

# Financial Integration Intensifies New Vulnerabilities: Brazil in the Global Financial Crisis

by Annina Kaltenbrunner and Juan Pablo Painceira, Economics Department, SOAS

Recently, Brazil's adoption of an international transactions tax has focused economic debate on the increased exposure of emerging economies to the instability of international financial markets. This Development Viewpoint concentrates on the role of financial integration and central bank policies in intensifying the instability of capital flows into Brazil and the volatility of its exchange rate (see Kaltenbrunner and Painceira 2009).

Late in 2008, Brazil experienced one of the largest exchange-rate depreciations in the world as short-term speculative capital flooded out of the economy. In late 2009, as this Viewpoint is being written, the conditions appear to be building up towards a similar exchange-rate outcome as sizeable short-term capital inflows have caused increasing exchange-rate appreciation.

What is noteworthy about the large sudden flight of capital in late 2008 is that it had little connection to Brazil's 'economic fundamentals', such as its current-account balance, its fiscal balance or its public-sector debt. Instead, it was linked directly to deteriorating conditions in international financial markets.

## A Flood of Capital Inflows

Previous to the depreciation of the Brazilian *Real* in late 2008, foreign capital had poured into the Brazilian economy, seeking out high returns on short-term, highly liquid financial assets. See the Figure on foreign portfolio investment in Brazilian equities and debt securities. This surge intensified dramatically in 2007 and remained at high levels throughout much of 2008, during the build-up to the crisis.

A major requirement of these portfolio investors was that they could quickly convert their newly acquired Brazilian wealth into dollar-

denominated assets. Meanwhile, they were benefiting from Brazil's high real rate of interest and speculating on further appreciation of its exchange rate. But if conditions turned for the worse, they were ideally positioned to quickly spirit their capital out of the country.

This dramatic inflow of speculative capital was contributing precisely to intensifying pressure on the *Real* to appreciate even further (just as similar capital inflows are doing now). Because of rising losses in global financial markets in late 2008 (which were unrelated, in fact, to domestic economic conditions in Brazil), financial investors began liquidating their Brazilian financial assets, precipitating a severe crisis whose foundations they had been primarily responsible for creating.

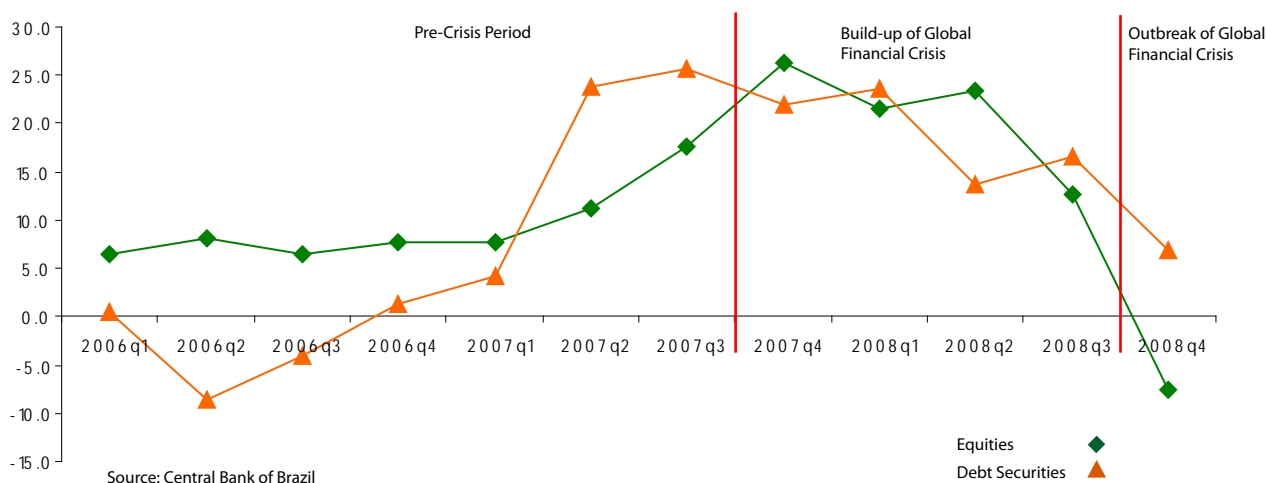
## Sources of Rising Vulnerability

One of the first signs of Brazil's rising external financial vulnerability was the increase in foreign investment in its stock market. Foreign participation in Initial Public Offerings on the national stock exchange (*Bovespa*) rose, for example, from 48% of the total in 2005 to 76% in 2007.

Brazilian equities were one of the most actively traded in emerging markets. But such stock purchases resulted mainly from 'carry-trade' operations, in which investors exchanged weakening-dollar assets for short-term Brazilian equities, whose *Real* values were increasing in relative terms.

Another rising source of external financial vulnerability was the substantial increase in the US-dollar denominated liabilities of Brazil's domestic banking system. The deficit on the banks' net foreign position (their foreign assets minus their foreign liabilities) more than doubled between September 2006 and September 2008, i.e., from US\$ -20 billion

Figure 1: Foreign Portfolio Investment (US\$ billions)



to about US\$ -45 billion.

Another manifestation of Brazil's increased external vulnerability was the rising participation of foreign investors in a highly liquid derivatives market concentrated in very short-term maturities. For example, while the daily trading volume in foreign exchange (FX) derivatives was about R\$ 30 billion during May-June 2008, it leapt to R\$ 41 billion during September-October 2008. Meanwhile, the share of international institutional investors in FX derivatives rose significantly, namely, from about 5% in 2003 to about 23% in 2008.

By the summer of 2008, Brazil's external financial vulnerability had reached dangerously elevated levels. First, the accumulated stock of foreign investment in the country had become huge. And, second, this investment had become more concentrated in very liquid financial assets. All that was missing was a negative external shock that would precipitate a rapid exit of capital.

This trigger was the rapidly rising level of panic of international investors during the summer of 2008 as the frightening dimensions of the unfolding financial crisis became acutely apparent. The Brazilian Real began to plunge in value starting the first week of August and depreciated by more than 60% thereafter.

This depreciation was part of a general trend in emerging markets as investors rapidly sold off their emerging-economy financial assets and retreated back into the 'safe haven' of dollar-denominated assets. In the last quarter of 2008 alone, the capital flight recorded on Brazil's financial account reached US\$ 22 billion.

### **The Role of the Central Bank**

What role has the Brazilian central bank played in shaping the conditions for vulnerability that we describe above? Paradoxically, central-bank policies, both leading up to the crisis and during it, have tended to amplify Brazil's external vulnerability.

During the period of rising capital inflows and exchange-rate appreciation, the central bank tried to mop up excess liquidity by selling short-term government securities (through 'sterilisation'). But as global financial conditions worsened during 2008, the average maturity of these securities shortened dramatically (to less than 30 working days by September), and their average interest rate rose (approaching the very high domestic overnight rate). These developments increased the room for manoeuvre of domestic banks, i.e., enabling them to rapidly shift the composition of their assets and liabilities during the height of the crisis.

The domestic banks that bought government securities were able to

use these assets to borrow more foreign capital—namely, increase their foreign liabilities. This meant that the broad money aggregate, M2, which includes banks' liabilities, actually rose. Inadvertently, the central bank had boosted, in effect, the banks' liquidity and their foreign-exchange exposure.

When the global crisis sent shock waves through the Brazilian financial system beginning in September 2008, the central bank reversed course and began to flood the economy with foreign-exchange liquidity (e.g., through foreign-exchange spot sales, increasing loans to finance external trade and interventions in the derivatives market). This was intended to forestall a rapid depreciation of the *Real*. As a result, the total stock of foreign-currency liquidity supplied to the Brazilian economy between September 2008 and January 2009 rose to US\$ 26 billion.

Through such operations, the central bank not only expanded the liquidity available to the financial market but also reinforced the short-term nature of financial positions. As it did before the crisis, the central bank supplied the market with very short-term securities, (such as 'repo operations', many of them with an overnight maturity), allowing investors to quickly abandon domestic assets in favour of foreign assets during the crisis.

Hence, the central bank had become an integral part, in fact, of the process of facilitating the exit of the massive pool of unstable 'hot money' that had accumulated in Brazil prior to the crisis.

Brazil's increasing integration with international financial markets had left it gravely exposed to externally generated instability. At first, during the build-up to the crisis, the flood of short-term foreign capital served to substantially appreciate its exchange rate. Then when the global crisis hit with full force, Brazil's huge exposure to short-term unstable foreign investment led to rapid depreciation of its currency and massive capital flight.

Though central bank policies might have been intended to counteract such exchange-rate volatility, their ultimate impact, both before the crisis and during it, was to reinforce it by intensifying the economy's vulnerability to oscillations in international financial markets.

#### Reference:

Kaltenbrunner, Annina and Juan Pablo Paineira (2009). 'New Forms of External Vulnerability: Brazil in the Global Financial Crisis'. Paper presented at the 2009 Conference of the Development Studies Association, 'Current Crisis and New Opportunities', University of Ulster, United Kingdom.