



Monetary policy transmission in emerging market economies and global spillovers

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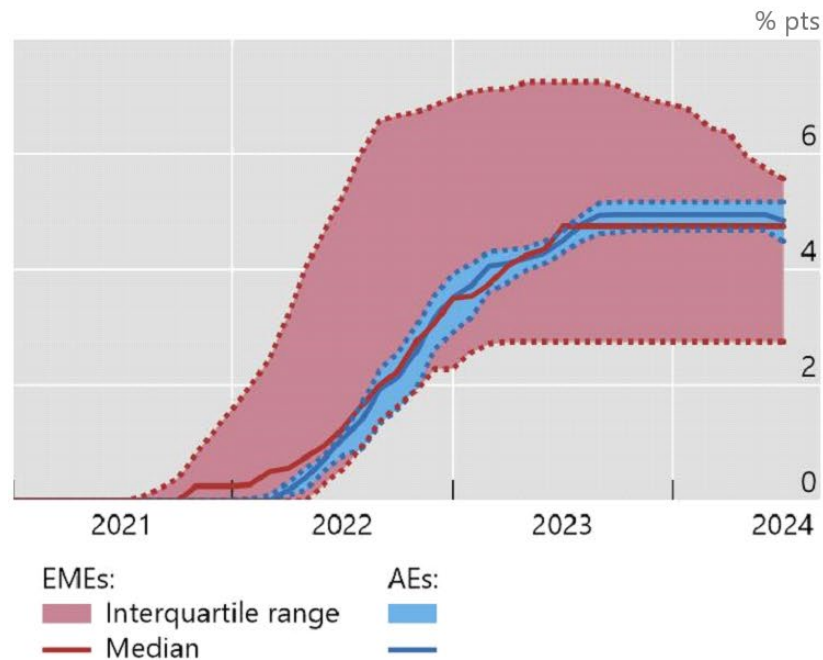
Introduction

- How much traction does monetary policy (MP) have in emerging market economies (EMEs)?
 - Major progress in the assessment of MP transmission in advanced economies (AEs)
 - Evidence about transmission in EMEs is much more limited
- **Proverbial concerns** include:
 - Limited financial market development
 - Currency mismatches
 - Limited institutional credibility

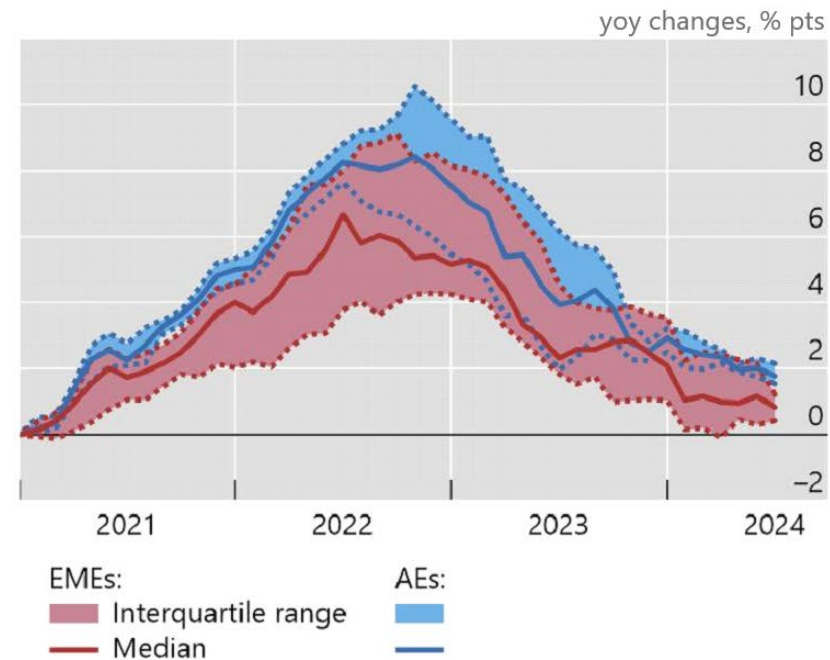
EMEs in the post-pandemic inflation surge

- Despite proverbial concerns, the post-pandemic experience provides **encouraging signs about MP transmission**
 - EMEs' MP reaction and inflation dynamics similar to those in AEs

A. Nominal policy rates



B. Inflation



Percentiles across countries relative to their individual level in December 2020. EMEs: BR, CL, CO, MX, PE, ID, IN, KR, MY, PH, SG, TH, VN, AE, CZ, HU, PL, SA, ZA; AEs: CA, UK, US, XM.

Global financial cycle and US monetary policy spillovers

- However, the literature on the global financial cycle casts doubts on MP traction in EMEs more generally
 - EMEs are highly sensitive to US monetary policy, even under flex exchange rates (Rey, 2015; Dedola et al 2017; Iacoviello and Navarro, 2019; Kalemli-Özcan, 2019; Miranda-Agrippino and Rey, 2020)
 - Specifically, EMEs' bond yields rise after US MP tightening despite EME MP loosening (De Leo, Gopinath and Kalemli-Özcan, 2022; Degasperis, Hong and Ricco, 2020)
- Does this imply **impaired transmission**? Not necessarily

Global spillovers and MP transmission in EMEs

- US monetary policy tightening may destabilize EMEs
 - Traditional view: EME exchange rate depreciations should boost external demand ([Mundell, 1963](#); [Fleming, 1962](#); [Obstfeld and Rogoff, 1995](#))
 - Yet, effects could be muted under dollar pricing ([Gopinath, Boz, Casas, Díez, Gourinchas and Plagborg-Møller, 2020](#))
 - ... and even turn contractionary under FX mismatches and shallow financial markets ([Aghion, Bacchetta, and Banerjee, 2001](#); [Cavallino and Sandri, 2023](#))
- But MP easing in EMEs may still retain expansionary effects through domestic demand ([Gourinchas, 2017](#))
- **Need for direct evidence** about MP transmission in EMEs

MP identification challenges in EMEs

- Evidence about MP transmission in EMEs is limited because of identification challenges
 - Narrative approach à la [Romer and Romer \(1994\)](#) is impractical
 - High frequency identification à la [Kuttner \(2001\)](#) and [Cochrane and Piazzesi \(2002\)](#) is impaired by limited market liquidity
- To overcome these challenges, we construct **new monetary policy shocks** for 18 EMEs using analysts' forecasts of policy rate decisions ([Checo, Grigoli and Sandri, 2024](#))
 - Forecasts are collected by Bloomberg, unbalanced panel over 1999-2022
 - Crucial for identification, analysts can update forecasts up to the policy meeting
 - We orthogonalize forecast errors against macro and financial variables ([Bauer and Swanson, 2023](#))

Outline

1. Monetary policy transmission to financial markets
2. Monetary policy transmission to macroeconomic conditions
3. Monetary policy transmission across firms
4. EME monetary policy transmission vs US monetary policy spillovers

Literature on MP transmission in EMEs

- Encouraging evidence about MP transmission in EMEs based on Taylor rule residuals (Brandão-Marques, Gelos, Harjes, Sahay, and Xue (2021); Deb, Estefania-Flores, Firat, Furceri, and Kothari, 2023)
- Bloomberg forecasts have been used by Aruoba, Fernández, Guzmán, Pastén, and Saffie (2021) to document MP transmission to real activity and inflation in Chile
- However, Witheridge (2024) identifies MP shocks for 5 EMEs using changes in the forward exchange rate premium and finds that MP tightening raises inflation

1. Monetary policy transmission to financial markets

Event-study approach to examine MP transmission to financial markets

- How do EMEs' MP shocks transmit to financial markets?
- We address this question using an event-study approach ([Cook and Hahn, 1989](#); [Kuttner, 2001](#))

$$y_{c,t+h} - y_{c,t-1} = \alpha_c^h + \beta^h I_{c,t} + \varepsilon_{c,t}^h$$

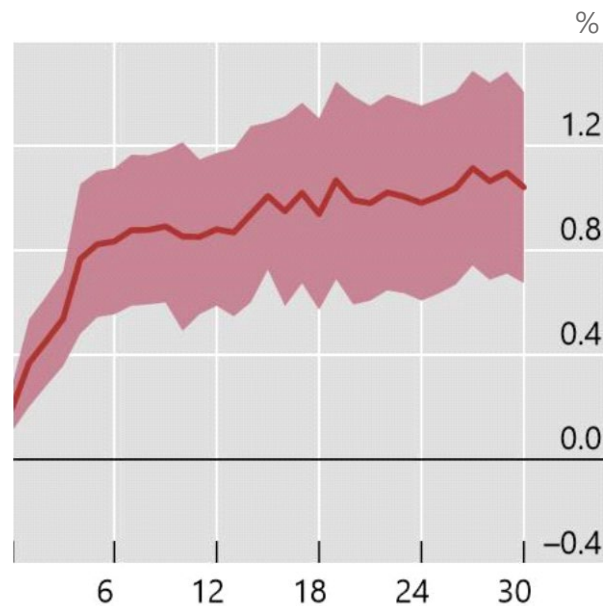
where:

- $y_{c,t}$ financial variable for country c at the market-closing value on day t
- $I_{c,t}$ monetary policy shock (our orthogonalized Bloomberg forecast errors)
- $h \geq 0$ daily horizon

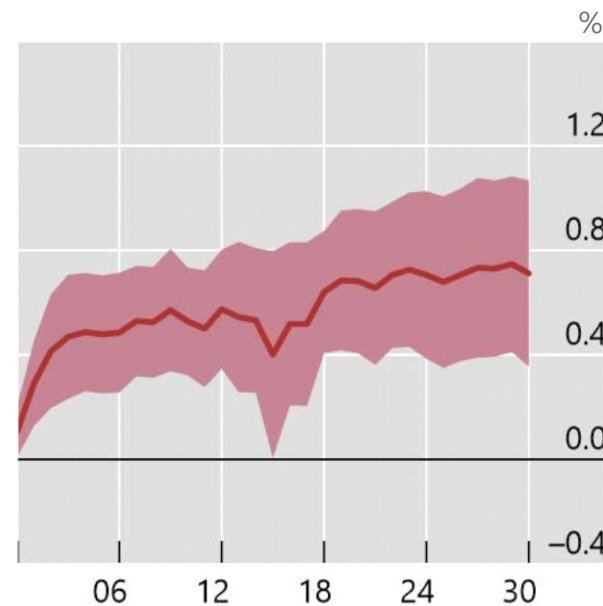
Strong transmission to bond yields ...

- EME MP has strong effects on local-currency government bond yields
 - Full pass-through of MP shocks to 1 year bond yields
 - MP shocks also impact longer maturities but more modestly

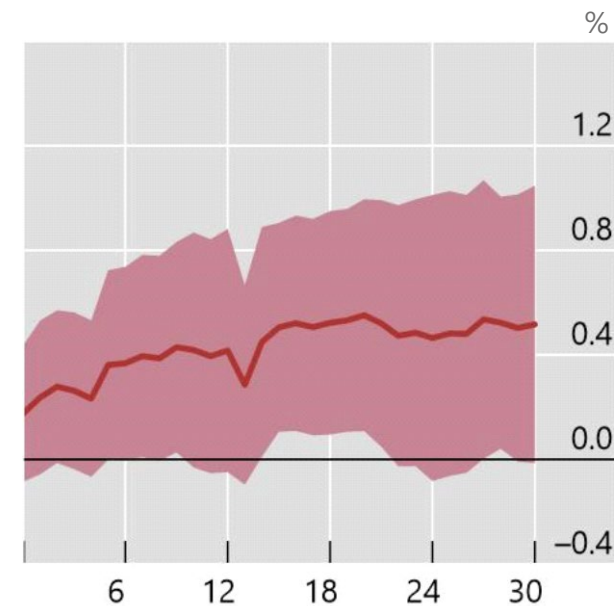
A. 1-year government bond yield



B. 2-year government bond yield



C. 5-year government bond yield

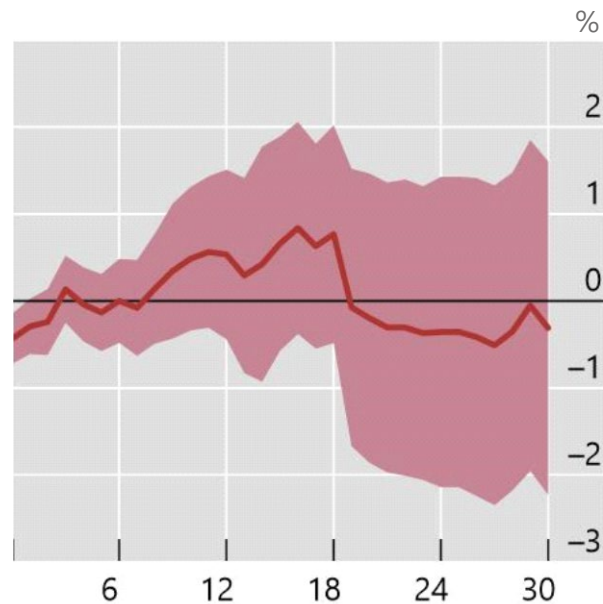


Notes: the horizontal axis denotes the days since a contractionary one-percentage-point monetary policy shock.

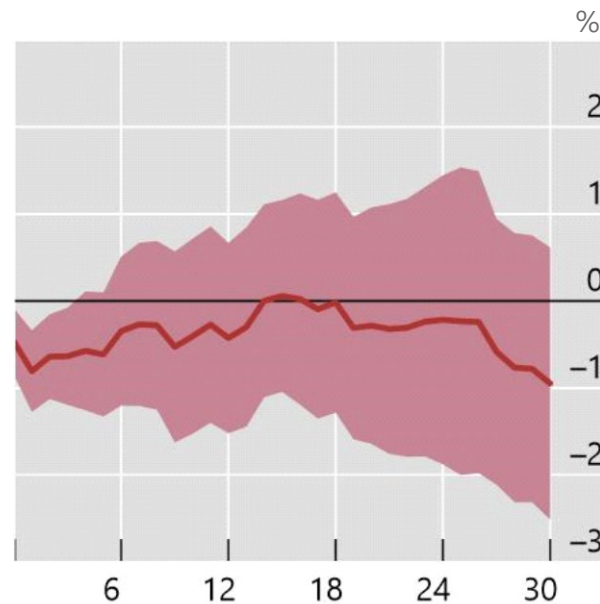
Strong transmission to bond yields but limited effects on risk-sensitive assets

- EME MP has **very modest effects on risk-sensitive assets**
 - MP tightening appreciates the exchange rate and reduces stock prices
 - But the effects are very short-lived

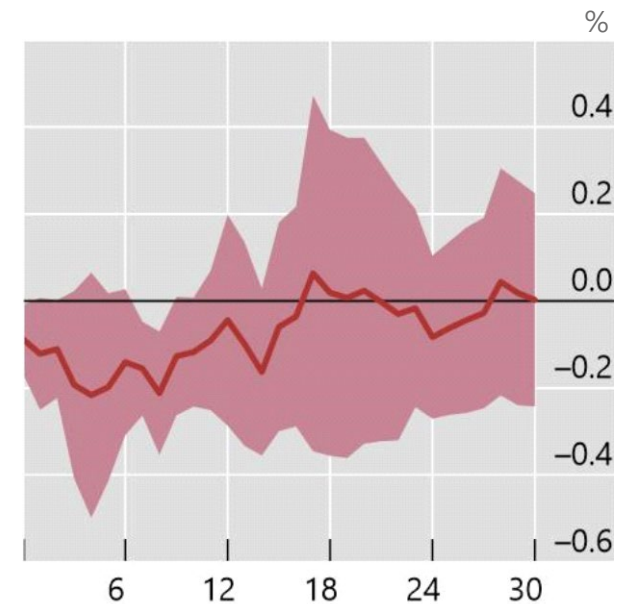
A. Exchange rate



B. Stock prices



C. EMBI spread



Notes: the horizontal axis denotes the days since a contractionary one-percentage-point monetary policy shock.

2. Monetary policy transmission to macroeconomic conditions

Local projections to examine MP transmission to macro variables

- How do EMEs' MP shocks transmit to macroeconomic conditions?
- We address this question using local projections à la [Jordà \(2005\)](#) on monthly data

$$Y_{c,t+h} - Y_{c,t-1} = \alpha_c^h + \beta^h I_{c,t} + A^h(L)\Delta Y_{c,t-1} + B^h(L)P_{c,t-1} + \tau_t^h + \varepsilon_{c,t}^h$$

where:

$Y_{c,t}$ vector of monthly macroeconomic variables

$A^h(L)$ matrix polynomial, allowing for 12 lags

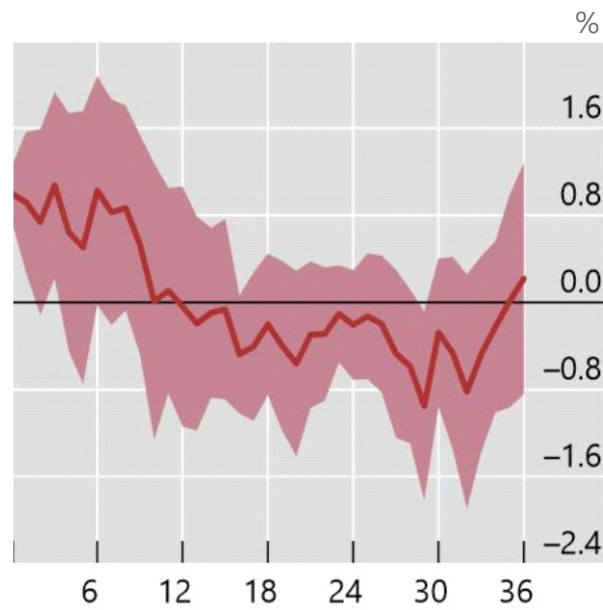
$P_{c,t}$ vector of pandemic controls (cases, lockdowns, economic support)

τ_t^h time fixed effects to **control for global shocks**

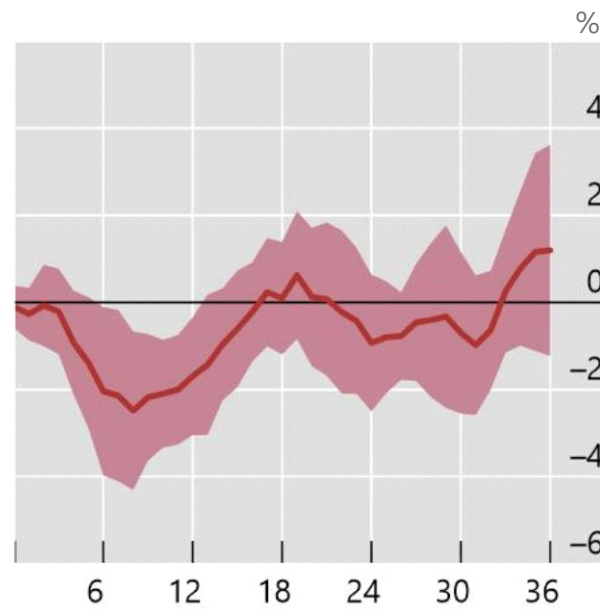
Effective transmission to economic activity ...

- MP tightening **reduces economic activity**
 - Industrial production declines and unemployment increases
 - Quantitative effects in line with US based evidence ([Bauer and Swanson, 2023](#))

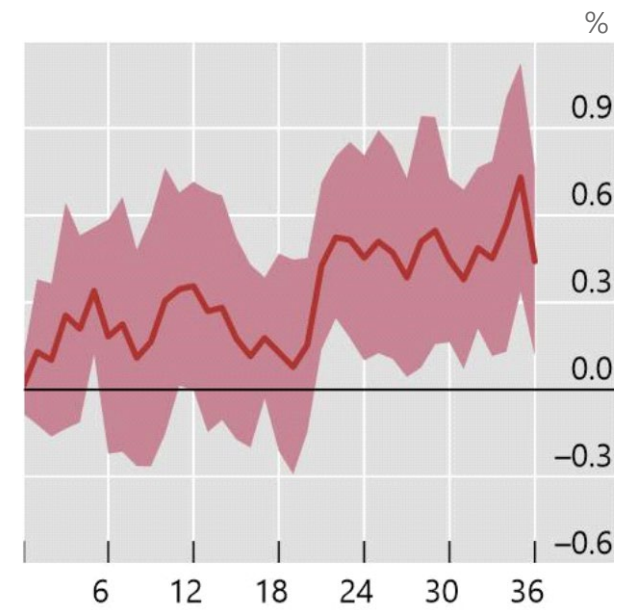
A. 1-year government bond yield



B. Industrial production



C. Unemployment

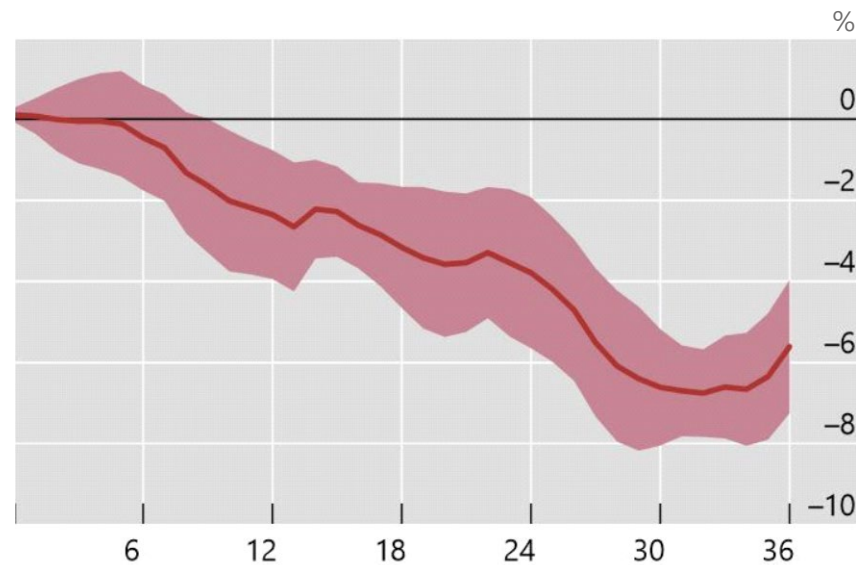


Notes: the horizontal axis denotes the months since a contractionary one-percentage-point monetary policy shock.

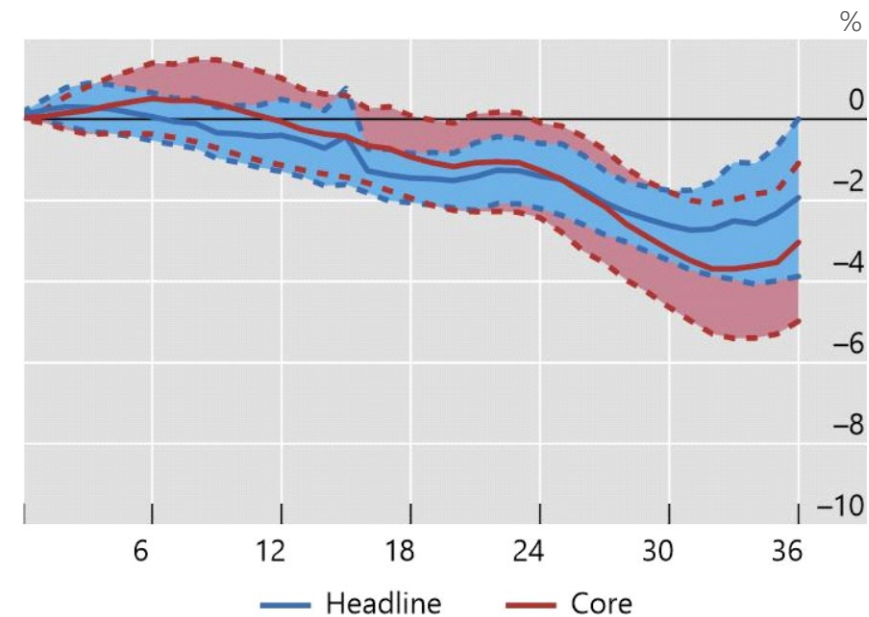
Effective transmission to economic activity and inflation

- MP tightening **curbs inflation**
 - Producer prices decline after a 6 month lag. Consumer prices decline after a longer lag
 - The CPI decline is close to upper bound estimates for the US ([Bauer and Swanson, 2023](#))

A. PPI



B. Core and headline inflation



Notes: the horizontal axis denotes the months since a contractionary one-percentage-point monetary policy shock.

3. Monetary policy transmission across firms

Heterogenous transmission across firms

- In AEs, MP affects firms differently depending on financial conditions (Ottonello and Winberry, 2020; Caglio, Darst and Kalemli-Özcan, 2021; Cloyne, Ferreira, Froemel, Surico, 2023)
- Does MP also have heterogeneous effects across firms in EMEs?

$$y_{f,t+h} - y_{f,t-1} = \alpha_f^h + (\beta^h + \gamma^h F_f) I_{c,t} + \varphi^h F_f + A^h(L) \Delta y_{f,t-1} + B^h(L) X_{c,t-1} + \tau_{s,t}^h + \varepsilon_{f,t}^h$$

where:

$y_{f,t}$ fixed capital for firm f

F_f firm-level financial indicator (leverage, liquidity, dividend payments)

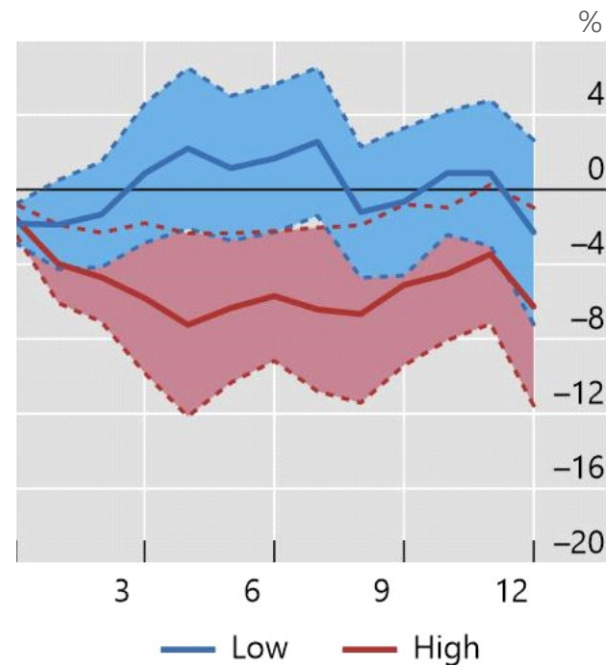
$X_{c,t}$ macro controls (yields, IP, CPI, PPI, exchange rate plus pandemic variables)

$\tau_{s,t}^h$ sector-time fixed effects

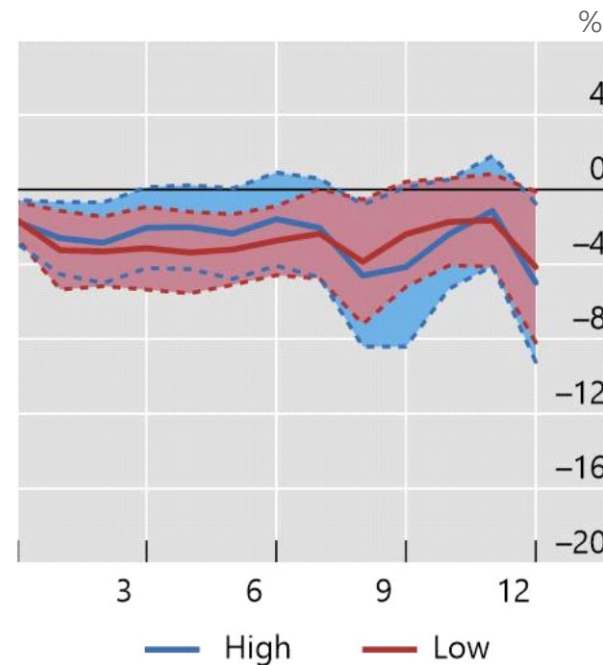
MP impact on firm-level fixed capital

- MP tightening has stronger effects on financially weak firms
 - Investment contracts more for firms with high leverage and that do not pay dividends

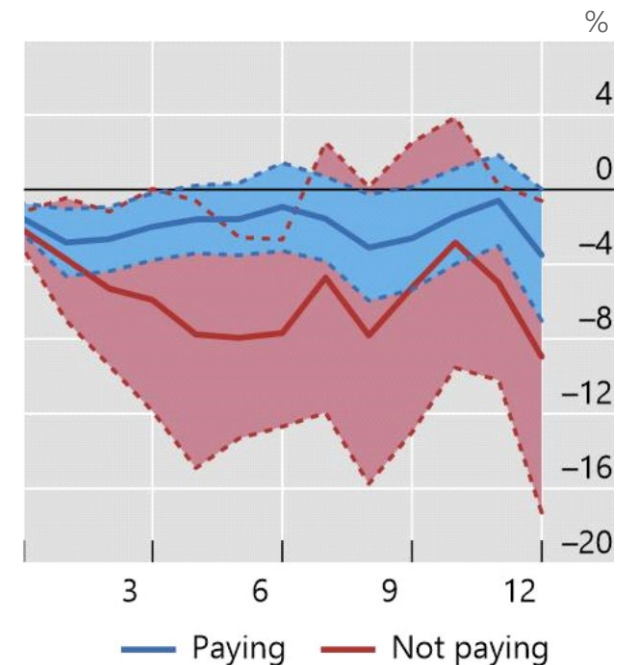
A. By leverage



B. By liquidity



C. By dividends



Notes: the horizontal axis denotes the quarters since a contractionary one-percentage-point monetary policy shock.

4. EME monetary policy transmission vs US monetary policy spillovers

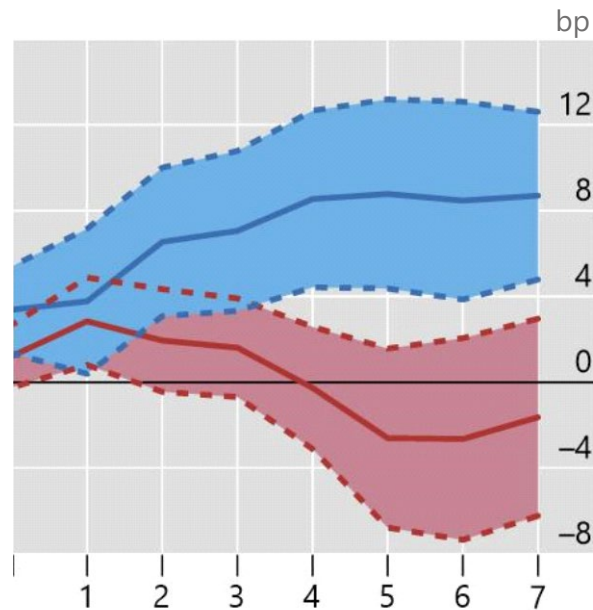
Tug of war: EME vs US monetary policy

- The analysis provides encouraging evidence about MP traction in EMEs
- Yet, EMEs remain heavily exposed to fluctuations in global financial conditions
 - How strong is EME MP transmission compared to the effects on US MP spillovers?
 - How does the comparison vary across asset classes?
- Preliminary results based on ongoing work by [Grigoli, Sandri and Schrimpf \(2024\)](#)

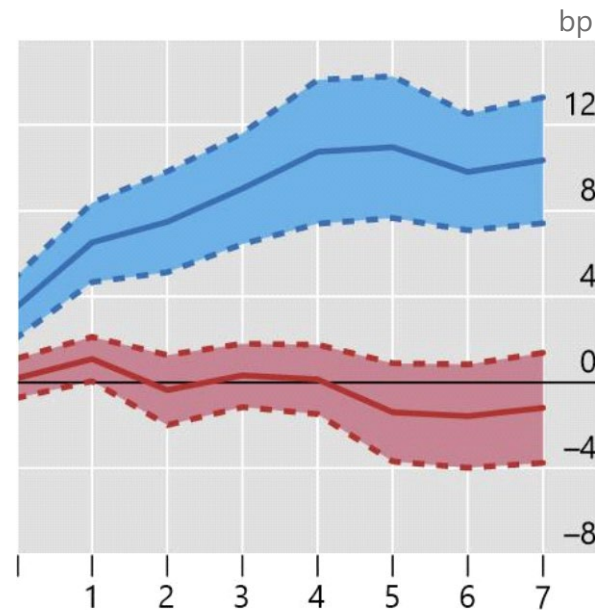
EMEs retain strong traction on bond yields ...

- EME MP exerts strong control on short/medium-term government bond yields
 - EME MP has persistent effects on 3m and 1y yields, against short-lived US MP spillovers
 - EME and US MP have similar impacts on 10y yields

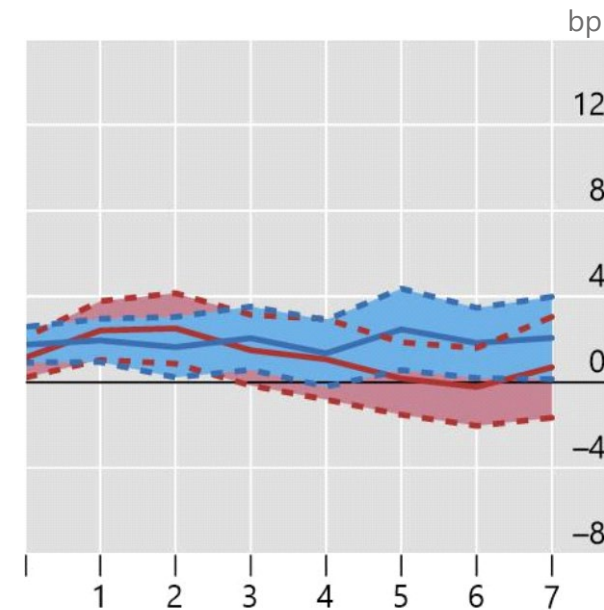
A. 3-month government bond yield



B. 1-year government bond yield



C. 10-year government bond yield

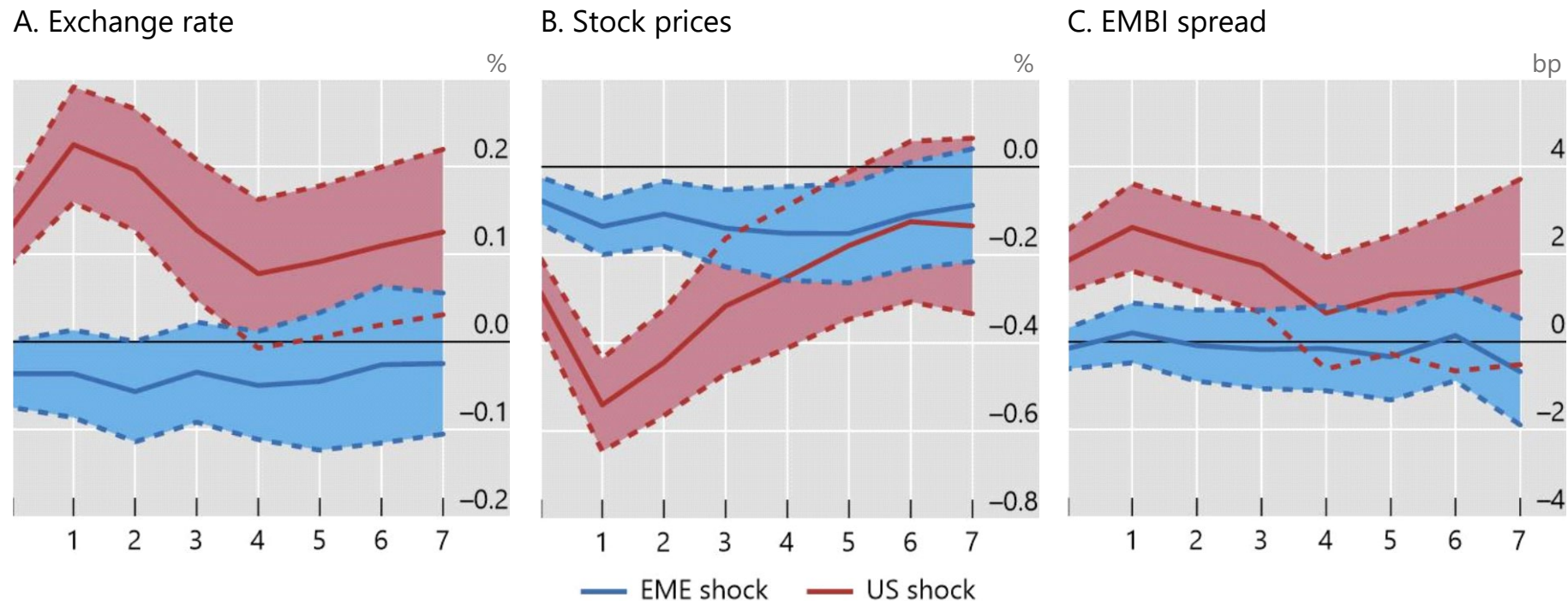


— EME shock — US shock

Notes: the horizontal axis denotes the days since a contractionary one-standard-deviation monetary policy shock.

EMEs retain strong traction on bond yields but US MP dominates risky assets

- US MP spillovers exercise a disproportionate effects on risky assets
 - US MP spillovers strongly impact exchange rates
 - They also exercise a predominant role on stock prices and borrowing spreads



Notes: the horizontal axis denotes the days since a contractionary one-standard-deviation monetary policy shock.

Key takeaways

- EME MP exerts considerable influence on government bond yields...
 - Although limited effects on risky asset classes
- ... as well as on macroeconomic conditions
 - MP tightening is contractionary and disinflationary
 - Stronger effects on financially constrained firms
- Comparing the effects of EME MP versus US MP
 - EME MP retains good control on government bond yields
 - But US MP has predominant influence on exchange rates, stock prices, and USD borrowing spreads

Policy considerations

- Evidence about EME MP traction:
 - underscores **improvements in MP frameworks**
 - encourages EME central banks to confidently pursue price stability mandates
- EME MP is well positioned to counterbalance US MP spillovers to government bond markets
 - Given limited traction on exchange rates, **FX intervention** remains key to lean against FX disruptions
- Caveat: analysis documents effective MP transmission *on average*
 - Transmission impairments may still emerge, especially at times of financial/fiscal distress
 - **Sound fiscal frameworks and macroprudential regulation** remain key to support effective MP transmission



Thank you