

Discussion of
“The International Spillovers of Synchronous Monetary
Tightening”

by Dario Caldara, Francesco Ferrante, Matteo Iacoviello, Andrea Prestipino,
and Albert Queralto

Marco Del Negro
Federal Reserve Bank of New York

Advances in Monetary Economics conference, IMF; September 2023

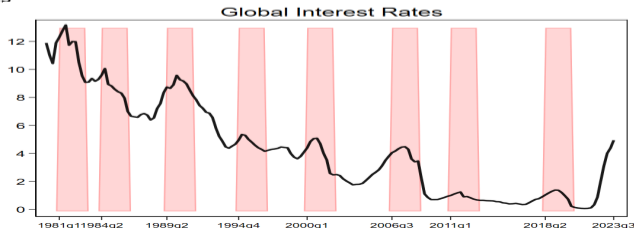
Disclaimer: The views expressed here do not necessarily reflect those of the Federal Reserve Bank of New York or the Federal Reserve System.

A rich, novel, and timely contribution

- **Rich** because it covers a lot of novel ground
 - The paper provides a model describing the effects of *synchronized monetary policy tightening*—working through global financial spillovers
 - It provides empirical evidence supporting the mechanism in the model
 - and discusses optimal policy coordination, arguing that *when financial spillovers are important coordination is critical*

A rich, novel, and timely contribution

- **Rich** because it covers a lot of novel ground
 - The paper provides a model describing the effects of *synchronized monetary policy tightening*—working through global financial spillovers
 - It provides empirical evidence supporting the mechanism in the model
 - and discusses optimal policy coordination, arguing that *when financial spillovers are important coordination is critical*
- **Timely** because (a massive!) synchronized monetary policy tightening is what we have been witnessing over the past several months, and this paper speaks to its potential consequences



The mechanism

- The mechanism hinges on *nonlinearities*
- Global financial intermediaries fund investment in both countries (US and ROW), and are subject to a *balance sheet constraint*
 - When the constraint is *not binding*, the economy is a run-of-the-mill multicountry NK economy → the benefits from monetary policy coordination are small
 - When the constraint becomes *binding*, the financial accelerator kicks in, spreads rise, and investment comes to a halt
 - shocks (eg, changes in monetary policy) are much more powerful as they work through the intermediaries' balance sheet constraint
 - since global intermediaries own assets in both countries, shocks spillovers are magnified → the benefits from monetary policy coordination become large

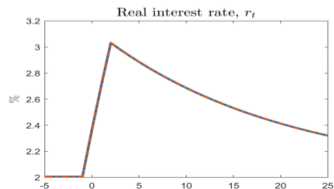
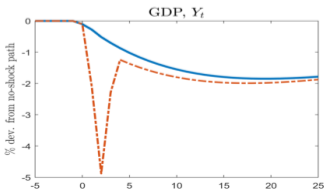
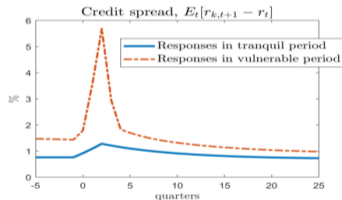
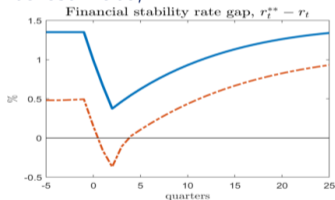
The mechanism – continued

- Monetary policy tightening leads to an increase in real rates that lowers Q and worsens intermediaries' balance sheets (eg, SVB)
- When *only one* country tightens and the intermediaries are not constrained, the effect of the tightening is modest as long as the size of the rates increase is limited
- When *both* countries tighten, the intermediaries may become constrained
 - Nonlinearities kick in, investment and output tank
 - The case for policy coordination increases

Lessons from the closed economy counterpart of this model

- The effect of tightening on the macroeconomy depends on the financial system's vulnerability: the gap between r and r^{**}
- $r^{**}-r$ measures the size of the policy tightening the financial system can take
- Response to a 100 bps increase in r when the financial system is vulnerable ($r^{**}\sim r$, red) and when it is not ($r^{**}\gg r$, blue) — from Akinci, Benigno, Del Negro, Queralto, “The Financial (In)Stability Real Interest Rate, r^{**} ”

- When the financial system is not vulnerable (eg, leverage is low) the effects of the tightening are mild
- When the financial system is vulnerable, there is the risk of a financial crisis
- the same shock can have very different effects depending on intermediaries' vulnerability



Implications for the empirical analysis

- The authors use *dummies* in their regression to capture both policy tightening at home ($\mathbf{D}_{i,t} = 1$ if there is *any* tightening) and abroad ($\mathbf{F}_{i,t}$), and the nonlinearities implied by the model ($\mathbf{YHI}_{i,t} = \text{high growth}$; $\mathbf{YLO}_{i,t} = \text{low growth}$)

$$\Delta y_{i,t+8} = \beta_D \mathbf{D}_{i,t} + \beta_F \mathbf{F}_{i,t} + \beta_H \mathbf{DF}_{i,t} \times \mathbf{YHI}_{i,t} + \beta_L \mathbf{DF}_{i,t} \times \mathbf{YLO}_{i,t} + \alpha_i + \varepsilon_{i,t}$$

- How tightly is this regression connected to the model? In the model ...
 - The *non-linearity has to do with $r^{**}-r$* —whether the intermediaries constraint is *binding* or close to being binding—not with high or low growth
 - *Spreads* are a sufficient statistics for whether intermediaries' balance sheets are impaired —why not use them?
 - The *size of the tightening matters*: if $r^{**}-r = 200$ bps and policy tightens by 25 bps both at home and abroad, nothing may happen—so *why use dummies?*

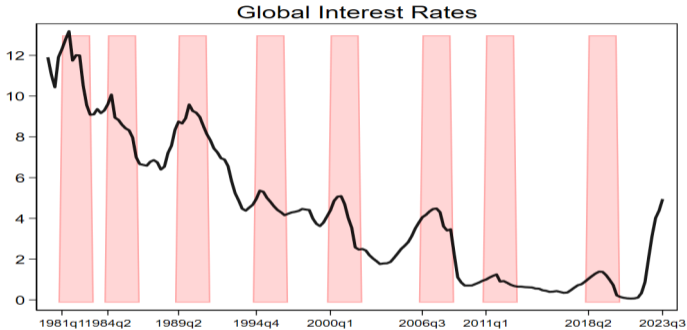
Implications for the empirical analysis

- The authors use *dummies* in their regression to capture both policy tightening at home ($\mathbf{D}_{i,t} = 1$ if there is *any* tightening) and abroad ($\mathbf{F}_{i,t}$), and the nonlinearities implied by the model ($\mathbf{YHI}_{i,t} = \text{high growth}$; $\mathbf{YLO}_{i,t} = \text{low growth}$)

$$\Delta y_{i,t+8} = \beta_D \mathbf{D}_{i,t} + \beta_F \mathbf{F}_{i,t} + \beta_H \mathbf{DF}_{i,t} \times \mathbf{YHI}_{i,t} + \beta_L \mathbf{DF}_{i,t} \times \mathbf{YLO}_{i,t} + \alpha_i + \varepsilon_{i,t}$$

- How tightly is this regression connected to the model? In the model ...
 - The *non-linearity has to do with $r^{**}-r$* —whether the intermediaries constraint is *binding* or close to being binding—not with high or low growth
 - *Spreads* are a sufficient statistics for whether intermediaries' balance sheets are impaired —why not use them?
 - The *size of the tightening matters*: if $r^{**}-r = 200$ bps and policy tightens by 25 bps both at home and abroad, nothing may happen—so *why use dummies?*
- More broadly, in the model synchronous tightening is neither necessary nor sufficient to trigger the non-linearity: if intermediaries are very resilient their balance sheet may be able to withstand synchronous tightening

If the paper is correct, how come nothing happened (yet) during the current massive synchronous global tightening phase?



- So far outcomes have been completely at odds with the model predictions *prima facie*: output growth remained relatively strong, inflation has been falling, spreads contained, and the impact on intermediaries has been limited
- Why have the model's predictions not come true ... yet?

Conclusions

- A rich, novel, and timely paper worth reading!