Did the Controls on Capital Inflows work?

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The controls on capital inflows did not significantly affect the exchange rate, but produced side effects.

In October 2009, the government began to introduce what would become an extensive set of controls on inflows of foreign capital in Brazil, imposing a 2% IOF (tax on financial transactions) tax on foreign applications on fixed and variable income. Since 2012, many of the controls have been relaxed or eliminated, suggesting that one more cycle of capital controls may be coming to an end, as occurred between 1993 and 1998. It is therefore a good opportunity to assess the success of such measures.

It's good to keep in mind the basic differences between the two control cycles. In the experiment 93-98, the foreigners flows came to enjoy the high domestic interest rates in a controlled exchange rate regime, through carry-trade operations (borrowing in strong currencies with low interested rates and apply here with high interest rates and predetermined exchange rate). On the other hand, the capital flows that resumed after the recovery from the 2008 crisis were much more diversified, because interest rates were not as high as in the past, the Brazilian economy had reached a much more favorable situation, including investment grade and the exchange rate was floating.

Brazil's recent experience with capital controls has attracted enormous attention in the wake of remarkable change of position of the IMF, which now recommend, even under well-defined circumstances, the use of capital controls to prevent the creation of bubbles and financial crisis. Part of the great interest derives from the fact that never before has a relatively internationally open country have experimented so actively with capital controls. Also in the academy, there is great interest in the topic. In the main economy conference, the ASSA (Allied Social Sciences Association), held in San Diego in early 2013, there were at least four articles analyzing various aspects of the Brazilian experience with capital controls.

Article co-authored with Marcos Chamon, available on my page (www.econ.puc-rio.br/mgarcia), analyzes the recent Brazilian case. On such an analysis, you need to decide what criteria to use to evaluate the success or failure of controls. A criterion is to assess whether the controls were able to reduce the flow. Naturally, such evaluation requires a counterfactual exercise, to compare what actually happened with what would have occurred if controls had not existed. In international literature, there are conflicting results, but, in general, there is stronger evidence that capital controls alter the composition of flows (e.g. less carry-trade and more direct foreign investment), but not the magnitude of total capital inflows. And a common criticism of such results is that

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they could be interpreted as evidence that investors have finally managed to disguise taxed flows (carry trade) as free flows (direct investment).

Our article follows a complementary approach. We compare prices for similar assets available in Brazil and in the USA, shares traded in Brazil compared with their respective ADRs (American Depositary Receipts are the same shares in the U.S dollar and traded in the USA). If the controls have been effective, a price difference of the size of the IOF (2%) should have arisen when the exchange rate is taken into account. In fact, we found just that, but only when foreign investors are liquidly buying shares of Brazilian companies. We also show that the size of the prize between two prices of the same shares induces the issue of new ADRs

In turn, in the fixed income market, the discrepancy between the interest rate in dollars in Brazil (*Cupom Cambial*) and in the USA is more ephemeral and less than the IOF rate (6%). In short, we show that capital controls produced a wedge between prices of those financial assets traded in two different jurisdictions, a taxed and some not.

But our authorities were, as a rule, candid about the real goals that inspired the imposition of controls: combat real appreciation. Thus, it is natural that one of the criteria to evaluate the effect of the controls is to verify to what extent this goal was achieved. We constructed counterfactuals for the exchange rate, based on econometric models without controls, and compared with the actually occurred. We also compared the real exchange rate with other currencies of similar countries. Both exercises point to the ineffectiveness of controls in affecting the exchange rate. What seems to have significantly affected the exchange rate was, yes, the unexpected relation of monetary policy in the second half of 2011. As prescribes the textbook, lower interest rates depreciate the exchange rate.

But it is possible that the cumulative effect of the controls, especially the IOF on foreign exchange derivatives, has made more powerful the effect of interest rate cuts on the exchange rate as of March 2012, although many of the restrictions have been relaxed since then. Once the positions in the markets for foreign exchange derivatives have greatly reduced since the imposition of the IOF in July 2011, the exchange rate has fluctuated within a narrow band, in accordance with the Central Bank of Brazil interventions, in both directions.

The literature prescribes that capital controls can be unequivocally desirable, increasing the welfare of the economy, if they can avoid excessive debt and blistering, which was a risk in 2010, given the excessive optimism of foreigners with our economy. It may be that our controls have had such an effect. Nevertheless, given the rickety domestic savings rate of the Brazilian economy, 16% of GDP, and the need of complement it with foreign savings to enable investment rates compatible with sustained GDP growth of 4% a year or more, may be that capital controls have also permanently removed part of the capital inflows that could leverage the growth of the Brazilian economy.