



EUROPEAN CENTRAL BANK

EUROSYSTEM

# Discussion of “Monetary policy at the margin”

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MPC Task Force on  
Banking Analysis for  
Monetary Policy

19/10/2025 Ljubljana



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All views are my own and may not reflect those of the ESCB or the ECB

# Main findings

Paper deals with Zero-Bank Debt (ZBD) firms:

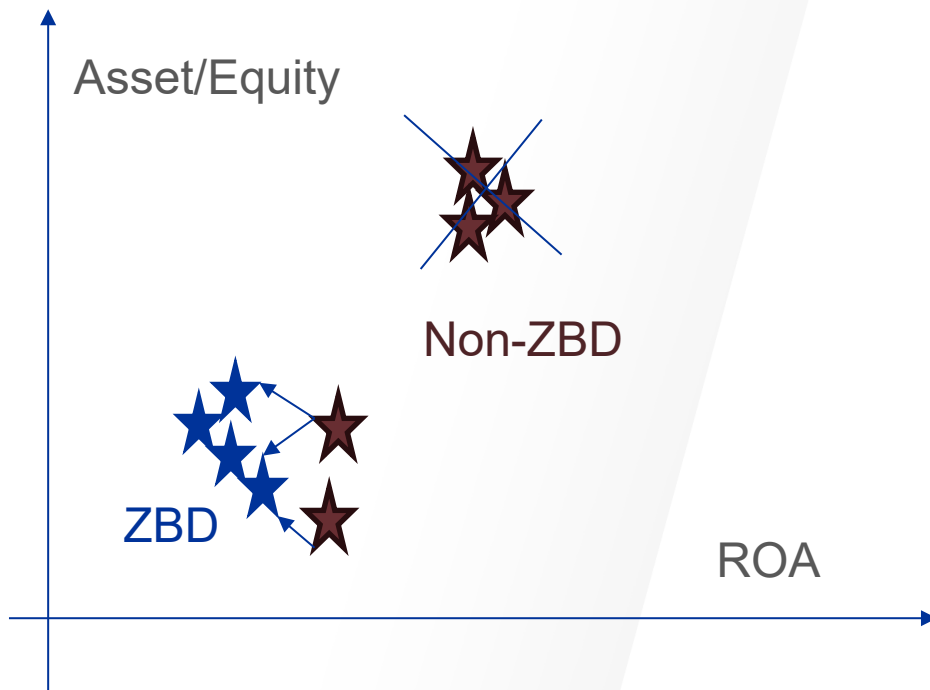
→ ZBD are more common than you think

- Is monetary policy influencing banks to give (new) debt to ZBD firms?
  - Asymmetry: (Strong) monetary policy easing can have a positive impact (relative to the control group)
  - ... with no or limited side effects
- Is monetary policy ineffective on ZBD:
  - NO, in all cases there are real effects, i.e. both employment and investments of ZBDs react *more* than the control group

# Roadmap

- ❑ The econometric set-up
  - ❑ The balance check
- ❑ How monetary policy is measured
- ❑ Conclusions and possible addenda on real effects

# The econometric set-up of matching



- ☐ Non-ZBD firms closer to ZBD in the space of characteristics will receive higher weight in the regression: PS used as metric
- ☐ **Ex-post** balance check and diagnostics

# Ex-post balance check...

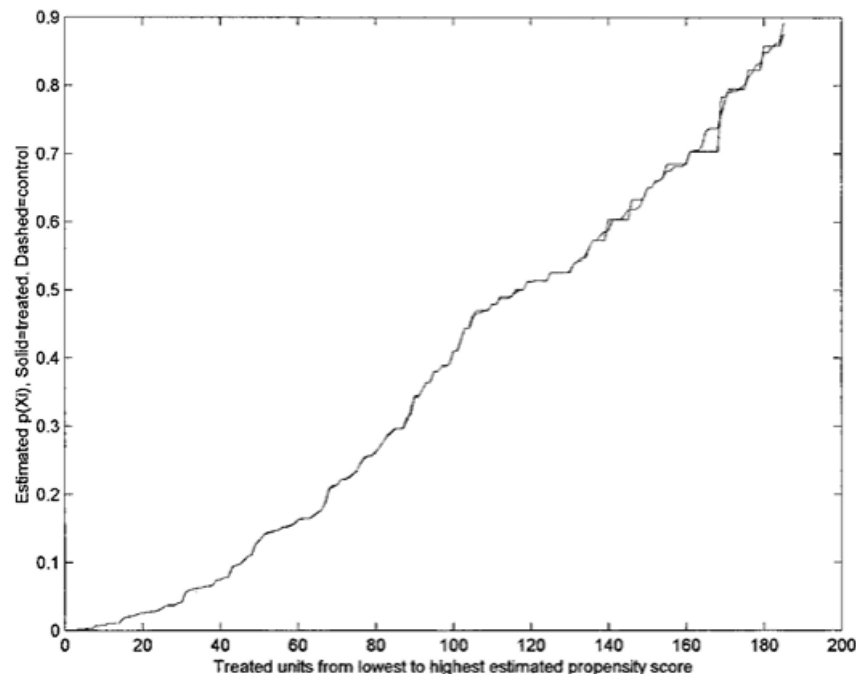
Panel A: All firms					
Variable	Non-ZBD	ZBD	Diff	Nobs No ZBD	Nobs ZBD
Equity/TA	21.68	25.16	3.48***	7,711,841	5,310,367
Liq Assets/TA	13.42	27.68	14.26***	7,711,841	5,310,367
ROA	4.34	-0.31	-4.65***	7,711,841	5,310,367
Log(TA)	5.72	4.32	-1.40***	7,711,841	5,310,367
Tangible Assets/TA	34.55	23.78	-10.76***	7,711,841	5,310,367
WC/TA	7.40	7.44	0.03	7,711,841	5,310,367
Age	2.29	1.84	-0.45***	7,719,853	5,814,960
Taxes/TA	0.68	0.80	0.12***	7,711,841	5,310,367

Panel B: Final Sample					
Variable	No ZBD	ZBD	Diff	Nobs No ZBD	Nobs ZBD
Equity/TA	14.33	18.17	3.84***	1,010,239	1,010,239
Liq Assets/TA	25.27	24.88	-0.39**	1,010,239	1,010,239
ROA	-2.32	0.50	1.82***	1,010,239	1,010,239
Log(TA)	4.40	4.40	-0.01	1,010,239	1,010,239
Tangible Assets/TA	23.01	22.82	-0.45**	1,010,239	1,010,239
WC/TA	5.29	1.41	3.87***	1,010,239	1,010,239
Age	1.78	1.76	-0.02***	1,010,239	1,010,239
Taxes/TA	0.81	0.82	0.01	1,010,239	1,010,239

- ❑ Control group: nearest neighbour on PSM
- ❑ 'Too much' significance?  
See age in Panel B (5 days difference is significant?)
- ❑ However, ROA remains widely different
- ❑ Large drop in population of ZBD in B, another paper?

# ...and diagnostics (Dehejia and Wahaba (2002))

FIGURE 6.—PROPENSITY SCORE FOR TREATED AND MATCHED COMPARISON UNITS, NEAREST MATCH



- ☐ The quality of the matching can be assessed from the PSM
- ☐ Testing Sensitivity to the Specification of the Propensity Score
- ☐ Interaction terms in PSM?

# How is monetary policy measured?

Monetary policy measured in the paper by changes in interest rates

However, better:

- Taylor rules
- High frequency shocks
- Distance ( $r-r^*$ )

What about unconventional policy & credit standards?

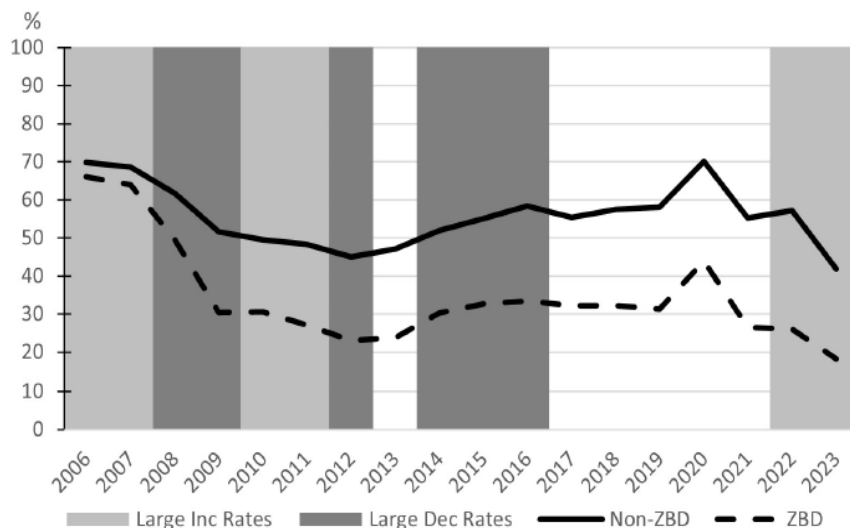


Figure 1: Proportion of Firms that Obtain a New Loan

# Conclusions

- ☐ **Interpretation:** a tightening does not induce ZBD firms to take less (new) credit compared to their control group
  - ☐ Does it do it at all?
- ☐ **Finding's narrative:** ZBD firms are more exposed to the general equilibrium effects of monetary policy
- ☐ **Additional:** What happens to dead firms?
- ☐ **Additional:** what happens to productivity?
- ☐ **Another paper:** why 6 mln firms do not want credit?



# Thank you

A great paper from which I learned a lot, hope to see it soon out

# Linearity and endogeneity

- If effects were linear, matching is equivalent to linear controls (but this is probably not the case)

$$Y_t = \alpha + \beta ZBD_{t-1} + \gamma \left( \frac{E_{t-1}}{A_{t-1}} \right) + \delta ROA_{t-1} + \epsilon_t,$$

➔ Usually, interaction terms are introduced into the logit specification (see Dehejia and Wahaba (2002))

- This is an estimation technique, not an identification technique
  - ➔ This is why you need lags