Box 2
Literature Review: Weighing the Drivers of Portfolio Flows to Emerging Market Economies

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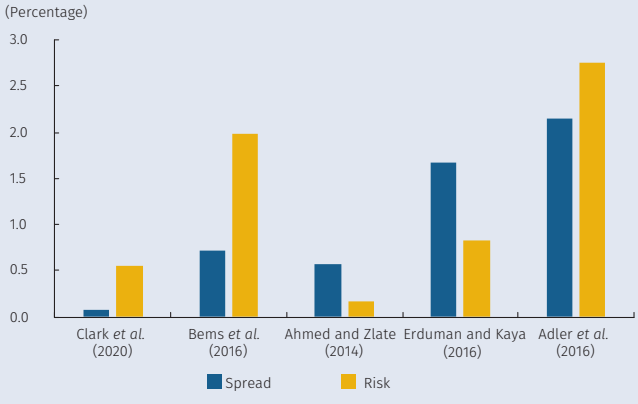
The literature on the determinants of portfolio capital flows to emerging markets tend to emphasize the role of push and pull factors. The first relate to external forces that influence capital flows and are generally associated with foreign investors' perceptions of risk and the relative returns expected from investments in emerging market economies. The second include domestic attributes that can influence demand for local bonds and equity, in particular the growth rate and sound monetary and fiscal policy reflected in macroeconomic stability (Koepke, 2019).

This box presents the main findings of a literature review on the drivers of portfolio flows to emerging markets, emphasizing the role of monetary policy. The analysis focuses on portfolio capital related to non-resident foreign investors, who account for a majority of these types of flows (Obstfeld, 2012; Broner *et al.*, 2013). It also distinguishes between capital inflows and outflows, and the type of investment (bonds or equity). Broadly speaking, the evidence suggests that portfolios comprised mainly of bonds are more sensitive to negative external shocks (push factors), which tend to result in a decrease in capital inflows. On the other hand, equity portfolios exhibit more sensitivity to disruptions in domestic fundamentals (pull factors), which tend to result in capital outflows.

The relative return on investments and investors' risk perceptions are essential in accounting for portfolio flows. According to Sarno *et al.* (2016), 83% of bond and 86% of equity flows can be attributed to these two factors[1]. In particular, negative shocks that affect risk perception appear to reduce portfolio inflows to emerging markets by between 0.2% and 2.8% of quarterly GDP[2]. By contrast, positive shocks on interest rate spreads in favor of emerging markets can be expected to increase portfolio inflows by between 0.1% and 2.2% of quarterly GDP (Ahmed and Zlate, 2014; Adler *et al.*, 2016; Bems *et al.* 2016; Erduman and Kaya, 2016; Clark *et al.*, 2020). Graph B2.1 summarizes some of these findings.

Graph B2.1
Effects of Perceived Risk and Interest Rate Spreads on Portfolio Flows to Emerging Markets: Equivalence with Quarterly GDP



Source: calculations by the author.

Another factor underlined by the literature is the propensity among international investors to act cautiously by reducing their positions in emerging markets during episodes of heightened volatility and uncertainty (Milesi-Ferreti and Tille, 2011; Fratzscher, 2012; Broner *et al.*, 2013; Rey, 2013; Ananchotikul and Zhang, 2014; Koepke, 2014; Nier *et al.*, 2014; Bruno and Shin, 2015)[3]. These investors tend to redirect capital toward assets that are considered secure, in particular treasury bonds emitted by advanced economies, leading to an outflow of portfolio capital from emerging markets.

The literature also underscores investors' focus on potential returns as a determinant of portfolio composition, as they are willing to accept a certain degree of risk in their emerging market positions in exchange for higher returns. As a result, the spread between domestic and international interest rates can help explain capital inflows, especially when it comes to bonds (Fernández-Arias, 1996; Taylor and Sarno, 1997; Montiel and Reinhart, 1999; Baek, 2006; Dahlhaus and Vasishtha; 2014; Feroli, *et al.*, 2014; Koepke, 2014; Fratzscher *et al.*, 2016; Adler *et al.*, 2016; Banerjee *et al.*, 2016; Erduman and Kaya, 2016). This effect could be symmetrical: all else equal, increases in advanced economy interest rates may plausibly lead to portfolio outflows among emerging markets.

Of equal importance is understanding the extent to which domestic monetary policy can mitigate fluctuations in

1 This is particularly notable in Colombia, where the two factors can explain up to 90% of bond and 95% of equity flows.

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2 Investor risk aversion is measured throughout the literature based on the volatility and behavior of stock market shares and the spread between U.S. treasury bonds and a BBB-rated corporate bond.

3 These studies focus on capital flows to emerging market economies. The general tendencies are expected to be consistent in the specific case of portfolio flows.

portfolio flows, to which the evidence suggests that the effect is ambiguous, limiting its effectiveness. A selection of case studies, summarized in Chart B2.1, support this conclusion. For example, Kim (2014) finds opposing effects on portfolio flows following positive interest rate shocks in South Korea. On one hand, and in line with expected outcomes under the risk channel, the increase in rates led to a reduction in equity portfolio flows that would have been motivated by expectations of worsening economic conditions[4]. On the other hand, and consistent with expected results under the portfolio channel, an increase in domestic bond purchases was also observed, possibly precipitated by greater returns in these positions within local markets, thus favoring portfolio inflows. Despite this, there are other types of tools available to monetary authorities in emerging markets to counteract the volatility of portfolio flows, including macroprudential policies and adherence to sustainable fiscal spending levels in the medium term (Koepke, 2019).

Chart B2.1
Effect of Domestic Monetary Policy on Portfolio Flows to Emerging Markets

Source	Effect	Flow	Account Type	Effect as a percentage of GDP	GDP frequency
ElFayoumi y Hengge (2020)	None	Total	Stock, bonos	-	N/A
Byrne y Feiss (2016)	None	Total	Stock, bonos	-	N/A
Fratzscher (2012)	None	Total	Total	-	N/A
Bluedorn et al. (2011)	Reduction	Total	Total	0.12%	Quarterly
Adugna (2016)	Reduction	Incoming	Portafolio	0.40%	Quarterly
	Reduction			0.30%	
	Reduction			0.10%	
	Reduction			0.15%	
	Reduction			0.40%	
	None			-	
	Increase			0.60%	
	Increase			0.38%	
Kim (2014)	Increase	Incoming	Bonds	1.00%	Monthly
	Reduction	Incoming	Stock	2.00%	
Çulha (2006)	Increase	Outgoing	Total	0.39%	Monthly

Source: created by the author.

4 Çulha (2006) argues that increases in domestic interest rates are assimilated by the market through increases in the risk premium, which in Turkey's case preceded periods of macroeconomic instability. This provoked an adverse reaction from investors, who withdrew their positions to more secure markets.

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