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Financial Spillovers to emerging economies: the role of exchange rates and domestic fundamentals

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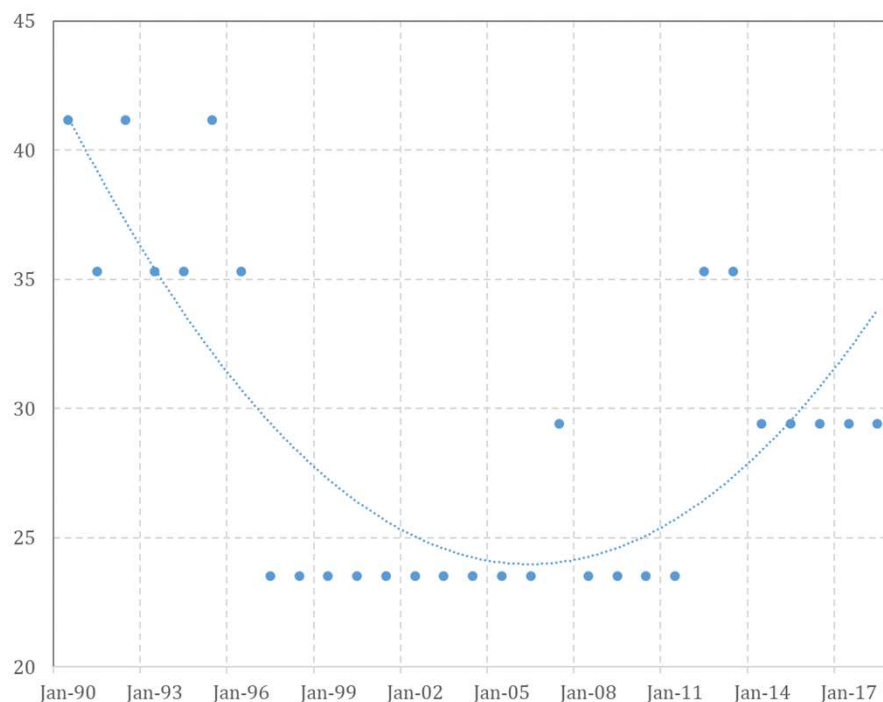
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Outline of the presentation

1. Motivation
2. Empirical strategy
3. Main estimation results
4. Conclusions and policy implications

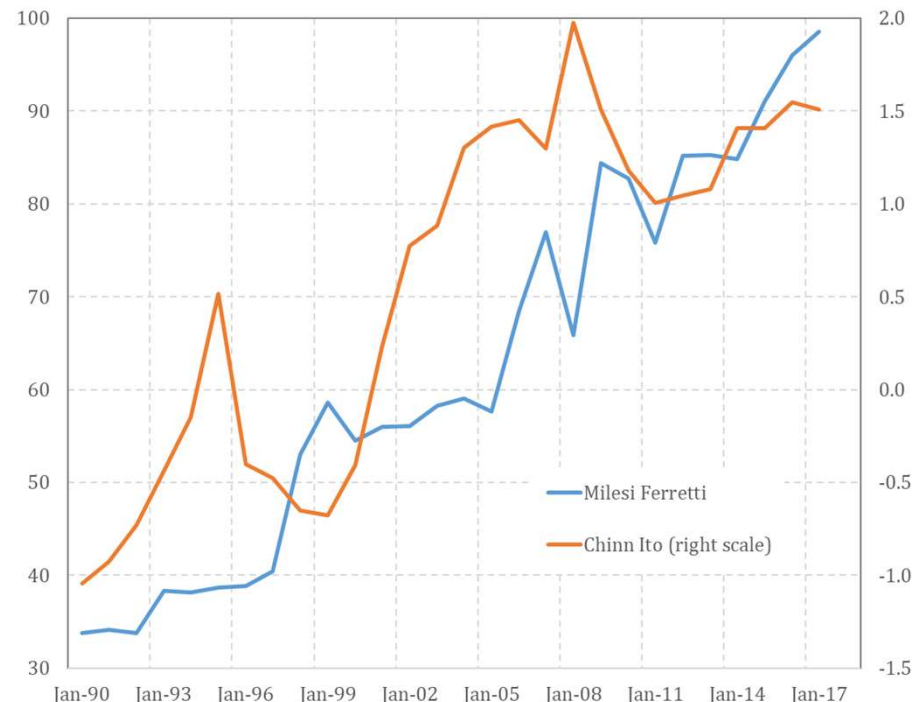
The share of countries with pegged exchange rates has fallen and the level of capital mobility has increased

Share of countries with pegged FX regimes



Source: authors' elaboration on data from Ilzetzi *et al.* (2017)

Financial integration & capital account openness



Global financial integration in EMEs developed at a very high pace in the last 30 years. The sum of gross external assets and liabilities hovered around 100% of GDP in our sample lately, from as low as 30% at the beginning of the series.

Challenges posed by higher financial integration

Risk sharing vs. suffering international spillovers (and spillbacks) of global shocks and/or domestic policies in core economies.

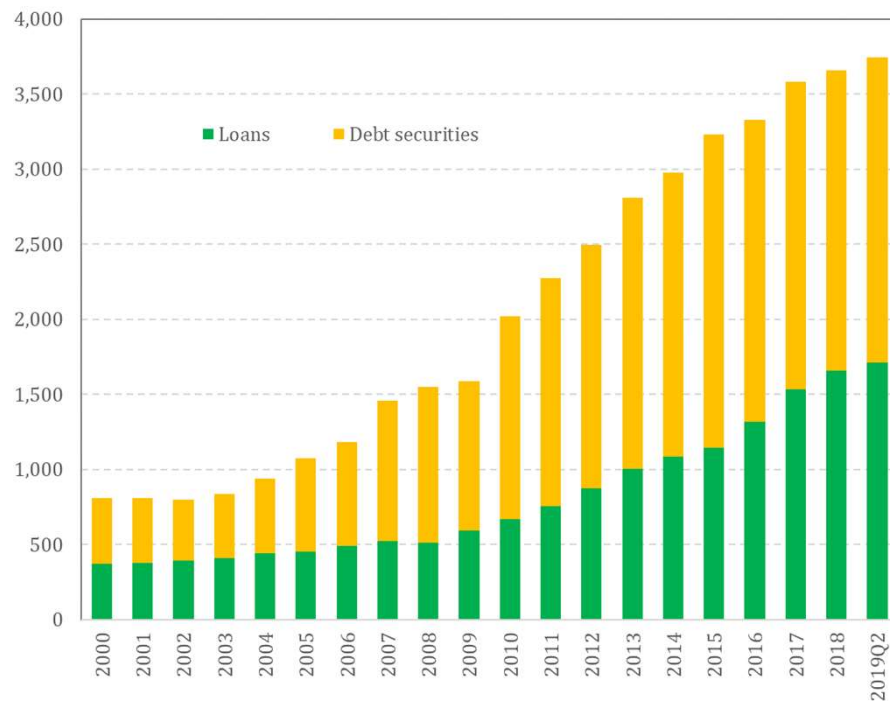
Though being actually horizontal in nature (*i.e.* valid for both AEs and EMEs, for monetary as well as fiscal as well as macro-pru. policies), this issue has acquired a definite relevance for EMEs since after the GFC and the slashing of interest rates in AEs (*i.e.* the US) towards the ZLB.

The increase in the cross-country correlation between asset prices and credit – and the speed by which shocks in an economy spill over onto others – have revived the debate about the degree of autonomy and ability of countries in steering domestic financial conditions.

A key factor behind the stronger transmission of (financial) shocks from the US lies in the increasing debt exposure of EMEs non-bank borrowers in US dollar-denominated instruments.

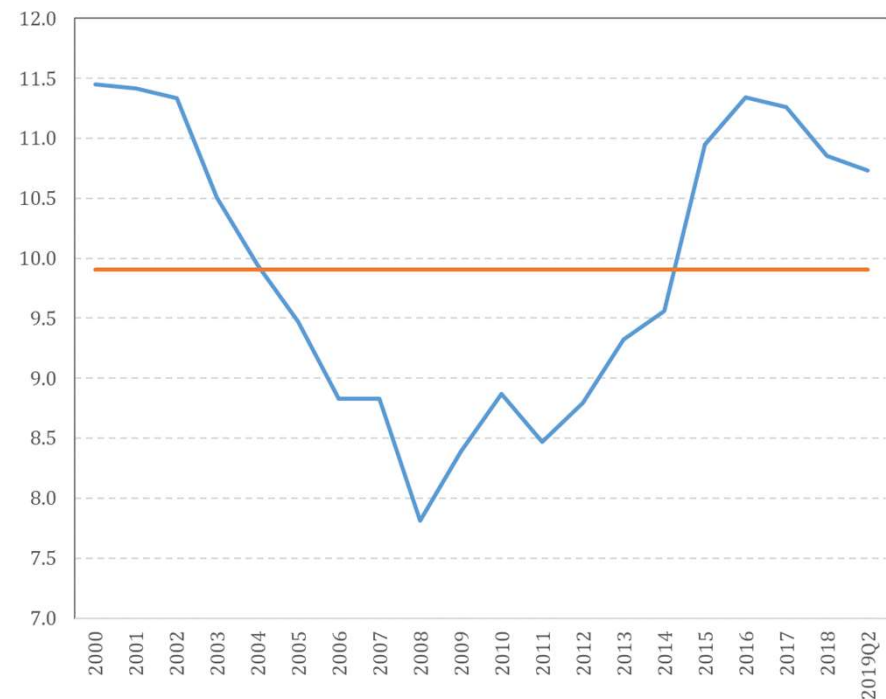
US dollar-denominated credit to EMEs' non-bank sector on the rise

In USD million



Source: BIS, Global liquidity indicators

As a % of EMEs GDP



Are EMEs able to manage domestic financial conditions?

Traditionally, literature has focused upon monetary policy independence/spillovers, on the one side, and the choice of a peculiar FX regime, on the other side.

“Trilemma” vs. “Dilemma”.

According to the former (Mundell, 1963; Obstfeld and Taylor, 1998), countries face a trade-off among the objectives of exchange rate stability, free capital mobility and independent monetary policy. At the end, chances to steer reference rates to reach domestic objectives in the presence of free capital flows are available only if the FX is allowed to freely fluctuate.

According to the latter (Rey, 2013; Miranda-Agrippino and Rey, 2015; Rey 2015 and 2016), whenever capital is freely mobile, the existence of a “global financial cycle” – largely determined by financial conditions in the US (Bruno and Shin, 2015) – would severely constrains national monetary policies in EMEs regardless of the peculiar FX regime adopted.

Yet, the empirical literature is not conclusive on the relative importance of global factors in shaping EMEs financial conditions (Akinci, 2013; Klein and Shambaugh, 2015; Obstfeld, 2015; Obstfeld *et al.*, 2017; Arregui *et al.*, 2018).

But are there other country characteristics that matter for the issue?

Two strands of literature:

- Capital flows: push vs. pull factors (Rey, 2015; Cerutti *et al.*, 2017; Buono *et al.*, 2019; Habib and Venditti, 2019).
- Financial conditions and financial asset prices: domestic vs. global factors (Rey, 2015; Bruno and Shin, 2015; Obstfeld *et al.*, 2017; Arregui *et al.*, 2018; Lodge and Manu, 2019).

We fit in the second strand.

The aim of the paper is to revisit the trilemma-dilemma debate by considering more explicitly other country “characteristics” that, along with the peculiar FX regime, can affect the sensitivity of *domestic* to *global* financial conditions.

Empirical strategy

$$f_{it} = \alpha_i + \beta_1 GFC_t + \beta_2 CCHAR_{i(t-k)} + \beta_3 GFC_t * CCHAR_{i(t-k)} + \beta_4 Z_{i(t-k)} + \beta_5 GV_t + \varepsilon_{it}$$

f_{it} = real stock market return; sovereign bond spreads; real credit growth

GFC_t = VXO index; Chicago Fed US financial condition index; US NEER w.r.t. US six main trading partners ; (real) US shadow rate; term spread (US10Y-US3M)

$CCHAR_{i(t-k)}$ = FX regime; private USD-denominated debt; CA-to-GDP ratio; financial integration; capital account openness; openness to trade; real integration with the US

$Z_{i(t-k)}$ = real GDP growth; real credit growth; credit-to-GDP ratio; domestic policy rate; liability inflows; dummy banking crisis

GV_t = oil inflation; dummy global financial crisis; OECD real GDP growth

Focus on the 17 largest emerging countries (Argentina, very problematic, not included).

Period: 1995Q1-2018Q3 (actual frequency depends upon the chosen indicator).

Driscoll-Kraay estimator, to account for any remaining cross-sectional and temporal dependence of the residuals.

Unconditional correlations

	Real stock returns	Sovereign spreads	Real credit growth
VXO	-0.34	0.35	-0.04
US financial conditions (Chicago Fed index)	-0.34	0.25	
US NEER wrt US 6 main partners	-0.08	0.23	-0.17
US real monetary conditions		0.19	
"Financial" dependence on the US		0.19	-0.21
Current account balance-to-GDP	0.10		-0.14
Chinn-Ito index capital account openness	-0.05	-0.20	-0.09
Lane&Milesi-Ferretti financial integration		-0.12	-0.16
Openness to trade		-0.32	0.06
"Trade" dependence on the US		-0.24	0.08
Real GDP growth	0.11	-0.39	0.45
Real credit growth		-0.26	
Policy rate (domestic)		0.55	0.08
OECD countries real GDP growth	0.34	-0.14	-0.05

Main estimation results

Overall, our results provide some support to the “trilemma” hypothesis.

Although global and US financial conditions spill over to EMEs, exchange rate flexibility and sound country-specific fundamentals may play a mitigating role.

Mitigating factors are market-specific: exchange rate flexibility plays a larger role in mitigating spillovers to stock markets and, to a lesser extent, to sovereign spreads, while US-dollar debt exposure, current account positions and both real and financial integrations matter more for sovereign spreads and credit conditions.

Real credit growth (quarterly data)

Variable	Estimated sign	Significance
<u>Direct impact of:</u>		
VXO	—	**
US financial conditions	—	
US real monetary conditions	—	
US NEER wrt US 6 main partners	—	***
Fixed FX	+	***
Flexible FX	+	
USD-denominated private debt	—	
Financial integration	+	**
Real integration	—	***
External imbalances	—	**
<u>Interaction terms:</u>		
USD-denominated private debt and VXO	—	**
Real integration and VXO	+	**
Fixed FX and US NEER	—	**
Flexible FX and US NEER	—	
Financial integration and US NEER	—	**
Real integration and US NEER	+	**
USD-denominated private debt and US real monetary conditions	—	*
External imbalances and US real monetary conditions	—	***

Real stock market returns (in local currency, monthly data)

Variable	Estimated sign	Significance
<u>Direct impact of:</u>		
VXO	—	***
US financial conditions	—	***
US real monetary conditions	—	
US NEER wrt US 6 main partners	—	***
Fixed FX	+	
Flexible FX	—	
USD-denominated private debt	—	
Financial integration	+	***
Real integration	—	*
External imbalances	+	***
<u>Interaction terms:</u>		
Fixed FX and VXO	—	***
Flexible FX and VXO	—	
Fixed FX and US financial conditions	—	
Flexible FX and US financial conditions	—	
Fixed FX and US real monetary conditions	—	***
Flexible FX and US real monetary conditions	—	

Sovereign bond spreads (in first diff., monthly data)

Variable	Estimated sign	Significance
<u>Direct impact of:</u>		
VXO	+	***
US financial conditions	+	**
US real monetary conditions	+	
US NEER wrt US 6 main partners	+	
Fixed FX	+	***
Flexible FX	+	
USD-denominated private debt	+	
Financial integration	—	**
Real integration	—	*
External imbalances	—	*
<u>Interaction terms:</u>		
Fixed FX and VXO	+	
Flexible FX and VXO	+	
Fixed FX and US financial conditions	—	
Flexible FX and US financial conditions	—	**
Fixed FX and US real monetary conditions	+	
Flexible FX and US real monetary conditions	+	

Conclusions and policy implications

The “trilemma” vs. “dilemma” debate *revisited*: we analyzed whether, and to what extent, country specific fundamentals beyond the peculiar FX regime interact with global financial variables in shaping EMEs sensitivity to the occurrence of external shocks.

Domestic financial markets suffer such impact the more so in countries characterized by fixed FX regimes, worse capital account positions, larger stock of US dollar-denominated debt, lower degree of real integration.

Some support from the “trilemma” hypothesis: although global financial conditions loom large, FX flexibility and sound country-specific fundamentals may provide a shield.

Such mitigating factors are market-specific: US dollar-denominated exposure, current account positions and real and financial integration seem to matter more for credit conditions and government bond markets, while FX flexibility seem to play a larger role in mitigating spillovers in the case of stock markets.

Thank you,
comments more
than welcome