

## Recent developments in the BRL market

Central Bank of Brazil

### Abstract

During the fourth quarter of 2012, the domestic FX market in Brazil was volatile as massive financial outflows were exerting pressure on the real. With the aim of preserving the smooth adjustment of the exchange rate to economic fundamentals while resisting a disorderly currency depreciation and excessive volatility, the Brazilian central bank made use of a mix of macroprudential and market intervention approaches that proved to be effective.

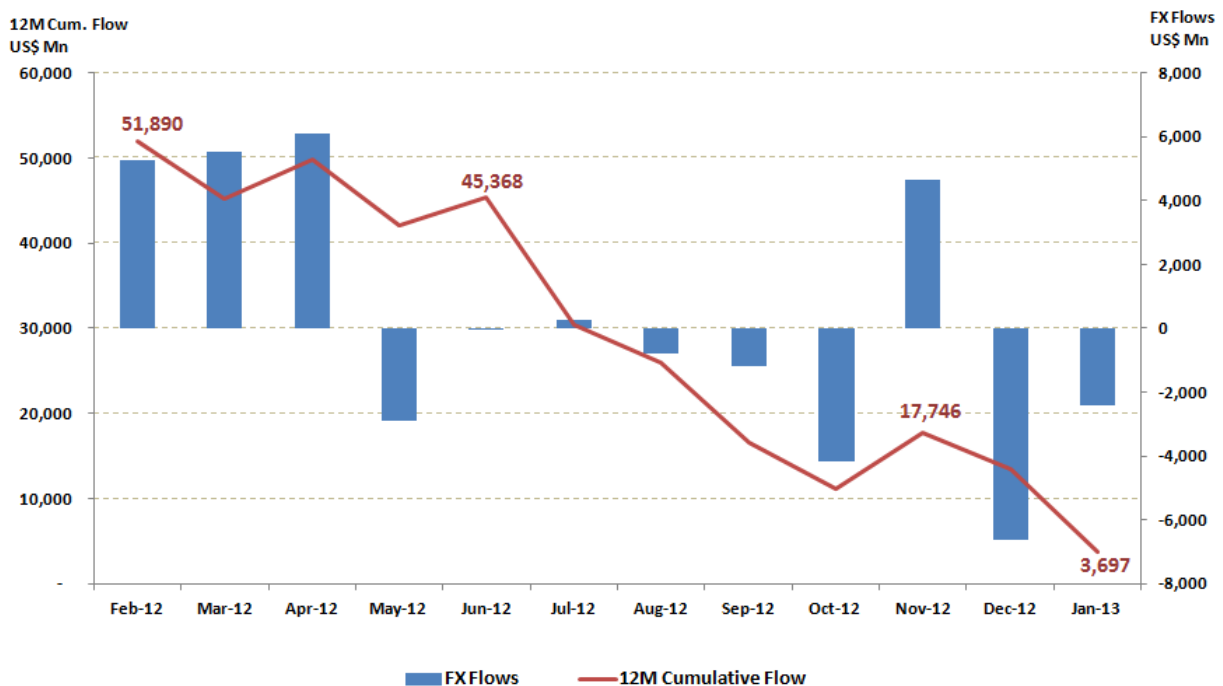
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JEL classification: F31, F32, F36

Since December of last year, Brazil has experienced large commercial and financial outflows, amounting to almost USD 9 billion. In December the figure was USD 6,6 billion, evenly shared between both segments. This behavior was expected, especially in the financial segment, as remittance flows are highly expected at the end of the calendar year.

January saw another negative flow, led by a USD 3,5 billion commercial outflow which was partially offset by a USD 1.1 billion financial inflow. As a result, the 12 month cumulative FX flow reached the lowest level in 40 months, USD 3.7 billion (Figure 1). By comparison, the peak of this series was in August 2011, when the cumulative flow reached USD 75 billion.

Figure 1



Despite the disappointing numbers from the external sectors, which raise important concerns about the trajectory of the current account – the Brazilian Central Bank (BCB) forecasts a USD 65 billion deficit for 2013 – foreign direct investment remains very robust. In 2012 FDI totaled USD 65.3 billion and the official forecast points to the same volume in 2013, signaling that FDI alone will likely be able to finance the current account deficit.

In order to deal with the large outflows observed in late December and their potential negative impacts on the liquidity of the local FX market the, BCB announced several credit line auctions. Those auctions were in essence FX swaps where the BCB sold spot dollars combined with outright repurchase. In all, the BCB provided USD 5.5 billion in dollar lines through 16 auctions, with maturities up to March 2013.

A further step taken by the BCB in December to alleviate pressures in the spot market was the decision to extend the threshold for the reserve requirement on banks' dollar short position from USD 1 billion to USD 3 billion. This measure helped to improve banks' ability to accommodate FX outflows on their balance sheets.

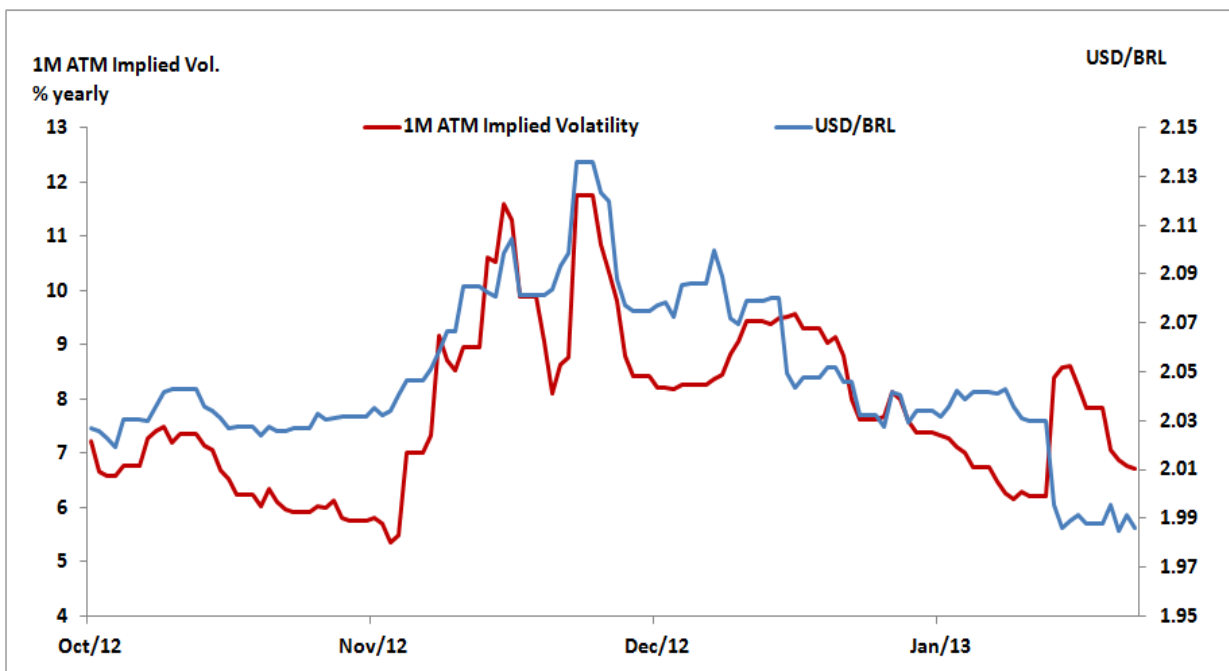
Additionally, the BCB sold USD 4 billion in December through onshore derivatives markets, which was very effective in containing the BRL depreciation trend in course during November. Since then the BCB has held a 1.85 billion dollar short position.

It is also worth mentioning BRL volatility behavior. The BRL's depreciation trend in November spurred a huge surge in implied volatility – the 1 month volatility more than doubled in a two weeks – followed by a sharp decline during December as BCB actions were put in place. In addition, some market participants perceived the BRL as trading within a narrow range between 2.00 and 2.05.

In November BRL price action was notably influenced by developments in the OTC offshore market when the buildup of leverage structures, through a combination of plain vanilla and digital options offshore in fairly sizable amounts, played a relevant role in driving the behavior of market makers and their clients.

The declining pattern of volatility continued until the end of January, when it jumped up again as USD.BRL broke the 2.03 spot level and moved towards 1.98. As the exchange rate has settled around this level since then, volatility has started coming down again (Figure 2).

Figure 2



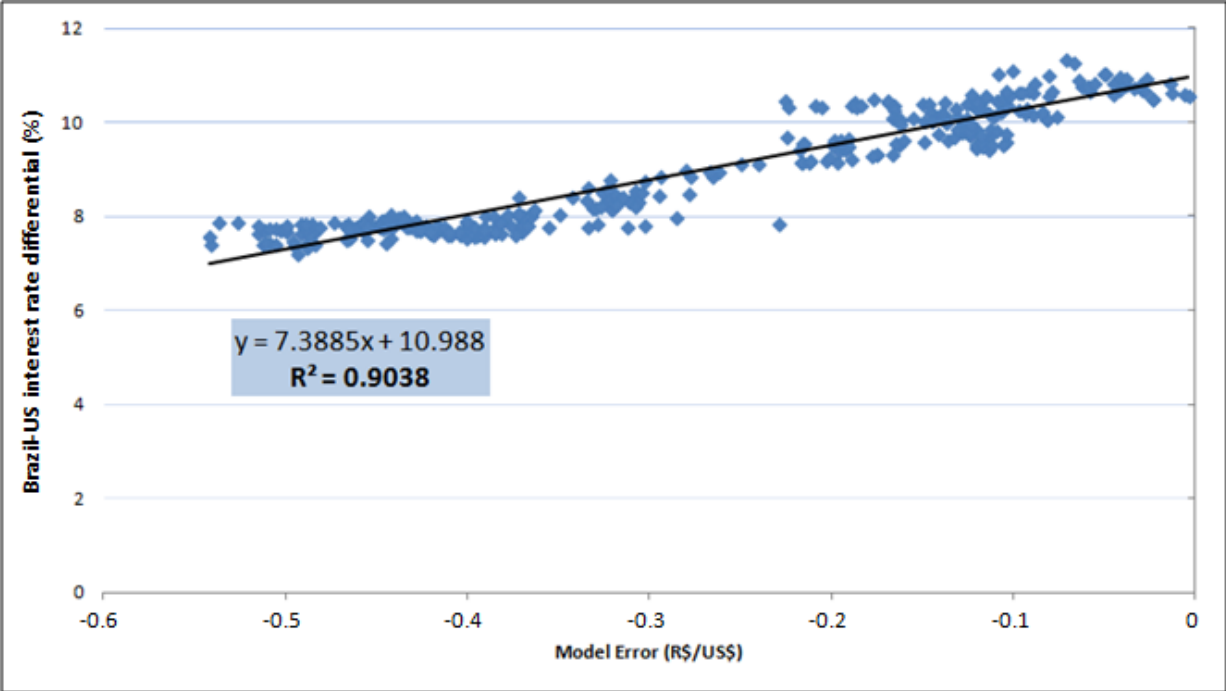
In a recent study conducted at the Foreign Reserves Department, a regression model was used to gauge the impact of interest rate on the exchange rate. Prior to August 2011 much of the BRL's behavior could be explained by variables such as commodities indices, the volatility of the S&P500 Index and a basket of correlated currencies. Interest rate differential was not a key driver back then.

However, in August 2011, the BCB started an easing cycle which ended up by cutting the benchmark SELIC rate from 12,5% to the current 7,25%. Regressions reveal that interest rate differential has been the most important variable by far to explain the trajectory of the BRL since then. This also helps us to understand the poor performance of BRL against its main peers over the last 18 months.

Another interesting aspect to be mentioned is the less evident influence on the BRL of regulatory measures. As is widely known, since 2010 the Brazilian government has adopted several FX and tax regulations designed to inhibit speculative flows. The first measures announced in October 2010 targeted the fixed income market, whereas the derivatives markets were addressed in July 2011.

In both cases a financial operations tax was either imposed or hiked to discourage investors from building up large positions in BRLs, especially in the derivatives market where they were predominantly leveraged. Nevertheless, contrary to the view of many market participants, the same study concluded that regulatory measures had only a transitory impact on the BRL (Figure 3).

Figure 3



## Appendix

Date	Law	Announcement
March 9, 2005	Circular 3.280	Issued the Regulation Manual for Foreign Exchange Market and International Capital Transactions (RMCCI), as well as unified Exchange Markets (Floating and Commercial)
August 4, 2006	Resolution 3.389 CMN	Up to 30% of the total proceeds of an export transaction are allowed to be kept offshore deposited in the exporter banking account
March 13, 2008	Decree 6.391	IOF tax increased from zero to 1.5% for foreign investments on equity and fixed income securities
October 22, 2008	Decree 6.613	IOF tax reduction from 1.5% to zero for all transactions (Lehman Brothers crash)
October 19, 2009	Decree 6.983	IOF tax increased to 2% for foreign investments on equity and fixed income securities
October 4, 2010	Decree 7.323	IOF increased for foreign investments in local currency fixed income instruments from 2% to 4%. No change in tax on equity investments.
October 7, 2010	Resolution 3.912	Establishes the types of transactions by foreign investors which will be subject to simultaneous FX operations
October 18, 2010	Decree 7.330	IOF financial transactions tax hike on foreign investors inflows into local currency fixed income securities from 4% to 6% and on margin collateral for derivatives from 0.38% to 6%.
October 20, 2010	Resolution 3.914	Prohibits the local banks from lending, swapping or renting securities to foreign investors
October 20, 2010	Resolution 3.915	Cash received from daily settlement in futures contracts is not subject to IOF tax.
January 6, 2011	Circular 3.520	Establishes a reserve requirement for banks holding short spot positions larger than USD 3 BN. This measure will be effective only after April 4th.
April 4, 2011	Circular 3.520	Date of effectiveness for the measure above.
May 24, 2011	Decree 7.487	Changes de IOF regulation on credit operations
July 8, 2011	Circular 3.548	Changes the reserve requirement for short spot positions threshold from USD 3 BN to USD 1 BN. This measure will be effective on the next week of its presentation.
July 27, 2011	Provisional Measure 539/2011	<ul style="list-style-type: none"> <li>– Allows the National Monetary Council (CMN), a collegiate decision instance that gathers the Finance Minister, the Planning Minister and the Governor of the Central Bank of Brazil, to require deposits and set limits, tenures and other conditions on the negotiation of any derivative contract;</li> <li>– Establishes the legal basis for charging the IOF (tax on financial operations) on derivatives, setting 25% as the ceiling rate for the IOF;</li> <li>– The IOF shall be charged on the “adjusted notional value”, which is the notional value adjusted by the derivative’s delta;</li> </ul>
July 27, 2011	Decree 7.536	<ul style="list-style-type: none"> <li>– Imposes a 1.0% IOF tax on the notional amount set in the acquisition, sale or maturity of financial derivatives exposed to FX variation that results in an increase of the net short dollar positions in respect to the previous day position higher than USD 10 million;</li> <li>– Allows authorized clearing houses to calculate and to collect tax due by derivatives market participants, whose positions in different clearing houses will be allowed to be netted;</li> <li>– Imposes a 1.0% IOF tax on loans with maturities longer than 720 days in case of early redemption, partially or completely, by the borrower, which will also be subjected to the payment of arrears of interest and fine.</li> </ul>
September 16, 2011	Decree 7.563	Clarifies the IOF on derivatives calculus. Also establishes that the initial tax payment will be delayed to December 14th, 2011.

Date	Law	Announcement
December 1, 2011	Decree 7.632	Finance Minister reduces the IOF tax from 2% to 0% on portfolio investments. Also reduces the IOF on infrastructure debentures from 6% to 0%.
December 2, 2011	-	The files for IOF tax collection were made available to investors/banks.
December 27, 2011	"Portaria" 560 (Ministry of Finance)	Delays from December 29th to January 30rd the tax collection of IOF (this payment will settle tax liabilities regarding the September 16th 2011 to December 31rd operations).
March 1, 2012	Decree 7.683	Extends from two to three years the loans of financial institutions that are subject to the 6% IOF tax.
March 1, 2012	Circular 3.580	Limits the registry of exports prepayment to contracts with a maturity below 1 year.
March 12, 2012	Decree 7.698	Extends from three to five years the loans of financial institutions that are subject to the 6% IOF tax.
March 16, 2012	Decree 7.699	Exempts exports from IOF tax collection if the derivatives contracted are used for hedging purposes.
June 14, 2012	Decree 7.751	Brazil's government has announced that the 6% IOF tax imposed on foreign loans will now only apply to loans up to two years, reduced from five years previously.
June 28, 2012	Circular 3.604	Changes the RMCCI ("Circular 3.280") allowing that any foreign firm, including financial institutions, may anticipate the export payment. The Circular 3.580 (March 2012) did allow only for importers that they could anticipate export payments.
December 4, 2012	Circular 3.617	Modifies the Circular 3,580, now creating a sub-section (2-A) on RMCCI that allows the prepayment of export contracts within 1,800 days (~5 years)
December 5, 2012	Decree 7,853	Reduces from 2 to 1 year the minimum loan-maturity to be IOF tax-exempt.
December 18, 2012	Circular 3.619	Changes Circular 3.548 extending the threshold for reserve requirement for the average short position from USD 1 BN (or 60% of tier 1 net equity, if smaller) to USD 3 BN, no net equity limit.
January 30, 2013	Decree 7.894	Reduces the IOF tax from 6% to 0% on foreigners' investments in real state funds.