Capital Flows to Developing and Emerging-Market Economies during the 2007–10 Crisis

This chapter reviews the behavior of capital flows to developing and emerging-market economies during the 2007–10 crisis (table 1.1 lists the economies included, by region). The volatility observed in the fall of 2008 was unprecedented in size and scope, but it was not qualitatively very different from the volatility observed during earlier sudden stops in international capital flows. In particular, as during previous episodes, bank loans and portfolio flows tended to be more volatile than other types of capital flows. One feature that does distinguish the 2007–10 crisis is that it spurred more widespread use of capital controls as a tool for the prudential management of capital flows rather than as a tool solely for crisis management. The main example is the introduction of controls on capital inflows by Brazil, which is reviewed in detail at the end of this chapter.

Capital Flow Volatility

Figure 1.1 shows a measure of capital flows to and from developing and emerging-market economies between the first quarter of 2007 and the third quarter of 2010. Four types of flows are reported as a percentage of aggregate GDP: foreign direct investment (FDI), bank loans, portfolio flows (equity and bond), and other flows excluding banks. The figure also reports the accumulation of foreign exchange reserves on the side of outflows.

There was a sharp, sudden stop in capital inflows in the last quarter of 2008, just after the failure of Lehman Brothers Holdings Inc., when the volume of gross inflows fell from about 8 percent of GDP to about –10 percent of GDP.[1] The sudden stop reflected mainly the reversal in bank loans and port-

---

1. The inflows are reported as gross rather than net flows in the sense that they are not reduced by

Table 1.1 Developing and emerging-market economies, by region

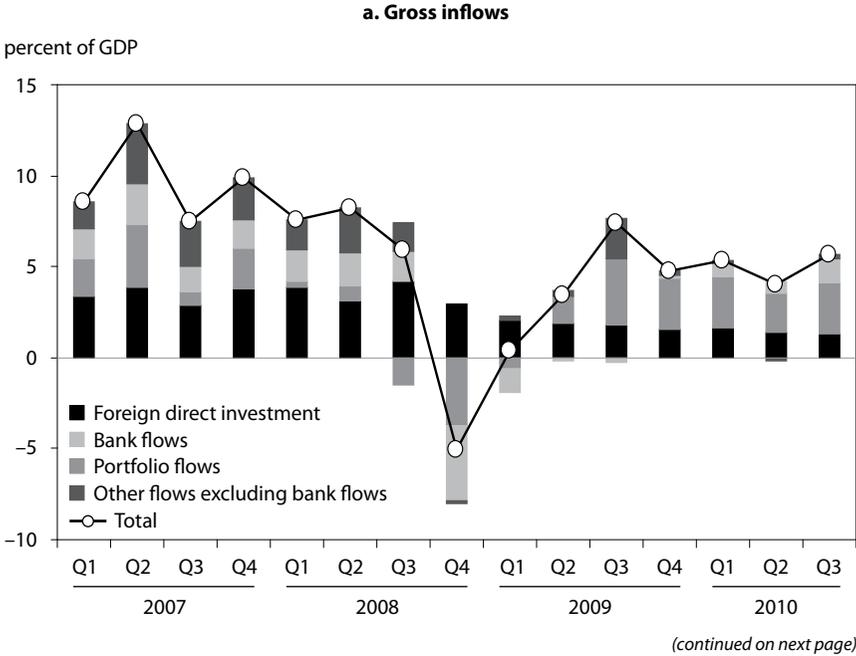| Region	Economies
Latin America and the Caribbean (28)	Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, St. Kitts and Nevis, St. Lucia, St. Vincent, Suriname, Uruguay, and Venezuela
East Asia (17)	Cambodia, China, Fiji, Indonesia, Kiribati, Laos, Malaysia, Mongolia, Myanmar, Papua New Guinea, Philippines, Samoa, Solomon Islands, Thailand, Tonga, Vanuatu, and Vietnam
South Asia (8)	Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka
Europe and Central Asia (21)	Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Macedonia, Moldova, Poland, Romania, Russia, Serbia, Tajikistan, Turkey, Turkmenistan, and Ukraine
Middle East and North Africa (12)	Algeria, Djibouti, Egypt, Iran, Iraq, Jordan, Lebanon, Libya, Morocco, Syria, Tunisia, and Yemen
Sub-Saharan Africa (45)	Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Republic of Congo, Côte d'Ivoire, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, São Tomé and Principe, Tanzania, Togo, Uganda, Zambia, and Zimbabwe

Note: Table 1.2 does not include data on Afghanistan, Bhutan, Vietnam, and Somalia.

Source: International Monetary Fund.

folio flows, and it was relatively short-lived: Capital inflows returned to their precrisis level by the third quarter of 2009, less than a year later. However, the composition of the inflows had changed: Bank inflows remained close to zero while portfolio flows rebounded—a change that probably reflects the persistent risk aversion of advanced-economy banks after the failure of Lehman. Strikingly, however, FDI remained stable, even as other inflows were highly volatile.

---

the capital outflows generated by residents (which are reported in the second panel of the figure), but they are net of the asset sales by nonresident investors. A negative number indicates that foreign investors sold more domestic assets than they purchased during the quarter.

Figure 1.1   Capital flows to emerging-market economies (excluding China), 2007Q1–10Q3

a. Gross inflows

percent of GDP

Foreign direct investment
Bank flows
Portfolio flows
Other flows excluding bank flows
Total

Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3
2007   2008   2009   2010

The second panel of the figure shows how gross capital outflows from developing and emerging-market economies behaved before, during, and after the crisis. Foreign exchange reserves are both the largest and the most volatile component. These economies were accumulating reserves at rate of 5 percent of GDP per year in 2007, but their stock of reserves declined by almost 10 percent of GDP during the post-Lehman sudden stop. By the end of 2009, however, these economies were again accumulating reserves at the same pace as before the crisis.

The experience of developing and emerging-market economies with capital flows around the time of the Lehman crisis can be summarized as follows. In the fall of 2008, there were very large outflows of bank and portfolio flows, the impact of which on the current account and domestic demand was largely buffered by an equivalent reduction in the stock of reserves, which mitigated the repercussions of the sudden stop on the real economy.

Was the 2008 sudden stop unusual? Figure 1.2 shows the same capital flows a decade earlier, starting at the time of the Asian financial crisis (1997–98) and continuing through the subsequent crises in Russia (1998) and Brazil (1998–99). There are several similarities between the crises of the 1990s and the recent crisis. First, the reversal in gross capital inflows in both cases involved

Figure 1.1   Capital flows to emerging-market economies (excluding China), 2007Q1–10Q3 *(continued)*

b. Gross outflows

percent of GDP
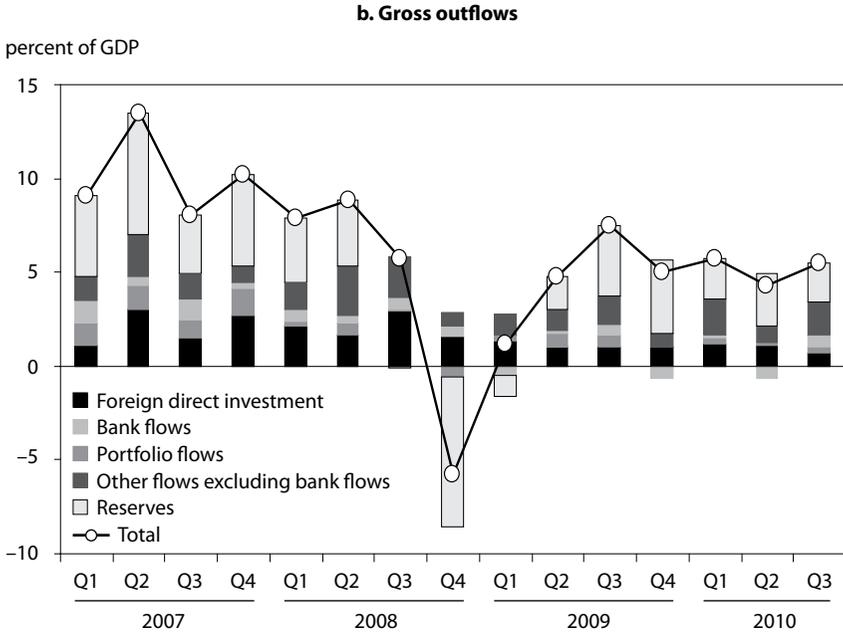
Notes: Includes 27 emerging-market economies: Argentina, Brazil, Bulgaria, Chile, Côte d'Ivoire, Dominican Republic, Ecuador, Egypt, El Salvador, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Morocco, Pakistan, Panama, Peru, Philippines, Russia, South Africa, Thailand, Tunisia, Turkey, Uruguay, and Venezuela. Quarterly data are unavailable for China.
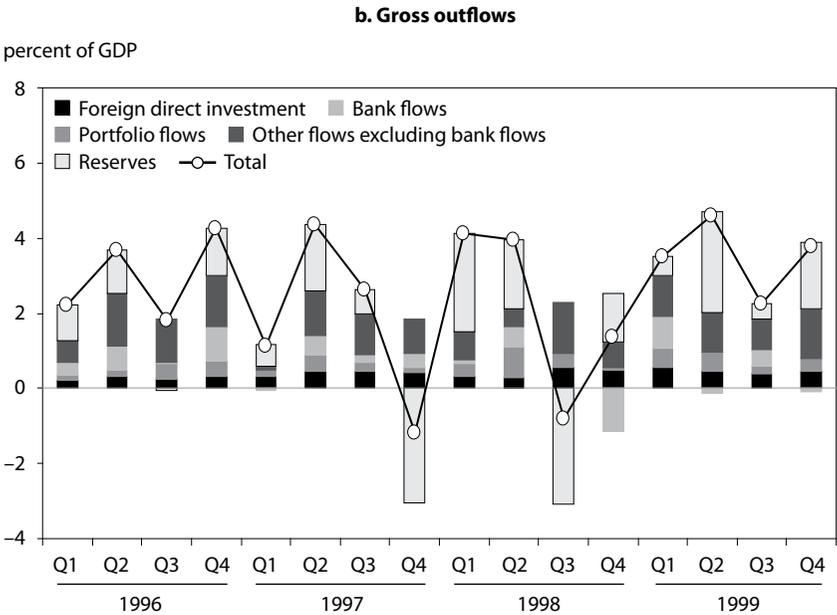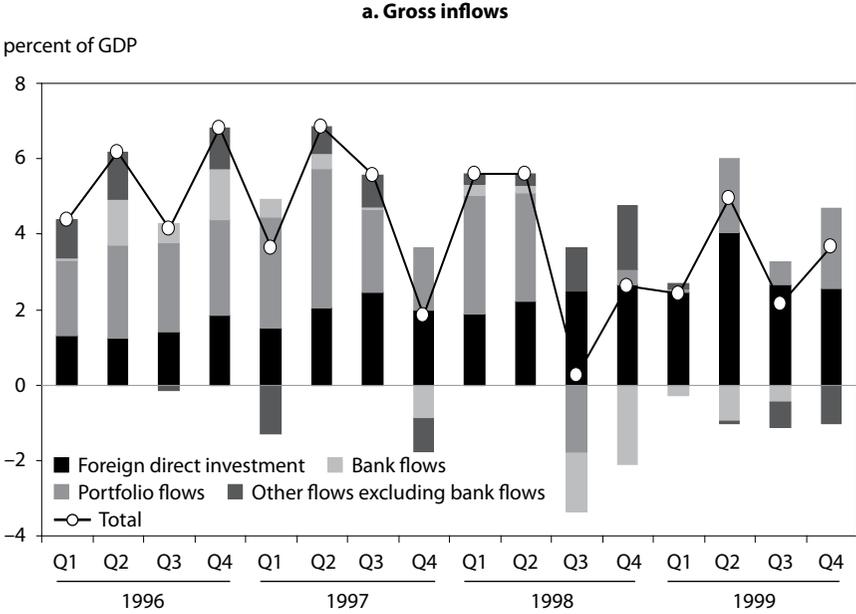
Source: International Monetary Fund, Balance of Payments (BOP) database.

mostly bank and portfolio flows, whereas FDI was relatively stable. Second, the impact of the reversal on net capital flows (or the current account balance) was largely buffered by a decline in international reserves.

There were also some differences between the two periods. First, the magnitude of both inflows and outflows was larger during the recent crisis. Bank and portfolio gross inflows fell to almost −8 percent of GDP in the fall of 2008, whereas they never fell below −4 percent in the 1990s. However, this partly reflects the fact that the 2008 sudden stop was caused by a common shock at the center of the global financial system and therefore hit a large number of countries at the same time, whereas the previous crises were less synchronous. The crises of the 1990s took the form of contagion between dominos that fell one after the other at the periphery (first in Southeast Asia, then Korea, Russia, and Brazil).

Overall, however, from the point of view of individual developing and emerging-market economies, there was not a huge qualitative difference between

Figure 1.2   Capital flows to emerging-market economies (excluding China), 1996Q1–99Q4

a. Gross inflows

percent of GDP

b. Gross outflows

percent of GDP

Note: See figure 1.1 for list of countries included.

Source: International Monetary Fund, Balance of Payments (BOP) database.

the magnitude of the shock and the types of capital flows involved in the sudden stops of the 1990s and the recent crisis. For example, bank and portfolio gross flows to emerging Asia fell to −13 percent of GDP during the last quarter of 1997 and the first quarter of 1998, compared with −16.5 percent in the last quarter of 2008.

This is not to say that the recent crisis was not novel in other ways—in particular, the collapse of capital flows between advanced economies was unprecedented (see Milesi-Ferretti and Tille 2011). But for most developing and emerging-market economies, the recent crisis was neither the watershed event it was for advanced economies nor as disruptive as the international financial crises of the 1990s.

The pattern of capital flow volatility observed during the 2008 crisis—in particular, the fact that bank and portfolio flows were much more volatile than FDI—is also consistent with the long-run behavior of capital flows during both crisis and noncrisis times. Table 1.2 shows relevant statistics on the flow of four types of capital to all developing economies by region. The first column shows the standard deviation of changes in the net flows to each region, with the change measured relative to the exponential increase in total flows to the region.[2] The remaining columns highlight the relative stability of bank flows versus other flows. The second column shows average net flows, which would be an indicator of stability if the standard deviation were small relative to the average flow. However, the average net flows are negative in a number of instances, an indication that outflows of that category dominated inflows. A more natural way to judge the stability of a particular type of flow is whether its standard deviation is small relative to the average inflow or outflow, i.e., relative to the average *absolute* net flow.

These absolute net flows appear in the third column. The next three columns show the share of the standard deviation of a particular type of capital flow in relation to the standard deviation of the total flow to each region and calculate average flows on both bases to the total flow to the region. The final column includes our preferred measure of the relative variability of different types of capital flow, which is calculated by dividing the figure in the fourth column by the figure in the sixth column.

For all regions, the relative variability is by far the smallest for FDI, then for portfolio equity and for other types of capital, and it is by far the largest for flows of bank capital (more than 13 times as volatile as FDI). These results confirm the conventional wisdom, except that perhaps there was no strong expectation about the relative volatility of other flows. The ordering is similar

---

2. That is, an exponential trend was fitted to total flows to each region, and the size of the regional inflow accounted for by each type of capital flow (FDI, portfolio equity, banks, and other) was deflated by the expected value of the total inflow to the region during that period according to the exponential trend. The standard deviations of these series were calculated.

for most of the regional flows, excluding the Middle East and North Africa (MENA).[3]

For the other five regions, the results are similar except that portfolio equity is more volatile than other flows for South Asia and Sub-Saharan Africa, and other flows are more volatile than bank flows for Europe and Central Asia (ECA). For every region, however, FDI is dramatically less volatile than all other types of flows, and for every region except ECA, bank capital is the most volatile type of flow.

Resurgence of Capital Controls on Inflows

The fact that developing and emerging-market economies have resorted to capital controls is another difference between the recent crisis and the previous crises. The capital controls that were perhaps the most emblematic (and debated) during the late 1990s were measures introduced by Malaysia in September 1998.[4] These were controls on capital outflows whose main purpose was to mitigate capital flight from Malaysia and forestall depreciation of the ringgit. Capital controls, in this case, were used as a crisis-management tool.

By contrast, the recent crisis spurred a revival of the use of capital controls as a tool for preventing crises, not only for managing them. This began in late 2009, when controls on inflows were introduced to deal with a new tide of capital flows from advanced to developing and emerging-market economies. A number of these economies had used such capital controls in the past, including Brazil, Chile, and Colombia during the 1990s, but their use had largely fallen out of fashion[5] (although capital account restrictions were kept in place by some countries including China, which tightly controls both inflows and outflows).

Brazil led the way, introducing a 2 percent tax on all capital inflows except direct investment in October 2009. The rate was increased to 6 percent in October 2010 for bond finance, and the tax was extended to cover derivatives. (The Brazilian experience is described in more detail at the end of this chapter.)

Several other emerging-market economies also introduced controls on capital inflows during 2009 and 2010. In November 2009 Taiwan introduced a ban on capital inflows for time deposits. In June 2010 South Korea introduced curbs on capital inflows. The measures introduced by Korea's central bank had three major components: restrictions on currency derivative trades; enhanced restrictions on the provision of bank loans in foreign currency; and further tightening of the existing regulations on the foreign currency liquidity ratio

---

3. No such calculations were performed for MENA because it transpired that the predicted flow was approximately zero and deflating by zero gives an undefined number.

4. The Malaysian controls have been studied by a number of authors including Kaplan and Rodrik (2002) and Johnson et al. (2007).

5. Chile was phasing out its own system of controls on capital inflows (the *encaje*) during the same month Malaysia was introducing its controls on capital outflows.

Table 1.2   Comparative volatility of different types of capital flows to emerging-market economies, by region, 1970–2010

Flow	Computed standard deviation (deviation from trend)	Average net flows (millions of US dollars)	Average absolute value of net flows (millions of US dollars)	Share in standard deviation	Share in average net flows	Share in average absolute value of net flows	Relative volatility
Latin America and the Caribbean							
Total flows	1.50	27,525	32,812	1.00	1.00	1.00	1.00
FDI	0.33	26,139	26,171	0.22	0.95	0.80	0.27
Equity flows	0.24	3,309	5,669	0.16	0.12	0.17	0.91
Bank flows	0.62	381	5,338	0.42	0.01	0.16	2.56
Other flows	0.97	−2,062	14,436	0.65	−0.07	0.44	1.47
East Asia							
Total flows	2.37	35,452	38,541	1.00	1.00	1.00	1.00
FDI	0.54	38,223	38,223	0.23	1.08	0.99	0.23
Equity flows	0.20	4,541	5,847	0.09	0.13	0.15	0.56
Bank flows	1.24	234	10,403	0.53	0.01	0.27	1.95
Other flows	2.15	−4,207	20,461	0.91	−0.12	0.53	1.71
South Asia							
Total flows	0.55	15,634	15,634	1.00	1.00	1.00	1.00
FDI	0.10	4,135	4,136	0.18	0.26	0.26	0.70
Equity flows	0.39	4,694	5,725	0.70	0.30	0.37	1.92
Bank flows	0.20	1,353	1,871	0.36	0.09	0.12	3.02
Other flows	0.37	6,104	6,830	0.66	0.39	0.44	1.51

Sub-Saharan Africa							
Total flows	2.88	2,406	6,664	1.00	1.00	1.00	1.00
FDI	1.08	5,489	5,522	0.38	2.28	0.83	0.45
Equity flows	1.14	561	2,146	0.40	0.23	0.32	1.23
Bank flows	0.96	−295	1,749	0.34	−0.12	0.26	1.28
Other flows	2.25	−3,349	5,626	0.78	−1.39	0.84	0.93
Europe and Central Asia							
Total flows	1.97	17,276	22,906	1.00	1.00	1.00	1.00
FDI	0.28	14,858	14,858	0.14	0.86	0.65	0.22
Equity flows	0.15	1,517	2,584	0.08	0.09	0.11	0.67
Bank flows	1.00	4,185	10,024	0.51	0.24	0.44	1.16
Other flows	1.28	−1,562	9,926	0.65	−0.09	0.43	1.50
All regions (including Middle East and North Africa)							
Total flows	1.69	96,031	96,574	1.00	1.00	1.00	1.00
FDI	0.29	86,524	86,540	0.17	0.90	0.90	0.19
Equity flows	0.17	11,481	16,168	0.10	0.12	0.17	0.62
Bank flows	0.74	6,049	16,587	0.44	0.06	0.17	2.56
Other flows	1.12	−8,023	37,153	0.66	−0.08	0.38	1.72

FDI = foreign direct investment

Notes: See table 1.1 for the countries included in each region; Afghanistan, Bhutan, Vietnam, and Somalia are excluded from this table. Net outflows (the negative of net inflows) are defined as assets + liabilities (where the International Monetary Fund has omitted the terms indicating changes in assets and liabilities for convenience). Bank flows are taken from the subcategory "other investment," which is a subgroup of the financial account. Other flows are defined as nonresident financial account not included elsewhere less nonresident FDI, nonresident portfolio equity, and nonresident banks. Other flows include debt, derivatives, deposits, loans, and trade credits.

Source: International Monetary Fund, International Financial Statistics database, July 2011.

of domestic banks. The currency forward and derivative positions of Korean banks and branches of foreign banks were limited to 50 percent of their equity capital. Indonesia introduced similar but more modest measures during this period, mainly through a one-month minimum holding period on a local-currency debt instrument issued by the central bank (known as Sertifikat Bank Indonesia, or SBIs). In October 2010, Thailand removed an exemption for foreigners on a 15 percent tax on income earned on domestic bonds, and similarly Korea reintroduced a 14 percent withholding tax on foreign investors' earnings from government bonds.

There are several important questions related to the use of such controls, especially the economic rationale and the most appropriate circumstances. But before we address these questions, here is a more detailed review of Brazil's recent experience with capital controls, which provides deeper background for the subsequent analysis.

Case Study: Brazilian Capital Controls

As noted, Brazil introduced a tax on capital inflows in October 2009. The tax rate was initially 1.5 percent but was raised to 2 percent almost immediately. The tax applied to all capital inflows except direct investment. This was feasible because all purchases of *reais* on the official market must be registered with the authorities, and capital inflows therefore can be distinguished from current account and FDI transactions. Because the tax was not proportional to the length of time foreign investors held Brazilian assets, the implicit tax rate was modest on long-term assets held for a long period of time and on short-term assets repeatedly rolled over, but was stiff on very short-term asset holdings.

A straightforward tax on capital inflows is arguably the best form of capital control (e.g., Zee 1999, Williamson 2000), because it creates disincentives for foreigners to invest in the country and incentives for them to hold onto any assets they do buy for a substantial period of time (which was seen as a virtue of the Chilean controls of the 1990s), and because it is simple to implement. Furthermore, there is evidence that inflows of portfolio investment accelerate the growth rate, but there is no similar evidence of the beneficial effect of increased fixed-interest borrowing. This was presumably the reason that the Brazilian authorities raised the tax rate on inflows of fixed-interest capital to 6 percent in October 2010, while leaving the tax rate on inflows of portfolio equity at 2 percent.

Were the Controls Effective?

One disadvantage of capital controls is that they may leave the authorities with the illusion that they have a greater ability to determine the course of events than they actually do. Based on a visit in August 2010, the Brazilian authorities did not suffer from this illusion: They had the impression that investors were complying with the tax, rather than evading or avoiding it, because the tax rate

was low. At that time, the SELIC rate[6] was 10.75 percent, compared with the Federal Reserve's discount rate of about 0.2 percent, which made it quite beneficial to hold short-term Brazilian rather than US assets. It was this interest differential, at more than 10 percent, that was motivating capital inflows, and was only reduced to 8 percent by the initial 2 percent capital inflow tax and then only if the Brazilian assets were held for no more than a year; the reduction was more modest if the assets were held longer than a year. Even after the tax rate was increased to 6 percent, there remained a strong incentive for inward arbitrage.

The Brazilian authorities could have had two motivations for instituting this tax: fiscal concerns (namely, to raise revenue) and exchange rate concerns (namely, to limit appreciation of the *real*). Those who consider fiscal concerns to be the primary motivation point out that the tax was introduced shortly after the National Congress of Brazil failed to renew a financial transaction tax that had been in place since 1999. Whether this was the main reason for imposing the capital controls or not, the tax is proving quite successful in raising revenue: The figure mentioned in August 2010 was 0.1 percent of GDP.

The other possible motivation was to limit the strengthening of the *real*. Shortly after the imposition of the tax, the exchange rate abruptly halted what had been a strong appreciation. Between the start of 2007 and the summer of 2008, before the failure of Lehman, the *real* had strengthened from R$2.13 to under R$1.6 per US dollar. In contrast, after imposition of the tax and until October 2010, the *real* hardly exceeded R$1.7 per US dollar.

Because the interest differential remained in excess of 4 percent per year, a flow view of the capital account would predict continuing capital flows into Brazil and therefore continuing appreciation. The more recent stock theory of the capital account draws a somewhat different picture: A change such as the imposition or increase of a tax on capital inflows (or, before that, the sudden stop of capital after the failure of Lehman) would cause a redisposition of capital and, as a consequence, a one-time change in the exchange rate. Under this view, the appreciation before the tax was imposed was a natural reaction to the dissipation of Lehman-induced fears, with the exchange rate perhaps on its way back to its previous level (about R$1.6 per US dollar). Imposition of the tax interrupted this process by reducing the expected excess return on Brazilian assets (that is, the interest differential) as already explained, and therefore reduced the value of the *real* at which a typical investor would balance the added return on Brazilian assets against the danger of a rapid depreciation of the *real* to or beyond its medium-term equilibrium.[7]

However, the *real* again appreciated in 2010, reaching beyond R$1.6 per US dollar in October, and this led the authorities to increase the capital inflow

---

6. The Sistema Especial de Liquidação e Custodia, or Special Clearance and Escrow System, is operated by the Brazilian central bank. The SELIC rate is the central bank's overnight rate.

7. This theory seems to contradict the view that the exchange rate is driven in large part by the expectation that any exchange rate trend is likely to be maintained.

tax on debt finance to 6 percent. The appreciation resumed until mid-2011 but seemed to have stopped by the fall of 2011, though whether or not this is due to the effectiveness of the capital inflow tax is impossible to determine.

Ways to Avoid or Evade the Tax

Critics of the use of capital controls to influence the exchange rate generally point to the problem of preventing tax evasion or avoidance. This has not been much of a problem in Brazil as of August 2010, according to both critics and supporters of the capital inflow tax, primarily because the effective tax rate was so low. There had been inquiries about potential legal ways to avoid the tax, but there were no reports of anyone who had taken such action. A 2 percent tax rate is too low to take the trouble to avoid it.

Given that the exchange rate is widely considered somewhat overvalued, the authorities had room to implement stricter capital controls (that is, a higher tax) from the outset, as they eventually did. What might have deterred them was the fear that a higher tax would have made it worthwhile for market operators to avoid or evade the tax, which would have diminished their ability to prevent an appreciation of the exchange rate and would have eroded the tax receipts.

One form of avoiding the control is paramount. This is for an external investor to arrange with a Brazilian financial institution that it will receive the return earned by a Brazilian investment in return for making an external investment (less a commission) but to leave it to the Brazilian financial institution to purchase internally the equity or debt that earns the return and to hold an external asset. If the Brazilian financial institution wishes to avoid holding an enlarged open position, then it has to buy *reais* for dollars in the exchange market, in which case it adds as much pressure to the foreign exchange market as if the foreigner had invested directly. From the microeconomic perspective of the foreign investor, the operation provides a good substitute for a foreign purchase of Brazilian equity or debt.

There are several additional methods for avoiding or evading capital controls that also limit the effectiveness of the capital controls in influencing the exchange rate. These are much more likely to prove profitable to investors facing higher tax rates on the purchase of *reais*.

The first involves current account transactions. Even systems involving rigid capital controls fail to suppress leads and lags in shifting money over the exchanges. When capital controls create pressure to shift money in, exporters can be expected to repatriate their money more quickly and importers to delay making payments. But even when the traders undertake transactions with foreign investors, the sums that can be shifted in are finite, and a change in incentives would only involve a delay in the movement of capital. Such a delay gives the authorities time to contemplate whether a change of policy is called for. There may also be scope for legitimate market participants to erroneously report the size of their transactions. For example, an exporter might exag-

gerate the value of foreign sales in order to bring in through the official market foreign capital in addition to actual earnings. Or an importer might understate the cost of foreign purchases, allow a foreigner who desired to purchase a Brazilian asset to make up the difference, and subsequently buy the asset and transfer it to the foreign investor. The potential size of any such "leakage" is limited by the ability of the authorities to estimate the true value of a given volume of exports or the true cost of a given volume of imports, and this ability is distinctly greater for commodities than for nontraditional products.

The second additional method for avoidance or evasion is through FDI accounts. A multinational enterprise with operations in Brazil could respond to the attractiveness of Brazilian assets by holding a larger part of its liquid balances in Brazil. Conceivably, such firms could go even further and take funds from investors with the intention of investing them in Brazil, but the potential for the authorities to take harsh countervailing actions is generally sufficiently unpleasant to make such evasion unlikely on a meaningful scale. Foreign investors may also attempt to mislabel their investments as FDI when their intention is to purchase Brazilian financial assets, but such activities can be countered by requiring proof that transactions described as FDI ultimately result in the purchase of real assets.

A third method for avoidance or evasion is through the use of trade credit, which has traditionally been exempt from capital controls (although the rationale for such exemptions is less clear now that emerging markets are experiencing excessive capital inflows). A foreign bank could offer a side payment (a polite term for a bribe) to a Brazilian bank to say that some of the credits being extended to Brazilian exporters were being made by the foreign bank, allowing the foreign bank to remit the funds to Brazil and use them to purchase Brazilian assets.

The final method for avoidance or evasion is to operate through alternative exchange markets. In Brazil, in addition to the official market, there are both a legal tourist market and an illegal parallel market. Foreign tourists also have the right to buy *reais* on the official market, and since bank spreads are higher, the *real* is normally at a discount in this market. Although this provides some incentive for foreign investors to use the tourist market, doing so would be illegal (and the limited capacity of the tourist market makes it also impractical). The *real* tends to be at an even bigger discount in the illegal parallel market than in the tourist market, but it would be distinctly risky for a foreign investor to bring money in through the parallel market, not least because it would be impossible to take it out again. Therefore, there is unlikely to be significant leakage through either of these other exchange markets in Brazil. Late in 2011 exchange pressures eased and the Brazilian authorities announced the end of capital controls for the time being.