

Policy Panel: Emerging Markets Risks and Capital Flows

The effects of Monetary Policy on Capital Flows

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The opinions contained herein are my own and do not commit Banco de la República nor its Board of Directors

Motivation

There is major divide in the literature on whether monetary policy can affect the tides and ebbs of capital flows (Ghosh et al. 2018)

- (-) Part of the literature argues that increased foreign participation in local markets is associated with increased sensitivity of portfolio flows to global financial conditions and increased volatility of yields¹
 - Sudden drying-up of capital flows (resulting from an increase in risk aversion) → destabilizes asset markets → accentuates booms and busts
- (+) Advocates argue that foreign participation can dampen volatility in bond yields, by acting as catalysts for the development of bond markets²
 - Diversifying the institutional investor base
 - Creating greater demand (and liquidity)
 - Reducing currency mismatches
 - Serving as an alternative source of funding

¹ Calvo and Mendoza 1996; Calvo and Talvi 2005; Obstfeld 2012; Ebeke and Kyobe 2015; Cerutti et al. 2019

² Warnock 2004; Prasad and Rajan 2008; Peiris 2010; Ocampo et al. 2020

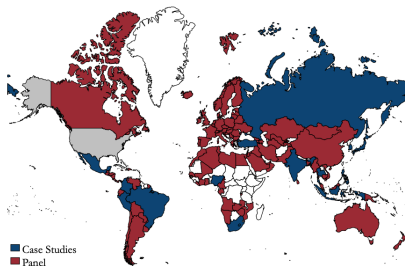
Objective

The effects of Monetary Policy on Capital Flows

- First quantitative meta-analysis on the subject
 - Web-scraping search among largest economic repositories³ and manually checking over 1,300 papers
 - 330 estimated effects from 50 distinct studies
 - 7 decades: 1960s - 2020s
 - Average of 34 countries per study when using panel data + 14 individual country cases

³Repec, Scopus, Mendeley, CBs, and NBER

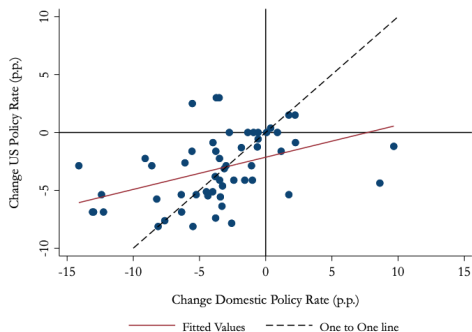
Figure: Surveyed capital flows: by country and type



	Non Residents	Residents	Both	Not specified	Total
Portfolio (Aggregate)	73	2	9	2	86
Portfolio Bonds	36	0	7	2	45
Portfolio Equity	14	6	7	2	29
Banking	35	0	2	0	37
Foreign Direct Investment	39	0	0	0	39
Aggregate Flows	87	1	6	0	94
Total	284	9	31	6	330

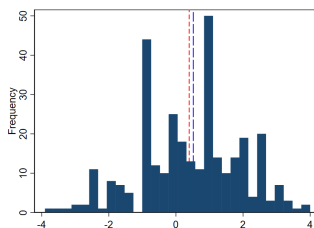
Challenges

- Policymakers may need to take external factors into consideration when pursuing domestic objectives (Rey, 2015).
 - Plenty of stressful episodes: East Asia crisis (1990's), GFC (2008-09), taper tantrum (2013), oil crises (2014, 2020), Pandemic (2020-21)
- Spillovers from (non)-divergence in monetary policy vis-a-vis the US (Kalemli-Ozcan 2019)

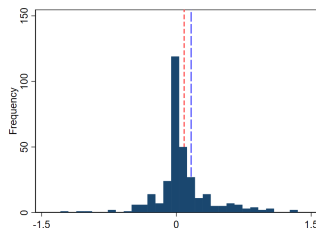


Unconditional Effects

- Impulses: $i \uparrow 100\text{bp}$ $i^* \downarrow 100\text{bp}$ $i - i^* \uparrow 100\text{bp}$
- Responses: Capital inflows (+) in % relative to each country's quarterly GDP



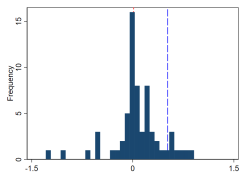
(a) T-statistics



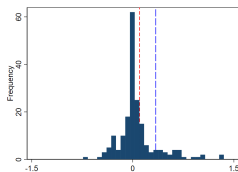
(b) Effect Sizes

- (a): 105 effects are significant. Of these, 69% are positive \rightarrow search for yields, 31% are negative \rightarrow retrenchments in flows in spite of higher yields
- (b): Mean (red dashed line) is 0.09% while risk-adjusted mean (blue) is 0.16%

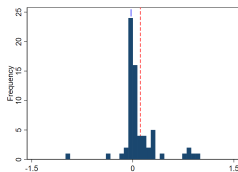
Unconditional Effects



(a) i



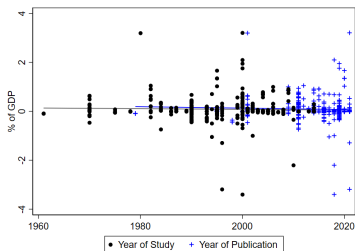
(b) i^*



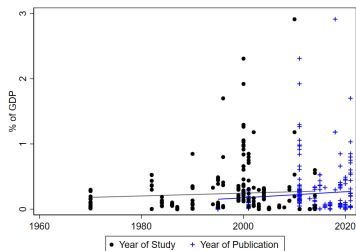
(c) $i - i^*$

- (i): Mean (red) is 0.01% while risk-adjusted mean (blue) is 0.52%
- (i^*): Mean (red) is 0.10% while risk-adjusted mean (blue) is 0.34%
- ($i - i^*$): Mean (red) is 0.11% while risk-adjusted mean (blue) is -0.02%

Figure: Effects sizes and standard errors through time



(a) Effect Sizes



(b) Standard Errors

Note: The Figure shows a non-significant (barely significant) time trend for effect sizes (standard errors)

Country Variables

	Domestic policy rate (i)			Foreign policy rate (i*)		
	Obs	Mean	RE	Obs	Mean	RE
BY FLOW TYPE						
Aggregated Flows	24	0.169*	0.035**	53	0.123*	-0.002
Portfolio Flows	26	-0.130	2.1E-7	45	0.016	0.014
Portfolio Bonds	-	-	-	28	0.109	9.0E-4***
Portfolio Equity	3	-0.083*	-0.070***	16	0.028	0.001
Banking	2	0.190**	0.186***	28	0.265**	-0.004
FDI	10	0.006	0.016	27	0.066*	0.023**
BY TRILEMMA MEASURES						
Departure from CIP > mean	8	0.180*	0.035*	8	0.023	0.012
Departure from CIP < mean	6	0.480**	0.406***	18	0.041	0.015
BY FINANCIAL SECTOR						
Financial Openness > mean	16	0.211**	0.133***	20	0.016	0.042**
Financial Openness < mean	21	0.093	0.018	41	0.033	1.7E-4**

- FDI reacts more to foreign than domestic policy
- Banking flows react more to domestic than foreign policy
- Financial Openness (& smaller CIP departures) attract flows

Risk Variables

	Domestic policy rate (i)			Foreign policy rate (i*)		
	Obs	Mean	RE	Obs	Mean	RE
BY 5Y-CDS						
> mean	12	-0.042	-0.119	10	0.151	-0.055
< mean	12	0.056	0.027**	32	-0.006	0.019*
BY FX VOLATILITY						
> mean	14	-0.052	0.007	18	-0.029	0.004
< mean	21	0.019	0.007	43	0.052	1.7E-4**
BY VIX						
> mean	30	0.071	5.4E-7	73	0.071*	-0.004***
< mean	27	-0.201	0.005	107	0.092*	0.001
BY IMPLICIT OIL VOLATILITY						
> mean	22	-0.063	0.002	41	0.227**	-0.006
< mean	28	-0.091	0.010	109	0.047	9.5E-4*

- Less risks (domestic & global) attract flows

Wrapping Up

- Can central banks attract –or redirect– flows in order to capitulate on market gains? ✓
- Can we corroborate that *push* factors largely explain the synchronicity of capital flows towards and out of emerging markets, while *pull* factors explain the extensive heterogeneity across recipient countries (Cerutti et al. 2019)? ✓
 - *Push* factors such as global risk and i^*
 - *Pull* factors such as: income, financial openness/deepening, etc.
- Are FDIs the least affected by global cyclical developments (Koepke 2015)? ✗
- Can we quantify effects of monetary policy in flows? ✓
 - Also the incremental effect of country-specific variables and risks

Thank you!