

Mortgage Liquidity Shocks and Corporate Lending: Evidence from Household-Initiated Bank Balance Sheet Adjustment

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The views expressed do not necessarily reflect those of Banka Slovenije or the Eurosystem.

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Summary of the paper

- This **interesting paper** explores how the **cash flow and lending channels** interact and shape **monetary policy transmission to lending activity**
- **Research question:**
 - *How did banks react when households accelerated repayments of floating-rate mortgages in response to the recent ECB rate hikes?*
- **Main findings:**
 - Mortgage repayments created liquidity inflows (not financed by household deposits)
 - **Exposed banks increase lending** (mainly) **to safe small firms**
 - ... via collateralized loans with risk characteristics similar to the repaid mortgages.
 - No effect on loan interest rate or ex-post loan performance.

Methodology

- **Difference-in-differences setup** with continuous treatment
- **Treatment event:** ECB rate increases of 2022–2023
- **Treatment intensity:** banks' pre-shock exposure to floating-rate mortgages in high-income areas

$$FRM_{b,pj} = \frac{\text{Stock of Floating Rate Mortgages in High Income Areas}_{b,pj}}{\text{Stock of Mortgages}_b}$$

- **Why is this channel particularly relevant in Spain?**
 - Over 70% of mortgage stock had floating rates (vs. 25% in EA)

General comments

- **An interesting paper** that bridges the household cash-flow channel and the bank-lending channel
- **Detailed analysis** with many aspects of transmission explored
 - Section 4 on lending to NFCs particularly strong, Section 3 on credit reallocation may benefit from another look
- **The paper is well written**, although some wording may need refinement (in particular Section 3)
- Some **uncertainty about how well the results generalise** over time and across countries

Reallocation of credit

- The paper discusses the **reallocation of credit from mortgage loans to firms**
 - abstract: "*[liquidity inflows] ... led to an increase in credit supply to micro and small firms with **no effects on consumer credit, mortgages, or investment assets***"
- Results in Table 3 suggest a more nuanced interpretation may be needed.

Credit Segment	NFC		Mortgages		Consumer Credit	
Dep. Variable	(1) ΔCredit	(2) NewCred	(3) ΔCredit	(4) NewCred	(5) ΔCredit	(6) NewCred
Post _t × FRM _{b,p75}	0.065*** [0.022]	0.004** [0.002]	-0.025* [0.014]	0.003* [0.002]	-0.391*** [0.024]	-0.004* [0.002]
Observations	334,370	334,370	342,516	342,516	360,574	360,574
R-squared	0.283	0.223	0.193	0.285	0.196	0.295
Bank Controls	YES	YES	YES	YES	YES	YES
Bank FE	YES	YES	YES	YES	YES	YES
Location-Time FE	YES	YES	YES	YES	YES	YES

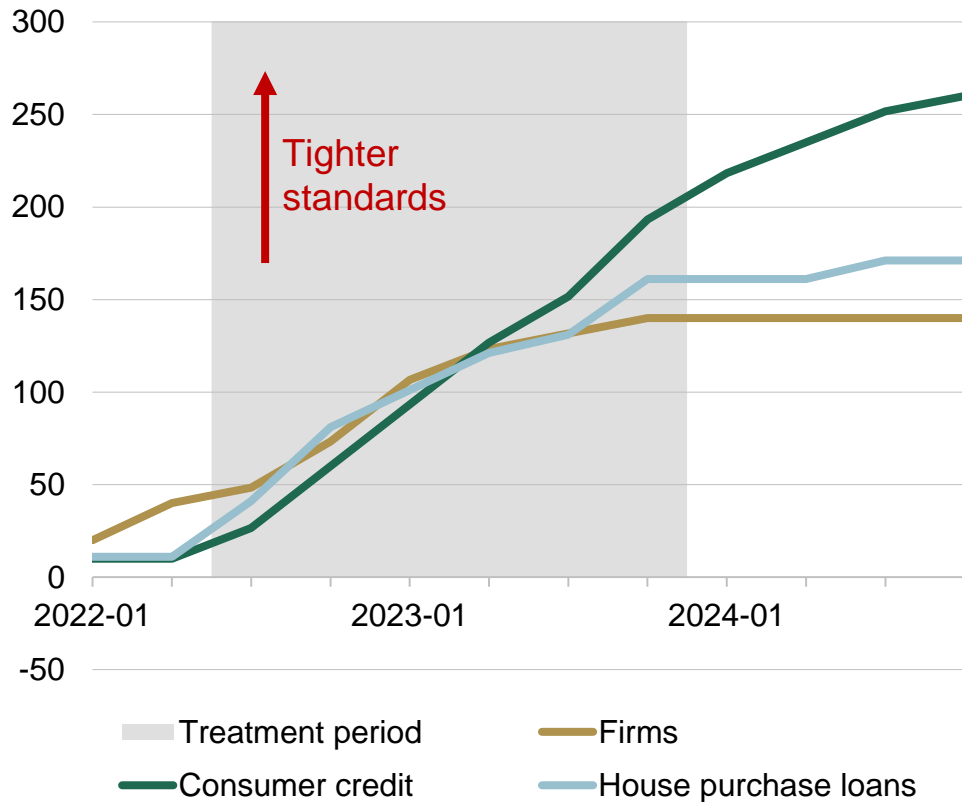
$$\frac{\Delta \text{Credit} \approx \text{NewCred} - \text{CredRepayment}}{\text{Average credit stock}}$$

Reallocation of credit (II)

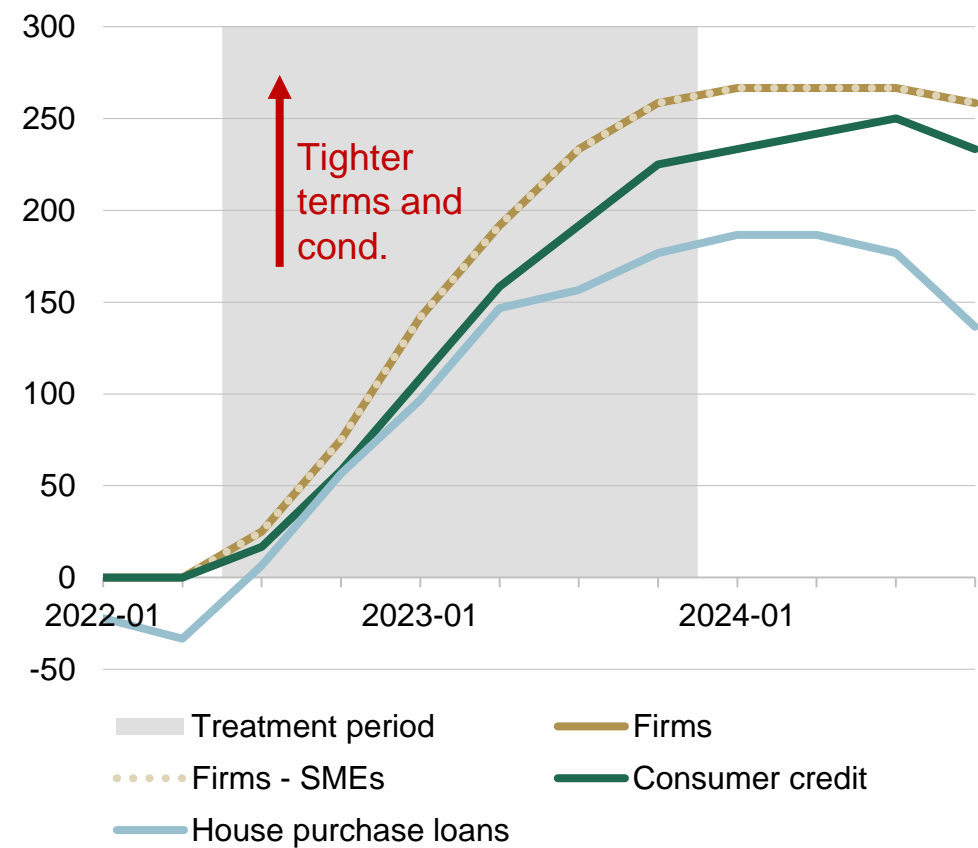
- **Was the reallocation by affected banks passive or active?**
 - Was it driven by banks or households and NFCs?
- **Are demand-side effects sufficiently controlled for?**
- **Results in Section 3 are not entirely clear-cut**
 - HHs repaid mortgages
 - Banks expanded new NFC and mortgage loans
 - But why does consumer credit decline – supply or demand?

BLS: Little evidence of supply-side reallocation

Credit standards



Credit terms and conditions



Figures show the cumulative net percentage of Spanish banks reporting a tightening of credit standards (LHS) or terms and conditions (RHS).

Source: BLS, ECB.

How well do results generalise?

- **1) Treatment event:** ECB policy rate hikes, July 2022–end 2023
 - unexpected
 - but not exogenous
- **MP tightening occurred in an environment of uneven post-pandemic recovery and high energy prices**
 - SMEs likely more negatively affected than large firms in this period
 - Can the paper's findings be considered representative of **all** mortgage repayment cycles?
- **2) Spain had an exceptionally high share of floating-rate mortgages (over 70%)**
 - Much smaller shares in other countries, shares also declining over time
 - What do the results imply for the EA and for the future?

Minor comments

- Wouldn't normalizing banks' exposure to floating-rate mortgages by total assets better capture the size of liquidity shock? Do results change?

$$FRM_{b,pj} = \frac{\text{Stock of Floating Rate Mortgages in High Income Areas}_{b,pj}}{\text{Stock of Mortgages}_b}$$

- High income areas (in FRM) are defined by comparing zip codes' income to the province income. Why not compare them with the national income level?
- The estimated effect increases substantially when going from the zip code-level analysis (Table 3) to firm-level analysis (Table 5). A brief discussion of these differences would be beneficial.
- Figure 5 shows only demand-side changes in the BLS. Shouldn't supply-side evidence from the BLS also be included?