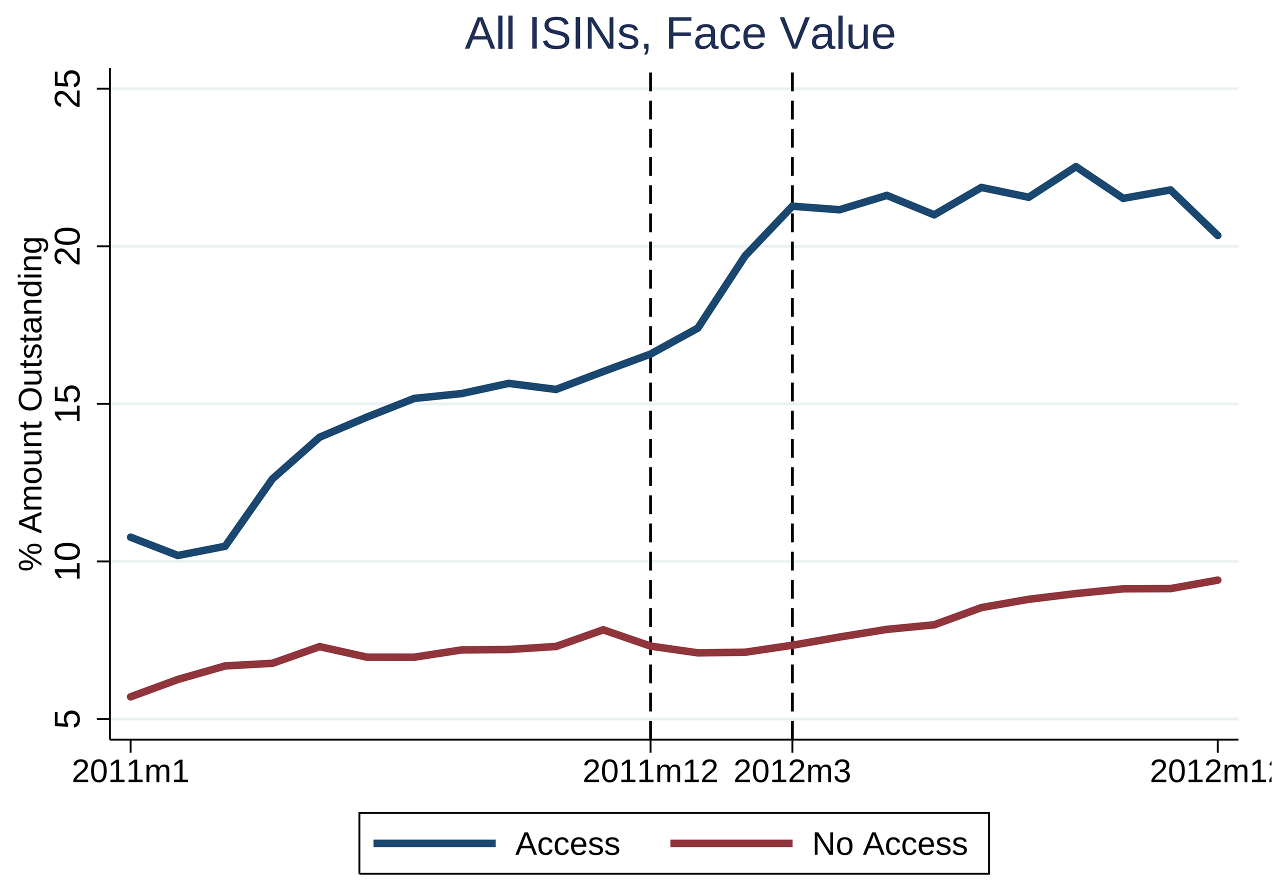


- Banks' eligible collateral already pledged at ECB in December 2011
  1. vLTRO1: rollover
  2. vLTRO2: **new borrowing**



Demand for Collateral

- Prime source of collateral: domestic government bonds
- High yields generate attractive **collateral trade**
- Increase in holdings by entities with vLTRO access



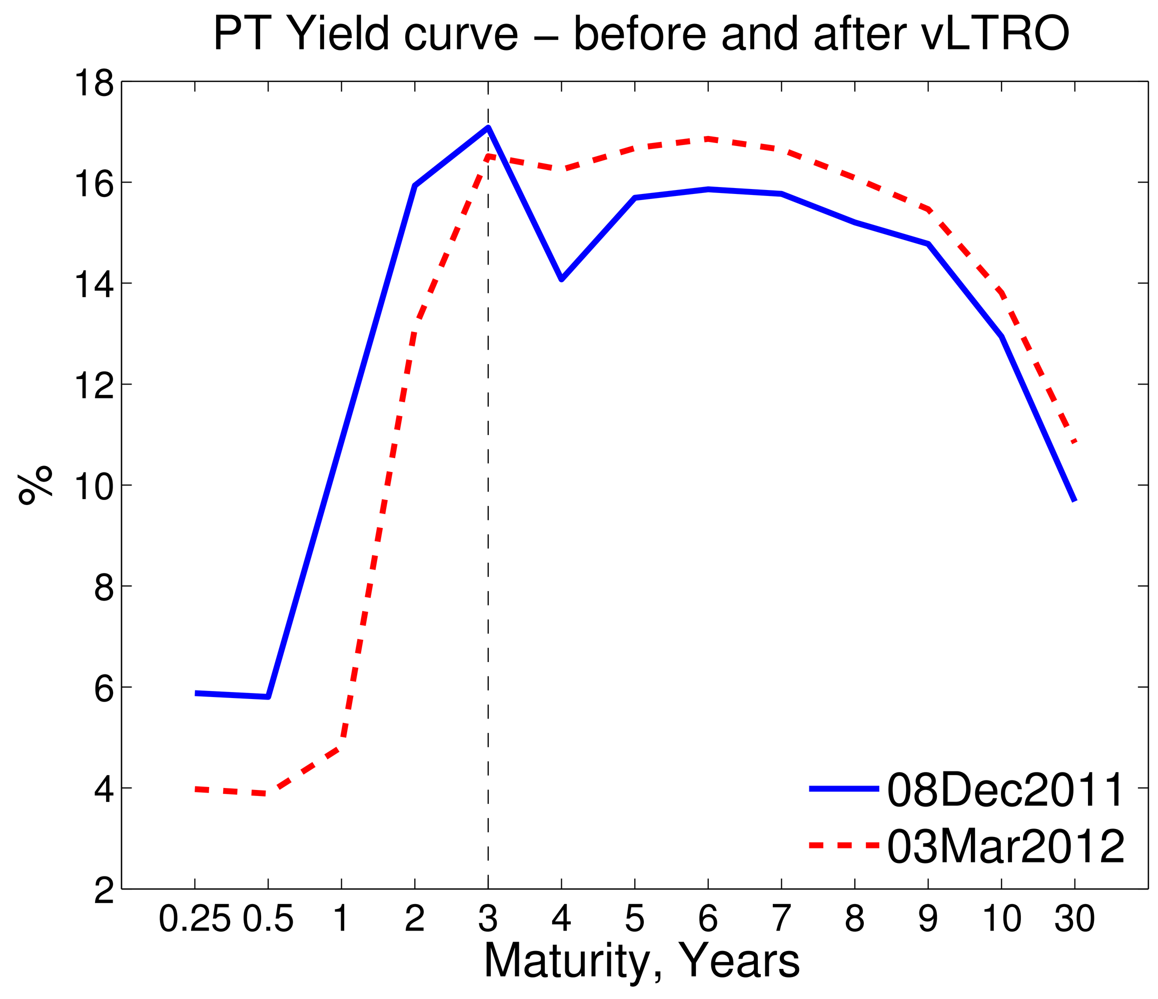
- Purchases of domestic bonds explain 71% of net uptake
- No other asset has explanatory power

Did banks borrow from the vLTRO to purchase govt debt?

- **No**, purchases of govt bonds **decrease** after the second allotment
- Purchases occurred **before** the allotment

Sovereign Borrowing Costs

- Yield curve steepens after the vLTRO

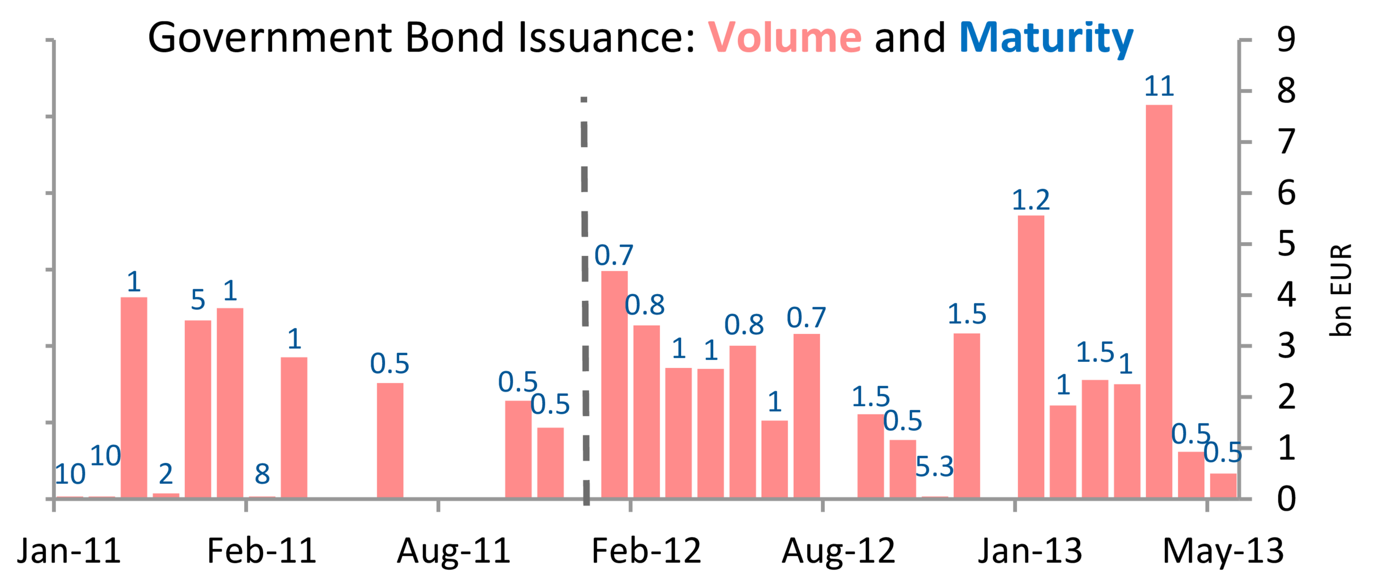


vLTRO vs. QE

- QE ⇒ purchase LT bonds, issue ST reserves ⇒ **flattens** the yield curve
- vLTRO ⇒ **opposite effect** ⇒ steepens the yield curve
- ST borrowing costs ↓, LT costs ↑

Debt Agency reacts

- Public Debt auctions resume in the intra-allotment period
- Newly issued bonds are short-term



Portfolio Maturity Choice

Theoretical Model

- Bank portfolio choice: government debt and borrowing from the ECB with liquidity management motive.
- By the time borrowing matures:
  1. ...short-term bonds are cash.
  2. ...long-term bonds still risky.

LT bonds expose holder to liquidity risk ⇒ preference for ST bonds

Empirical Evidence

- vLTRO shifted preference away from LT and towards ST bonds
- Demand for ST bonds ↑ by 21-24 p.p. (of amounts issued)