

Discussion of “Monetary Policy, Segmented Capital Markets and Innovation”

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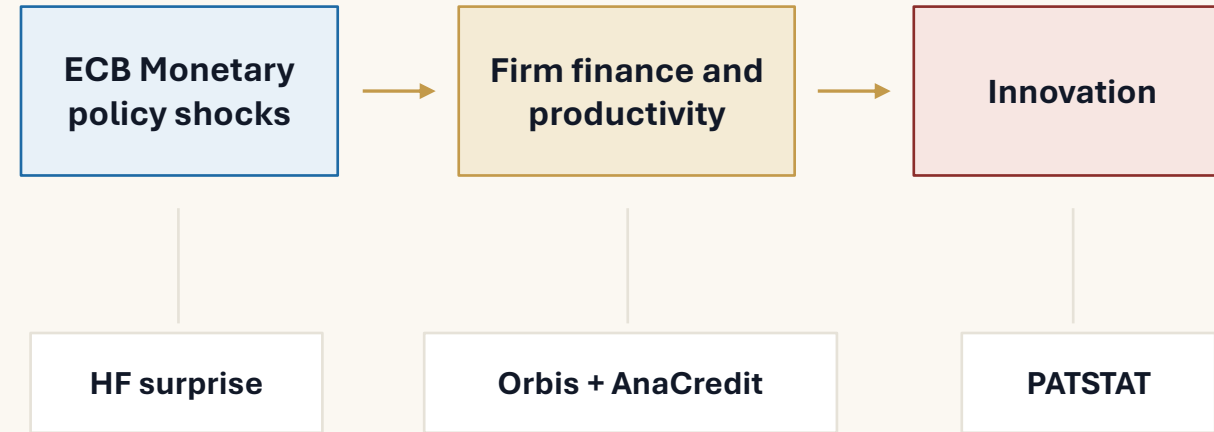
1. What the paper does

A firm-level, financing-channel account of monetary policy and innovation in the euro area.

CORE OBJECT

Does monetary policy affect innovation because it changes firms' access to finance?

- Focus: Euro-area firms, 1999-2023, linked to patents and citations. Look at horizons up to 8 years out.
- Key mechanism: monetary surprises shift loans, bonds and equity finance composition.
- Main policy angle: segmented capital markets amplify real effects.



Two-stage IV local projections

First-stage: isolate policy-driven funding variation;

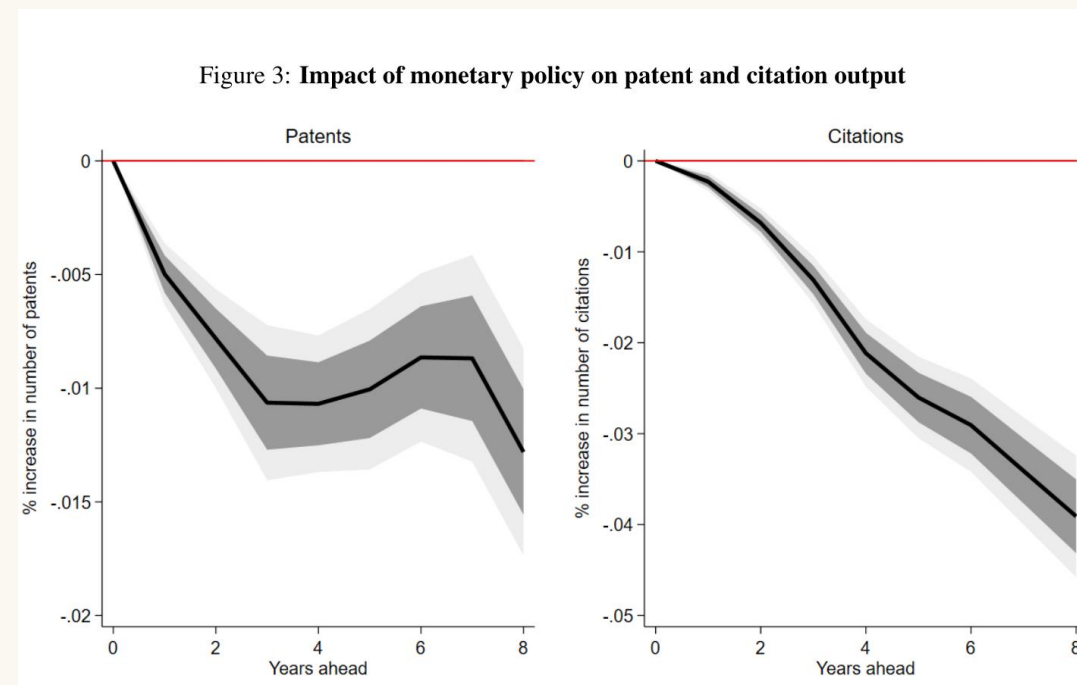
Second-stage: trace dynamic innovation and productivity responses.

A useful framing: the paper is less about the average rate response, and more about how financial architecture distributes that response across firms.

2. What they find

The results are large, persistent and heterogeneous across firms and sectors.

- Tightening reduces patents and forward citations for several years.
- Effects are stronger for intangible-intensive and AI-related sectors.
- Equity access appears especially protective and innovation-intensive.
- My take: an ambitious, timely paper with a clear policy payoff. Challenging long-run inference.



Authors' draft, Figure 3: contractionary shocks and innovation output.

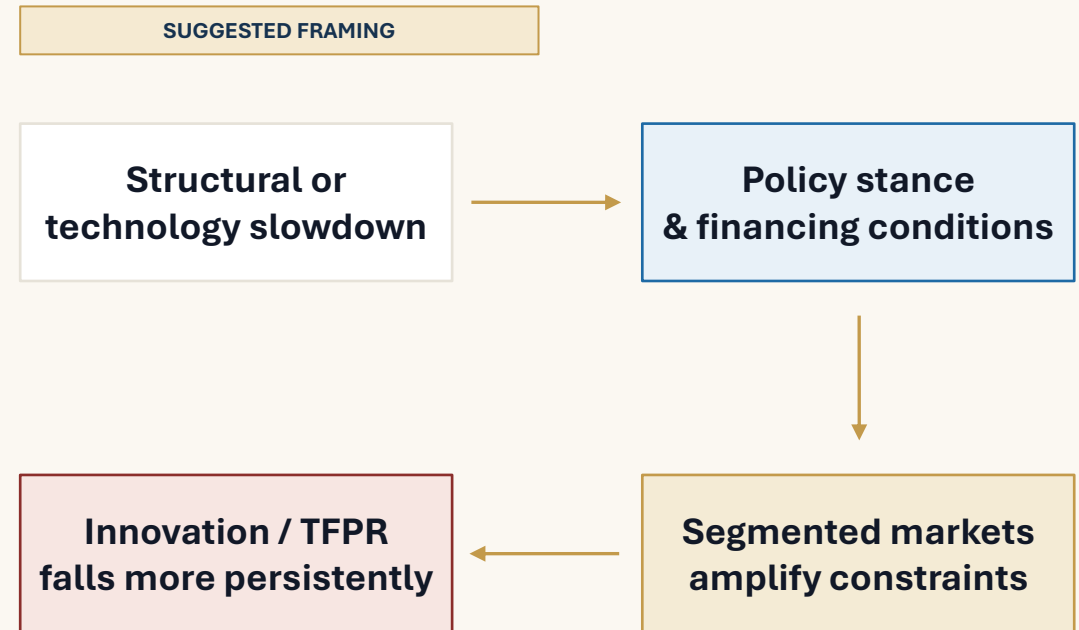
Why it is compelling

It connects monetary transmission, capital market union and long-run growth in a way that is directly relevant for European policy design.

Comment 1. Is MP the innovation shock, or the propagator?

Frame the result as financial amplification and propagation, not shocks as the source of innovation cycles.

- The paper is strongest as an amplification and propagation story through finance.
- Patents are very volatile. Both innovation outputs and inputs into the production of the stock of knowledge.
- Macro evidence on R&D and aggregate TFP after monetary policy shocks is often more muted.
- Levels vs Changes: emphasize accommodation, financing conditions and technology-shock propagation.
- This would also help with sample length, as patent-based technology shock-proxies can be constructed before 1999.

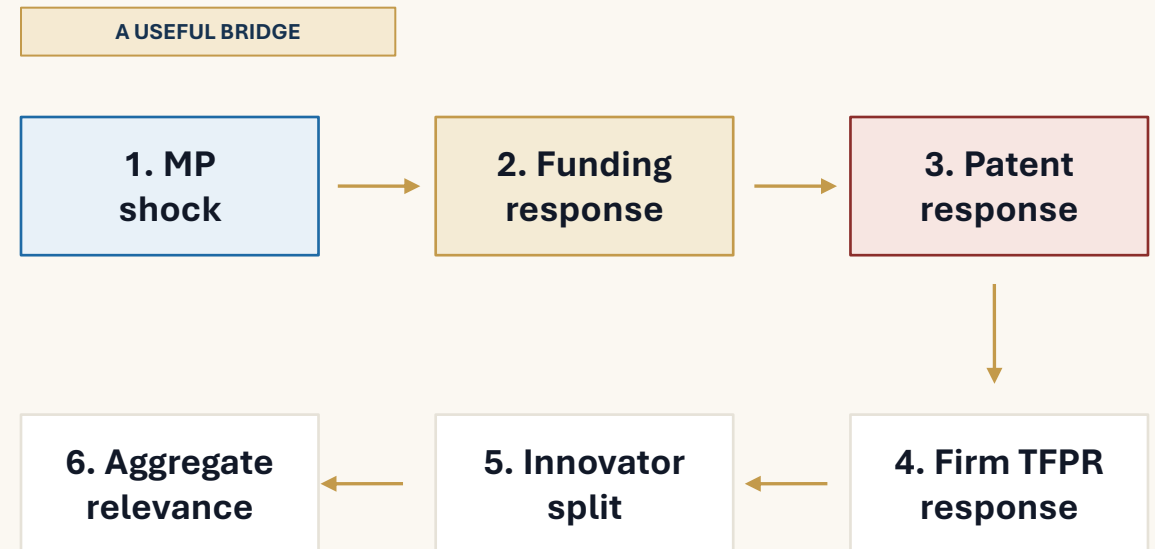


This framing keeps the contribution powerful without asking small policy-rate surprises to be the main source of significant technology and productivity fluctuations in the EA.

Comment 2. Close the loop to productivity

A firm-level TFPR response would make the growth interpretation more compelling.

- The paper studies TFPR dispersion; firm-level responses to TFPR would close the loop.
- Estimate TFPR after MP shocks, alongside patents and citations, R&D, intangibles, etc.
- Split responses by high vs low innovators to test the productivity link.
- Then map patent and TFPR elasticities into aggregate relevance.



KEY Macro Statistics: how much monetary policy contributes to medium-term productivity growth in the Euro area?

Comment 3. Clarify the IV exclusion restriction to sharpen interpretation

A constructive interpretation point: what exactly is the financing channel estimating?

- I like the IV idea; the issue is the precise estimand, not whether MP has macro effects.
- MP also moves demand, GDP, productivity, risk premia and economy-wide financing conditions.
- Exclusion requires these channels not to vary systematically by loan/bond/equity reliance.
- Add LPs for sales, value added, investment, cash flow and TFPR; split TFPR by innovator status.

This would help clarify whether the IV estimates isolate a financing-to-innovation channel, or whether they capture a broader firm-performance response to monetary policy among firms with different financing structures (Gertler and Gilchrist, 1994; Chatelain et al, 2003; Jimenez et al., 2012)

IDENTIFICATION LOGIC

Instrument

MP x loan/bond/equity reliance

What the IV should isolate

Policy-induced changes in the firm's own financing.

What to rule out

Demand, expectations, risk premia or TFP also sorted by finance reliance.

Constructive addition

Run the same design on other main firm-level outcomes.

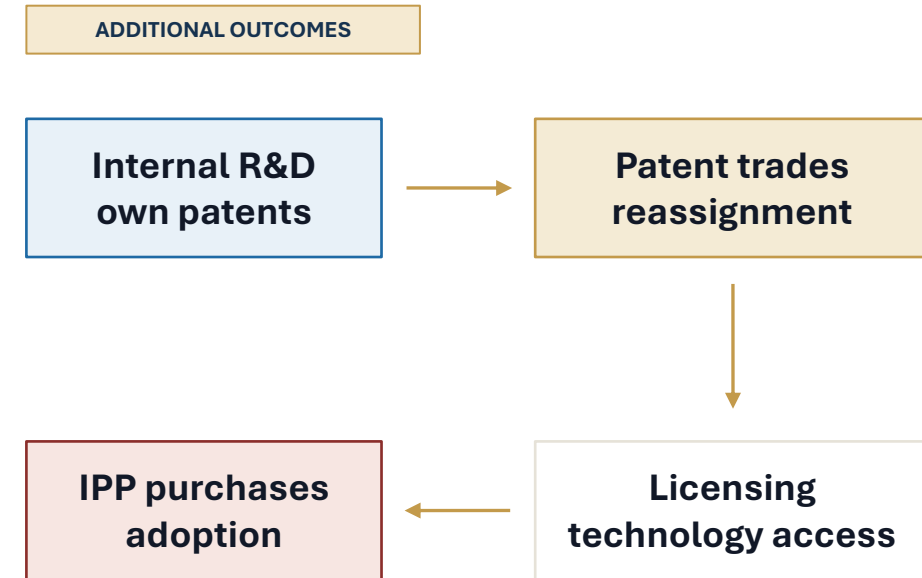
Suggested interpretation

If broad real outcomes move, frame the estimates as a broader firm-type response — not only a pure innovation elasticity.

Comment 4. Innovation can also be bought

External innovation may reveal a different margin of monetary transmission.

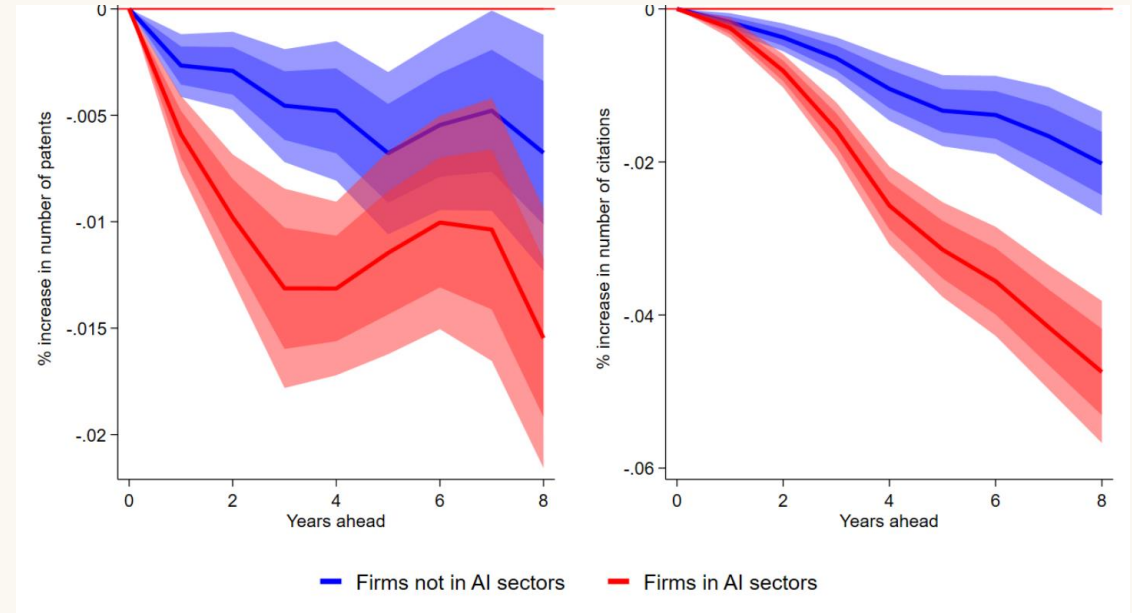
- Internal patenting is only one channel: firms can buy, license or acquire IP.
- In U.S. data, external innovation expenses are similar in magnitude to internal ones (at least in Compustat).
- MP shocks may affect this margin differently from in-house R&D and patenting.
- Testing traded patents, licenses and IPP purchases could reveal new heterogeneity.



Comment 5. Use ex-ante heterogeneity to discipline the mechanism

The current heterogeneity is compelling; it could also become a sharper set of tests.

- Spell out **ex-ante** which firms should be most exposed and which should be insulated.
- Helpful cuts: cash-rich vs cash-poor, young vs old, entrants vs incumbents.
- Use within-group variation to isolate the effects of different capital structures.
- Similarly, for AI sectors, separate frontier technology exposure from financing exposure.
- Use the U.S. comparison mainly as a descriptive contrast, given sample differences.



Authors' draft, Figure 5: larger response in AI-related sectors.

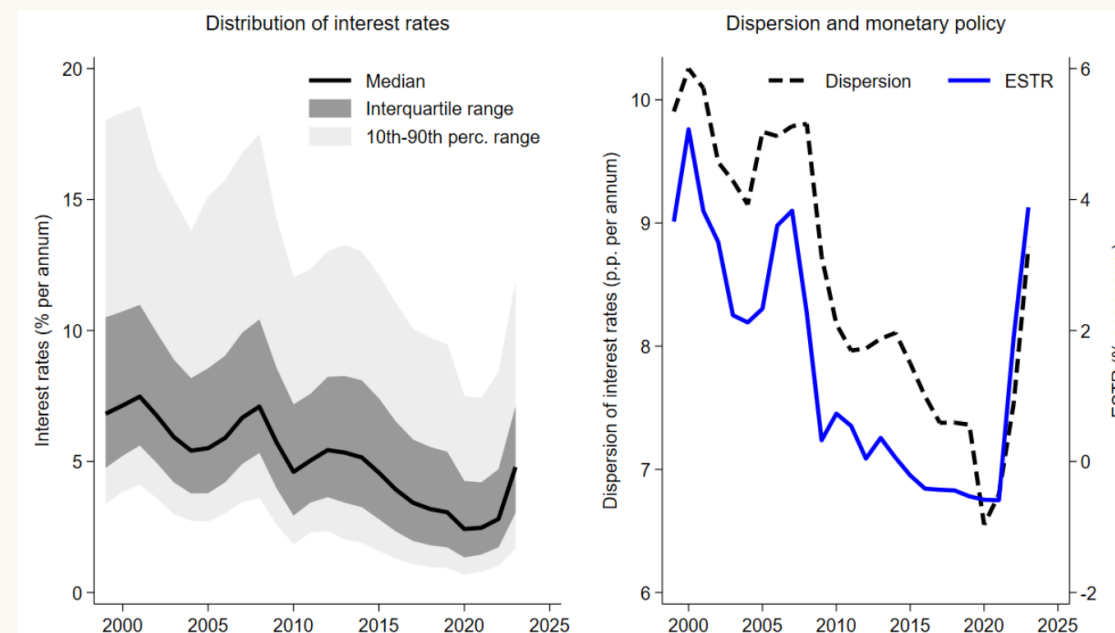
Testable prediction: diversified access to finance should mute the response.

Overall assessment

A promising paper on a highly important and policy-relevant topic.

MAIN MESSAGE

- The paper asks an important question at the intersection of monetary policy, finance and growth.
- Data construction and EA focus are major strengths. 24 years of data makes inference at 8 years hard.
- My main suggestion is to frame the result as financial amplification and propagation of technology shocks (rather than a couple of basis point policy shocks have large long-run effects).
- I look forward to studying the next version.



Authors' draft, Figure 8: segmentation and monetary policy.

Promising contribution: capital market structure as a determinant of the long-run costs of monetary transmission.

Thank you