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The Economic Fundamentals of Emerging Market Volatility

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News about monetary policy in advanced economies may create exchange rate volatility for emerging markets. When central banks in the United States, Europe, and the United Kingdom enacted expansionary monetary policies after the financial turmoil of 2008, capital flew into emerging markets in search of higher yields. Some of their currencies appreciated, putting pressure on their macroeconomic conditions. Recently, the prospect of the Federal Reserve ending its quantitative easing has sent capital flowing out of emerging markets, causing a depreciation of some currencies.[1] These effects have not occurred in the same way for all emerging markets, however: Those with weaker fundamentals were more intensely affected.[2] Here I consider a set of economic conditions to identify how vulnerable emerging markets are to changes in monetary policies of advanced economies, which can affect capital flows and the value of their currencies.

Countries with weaker economic fundamentals experienced higher currency volatility and capital flows.

A country that relies more on foreign capital to finance its spending in excess of its income is more vulnerable to capital reversals along a number of lines. First, a country that attracts primarily portfolio investment (mostly short-term debt, or "hot money") instead of foreign direct investment (long-term debt aimed at boosting growth in a country) is prone to speculative attacks by investors who want to take their money out of that country quickly, especially when the country's debt is denominated in a foreign currency. Second, if the country has a flexible exchange rate regime and the central bank does not have enough foreign reserves to meet these withdrawals, its currency will depreciate. If instead the country follows a fixed exchange rate regime, capital withdrawals by investors could cause a balance-of-payments crisis, forcing the monetary authority to devalue its currency and lose credibility. Third, if the country has accumulated current-account deficits mainly from consumption of foreign goods rather than investment, the country may be more vulnerable to capital reversals. The three final factors that may contribute to a country's vulnerability are its inflation rate, cyclically adjusted public budget, and government debt. A country with high inflation tends to have a more volatile economy, higher interest rates, and attract more short-term debt.[3]

The table reports an index of vulnerability based on six fundamental economic variables: (i) the amount of short-term debt, (ii) the amount of foreign reserves, (iii) the current-account deficit (as a percentage of gross domestic product [GDP]), (iv) the inflation rate, (v) the cyclically adjusted public budget, and (vi) the government debt. The

Volatility Index from 1 (Lowest) to 5 (Highest)

Country	2012	2013	Change
Brazil	2.50	2.67	0.17
China	2.17	2.33	0.16
India	4.17	4.00	–0.17
Indonesia	2.67	3.00	0.33
Malaysia	3.00	3.33	0.33
Mexico	2.67	2.83	0.16
Poland	2.83	2.50	–0.33
Russia	1.67	2.50	0.83
South Africa	3.33	3.33	0.00
Thailand	2.83	2.67	–0.16
Turkey	3.33	3.50	0.17

NOTE: Calculated as a simple average of ratings based on each country's short-term debt, foreign reserves, current account, inflation, cyclically adjusted public budget, and government debt.

SOURCE: International Monetary Fund, Haver Analytics, the central bank of each country, and the author's calculations.

results are reported for 2012 and 2013. The last column shows the changes in the vulnerability of the countries in the sample. (A positive number implies an increase in vulnerability, due to weakening of the country's fundamentals.)

The most vulnerable countries appear to be India, Turkey, and South Africa. India's vulnerability is caused mainly by a high inflation rate of more than 9 percent and a cyclically adjusted public budget of –3.2 percent and –2.6 percent of potential GDP in 2012 and 2013, respectively.[4]

For Turkey and South Africa, the main sources of vulnerability are their current account deficits (around –7 percent of GDP) and fewer foreign reserves than needed to avoid a depreciation of their currencies. Interestingly, as the table shows, Russia's vulnerability increased the most between 2012 and 2013, especially due to low economic growth and a deterioration of its balance of payments. In fact, the ruble depreciated by around 40 percent in 2014. As a consequence, in December 2014 the Central Bank of Russia increased its key interest rate from 10.5 percent to 17.0 percent to defend the Russian currency. This action triggered a decrease in its foreign reserves, which may weaken Russia's ability to further defend its currency if it depreciates again.

The vulnerability of an emerging market to news about monetary policy in advanced economies depends on the strength of that country's macroeconomic fundamentals. As the empirical evidence shows, countries with weaker economic fundamentals experienced higher currency volatility following policy announcements in advanced economies and subsequent changes in capital flows. This evidence calls for structural reforms in such countries to strengthen their macroeconomic conditions. ■

NOTES

[1] Eichengreen and Gupta (2014).

[2] Forbes and Klein (2013).

[3] Sahay et al. (2014).

[4] International Monetary Fund.

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