Discussion of

Getting in all the Cracks:

Monetary Policy, Financial Vulnerabilities, and Macro Risk

by A. Ajello & T. Pike

A. Cesa-Bianchi*

Bank of England, CEPR, and CfM

Annual Conference

Kings - July 5, 2021

*The views expressed here do not necessarily represent those of the Bank of England or of any of its Committees.

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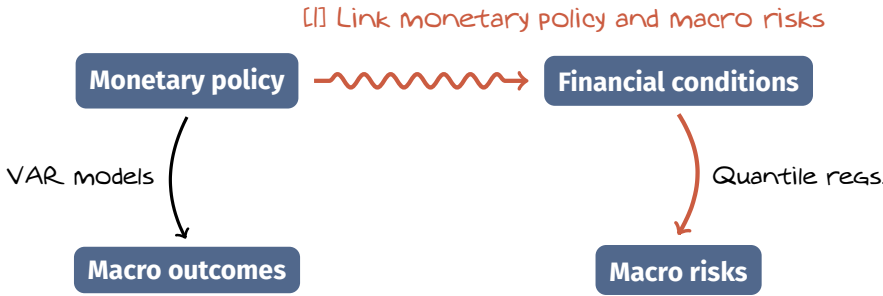
Two siloed literatures

This paper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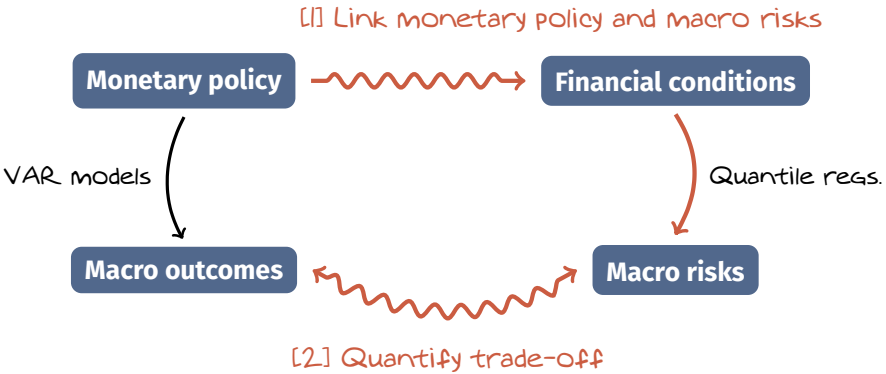
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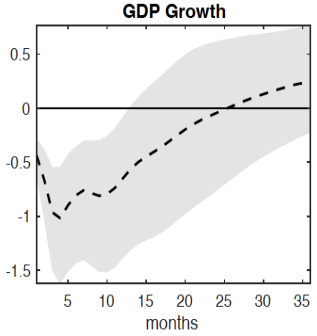
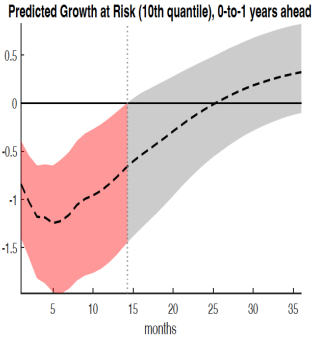
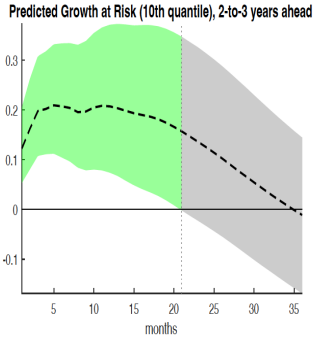
[2] Quantify trade-off

This paper: A monetary policy tightening leads to...







- A slowdown in economic activity

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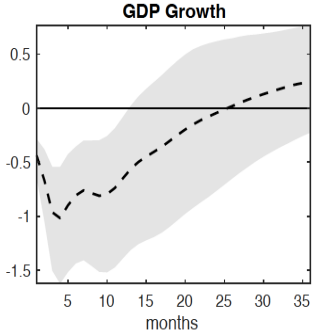

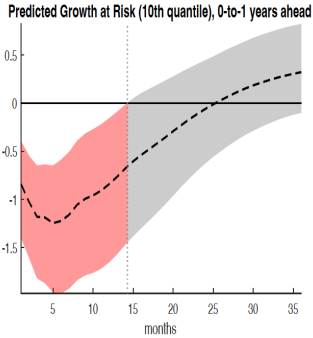

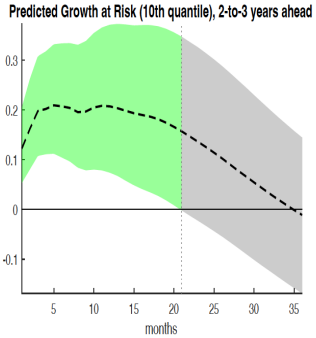

- A sizeable increase in downside risk in the short-run

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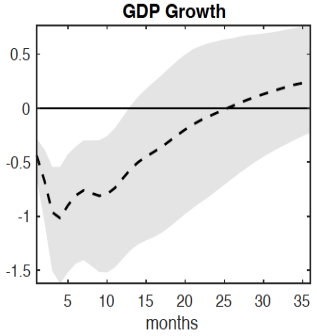
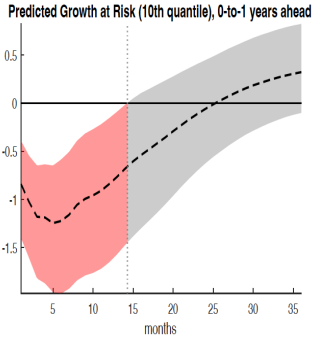
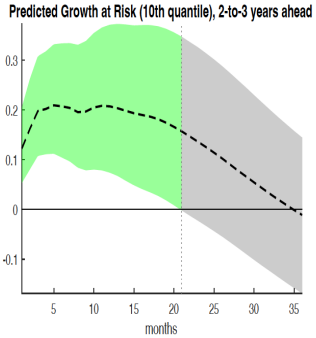
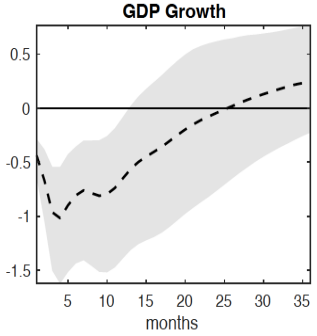


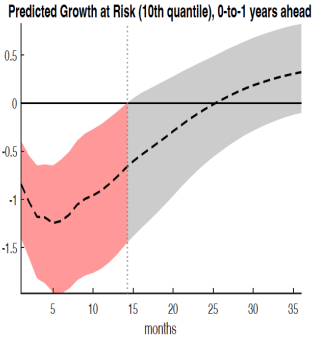


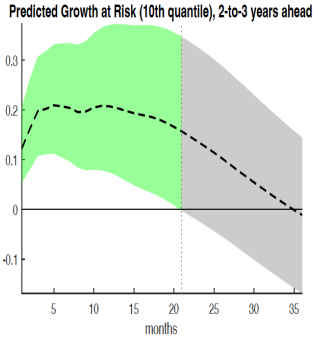


- A modest decline in downside risk in the medium-run

This paper: Bottom line







- **Interpretation** → Costs of leaning against the wind seem to outweigh the benefits

Two comments

[# 1] **Approach** [bigger picture, not for this paper]

[#2] **Quantile regressions interpretation**

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[#2] **Quantile regressions interpretation**

Approach redux

- Bivariate VAR with output Y and a financial variable F (e.g. factor in Andrea's presentation)

$$\begin{bmatrix} Y_t \\ F_t \end{bmatrix} = \begin{bmatrix} \phi_{11} & \phi_{12} \\ \phi_{21} & \phi_{22} \end{bmatrix} \begin{bmatrix} Y_{t-1} \\ F_{t-1} \end{bmatrix} + \begin{bmatrix} b_{11} & \cdot \\ b_{21} & \cdot \end{bmatrix} \begin{bmatrix} \varepsilon_t^{MP} \\ \cdot \end{bmatrix}$$

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$$\mathcal{T}_t = \beta F_t + u_t$$

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$$IR^{\mathcal{T}} = \beta b_{12}$$ → Negative → Increase in tail risk in the short-run

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QUIBBLE: Reduced-form estimate

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Approach redux: Can things go wrong? An example

- Bivariate VAR with output Y and policy rate R

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$$IR^{\Pi} = \beta b_{12}$$ → Positive!?!

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- Not as big of a problem for the paper as in the example, though. Why?
  - Conditional and unconditional correlations between $\mathcal{T}$ and F have the same sign

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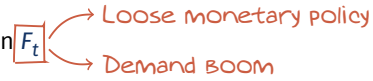

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  - Sign of β does not depend on what caused the increase in F_t → Loose monetary policy; → Demand boom

- Yet, β captures average response of tail risk to monetary and demand shocks → Not ideal

What can be done then?

- One model

$$\begin{bmatrix} Y_t \\ F_t \\ \mathcal{T}_t \end{bmatrix} = \begin{bmatrix} \phi_{11} & \phi_{12} \\ \phi_{21} & \phi_{22} \\ \phi_{31} & \phi_{32} \end{bmatrix} \begin{bmatrix} Y_{t-1} \\ F_{t-1} \end{bmatrix} + \begin{bmatrix} b_{11} & \cdot \\ b_{12} & \cdot \\ b_{13} & \cdot \end{bmatrix} \begin{bmatrix} \varepsilon_t^{MP} \\ \cdot \end{bmatrix}$$

  - Estimate directly impact response of tail macro risk to monetary policy hike $IR^{\mathcal{T}} = b_{13}$
  - Dynamics $IR^{\mathcal{T}}_{t+h}$ (with $h = 1, 2, \ldots, H$) pinned down by transition matrix Φ
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- Another model

$$\mathcal{T}_{t+h} = \beta_h \varepsilon_t^{MP} + \phi_1 Y_{t-1} + \phi_2 F_{t-1} + u_t \qquad \text{with } h = 0, 1, \ldots, H$$

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- **Reminder** Factors are signed so that higher values point to higher financial vulnerabilities

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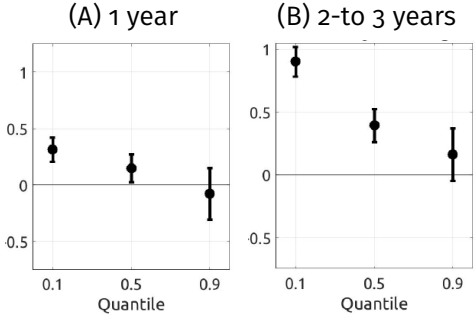
- An increase in ***Factor #4*** (risky net leverage) reduces downside macro risk at all horizons



Quantile regressions interpretation

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- **Common view** Build-up in leverage can lead to troubles down the road

Quantile regressions interpretation

- **Reminder** Factors are signed so that higher values point to higher financial vulnerabilities
- An increase in ***Factor #4*** (risky net leverage) reduces downside macro risk at all horizons
- **Common view** Build-up in leverage can lead to troubles down the road
- **Questions**
  - What can explain the absence of reversal in the quantile regs coefficients in the medium run?
  - Is the labelling of the factor misleading?

In sum

- Great paper → Brought some science in the leaning against the wind literature
- Combining VAR and quantile regressions is tricky
  - This paper makes a very welcome first step
  - Room for improvement → Exciting agenda!

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