Confounding supply shocks:

Confounding demand shock:

We exploit the introduction of covered bond markets in Norway in June 2007.

Covered bonds allow banks to increase balance sheet liquidity. This enables banks to increase less liquid and more risky firm lending. The "liquidity channel" of covered bonds.

Summary

Research question: Do banks change lending and risk-taking behavior when using covered bonds to refinance mortgage loans?

Setting: We exploit the introduction of covered bond markets in Norway in June 2007.

Results: Banks do not increase mortgage lending, instead they expand firm lending.

Channel: Covered bonds allow banks to increase balance sheet liquidity. This enables banks to increase less liquid and more risky firm lending. The "liquidity channel" of covered bonds.

Research hypotheses

Similar to mortgage backed securities (MBS), covered bonds make mortgage lending more attractive because they reduce refinancing costs.

Further, they can provide more leeway for risk-taking.

H1: Banks increase mortgage lending.

H2: Banks increase risk-taking.

Alternatively, banks might not change their behavior and simply reap the profits from lower costs.

H3: Banks do not change behavior.

Data

Quarterly balance sheets and income statements of all 133 Norwegian banks 2003q1-2012q4 from ORBOF.

Volume of mortgage loans used to issue covered bonds from 2003q1-2012q4.

Firm loan level data with 3.8 million loan observations and 0.2.4.6 Share of mortgages transferred over time for high exposure banks (red) and low exposure banks (blue). In the right panel we show the coefficient plot for γ, with confidence intervals at 90% from estimating equation (1).

We provide robustness checks to proof identifying assumptions:

− Confounding supply shocks. We rule out that the GFC as well as the transition to Basel II confounds our results.

− Confounding demand shock. We move to the loan level and employ granular industry-location-size-time fixed effects (ILST) and firm-time fixed effects for a sub-sample of firms.

− Systematic differences. We test for systematic differences across high and low exposure banks.

In the left panel we show the development of the share of mortgage lending over total lending over time for high exposure banks (red) and low exposure banks (blue). In the right panel we show the coefficient plot for γ, with confidence intervals at 90% from estimating equation (1).

Results

− High exposure banks (red) decrease the share of mortgage lending over total lending compared to low exposure banks (blue), see left panel in Figure 3.

− The difference is statistically significant for most quarters-in-the-post period, see right panel.

− Economic magnitude: High exposure banks decrease the share of mortgage lending by around 9% of average mortgage lending shares in the pre period.

High exposure banks (red) increase the share of firm lending over total lending compared to low exposure banks (blue), see left panel in Figure 4.

The difference is statistically significant for most quarters-in-the-post period, see right panel.

Economic magnitude: High exposure banks increase the share of mortgage lending by around 7.5% of average mortgage lending shares in the pre period.

Constant supply shocks:

Constant demand shocks:

We show results for estimating equation (1) for the sample of low (blue) and high exposure banks (red) separately in Figure 5.

Previously liquidity constraint banks drive increases in firm lending.

Robustness

We provide robustness checks to proof identifying assumptions:

− Confounding supply shocks. We rule out that the GFC as well as the transition to Basel II confounds our results.

− Confounding demand shock. We move to the loan level and employ granular industry-location-size-time fixed effects (ILST) and firm-time fixed effects for a sub-sample of firms.

− Systematic differences. We test for systematic differences across high and low exposure banks.

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