US Monetary Policy and International Risk Spillovers

Discussion

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Views are exclusively mine and do not represent the views of the French Macroprudential Authority

Message of the paper

1. International transmission of US monetary policy occurs through «changes in risk perception» (risk spillovers)

2. Spillovers are higher for EMs than AEs (interaction with country risk)

3. Limited pass-through of monetary policy rate into interest rates in EMs due to fluctuations in risk premium. Affected by capital flows.

4. Case for flexible exchange rate is stronger as flexible exchange rate can smooth out « risk shocks ».

5. Policy ought to decrease risk sensitivity of capital flows (better institutions) and to decrease foreign currency debt.

US monetary policy spillovers

Previous literature estimated effect of US monetary policy spillovers:

- Global effective risk aversion: Risk premia, spreads, VIX, and (other indices of risk)

- Dollar exchange rate

- Global Financial Cycle (effect on flows, leverage, credit, asset prices)

[Source: Rey (2013), Bruno and Shin (2015), Miranda–Agrippino and Rey (2015), Stravakeva and Tang (2018) for the ZLB period]

Contribution of this paper:

Focus on 'risk perception' spillovers. Explore the heterogeneity in those spillovers (EMs vs AEs, managed floats vs floats).

US Monetary Policy and global effective risk aversion
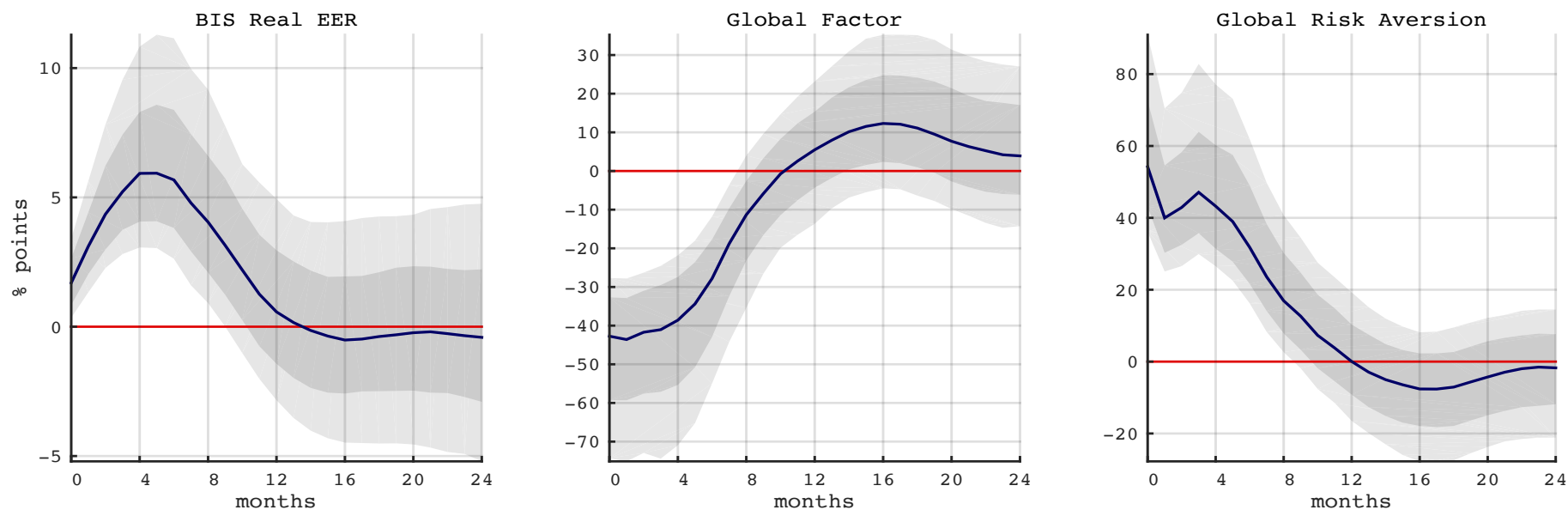
Tightening of 100 bp. Real appreciation; global factor in risky asset prices goes down; global effective risk aversion goes up. [Identification: High Frequency instruments].

Source: Miranda-Agrippino and Rey (2015)

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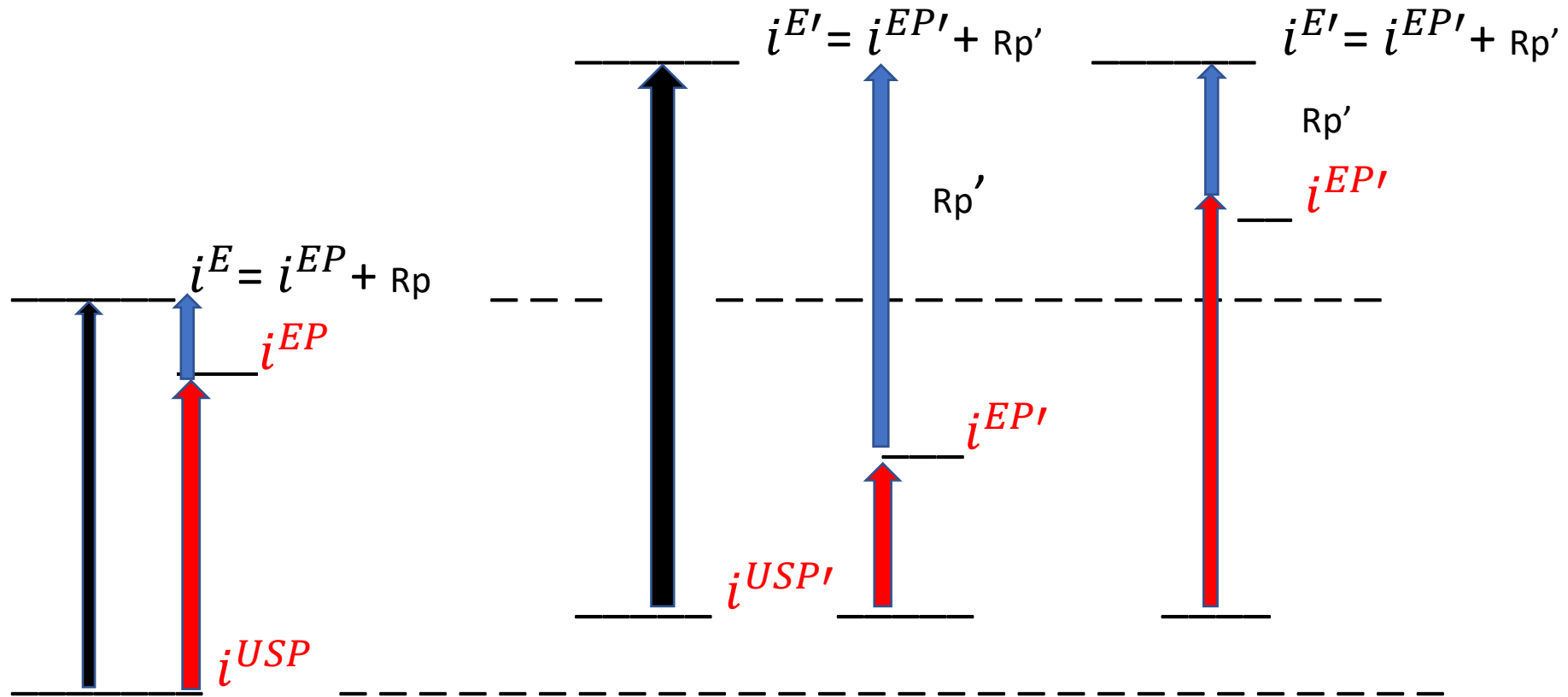# Policy response: Fear of floating versus financial cycle accommodation

- Paper presents a simple model with balance sheet effect; net exports; and US monetary policy affecting the risk premium.

- Monetary policy response could either:

➢ stabilize the exchange rate: « fear of floating » (*Calvo and Reinhart (2002)*). If US tightening, domestic interest rate should increase.

➢ or react to changes in domestic financial conditions. If US tightening, risk goes up: domestic interest rate should decrease.

- Paper estimates: "A 1pp increase in U.S. policy rate lead to a 2.3pp increase in interest rate differentials in EMEs, in contrast to 0.5pp decrease in interest rate differentials in AEs, after three quarters."

Date 0   Date 1:   Case 1: **decrease** in i^{EP}; big increase in Rp   Case 2: **increase** in i^{EP}; small increase in Rp

$i^{E\prime} = i^{EP\prime} + \text{Rp}'$ $i^{E\prime} = i^{EP\prime} + \text{Rp}'$

Rp$'$

$i^{EP\prime}$

$i^E = i^{EP} + \text{Rp}$

i^{EP}

Rp$'$

$i^{EP\prime}$

$i^{USP\prime}$

i^{USP}

Emerging Markets. US tightening leads in both cases to an increase in rate differentials. Compatible with 2 cases. Case 1: strong financial cycle despite domestic loosening. Case 2: domestic tightening to stabilize the exchange rate

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What are the actual policy responses of countries?

- Paper argues that both cases are relevant empirically for emerging markets:
- **Case 1**: Table 3: «This means that, on average, countries loosen monetary policy when investors' risk perceptions are high (risk-off shocks) and tighten it when risk perceptions are low (risk-on shocks) ».
- **Case 2**: « Strong correlation [between 3 month interest rate differential and VIX] for countries with managed currencies is consistent with the story that when countries use monetary policy to *prevent exchange rate movements,* movements in risk premia show up in interest rate differentials ».

- There is a lot of **heterogeneity** in monetary policy responses (estimation should take that into account).
- Which **characteristics** of countries matter? (*Obstfeld, Ostry, and Qureshi (2018)*)
- Why not look directly at responses of policy rates?

UK and Euro area policy responses to a US tightening and financial cycle dynamics
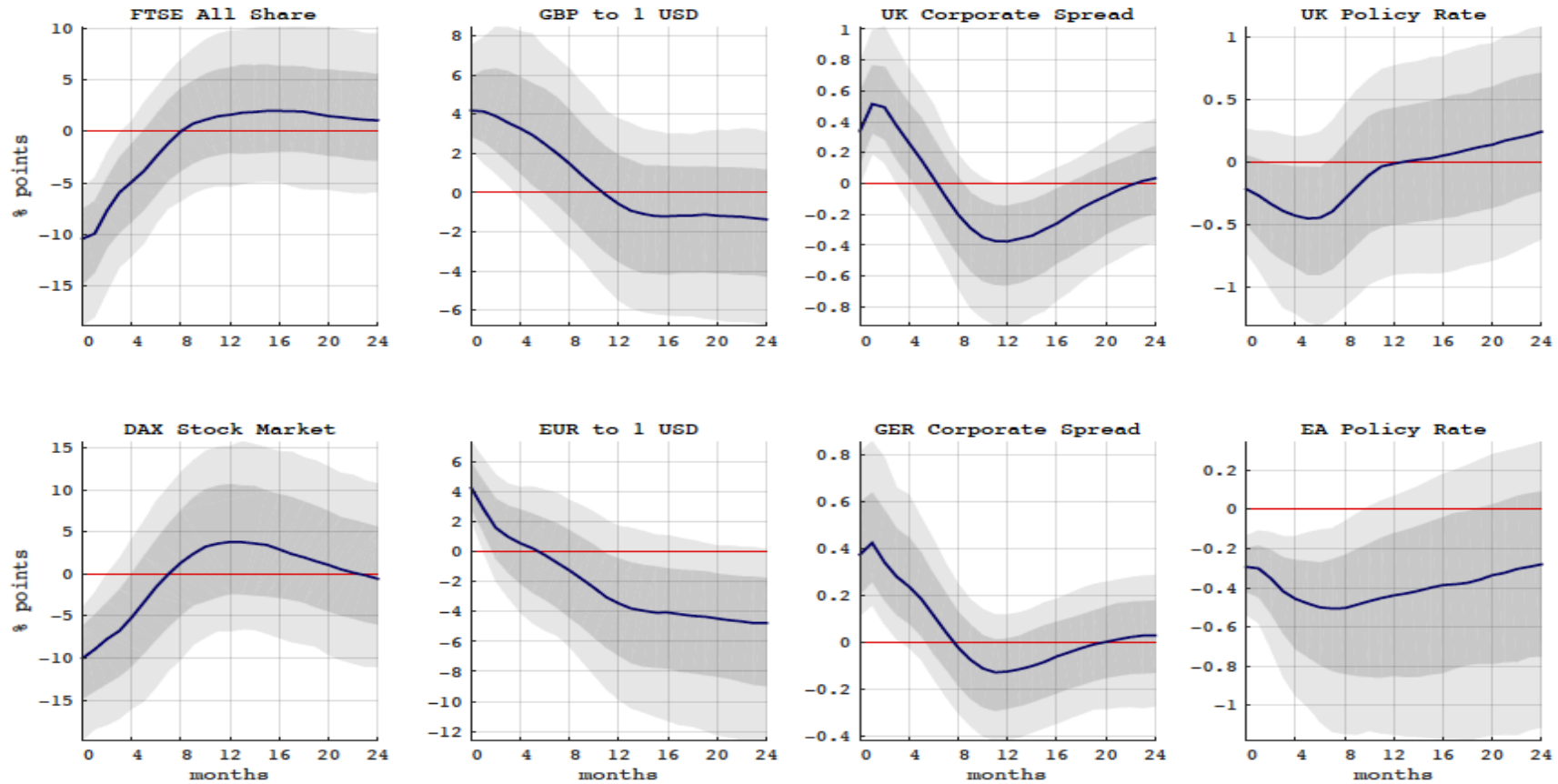
US 100 bp tightening. Source: *Miranda-Agrippino and Rey (2015)*. See *Gourinchas (2017)* for Chile.

Real effects

- Mechanism in the paper: US tightening lead to increase in «risk perception ». This has a negative effect on the domestic growth rate.

- Risk spillovers can be mitigated by a floating exchange rate: smaller correlation between interest rate differentials and VIX for floats than for managed floats.

- Mitigation could either be due to policy response (loosen policy rate) or to characteristics of countries (endogeneity between exchange rate regimes and country characteristics). Fixed exchange rates are associated with larger share of foreign currency debt and amplify shocks. Exchange rate movements themselves may create risk depending on the structure of the economy.

- Paper shows monetary policy is not fully effective in EMs: imperfect pass-through and capital flows affect lending conditions.

- Empirical results on growth are weak.

Where does the change in « risk-perception » come from?

Important question for policy implications.

- Need models with time-varying risk aversion. Natural assumption: different intermediaries with different regulations, governance or culture price assets differently. As their relative size changes, effective aggregate risk aversion fluctuates (*Coimbra and Rey (2017)*).

- Their importance in the market may be driven by their ability to grow as US monetary policy affects funding costs and asset valuations. See paper on micro data by *di Giovanni, J., S. Kalemli-Ozcan, M. F. Ulu, and Y. S. Baskaya (2018).*

- Other type of model: behavioral (*Gennaioli and Shleifer (2018)*). But link with monetary policy? US Federal Reserve magic ability to affect the biases of investors?

Importance of global banks (risk-taking) during 2002-2007

Source: *Miranda-Agrippino and Rey (2015)*

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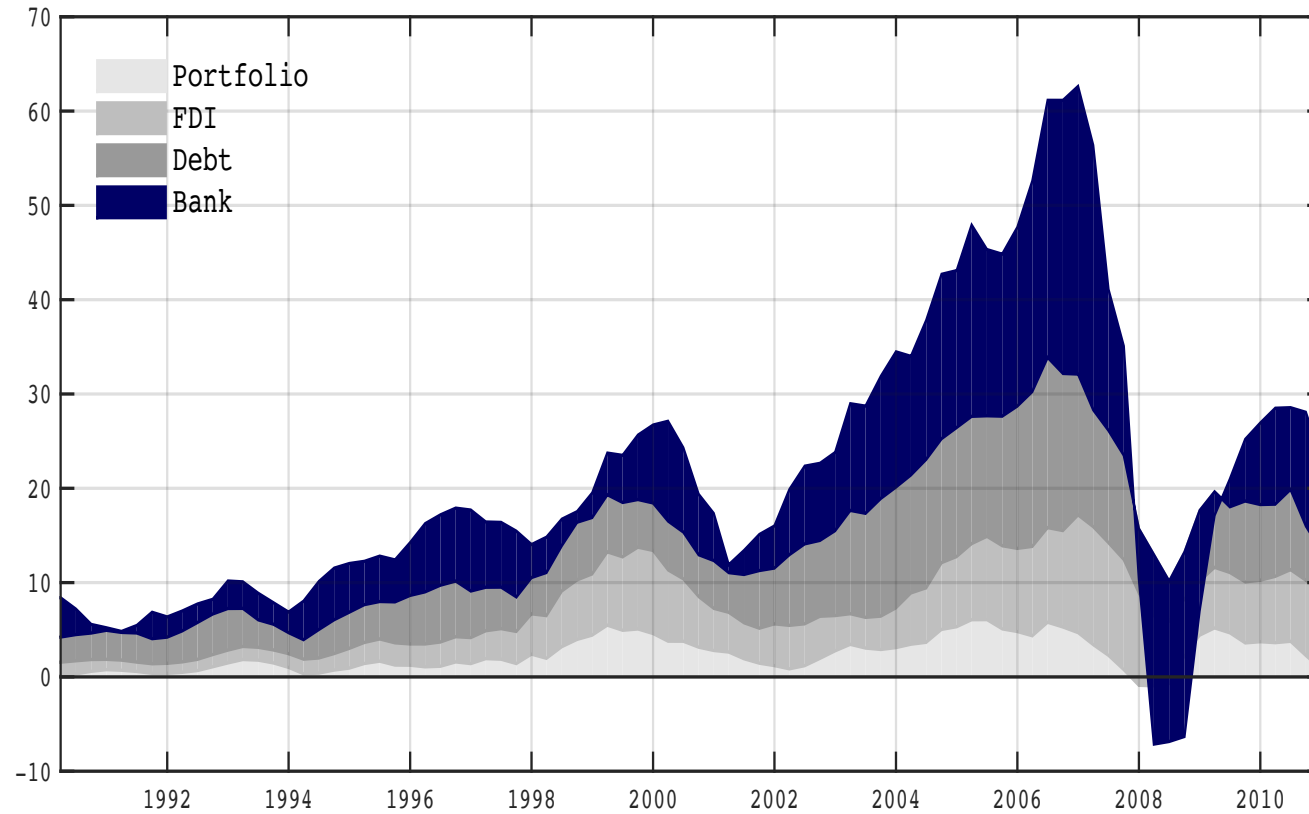
EME versus AEs inflows and outflows

Source: *Miranda-Agrippino, Nenova, Rey (2019)*

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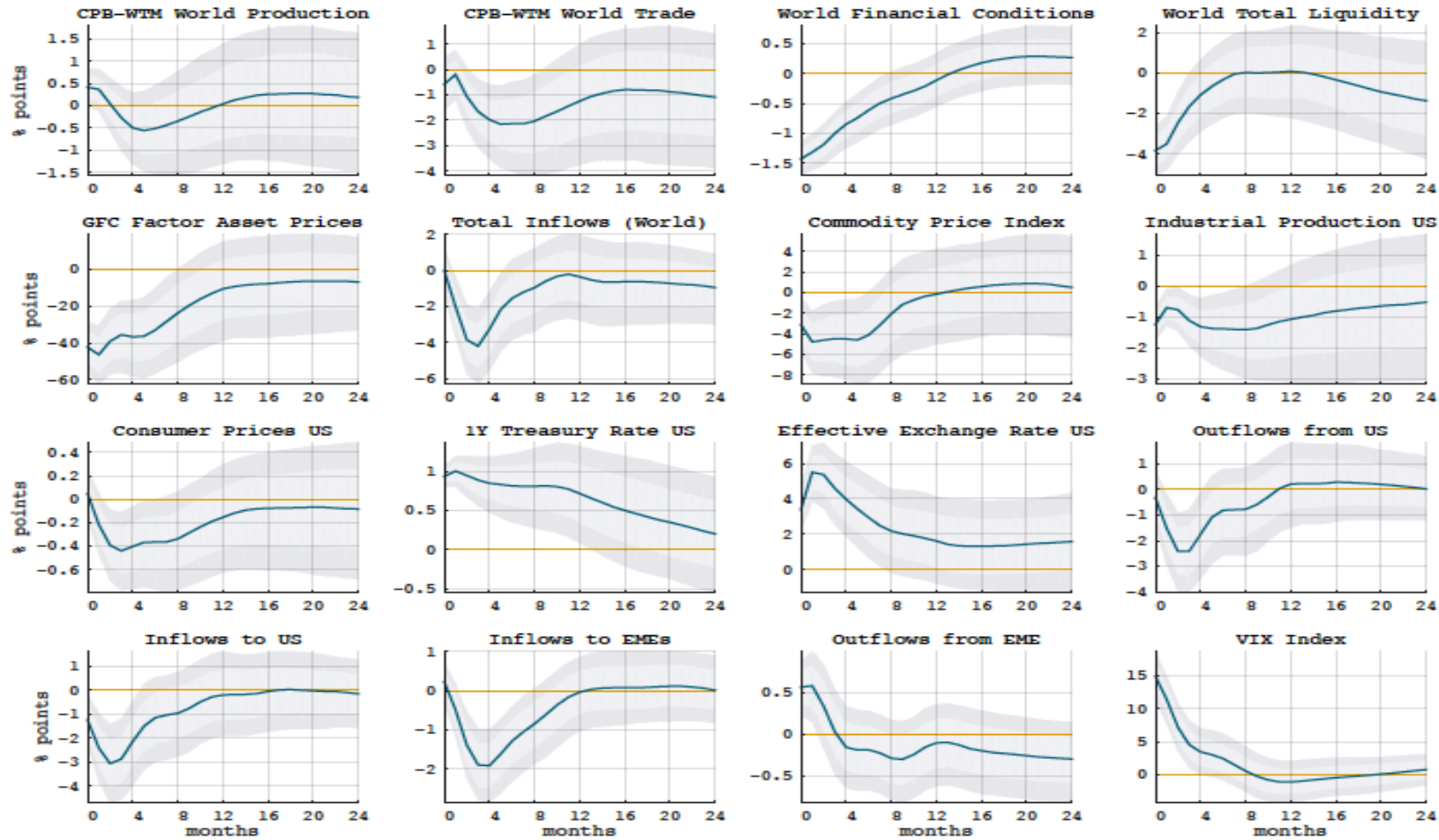
Conclusions: Policy implications

- Exchange rate flexibility helps in some dimensions but is not enough to guarantee domestic monetary policy effectiveness

Paper proposes:
  - ➢ Decrease EMs sensitivity to capital flows (better institutions)
  - ➢ Limit foreign currency debt

- I would argue that examining in more details the mechanisms of changes in « risk perception » could give sharper policy implications.

- Points towards aggressive use of **micro and macroprudential instruments** to dampen effective risk aversion in global financial cycle downturns (may be especially useful at the ELB) and to increase effective risk aversion in upturns.

Conclusions: Policy implications

- Cyclical macroprudential framework should be analytically at the same level as the inflation targeting framework.

- Still too few models of risk-taking with different intermediaries and the financial cycle. Still too little understanding of gross flow dynamics.

- Machine learning tools need to be further developed for better predictions of crises.

- We still lack detailed and harmonized data on macroprudential measures to evaluate finely their effect on risk-taking.

- We lack an understanding of how MP of different CB interact. **China**'s monetary policy has also a significant effect on emerging markets and advanced economies but it goes through other channels (see *Miranda-Agrippino, Nenova, Rey (2019)*)).

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