Macroprudential Policy in an Inflationary Environment

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Disclaimer

The views expressed in this paper are those of the authors and do not necessarily reflect those of the Banco de Portugal or the Eurosystem. Any errors and mistakes are ours.

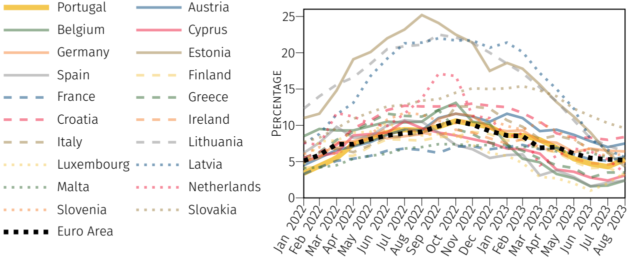
Outline

01 Motivation

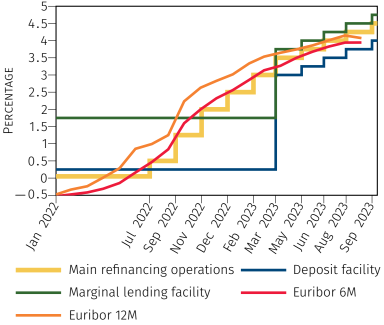
Environment of rising inflationary pressures and resulting monetary policy tightening raises new challenges for European macroprudential authorities:

- Trade-offs may emerge between:
  - Increasing resilience of the financial system – through tighter macroprudential stance
  - Supporting the flow of credit to the economy – by easing some macroprudential instruments.

Inflation in the Euro Area



ECB interest rates



02 Macroprudential policy in the Monetary Union

Argument

- Heterogeneous financial cycles at the euro area level and common monetary policy.
- Macroprudential policy at national level may be able to mitigate potential side-effects of a common monetary policy.

Literature

- Brzoza-Brzezina et al., 2013. Countercyclical macroprud policy contributes to a more homogeneous monetary policy stance
- Quint e Rabanal, 2014. Macroprud policy is able to reduce macroeconomic volatility and partially replace the absence of a national monetary policy, but its effects on borrowers depend on the shock that hits the economy.
- Rubio e Carrasco-Gallego, 2016. Macroprud policy promotes financial stability and counteracts negative shocks of monetary policy; benefits are higher with coordination.
- Darracq Pariès, Kok and Rancoita, 2019. Countercyclical macroprudential actions are supportive of monetary policy conduct through the cycle (mainly when there are asymmetric financial cycles across the monetary union, which provides a case for targeted country-specific macroprudential policies to help alleviate the burden on monetary policy).

03 Research question

(*I*) In a scenario of inflation and rising interest rates in a monetary union:

- How does it spill over to a small open economy within that monetary union?
- What role can national macroprudential authorities play under such scenario?

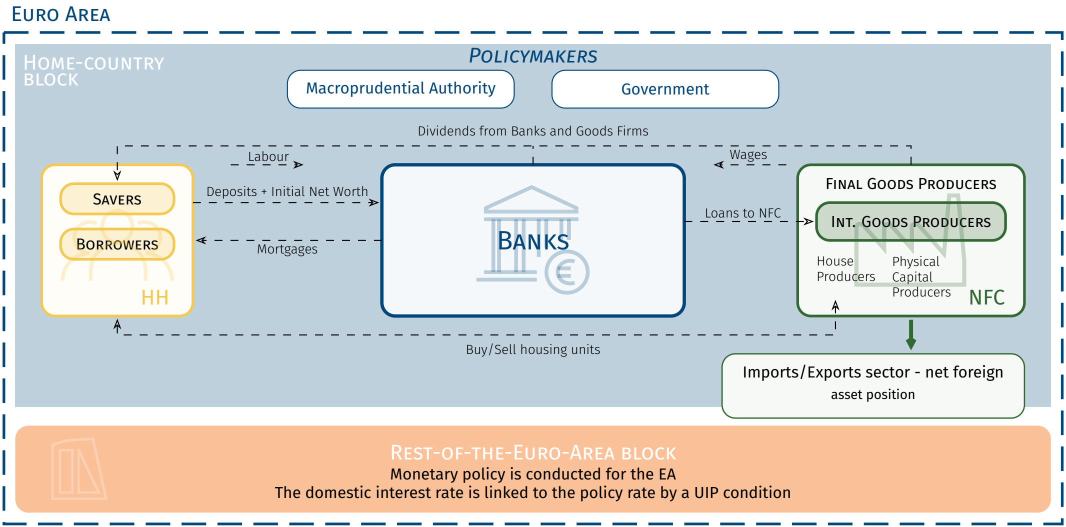
04 Main conclusions

A more resilient banking sector has stabilising effects to the home economy, since it is better able to absorb the inflationary shock.

The net benefits of a procyclical macroprudential response (via an increase in capital buffers) depend crucially on the state of the banking sector at the moment the shock hits the home economy.

A countercyclical macroprudential response (via a release in capital requirements) helps reducing the costs for the home economy of an inflationary environment and rising interest rates.

05 The model in a nutshell (I)



06 What role can national macroprudential authorities play in a context of inflationary pressures in a monetary union?

Methodological approach

How do we approach a scenario of inflationary pressures at the euro area level?

Modelling approach

» Structural models can be used to enquire about the implications of inflationary pressures and rising interest rates for the overall economy and for the stance of macroprudential policy.

- Our model is a small open economy within a common monetary policy area, allowing for the assessment of spillovers between the rest of the euro area and the small open economy.
- It allows to assess how inflation starting in the REA and monetary policy tightening transmit to a small open economy and affect financial stability.

Scenario formulation

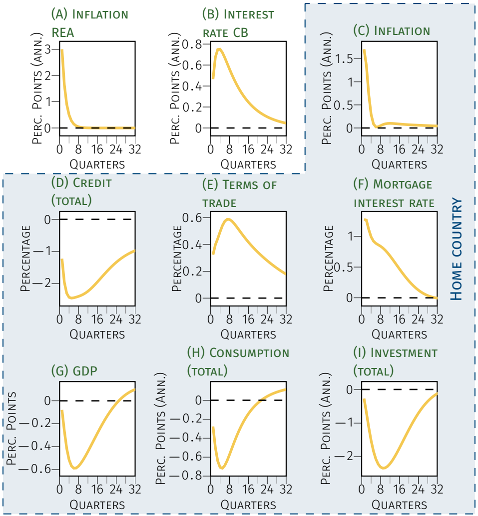
» Simulation of a period of inflation in the rest of the euro area, with a common monetary policy response

- We introduce a temporary shock to inflation (demand side) affecting inflation in the REA (without directly affecting inflation in the home country)
- The pass-through of the policy rate to the domestic interest rates is assumed to occur almost fully and contemporaneously.

(I) Inflationary shock affecting the rest of the euro area

(I) Inflationary shock affecting the rest of the euro area - Impulse Response Functions

- Inflation in the REA leads to the increase in the policy rate by the central bank
- The shock spills over to the small open economy via an increase i) in home interest rates and ii) in the terms of trade:
  - Interest rate channel: the rise in home interest rates affects lending, leading to deleveraging in the banking sector; as a result, investment and asset prices fall, worsening the impact on investment.
  - Terms of trade channel: due to the relatively higher prices in the REA compared to the home economy, exports increase and imports decrease, improving the trade balance of the home economy and its net foreign asset position. Through this channel, the price level in the home economy increases.
- The improvement in the terms of trade counteracts to some extent the negative impact from lending rates.
- Due to the fall in investment and consumption, output also contracts.
- As the external inflationary shock fades away, home interest rates, lending, output, and inflation return to their equilibrium.



Scenarios

(I) Inflationary shock affecting the rest of the euro area

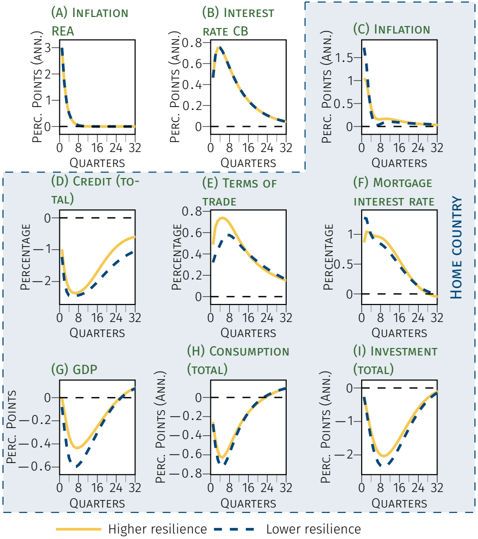
(II) How should macroprudential policy act under such environment?

1: Act on building up resilience ex-ante (before the shock hits)
2: Act on increasing resilience (when the shock hits)- tighter stance
3: Support the flow of credit to the economy (when the shock hits) - looser stance

(II) How should macroprudential authorities act?

1: Act on building up resilience ex-ante

- A more resilient banking sector has stabilising effects to the home economy, since it is better able to absorb the shock.
- In such an economy, the pass through to lending rates is lower and this has positive outcomes in lending, investment and consumption, which fall by less compared to an economy with lower requirements.
- The terms of trade also benefit from a less negative economic outlook leading to a better net foreign asset position of the home economy.
- Negative spillover effects of the external shock to the home economy with stricter macroprudential requirements are therefore mitigated: home output reduces by less and home inflation increases by less, compared to an economy with lower macroprudential requirements ex ante.



SCENARIOS

(I) Inflationary shock affecting the rest of the euro area

(II) **How should national macroprudential authorities act under such environment?**

1: Act on building up resilience ex-ante (before the shock hits)

2: Act on increasing resilience (when the shock hits)- tighter stance

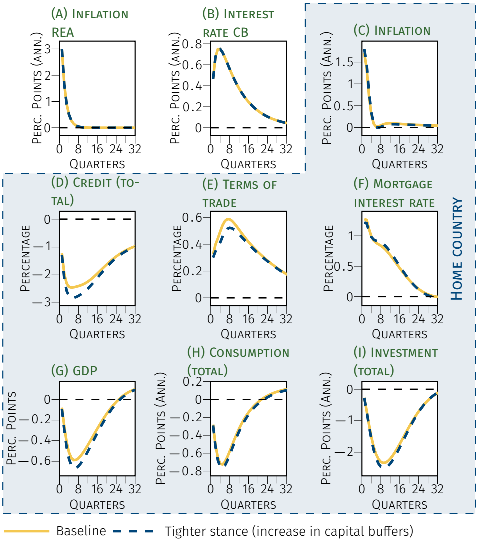
3: Support the flow of credit to the economy (when the shock hits) - looser stance

(II) How should macroprudential authorities act?

2: Act on increasing resilience

- In this case, the effectiveness of procyclical action of macroprudential policy (i.e. increase capital requirements as a response to the shock) depends on the state of the banking sector at the time the shock hits the home economy.
- Compared to a no action approach (baseline), lending rates (and spreads) behaviour is somewhat amplified, reflecting not only the rise in interest rates but also the increase in capital buffers.
- As a consequence, lending falls more, bringing investment further down as well as consumption.
- The shock is amplified through the banking sector and output falls slightly more.

Results show that measures that increase resilience should be carefully implemented, due to the risk of procyclicality.



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(I) Inflationary shock affecting the rest of the euro area

(II) How should national macroprudential authorities act under such environment?

1: Act on building up resilience ex-ante (before the shock hits)

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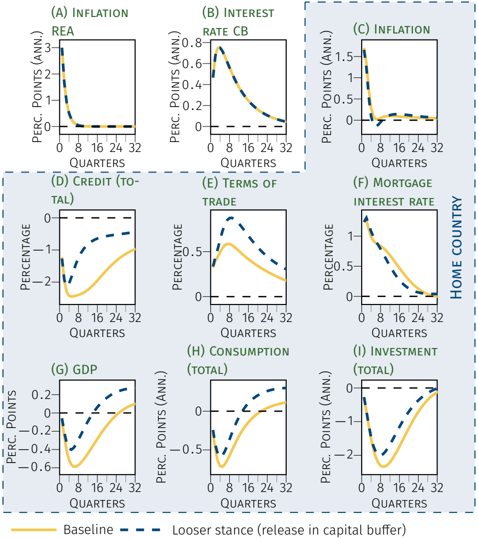
(II) How should macroprudential authorities act?

3: Support the flow of credit

- Acting countercyclically reduces the transmission mechanism occurring through the banking system, compared to a no action approach (baseline).
- Total credit still falls, but less and recovers faster. Better performance of NFC loans compared to mortgage loans.
- This has implications for the rest of the economy:
  - Investment and consumption falls less leading to a lower reduction and faster recovery of GDP.
  - Due to the release of capital buffers, banks' capital ratio does not need to increase as much, as intended.
- Home inflation does not change significantly, due to the positive effect of the release of capital buffers in the terms of trade.
- Output falls less and recovers faster.



07 Concluding remarks

Policy implications:

- Support for preemptive action: a more resilient banking sector helps reducing the spillover effects of an inflation shock stemming from the rest of the euro area to the home economy.
- A countercyclical macroprudential response helps reducing the costs for the home economy of an inflationary environment and rising interest rates, without compromising the price stability goal.
- In turn, a procyclical macroprudential response should be carefully assessed since there is the risk of amplifying the negative effects of the shock: the design of the measure and the application of phase-in regimes may help reducing the short-term impacts and the trade-offs between resilience and economic growth.