

Deposit reliance, market power and monetary policy transmission

S. Auer A. M. Conti P. Farroni

Banca d'Italia

EEA – August 28, 2025

Disclaimer: The views expressed in the paper do not necessarily represent those of the Bank of Italy.

Motivation I

The recent tightening cycle highlighted some special features such as a limited pass-through (PT) to overnight (ON) deposit rates.

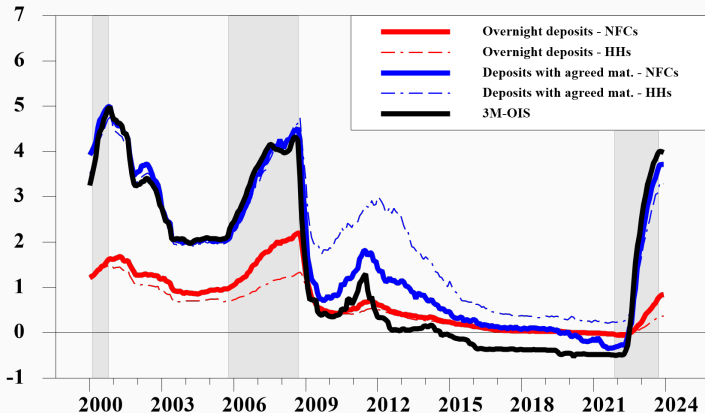
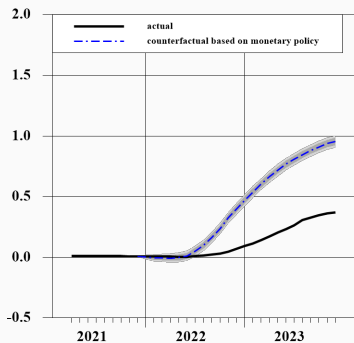


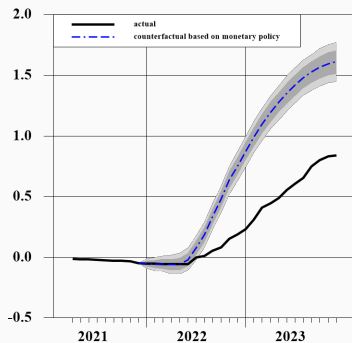
Figure 1: Deposit remunerations and risk-free rates

Motivation II

But can we assess whether this limited PT was exceptional? YES!



(a) Households



(b) Non-financial corporations

Figure 2: The dotted blue line is the BVAR forecast conditional on the realized path of short- and long-term mkt rates. [▶ Sample](#) [▶ Term dep](#)

[▶ Large BVAR](#)

Motivation III

On aggregate slow PT to overnight deposit rates, but with a significant degree of heterogeneity across banks.

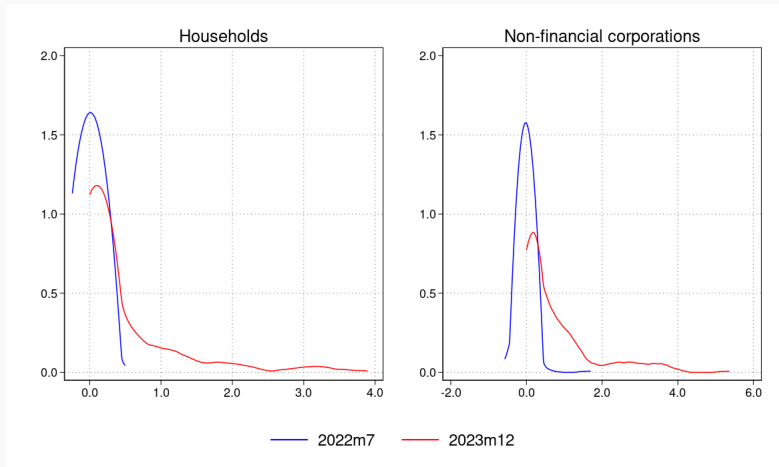


Figure 3: Kernel densities of overnight deposit rates.

Research question

- Which factors could explain such a limited PT?
 - ↳ Challenging question: many candidates...
- Can an increase in banks' "deposit reliance" and deposit market power help explain the change in PT from monetary policy (MP) to overnight deposit and lending rates in the EA?

Research question

Research question

- Which factors could explain such a limited PT?
 - ↳ Challenging question: many candidates...
- Can an increase in banks' "deposit reliance" and deposit market power help explain the change in PT from monetary policy (MP) to overnight deposit and lending rates in the EA?

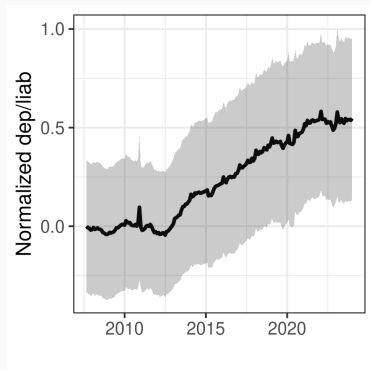
Main results

1. Banks with a higher share of deposits in their liabilities (deposit reliance) have a lower PT to ON deposit rate, but only in the short term.
2. Deposit market power similarly dampens the PT but its effect is more persistent
3. Banks with more deposit market power also show a more pronounced and persistent increase in their average loan-deposit spread

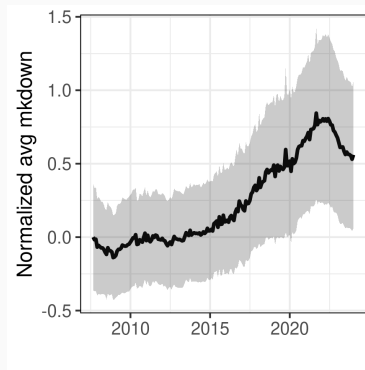
- Macro-econometric analysis of MP transmission: Peersman (2012), Hristov et al. (2014), Ciccarelli et al. 2015; Giannone et al. (2019), Altavilla et al. (2020)
- *Micro*-econometric analysis of MP transmission: Heider et al. (2019), Boeckx et al. (2020), Altavilla et al. (2022), Bottero et al. (2022)
 - ↪ **Our contribution:** merging a macro- and micro-perspective
- Recent works on the drivers of the muted PT during the 2022-2023 tightening cycle: Kho (2025), Messer et al. (2023), Fricke et al. (2023), Bussière et al. (2025)
 - ↪ **Our contribution:** joint assessment of the role of deposit market power and deposit reliance

- Bank level data for EA banks from iBSI-iMIR at monthly frequency spanning 2007M7-2023M12.
- Around 330 banks in matched sample and around 41k observations.
- Monetary policy shocks from Jarocinski and Karadi (JK, 2020).
- EA and country level macro controls from Eurostat/ECB market rates (Euribor, Eurirs, OIS...), inflation, industrial production, Composite Indicator of Systemic Stress (CISS), ...

State variables



(a) Deposit reliance



(b) Deposit market power

Figure 4: Evolution of selected banks' characteristics

Panel local projections along the lines of Jordà and Taylor (2024)

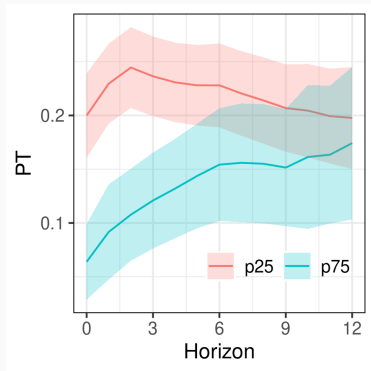
$$y_{t+h}^j - y_{t-1}^j = \delta_0^h + \delta_1^h (i_{t+h} - i_{t-1}) + \beta^h S_{t-1}^j \times (i_{t+h} - i_{t-1}) + \Gamma X_{t-1}^j + \lambda^j + v_{t+h}^j \quad (1)$$

where y^j and i denote the bank and market reference interest rate, S^j is our state variable(s) of deposit market power and deposit reliance, X_{t-1}^j is a vector of bank-country controls, and λ^j are bank FE.

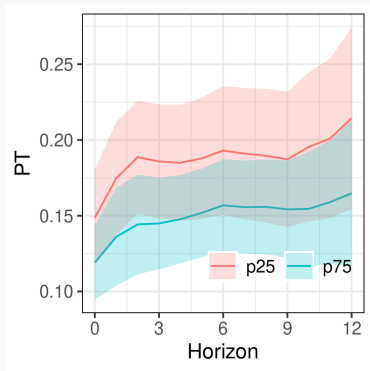
Multiplier

Our object of interest is the (cumulative) multiplier $\Phi_h^{cond} := \delta_1^h + \beta^h S_{t-1}^j$ that we estimate in one step as in Ramey and Zubairy (2018). Our identification relies on the high-frequency MP shocks of JK as instruments for i .

Results for ON dep from households (HH)



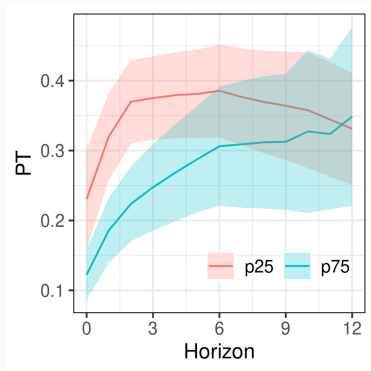
(a) Conditioning on deposit reliance



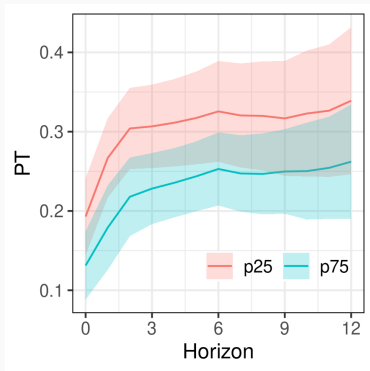
(b) Conditioning on deposit market power

Figure 5: State-dependent PT to ON deposit rates from HH

Results for ON dep from non-financial corporations (NFC)



(a) Conditioning on deposit reliance



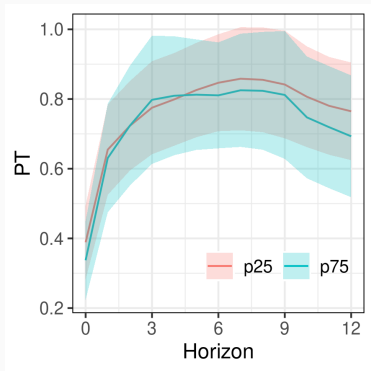
(b) Conditioning on deposit market power

Figure 6: State-dependent PT to ON deposit rates from NFC

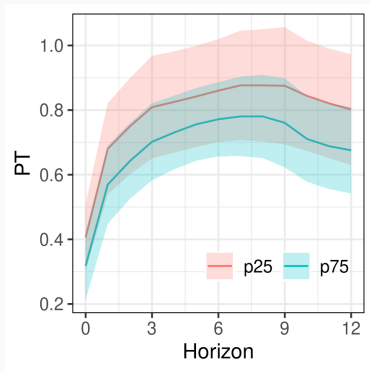
Joint estimation of the conditional pass-through

Horizon (months)	0	1	2	10	11	12
Panel A: Households						
<i>i</i>	0.126*** (0.026)	0.144*** (0.023)	0.155*** (0.020)	0.160*** (0.019)	0.160*** (0.019)	0.162*** (0.020)
<i>i</i> × <i>Dep/Tot. Liab</i>	-0.091*** (0.034)	-0.095*** (0.029)	-0.093*** (0.026)	-0.045** (0.022)	-0.039* (0.023)	-0.033 (0.023)
<i>i</i> × <i>Mkt. Pwr</i>	-0.013 (0.016)	-0.022 (0.015)	-0.030** (0.014)	-0.033** (0.013)	-0.036*** (0.012)	-0.046*** (0.013)
Panel B: Non-financial corporations						
<i>i</i>	0.153*** (0.027)	0.205*** (0.023)	0.242*** (0.021)	0.270*** (0.024)	0.270*** (0.024)	0.273*** (0.024)
<i>i</i> × <i>Dep/Tot. Liab</i>	-0.080** (0.034)	-0.083*** (0.030)	-0.087*** (0.028)	-0.034 (0.029)	-0.027 (0.029)	-0.015 (0.029)
<i>i</i> × <i>Mkt. Pwr</i>	-0.056*** (0.020)	-0.085*** (0.019)	-0.082*** (0.017)	-0.077*** (0.017)	-0.078*** (0.016)	-0.087*** (0.017)

Results for NFC lending rates



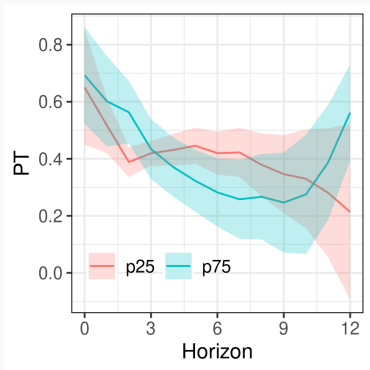
(a) Conditioning on deposit reliance



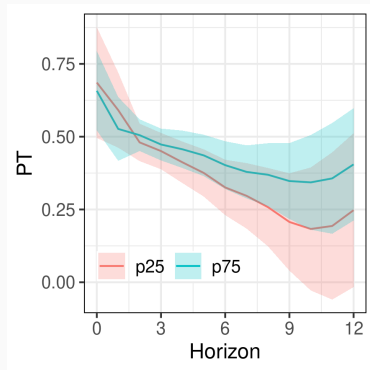
(b) Conditioning on deposit market power

Figure 7: State-dependent PT to NFC lending rates

Results for avg loan-deposit spreads



(a) Conditioning on deposit reliance



(b) Conditioning on deposit market power

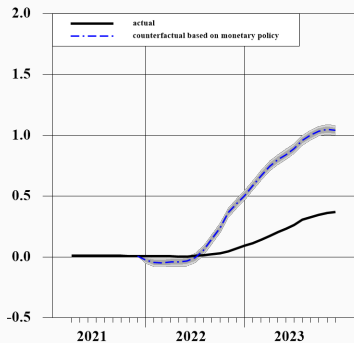
Figure 8: State-dependent PT to avg loan-deposit spreads

Conclusions

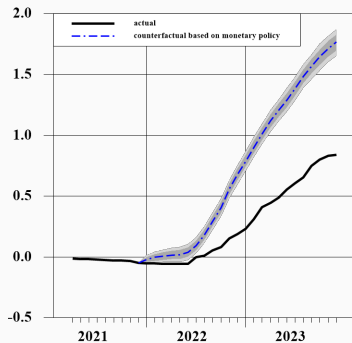
- PT to ON deposit rates during the 2022-23 ECB tightening cycle lower than expected
- Using bank-level panel local projections we find that the PT is lower for banks with more deposit market power and deposit reliance
- The dampening effect of deposit market power is more persistent and extends also to lending rates and average loan-deposit spreads
- Fostering a competitive banking sector can enhance the transmission of monetary policy to bank funding costs and broader financing conditions for the private sector

Appendix

Normal times: 2000-2007



(a) Households

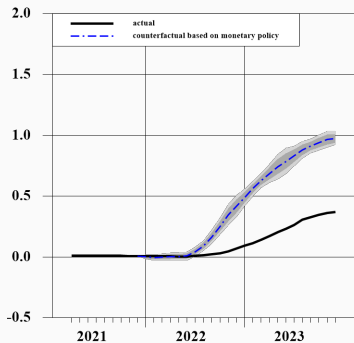


(b) Non-financial corporations

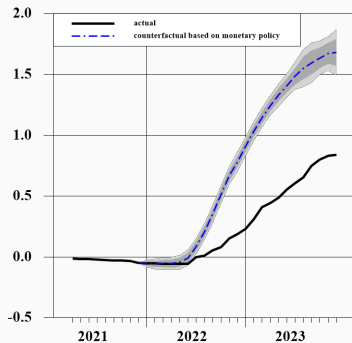
Figure 9: Conditional forecast based on BVAR estimated until 2007M6.

▶ Back

Large BVAR



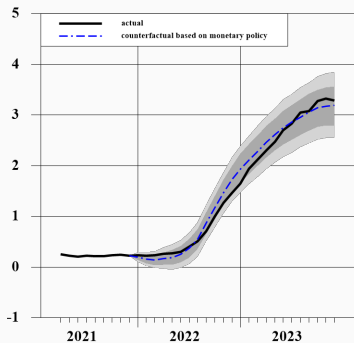
(a) Households



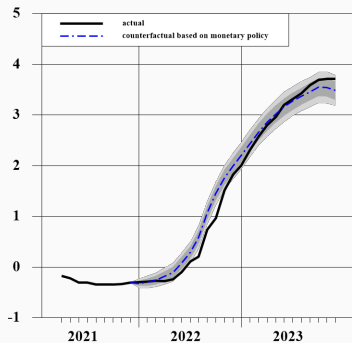
(b) Non-financial corporations

Figure 10: Conditional forecast based on a large BVAR: dep & mkt rates + dep volumes. [▶ Back](#)

Conditional forecast - term deposits



(a) Households (HHs)



(b) Non-financial corporations

Figure 11: The dotted blue line is the BVAR forecast conditional on the realized path of short- and long-term market rates. [▶ Back](#)

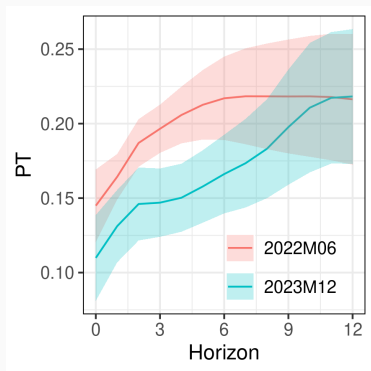
State variables - measurement

We measure **deposit market power** using a deposit markdown estimated through a logit model of deposit demand, similarly to Albertazzi et al. (2022):

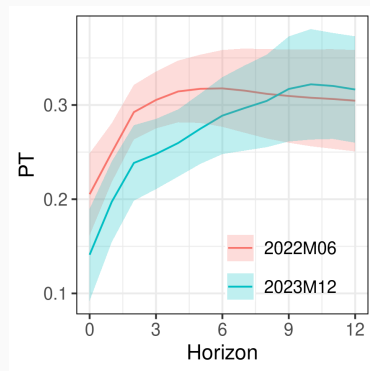
$$U_{ijmt} = \alpha P_{jmt} + \delta_j + \lambda_{mt} + \xi_{jmt} + \epsilon_{ijmt}$$
$$S_{jmt} = \frac{\exp(\alpha P_{jmt} + \delta_j + \lambda_{mt} + \xi_{jmt})}{1 + \sum_k \exp(\alpha P_{kmt} + \delta_k + \lambda_{mt} + \xi_{kmt})}$$

We measure **deposit reliance** as $\frac{\text{deposits}_{jt}}{\text{tot liab}_{jt}}$. We use this indicator on the liability side instead of the reserve ratio on the asset side, as in Messer et al. (2023) and Fricke et al. (2023), due to data availability concerns. [▶ Back](#)

Unconditional pass-through to ON deposit rates



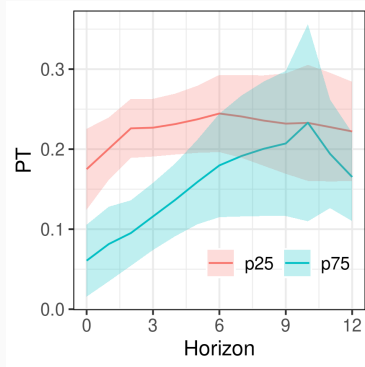
(a) HH



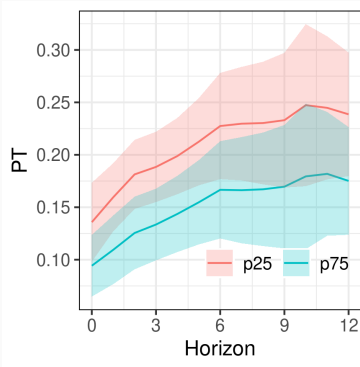
(b) NFC

Figure 12: Unconditional pass-through to ON deposit rates [▶ Back](#)

State-dependent pass-through - ON dep from HH: different MP shocks



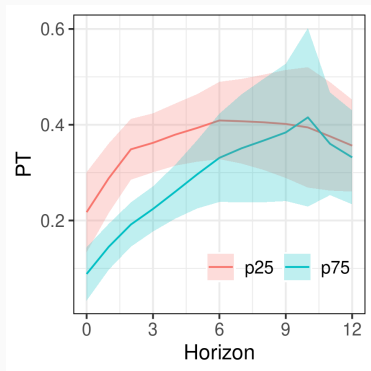
(a) Conditioning on deposit reliance



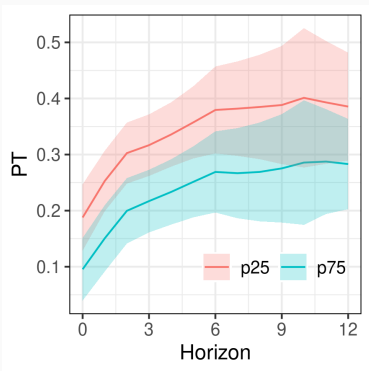
(b) Conditioning on deposit market power

Figure 13: State-dependent pass-through - ON dep from HH using the high-frequency shocks of Altavilla et al. (2019) [▶ Back](#)

State-dependent pass-through - ON dep from NFC: different MP shocks



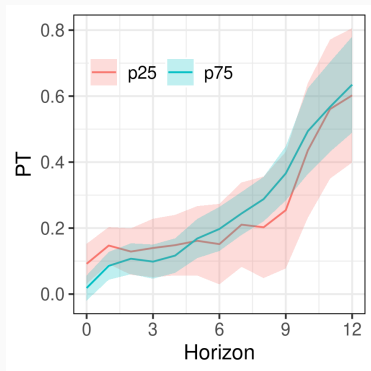
(a) Conditioning on deposit reliance



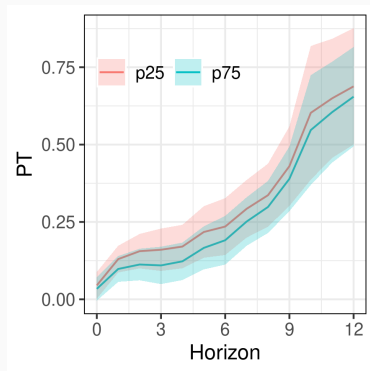
(b) Conditioning on deposit market power

Figure 14: State-dependent pass-through - ON dep from NFC using the high-frequency shocks of Altavilla et al. (2019) [▶ Back](#)

State-dependent pass-through to HH mortgage rates



(a) Conditioning on deposit reliance



(b) Conditioning on deposit market power

Figure 15: State-dependent PT to HH mortgage rates [▶ Back](#)