Dampening Global Financial Shocks: Can Macroprudential Regulation Help (more than Capital Controls)?*

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*The views expressed in this presentation are those of the authors and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

Motivation and key questions

- Global financial shocks can severely affect emerging markets

  Rey, 2013, 2016; Choi et al., 2017; Dedola et al., 2017; Bräuning and Ivashina, 2019; Goldberg and Krogstrup, 2019; Iacoviello and Navarro, 2019; Kalemli-Özcan, 2019; Miranda-Agrippino and Rey, 2019; Vicondoa, 2019

- Exchange rate flexibility may help but does not provide full insulation

  Ottonello, 2013; Farhi and Werning, 2016; Cavallino and Sandri, 2020; Akinci and Olmstead-Rumsey, 2018; Aoki et al., 2019; Egorov and Mukhin, 2019; Gopinath et al., 2020

- Can macroprudential policies (MPs) dampen global financial shocks?
  - Can MPs buffer the impact of global financial shocks on GDP?
  - Do MPs entail cross-country spillovers?
  - Can MPs enhance monetary independence?
  - How do the benefits of MPs compare to those of capital controls?

Buffering effects on GDP - approach

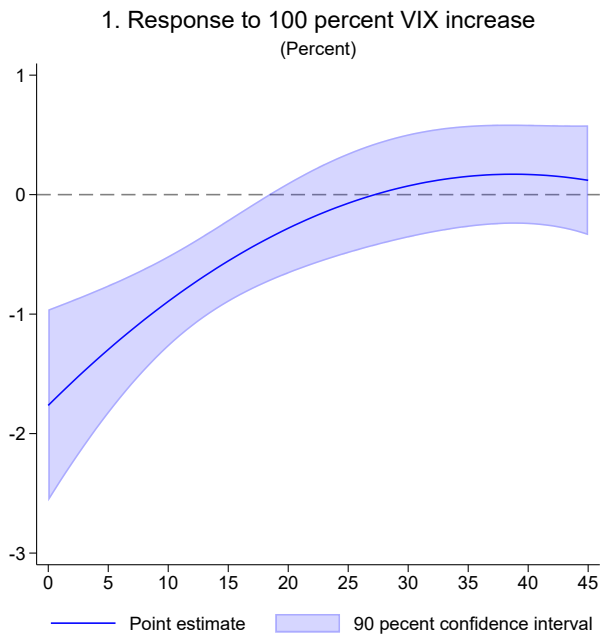
- Can tighter macroprudential policies dampen the impact of global financial shocks on domestic GDP in EMs?
  - iMaPP database records MP decisions since 1990 for many countries
  - We cumulate tightening/loosening decisions to construct an index of the tightness of macroprudential policies
- We estimate the following panel regression (Obstfeld et al., 2019)

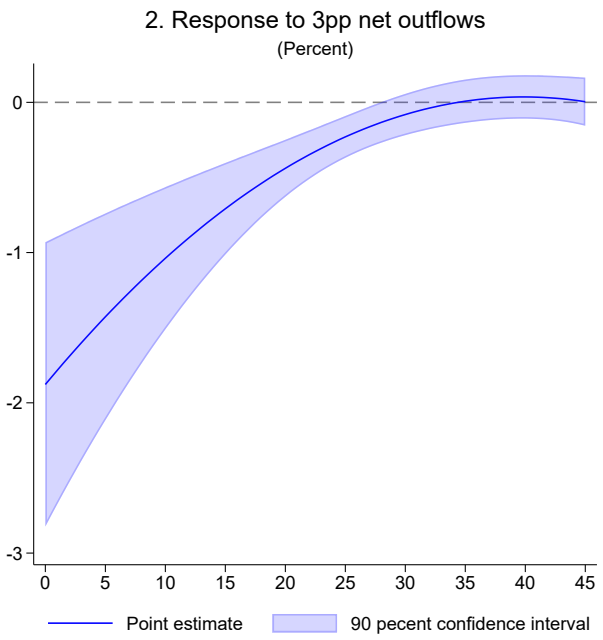
$$Y_{i,t} = \alpha_i + \beta S_{i,t} + \gamma(S_{i,t} * MP_{i,t}) + \delta(S_{i,t} * MP_{i,t}^2) + ... + \epsilon_{i,t}$$

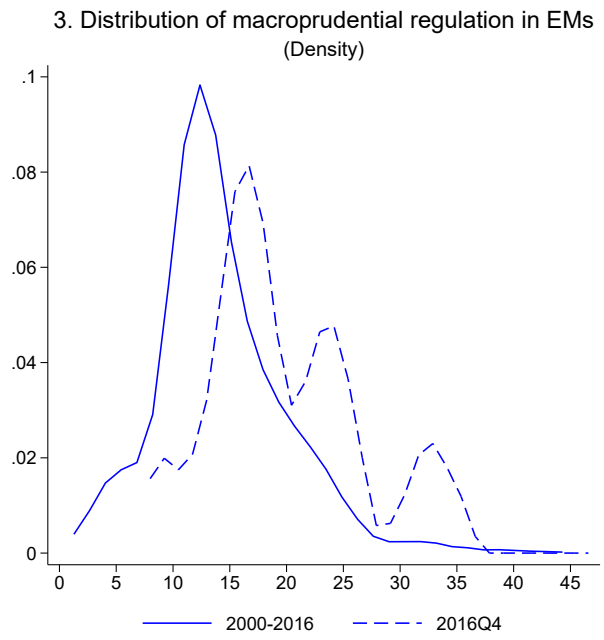
  - $Y_{i,t}$ is real GDP growth
  - $S_{i,t}$ is a vector of global financial shocks: US rates, VIX, instrumented net capital inflows
  - $MP_{i,t}$ is macroprudential tightness
  - Sample includes 38 EMs with quarterly data during 2000-2016

Buffering effects on GDP - results

- Tighter MPs dampen the impact of VIX and capital flows shocks
  - Sufficiently tight MPs appear to provide full insulation







Buffering effects on GDP - robustness tests

- Results are robust to reverse causality concerns, i.e. using
  - lags of the MP index
  - the average level of MP in each country
- We alleviate omitted variable concerns by controlling for
  - Institutional quality and financial development
  - Public debt, share of FX, structural deficit
  - Monetary policy rate, anchoring of inflation expectations
  - ER regime, capital controls, FX reserves
- Results are not driven by narrow set of macroprudential tools
- Dampening effects are symmetric to positive/negative shocks

Cross-country spillovers

- Do macroprudential policies entail cross-country spillovers?

$$Y_{i,t} = \alpha_i + \beta S_{i,t} + \gamma(S_{i,t} * MP_{i,t}) + \overline{\gamma}(S_{i,t} * \overline{MP}_{i,t}) + ... + \epsilon_{i,t}$$

  - $\overline{MP}_{i,t}$ is the average MP stringency in other countries weighted by size of capital inflows
  - We create different weighted averages using countries in the same geographical region and with similar GDP per capita and risk class

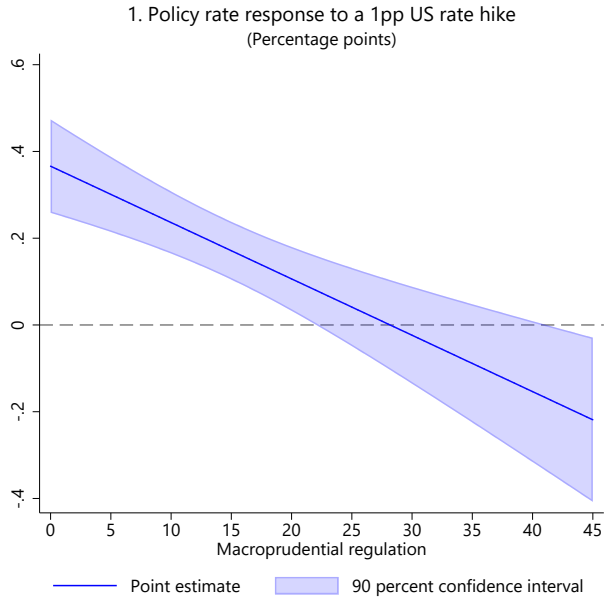
- We find no evidence of negative spillovers
- Spillovers tend to be positive vis-à-vis capital flow shocks
  - By enhancing domestic resilience, MPs may benefit other countries through more stable trade and financial linkages

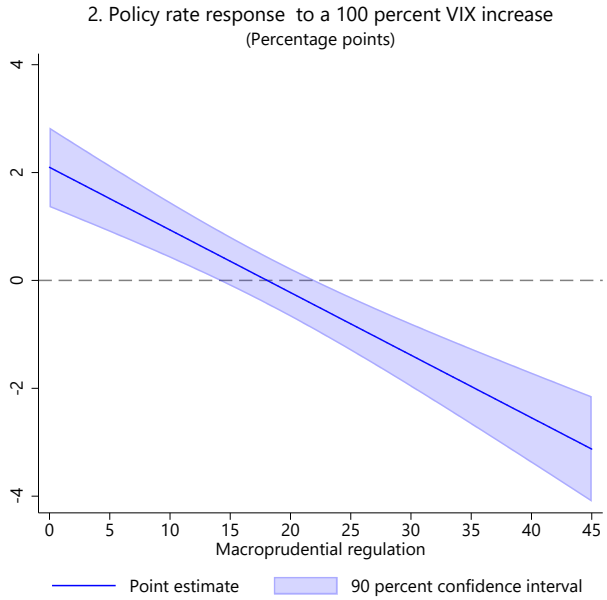
Monetary independence

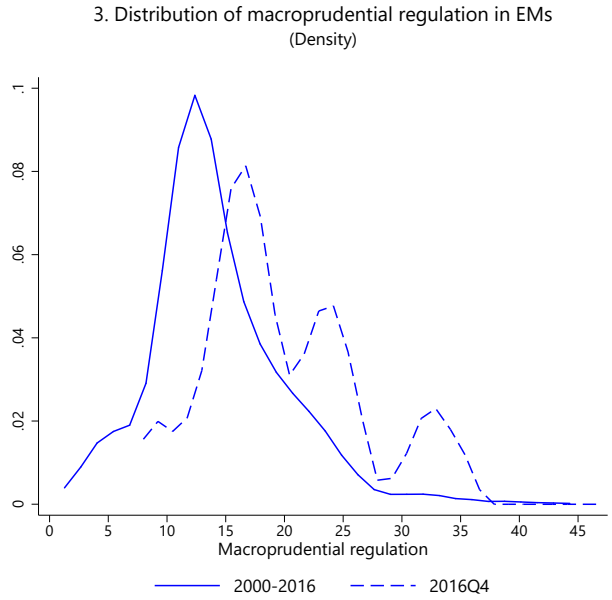
- Can macroprudential policies enhance monetary independence?

$$I_{i,t} = \alpha_i + \beta S_{i,t} + \gamma(S_{i,t} * MP_{i,t}) + ... + \epsilon_{i,t}$$

- Yes, by supporting more countercyclical response to US rate and VIX
  - Results are robust to similar tests as described before







Comparison with capital controls

- We replicate the analysis using various indicators of capital controls
  Chinn and Ito (2008), Fernández et al. (2015), Quinn and Toyoda (2008), Pasricha et al. (2018)
- We do not find evidence that capital controls
  - dampen the impact of global financial shocks on GDP
  - support a more countercyclical monetary policy response
- Against these results, the benefits of MPs appear even more striking
  - Yet, capital controls could remain useful tools against very large shocks or if adjusted in line with theory prescriptions

Conclusions

- Can MPs buffer the impact of global financial shocks on GDP?
  Yes, the results are robust to a broad range of tests
- Do MPs entail cross-country spillovers?
  Some evidence of positive spillovers
- Can MPs enhance monetary independence?
  Yes, by supporting a more countercyclical monetary policy response
- How do the benefits from MPs compare to those of capital controls?
  MPs results are striking because no similar effects associated with CCs