

The Global Financial Cycle and the Effects of Fed Unconventional Monetary Policies on Foreign Portfolio Flows in Colombia

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Abstract

In this paper we analyze the effects of the global financial cycle and the Fed unconventional monetary policy announcements on foreign portfolio flows in Colombia between 2010 and 2018.

Our contribution to the literature is twofold: First, we use a novel daily data set from the Colombian Securities Exchange and the Central Securities Depository that allow us to analyze the effects of U.S. unconventional monetary policies on different types of portfolio investment. Second, this is the first document to our knowledge that examines the effects of these policies on portfolio flows in Colombia, as well as whether they reinforced the impact of the global financial cycle on these flows during the period under consideration.

Motivation

- Changes in the Fed monetary policy stance can accentuate the global financial cycle and affect the dynamics of capital flows.
- Unconventional monetary policies adopted by the Fed since the financial crisis of 2008 and 2009 have played an important role in the pattern of capital flows to emerging markets.
- The normalization of monetary policy in advanced economies, and the modest economic growth in EMEs have slowed down capital flows.

Hypothesis

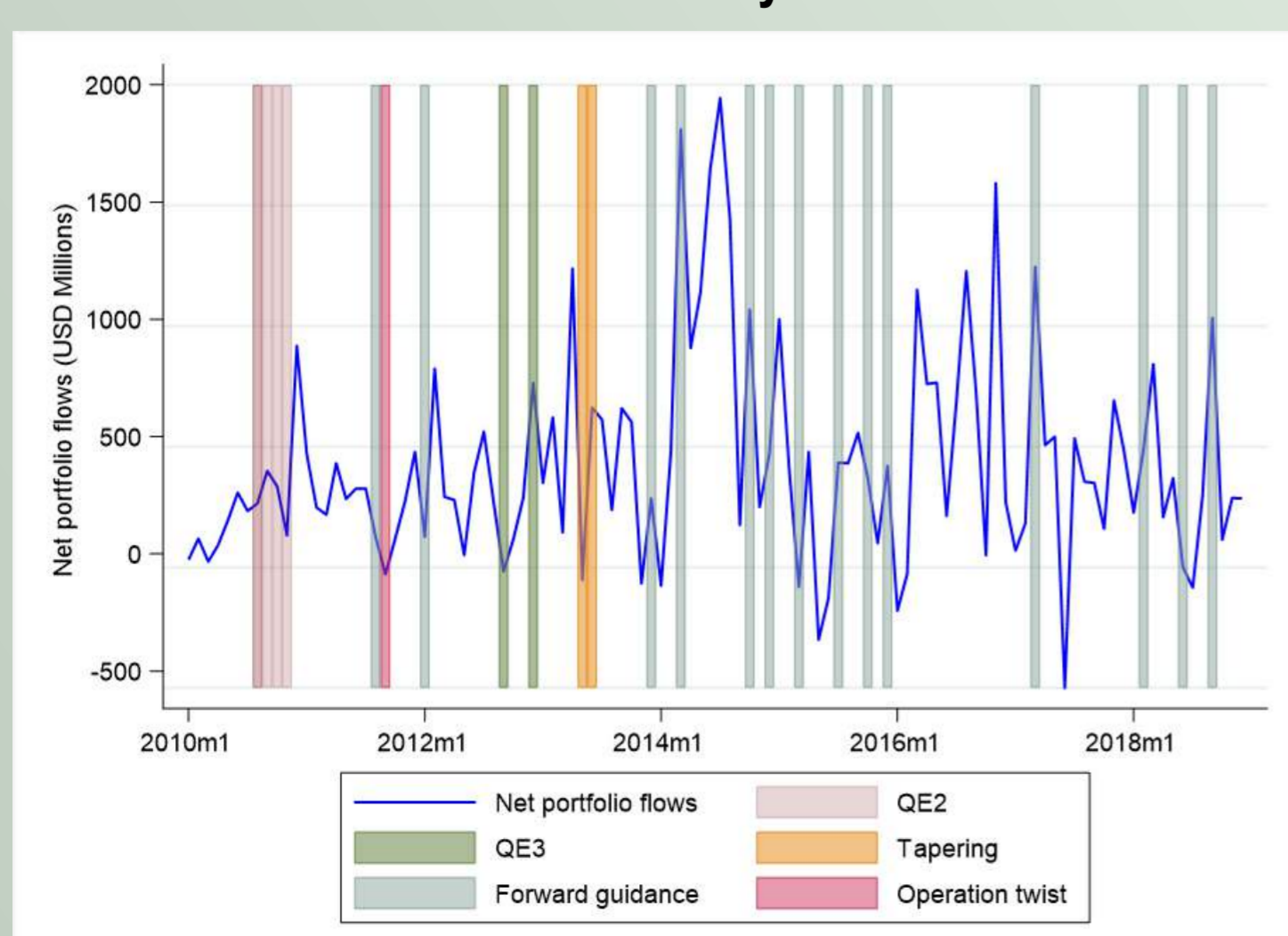
Public bonds flows are more sensitive to unconventional monetary policy announcements, given the greater participation of foreign investors in the public debt market in Colombia.

Channels of Transmission

- Portfolio channel: the purchase of long-term securities reduces the supply of these assets to private investors, and increases the demand for substitutes assets, including those in EMEs.
- Signaling channel: UMP implemented in developed countries are perceived as central banks' commitments to maintain an accommodative monetary policy stance over a prolonged period.
- Liquidity channel: asset purchases by central banks in advanced economies increase reserves on private banks balance sheets.

Stylized Facts

Net portfolio flows in Colombia and unconventional monetary policy announcements by the Fed



Econometric Approach

- We estimate the following equation using the OLS method with robust errors, and lags of the dependent variable according to Enders (2004):

$$Y_t = \alpha + \sum_{i=0}^l \rho_i Y_{t-i} + \beta US_MP_Announcement_{t+1} + \theta GFC_t + \varepsilon_t$$

where Y_t represents net purchases of foreign investors' portfolio investments in Colombia on day t ; $US_MP_Announcement_{t+1}$ corresponds to the Fed's UMP announcements, which are identified by dummy variables equal to one the day after the announcement, and zero otherwise; GFC_t represents the global financial cycle.

- The expected signs for β depend on the type of measure adopted by the Fed:
 - QE2 and QE3: positive coefficients, as lower long-term interest rates could increase liquidity in the U.S. economy.
 - Operation Twist: negative coefficient, as this program increased the average maturity of Treasury securities.
 - Tapering: negative coefficient, as investors prefer assets in the U.S. with higher yields than in EMEs.
 - Forward Guidance: positive coefficient, as most of the announcements indicated an expansionary monetary policy stance.

Results

- QE2 announcements had no impact on portfolio flows in Colombia.
- QE3 announcements (expansionary) did not have the expected effect on portfolio flows.
- The tapering (contractionary), forward guidance (mostly expansionary), and the operation twist (contractionary in the short part of the yield curve) had significant effects on portfolio flows.
- Fed's unconventional monetary policy announcements amplified the effect of the global financial cycle on portfolio flows.

The effects of unconventional monetary policy announcements of the Federal Reserve on foreign portfolio flows in Colombia

	(1)	(2)	(3)	(4)	(5)
QE2	-1.888 [-0.19]			1.753 [0.19]	-0.129 [-0.01]
QE3	-29.845 ** [-2.46]			-30.831 ** [-2.42]	-32.565 ** [-2.21]
Tapering	-68.046 ** [-2.49]			-67.829 *** [-2.69]	-59.134 ** [-2.26]
Forward Guidance	39.636 * [1.63]			39.303 * [1.62]	38.408 * [1.61]
Operation Twist	-36.873 *** [-18.21]			-21.106 *** [-5.21]	-19.81 *** [-3.14]
VIX		-0.663 *** [-4.12]		-0.653 *** [-4.03]	
Common Factor			3.137 *** [3.10]		2.889 *** [2.89]
Constant	10.492 *** [7.81]	22.302 *** [6.40]	10.652 *** [7.98]	21.997 *** [6.27]	10.501 *** [7.85]
Observations	2126	2126	2126	2126	2126
R-squared	0.107	0.106	0.105	0.110	0.109
Autocorrelation tests					
Durbin-Watson test	2.009	1.997	2.003	2.007	2.011
p-value alternative test of Durbin	0.251	0.162	0.280	0.252	0.149

t-statistics reported in parenthesis.

Lags of the dependent variable are included according to the BIC criteria to eliminate autocorrelation.

*** p<0.01, ** p<0.05, * p<0.1