

Breaking the mould

**How Latin America is coping with
volatile capital flows**

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Executive Summary

After 30 years of financial liberalisation, developing countries are increasingly relying on techniques to regulate the flows of capital going in and out of their countries. The slow process of acceptance and de-stigmatisation of capital account regulations was triggered by the several financial crises of the 1990s in developing countries, and accelerated after the 2008 global financial crisis, which brought to the fore the risks of unregulated global capital flows.

Financial liberalisation was followed by socially and economically devastating financial crises throughout the world. There is now substantial evidence of the role of financial liberalisation in triggering financial crises, and on how these crises particularly affect the poor. The rationale behind the use of capital account regulations is to reduce the risks associated with volatile capital flows, while contributing to protect and promote economic activity and employment creation.

Latin America is a clear example of a region that in the 1980s and 1990s, under the conditionality and advice of the World Bank and the IMF, embraced financial liberalisation, suffered several financial crises and is now increasingly relying on different forms of regulation of inflows and outflows.

Argentina, Brazil and Costa Rica are among the countries that have recently implemented capital account regulations. This report reviews the evidence available on the impact of the measures implemented in these countries. The case studies provide evidence of the usefulness of capital account regulations not only in achieving financial stability, as already acknowledged by the IMF, but also in preventing unwarranted appreciation of the exchange rate and increasing monetary policy space. In this way, the report highlights the role of capital account regulations in supporting broader development goals like employment creation and poverty reduction.

While in Argentina the capital account regulations implemented since the 2001 crisis are part of a comprehensive policy 'toolkit' which represents a U-turn from 1990s financial liberalisation, in Brazil and Costa Rica the measures implemented come as isolated policies responding to a particular context of high capital inflows stimulated by low interest rates in rich countries.

After the 2001 financial crisis that forced half of the population below the national poverty line, Argentina implemented several regulations on capital inflows and outflows, as part of broader prudential macroeconomic policy framework. Since 2005 short-term investments require a deposit of 30% of the value of the investment to be held by the central bank for the period of one year. This regulation has been effective in reducing inflows in boom periods, reducing exchange rate volatility and increasing monetary policy space. Despite regulations on outflows, the level of capital outflows is still high. In general terms, this 'toolkit' of regulations helped enable a process of fast economic growth and significant social progress.

In 2009 Brazil implemented taxes on foreign purchases in the stock and bond markets. These taxes aim to prevent speculative inflows appreciating the exchange rate. From 2008, short-term investments, known as carry-trades, flooded the country and artificially inflated the value of the Brazilian currency, posing a threat to the competitiveness of Brazilian industrial exports. The taxes implemented have shown some effectiveness in slowing capital inflows and reducing currency appreciation. By doing this, the tax contributes to protecting employment. However,

the incentives and benefits received by short-term investors, like high interest rates and tax exemptions, remain too large to be discouraged by a 2% tax.

Like in Brazil, large speculative inflows were artificially inflating the value of the Costa Rican currency and harming the capacity of local industries to compete internationally. Despite 30 years of liberalisation, in September 2011 Costa Rica decided that short-term foreign loans received by banks and other financial entities would require a non-interest bearing deposit to be made at the central bank. Further research is needed to assess the impact and effectiveness of this policy.

Developing countries and their policy makers should explore pragmatic solutions and learn from the experiences of these Latin American countries. The policy changes in these three case studies are just first steps in the shift towards capital account regulations that benefit people. In order to increase the effectiveness and development impact of capital account management techniques, they have to be implemented early on as part of a comprehensive policy framework and not just as last resort, as advocated by the IMF. Regulations should also be continuously adjusted and fine-tuned in order to stop evasion. Finally, to strengthen this shift, further action is needed at the regional and international level.

1. Background¹

Starting in the second half of 2009, many developing and emerging economies have expanded regulations of financial inflows to manage surges from overseas. While such widespread use of capital management measures would have been unlikely a decade ago, in the wake of the 2008 financial crisis, the debate about capital account management has been revitalised.

The following case studies endeavour to contribute to this debate by exploring the social impacts of different approaches to dealing with foreign financial flows as experienced in Latin America. They investigate how changes in investment flows and production under a particular capital account regime affect wealth distribution, poverty, unemployment, and the risk of financial crisis. The analysis covers the past ten years, focussing on developments before the outbreak of the 2008 global crisis and after.

The country studies cover Argentina, Brazil, and Costa Rica – countries that differ with regard to their management of financial flows. While Argentina never fully liberalised its capital account after its 2001 financial crisis, Brazil, after a period of comprehensive liberalisation, imposed taxes on short-term investments in 2009. Costa Rica has pursued a nominally open capital account policy since the 1990s but has implemented regulations on inflows in September 2011.

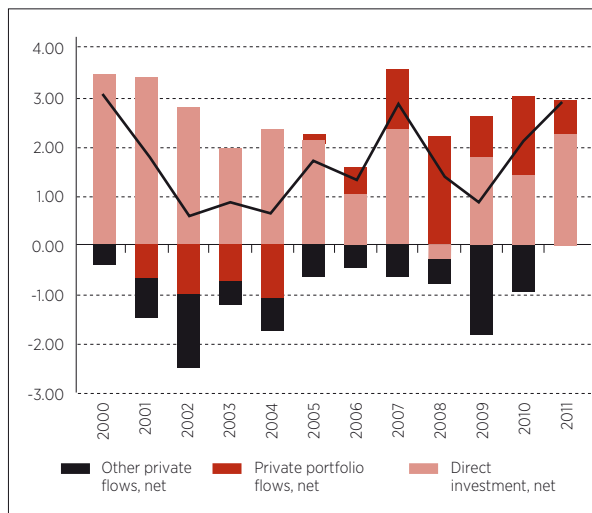
Global flows and crises

Private foreign capital flows have shown their tendency to high volatility in the wake of the recent global financial crisis. The collapse of US investment bank Lehman Brothers in September 2008 triggered a market-wide sudden stop of financial flows to Latin America. Subsequently, rich countries' economic recovery programmes, which involve historically low interest rates, have acted as a global push factor for extremely large new capital inflows to emerging and developing economies since 2009.² This is because investors in rich countries, where interest rates are low, moved to developing countries where interest rates are higher.

In light of current events, the assumption that fully open capital accounts are desirable, which has dominated since the 1970s, is increasingly being challenged. The post-World War II international financial and monetary framework considered managed exchange rates and regulated capital accounts to be a natural state of affairs. In the 1970s and 1980s, however, a new paradigm emerged favouring freely floating exchange rates and

Figure 1

Net capital flows to Latin America 2000-2011 (% of GDP)



Source: IMF WEO database 2011

open capital accounts. By the 1990s, most advanced and emerging economies had undertaken substantial liberalisation efforts. Even before the global financial crisis, the period of liberalised capital accounts has been marked by socially destructive and highly contagious financial crises afflicting both developing and advanced countries, such as the crises in 1995 in Mexico, 1997 in Asia, and 2001 in Argentina.⁴

In general, advocates of capital account liberalisation have argued that the free movement of capital around the globe enhances the efficiency of investment and paves the way for poor countries' development. According to this theory, if capital flows are unrestricted, then resources will be allocated efficiently and move from rich countries, where returns to investment are low due to capital abundance, to countries where capital scarcity promises high returns on investments. Consequently, increased investment in developing economies would enhance domestic production and consumption and lead to economic growth, which would contribute to poverty reduction. Free capital movement is presumed to increase investment stability by allowing poor countries to diversify their income sources and thus become more independent of donors.⁵

Academics, civil society groups and policy makers have long criticised this theory for over simplifying in its assumptions, not addressing the risks of financial

Box I: Categories of capital flows

Foreign capital flows can be divided into public and private flows. Public foreign flows refers to loans or aid from foreign public institutions such as governments or international financial institutions. Private foreign flows will constitute the focus of this paper. The term refers to investment by private actors and is in general categorised in relation to the different risks associated with them. The IMF generally distinguishes between foreign direct investment, portfolio investment, financial derivatives and other flows.³

Foreign direct investment (FDI) is a measure of foreign ownership of productive assets, such as factories or land. It refers to the purchase of a “controlling interest” in a business in a country where the investor does not reside. FDI is often associated with long-term foreign capital participation in an economy, involving transfer of technology and expertise.

Portfolio investment refers to the purchase of stocks, bonds, currencies and other financial instruments issued by the private or public sector in a country other than one in which the purchaser resides. Sometimes this is broken down into debt-based and equity-based investment, as the two types have different risk profiles. Often, but not always, this type of investment has a shorter timescale and can be associated with

higher risks for the receiving economy.

Financial derivatives refer to financial contracts used to trade risks in financial markets. The derivative instruments have prices or values linked to another specific financial instrument or indicator or commodity. A capital flow arises when a foreign investor enters into or purchases a derivative contract issued or held by a resident, such as a local financial institution. As derivative contracts are bought and sold in financial markets, the risks they generate are similar to portfolio investments. Additionally financial derivatives are often used to avoid capital account regulations related to portfolio investment.

Other flows refer to all other types of cross-border flows. The biggest component of other private financial flows is usually loans extended by foreign commercial banks to domestic public or private sector borrowers. In creating private foreign debt they inherently constitute a risk for the receiving economy. Additional types of flows included here are deposits in banks, some remittances, and trade credit.

These four components, together with the reserves account, form the capital account. When capital inflows are larger than outflows a country is said to have a capital account surplus. Capital account management, or capital controls, refer to the regulations of these capital flows.

liberalisation, ignoring the correlation between capital account liberalisation and increasing socially destructive financial crises and not being supported by empirical evidence. In a 2010 study, Nobel-laureate Joseph Stiglitz found welfare-decreasing effects of full capital account liberalisation. “If we can impose restrictions on capital flows ... then it will, in general, be desirable to do so. Without circuit breakers, no liberalisation may be preferable to liberalisation.”⁶

Social impacts of crises

Given the risks involved, capital account management is much more than a technical economic issue. Due to its effects on financial stability it has wide ranging social implications. The way in which financial flows are managed impacts wealth distribution, poverty, and unemployment, especially when crises materialise due to unregulated financial flows.

Professor Carmen Reinhart and former IMF chief economist Kenneth Rogoff have examined the aftermath of severe post-war financial crises and evaluated data on different outcomes for 15 to 23 countries. They found “deep and lasting effects” on asset prices, real GDP

per capita, and employment. As asset prices and GDP declined for many years after the outbreak of crises, unemployment levels substantially increased. Moreover, on average, real public debt had soared by 86% three years after each crisis.⁸

A December 2010 UNICEF report analysing the social effects of Mexico’s 1995 and Argentina’s 2001 crises found disastrous welfare outcomes in both countries, showing the potential for financial crises to undermine efforts to achieve developmental goals. In Mexico, output fell by more than 6% in 1995 alone, real wages declined by 25-35%, and unemployment almost doubled. As a consequence, extreme poverty soared from 21% of the population in 1994 to 37% in 1996 and it was not until 2002 that it fell back to pre-crisis levels. Moderate poverty during the same period increased from 43 to 62%.⁹ In Argentina, as a result of the crisis, 58% of the population fell under the national poverty line by 2002. Children and young people were particularly impacted, with 75% living in poverty in that year. Unemployment soared from 13% in 1998 to 22% in May 2002, with another 22% of the Argentinean population being underemployed.¹⁰

Box 2: Risks of unregulated global capital flows

Economics professor Ilene Grabel of Denver University and Delhi-based researcher Kavaljit Singh have identified different types of risks associated with unregulated global capital flows:⁷

Sovereignty risk refers to a government's constraints in its ability to pursue independent social and economic policies as a consequence of capital account liberalisation. This is because increased foreign investment can be translated into stronger influence by foreign investors over domestic policymaking. In more direct ways, capital account liberalisation also affects governments' capacity to pursue independent monetary policy (decisions on money supply and interest rate levels) and exchange rate policy (decisions on the value of the currency). Economists Robert Mundell and Marcus Flemming won the Nobel Prize for explaining the "trilemma", or "impossible trinity", that a country cannot simultaneously have free capital movements with an independent monetary policy and stable exchange rates. For example, if a central bank decides to raise the domestic interest rate for a domestic goal like curbing inflation, this may incentivise unwanted foreign short-term investments attracted by the higher interest rates. These inflows can appreciate the value of the currency, interfering in the goal of targeting a stable exchange rate. In this scenario the government might be forced to give up targeting a stable exchange rate and free float its currency, or give

up to the initial goal of stopping inflation by increasing interest rates.

Currency risk refers to the effect that free flows of capital have on the value of the currency. Open capital accounts mean that investors can move capital out of a country rapidly, leading to currency depreciation and currency collapse. Alternatively, in a country with free floating exchange rates large inflows can lead to currency appreciation and make it hard for the country to compete in international markets. Investors may also speculate on the value of a given currency ('currency speculation'), for example the Brazilian real in recent years. In a transaction known as 'carry trade' investors borrow in countries with low interest rate, and invest in countries with high interest rates, obtaining high profits from the interest rates differential.

Fragility risk refers to an economy's vulnerability to external debt obligations. Unregulated foreign capital inflows can lead to over-borrowing which in turn may create asset bubbles and credit booms and increase the risk of private debt crises.

Flight risk refers to sudden capital outflows from an economy because of panic and investor herding. Under conditions of fully liberalised capital accounts, private holders of liquid financial assets can sell their holdings at any time. Capital flight has moreover demonstrated to be highly contagious.

Governance of global flows

Despite the grave social risks involved, international provisions for dealing with capital account management are scattered, and a comprehensive overarching global framework does not exist. The extensive liberalisation of capital accounts, witnessed over the past three decades, was taken forward under a broad range of international legal frameworks, including the OECD Code of Liberalisation of Capital Movements, the WTO's General Agreement on Trade and Services, the Treaty on the Functioning of the European Union, and several thousand bilateral or regional investment treaties or free trade agreements with investment chapters.¹¹

As part of the discussions on how to enhance global financial stability after the 2008 global crisis, the IMF has reconsidered its role in relation to capital account management. While enjoying a comprehensive mandate to deal with current international transactions, the Fund's role in relation to capital accounts is less clearly specified. Under Article VI of the IMF's Articles of Agreement, member states are allowed and sometimes even obliged

to implement capital account regulations. In the late 1990s, IMF management and several major shareholders tried to amend the Fund's statutes to explicitly require unrestricted financial movements. Despite never reaching agreement on the issue, the Fund went on to promote capital account liberalisation in its surveillance and lending operations.¹²

Post-crisis IMF research has found increasing evidence for the relationship between volatile financial flows and financial and economic crises and points to the potential usefulness of capital controls in preserving both macroeconomic and financial stability.¹³ Despite these findings, the policy framework put forward by the Fund in February 2011 was overly cautious about the appropriateness of using capital account management measures. The Fund only recommends such measures as a last resort option once all other macroeconomic policy tools have been exhausted. Civil society groups and researchers have expressed concern about the IMF's position as well as the possibility of the Fund assuming jurisdiction over capital accounts.¹⁴

2. Argentina

After the 2001 financial crisis that took half of the population below the national poverty line, Argentina charted a more stable and inclusive economic development trajectory. Within a cautious, broader macroeconomic policy framework, Argentina implemented several controls on capital inflows and outflows. Short-term investors have been required to deposit money at the central bank. This regulation has been effective in reducing inflows in boom periods, reducing exchange rate volatility and increasing monetary policy space. Despite controls on outflows, the level of capital flight is still high. In general terms, this 'toolkit' of regulations helped enable a process of fast economic growth and significant social progress.

Financial liberalisation and the 2001 crisis

During the 1990s Argentina fully liberalised capital flows as part of a broader package of measures including trade liberalisation, privatisation and a currency peg at parity with the US dollar (an exchange rate regime locally known as 'convertibilidad'). Many analysts agree that, by increasing the risks faced by the economy, free capital flows had an important degree of responsibility for the crisis that exploded in 2001 in Argentina.¹⁵ Demonstrating the "fragility risk" problem, financial liberalisation was followed by a 125% increase in foreign debt from 1992 to 1998. Argentina also experienced "flight risk", with a 157% increase in the amount of capital flight from 1992 to 2001, and a greater proportion of portfolio investment over foreign direct investment.¹⁶

The collapse of the financial system and the economy in 2001 had devastating social effects for the Argentine population, which experienced record levels of extreme poverty and unemployment. By 2002, 58% of the population and 75% of children and young people fell under the national poverty line, unemployment rose from 13% in 1998 to 22% in 2002, and the Gini coefficient - which measures inequality - increased from 0.50 to 0.53.¹⁷

A new macro-prudential framework (2002-2011)

Argentina entered a new period by defaulting on most of its debt and devaluing its currency in 2002.

One of the pillars of the new model consisted of a managed exchange rate regime, establishing a stable and competitive (devalued) real exchange rate which increased the competitiveness of the export sectors of the economy. This strategy led to an increase in exports which reversed the trade deficit that the country experienced throughout the 1990s, and enabled a sustained accumulation of foreign reserves. The central bank managed these reserves to satisfy demand for dollars and pesos, maintain the value of the currency and strengthen financial stability. This strategy was complemented by a gradual implementation of regulations to discourage capital flow volatility and permit space for independent monetary policy.

In 2002 the government implemented measures to deal with the fragile post-devaluation situation and stabilise the exchange rate. These included regulations on the foreign exchange market to avoid further outflows of dollars, such as requirements for exporters to sell foreign currencies internally. In 2003 further measures were implemented to reduce the exposure of the financial sector, such as restrictions on financial institutions' capacity to borrow in foreign currency if they had their income denominated in local currency.¹⁸

In 2005 the government put in place measures to prevent inflows from inducing exchange rate appreciation.¹⁹ These measures responded to the tensions between the open capital account with the exchange rate and monetary policies implemented since 2003. To prevent inflows from appreciating the exchange rate the central bank could buy the unwanted inflows, but this would have the side effect of either paying high sterilisation costs or inducing inflation (see Box 3).

The inflation rate in Argentina rose to 12% by the end of 2005. The government saw that in order to maintain a stable and competitive exchange rate while combating its inflation problems, it was necessary to establish regulations on capital inflows. Inspired by the Chilean experience of the 1990s, the government introduced a measure establishing that capital inflows - with exceptions for investments in nonfinancial assets and productive activities - would require a deposit of 30% of the value of the investment to be held by the central bank for a period of one year. This deposit, known as an unremunerated reserve requirement (URR), represents an additional cost that discourages inflows covered by the URR mechanism, mainly short-term loans.²⁰

The government chose these measures over more

Box 3: Regulations to deal with the Trilemma

As explained in the introductory chapter (see Box 2), free capital flows can create tensions between exchange rate and monetary policy objectives (explained as the ‘trilemma’). In order to stop exchange rate appreciation the central bank can buy unwanted capital inflows, but when doing this it increases the supply of local currency which may increase inflation. The government can ‘sterilise’ that potential inflation by selling bonds domestically thus withdrawing the increase in local currency supply, but this operation entails high costs since the interest that the government pays on these local currency bonds is higher than the interest it earns from buying foreign currencies or assets. Hence, fully open capital accounts may push the government to the adverse situation of having to decide between (i) allowing capital inflows to appreciate the currency, (ii) allowing an increase in inflation, or (iii) paying high ‘sterilisation’ costs. Discouraging short term capital inflows through capital account regulations allows the government to avoid paying any of these three ‘costs’.

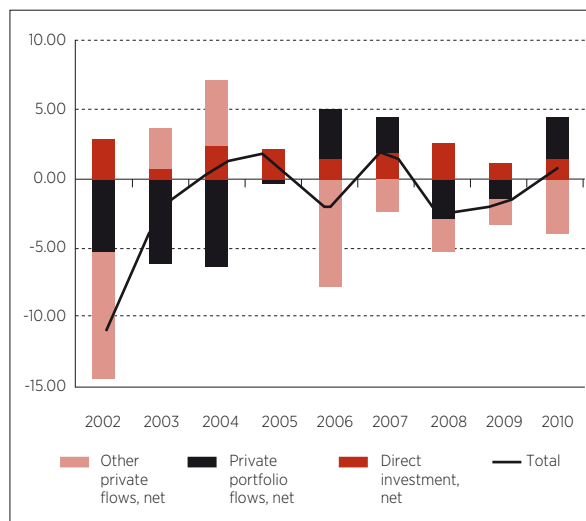
orthodox solutions like raising the interest rate and letting the currency appreciate, which was considered to be a threat to economic activity and employment creation, and also a major incentive to short-term capital inflows.

Additionally, capital account related measures were implemented to deal with the increasing levels of capital outflows. Large capital outflows have been a persistent problem for the Argentine economy. During the post-2001 crisis period, capital flight peaked in 2008 when it reached 7% of GDP. It decreased in the following years but was still relatively high at 3% of GDP in 2010.²¹ Some causes of capital flight in this period were: the uncertainty generated by the government’s intervention in the National Institute of Statistics (INDEC); the political conflict in 2008 between the government and the agricultural sector; the nationalisation of the pension funds in 2009; and the global financial crisis.²² In order to stop capital outflows the central bank kept limits on purchases of foreign currencies, established requirements to prove legality and tax payment on money used to buy foreign currencies, and improvements in regulations over the use of offshore financial centres, among other measures.²³

Effectiveness of the measures

Roberto Frenkel, senior researcher at Buenos Aires-based think tank CEDES²⁴, argues that the unremunerated

Figure 2
Net capital flows to Argentina 2002-2011 (% of GDP)



Source: IMF eLibrary database

reserve requirement (URR) implemented in 2005 might have contributed to reducing capital inflows in boom situations. Also it helped to preserve the macroeconomic policy regime, which requires active capital account regulations, intended to restrict short-term capital inflows and facilitate the management of exchange and monetary policies.²⁵ In this sense, as pointed out in central bank reports, capital account regulations helped discourage exchange rate volatility.²⁶

On the other hand, there is no evidence that the supply of dollars in the foreign exchange market decreased after the measures were implemented. Some analysts argue that capital inflows can circumvent the reserve requirement by buying domestic assets abroad and selling them in the local market. The orthodox view contends that the private sector’s innovative capacity is greater than the public sector regulatory ability, and thus believes that regulations are ineffective.²⁷ However, as argued by Eduardo Levy-Yeyati, Professor of Economics and Finance at Torcuato Di Tella University (UTDT), this does not mean that the regulations are ineffective because it does not tell us anything about the extra flows that could have occurred without the regulations. Neither does it mean “that investors elude the tax; rather, they pay it through the cross-market premium”, i.e. the price difference between the domestic assets abroad and in the local market. In this sense, capital account regulations’ effectiveness can be measured in relation to the direct cost faced by investors paying the inflow tax or the indirect cost of avoiding it.²⁸

Regarding outflows, capital flight remains a problem despite the implementation of outflow regulations since

2007. However, government officials claim that in the absence of regulations, capital flight during the global financial crisis would have been higher.²⁹ At the same time they point out that current capital outflows have an unusually high proportion of retail (individuals) versus wholesale (institutional) investors. Because until November 2011 restrictions were imposed on wholesalers only, this shift in composition might indicate that the controls have some effectiveness in discouraging Argentine institutional investors from taking money out of the country.³⁰ However, it might be that wholesalers managed to avoid the restrictions by 'disguising' themselves as individual investors. In November 2011 the government extended to individual investors the requirement to provide national identity and tax numbers in order to be allowed to buy foreign currencies.³¹

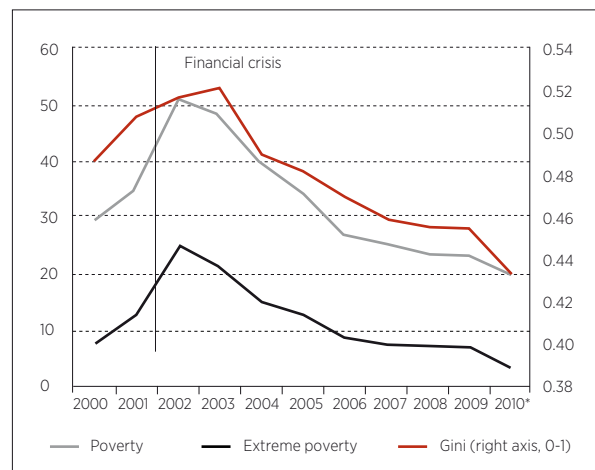
While 2008 levels of capital outflow might have caused an external crisis in previous periods, for example in 2001, they do not pose a significant threat to the balance of payments in the current situation. This is explained by the fiscal and trade surpluses achieved for most of the years between 2003 and 2011, which allowed the country a significant accumulation of reserves and repayment of sovereign debt. Argentina's total national public debt fell from 138.8% of GDP in December 2003 to 45.9% in March 2011. Moreover, less than half of this debt, worth 16.6% of GDP, is held by the private sector, a factor that reduces the risk associated with refinancing debt, known as 'rollover risk'.³² These factors placed the country in a much stronger macroeconomic position than in previous periods in which either current account deficits or unmanageable sovereign debt took the country to recession and currency devaluation.

What are the social impacts?

These two achievements of capital account management – maintenance of a stable, competitive real exchange rate and resilience in the face of global financial instability – facilitated the successful economic performance and social outcomes of the period. From 2002 to 2010 unemployment decreased from 19.7% to 7.3%³³, poverty from 50.6% to 19.0%, extreme poverty from 24.7% to 2.8% and the GINI (inequality) coefficient from 0.53 to 0.45³⁴. Furthermore, the economy grew between 2003 and 2010 at an average annual rate of 7.6% of GDP.³⁵

The main weaknesses of the post-crisis period are related to the high levels of inflation and capital flight. Capital flight has social consequences through decreasing investment potential and affecting the prospects of employment creation. It is important to note that one of the difficulties in tackling capital flight is the investor's use of secrecy jurisdictions (or tax havens), since these jurisdictions do not provide information to countries' regulatory bodies. It is estimated that Argentina

Figure 3
Poverty, Extreme poverty and GINI (2000-2010)



Source: Gasparini and Cruces (2010) using data from INDEC together with private estimations.

Note *: 2010 estimated (the improvement between 2010 is partly due to the child benefits transfers implemented in 2010)

experienced an annual average \$12 billion dollars of illicit financial outflows³⁶ between 2000 and 2008, which locates the country 16th out of 125 developing countries in terms of volume of such losses³⁷. Hence, beyond the necessary national policies to prevent large capital outflows, it is necessary to make further progress in international forums to counter tax avoidance and tax evasion.³⁸

Increasing rates of inflation from 12% in 2005 to 20% in 2011³⁹ are having negative impacts both in economic terms by increasing the costs of production and therefore eroding the real exchange rate, and in social terms by raising the cost of basic goods, affecting particularly low-income sectors of the population. There is a combination of factors that fuel inflation like rising international prices, expansion of private consumption, an expansive fiscal policy⁴⁰ and, given the concentration of ownership in some market segments, resistance to reducing profit margins by some price-setting companies. It is important to note however that wage growth remains high enough to permit positive real wage growth and offset part of the inflation effects.⁴¹

Conclusions

The Argentine 2001 crisis is a paradigmatic case of the severe social consequences that indiscriminate opening of capital accounts along with inappropriate exchange rate and fiscal policy, can have in a country. Since then the government has changed strategy towards a prudential approach with regulations on both inflows and outflows. The current 'macro-prudential' strategy and pragmatic approach towards capital account management has

proved to be effective in supporting a sustained increase in economic activity and improvement of social indicators such as employment, poverty and income distribution.

Although it is hard to separate the effectiveness of these measures from other factors – like Argentina’s relative isolation from global financial markets after the default on most of its debt, and its ability to finance output growth domestically given current account and fiscal surpluses - analysts and officials argue that regulations on inflows have been instrumental in softening capital inflows in boom situations, discouraging exchange rate volatility and facilitating the management of exchange and monetary policies.

Regarding outflows, regulations may have discouraged further capital flight during the global financial crisis. The shift in composition of foreign exchange purchases from institutional investors towards individuals suggests that the regulations are discouraging institutional investors from taking money out of the country. However, capital outflows continue at high levels and further actions are required to deal with them. Similarly, macroeconomic adjustments need to be made in order to deal with high levels of inflation and a declining real exchange rate, which particularly affects the most vulnerable groups. There may be a role for conventional policy instruments to complement the prudential capital account measures as long as these do not undermine domestic economic policies aimed at employment creation.

3. Brazil

Between 2008 and 2011 short-term investments, known as carry-trades, flooded the country and artificially inflated the value of the Brazilian currency, the *real*, posing a threat to the competitiveness of Brazilian industrial exports. The tax on foreign purchases in the stock and bond markets adopted in 2009 is intended to reduce the risks associated with these inflows, notably currency risk, and increase monetary policy space. Evidence suggests that these controls have shown some effectiveness in slowing capital inflows and reducing currency appreciation. The sudden reversal in flows in mid-September 2011 provides lessons both in why preventive action was prudent, and on the ability of macroeconomic policy to control or influence market movements.

Financial liberalisation and 1998 crisis

In the early 1990s, Brazil undertook a process of reform consisting of a stabilisation programme, privatisation, and liberalisation of trade and finance. The aim was to simultaneously stabilise prices and create a market-based competitive economy. Although the reforms were successful in reducing inflation and attracting investment, they were also responsible for the expansion of the current account deficit and increase in financial volatility that culminated in the 1998-99 crisis.⁴²

The opening of the capital account together with high interest rates attracted speculative capital which suddenly fled the country in 1998, due to the uncertainty and contagion generated by the Russian default and Asian financial crisis that year. This sudden capital outflow precipitated a financial crisis in the country and forced the government to float the currency, the *real*, in order to avoid a complete depletion of its foreign reserves. However, analysts have argued that the effects of the financial crisis might have been softer in Brazil than in other countries which experienced similar crises in the 1990s, because the country had not liberalised the capital account completely.⁴³

Post 1998 crisis framework

In 1999 Brazil abandoned its crawling peg exchange rate system, in which the *real* was adjusted periodically

in small amounts at a fixed rate. In its place came an independently floating, market-determined exchange rate. It also implemented an inflation-targeting monetary policy, in which the central bank raises or lowers interest rates in pursuit of a target rate of inflation. This decisively prioritised inflation control over output stabilisation or even ad hoc exchange rate interventions.

The Brazilian strategy of a market-determined exchange rate, a relatively open capital account and high interest rates has contributed to stabilising the general price level with steady growth of the economy. However, analysts point out that growth has been at lower rates than in neighbouring countries and industrial exports have been negatively affected.⁴⁴ This strategy also contributed to attracting an important amount of foreign capital, consisting of both long- and short-term investment, which increased the country's exposure to external shocks, especially the risks associated with volatile capital flows. Notably, between 2008 and 2011 short-term investments, known as carry-trades, flooded the country. As explained in the introductory chapter, carry-trade flows consist of investors borrowing in countries with low interest rates and investing in countries with high interest rates. In the post-2008 financial crisis period, while rich countries had historically low interest rates to stimulate their economies, Brazil maintained very high interest rates, in addition to providing other benefits to foreign investors like tax exemptions on the income of foreign investors that purchase national debt.⁴⁵ This created strong incentives for investors, and particularly short-term investors, to invest in Brazil.

The two main negative effects observed were the exposure to currency risk and financial volatility. The carry-trade flows artificially inflated the value of the Brazilian *real*, which appreciated by 46% in relation to the dollar between late 2008 and August 2011 (see Figure 5). This appreciation decreased the competitiveness of Brazilian industries. As a consequence, the proportion of manufactures in total exports decreased, while the proportion of primary products increased. Since primary industries are less labour intensive than manufacturing, this likely to have a negative impact on employment growth.⁴⁶

Since the carry-trade flows consist of short-term investments, Brazil also saw a shift in the composition of foreign investment towards a more volatile structure, because of the increased proportions of portfolio over productive investment (see Figure 4). Volatility broke out

in two recent moments of global economic uncertainty, one in 2008 at the beginning of the financial crisis and another in 2011 with the eurozone crisis. At the end of August 2011, in order to stop currency appreciation, the central bank suddenly reduced its benchmark interest rate. This move, in combination with increasing global economic uncertainty due to the eurozone crisis, generated a reversal of capital flows. Because of this, in one month the real experienced a 14% depreciation against the dollar and forced the central bank to intervene for first time in two years in order to support the value of the currency.⁴⁷

Implementation of capital account regulations

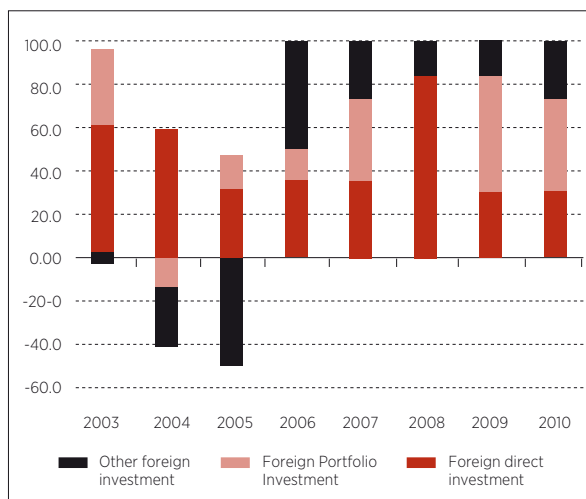
Since 2008 the Brazilian government has experimented with taxes on short-term capital inflows – a form of capital account regulation – in order to discourage them and prevent them from destabilising the economy. The government attempted to implement a 1.5% tax on foreign purchases on the Brazilian stock and bond markets in 2008 but soon after announcing it, the tax was cancelled because of the consequences of the financial crisis, which initially drove capital flows from developing to developed countries. In October 2009, after the flows had reversed again from developed to developing countries, the government established a 2% tax on foreign purchases of stocks and bonds, later named IOF1 (Imposto sobre Operações Financeiras) in order to stop unwarranted exchange rate appreciation.

Finance Minister Guido Mantega explained that taxation of foreign capital inflows has a regulatory role, not a revenue-raising one, aiming to balance the inflow of foreign capital in the Brazilian economy and stop the rising value of the *real* against other currencies. The tax generated scepticism and opposition in the financial sector, but considering the 144% increase in the Brazilian stock market in 2009⁴⁸, it was unlikely that a 2% tax would deter investors, with the exception, of course, of very short-term investors.

Pressures on the exchange rate softened after the IOF1 was announced and implemented.⁴⁹ However, it was also observed that there was space for evasion: investors were disguising short-term portfolio investment as foreign direct investment through swaps and derivatives, and by buying American depository receipts (ADRs) abroad and selling the stock domestically⁵⁰. Because of this, the government introduced in November 2009 a 1.5% tax on ADRs. This new tax was called IOF2, to differentiate it from the one established in October.

In October 2010 the government increased taxes on capital flows into the Brazilian capital market: foreign

Figure 4
Composition of foreign capital inflows 2003-2010
(% of total)



Source: Banco Central do Brasil

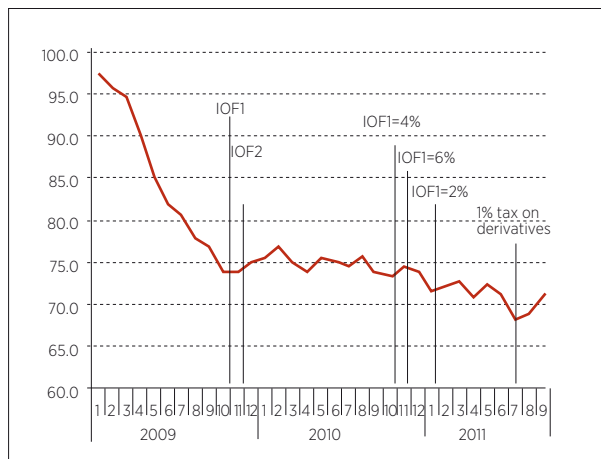
investment in fixed-income instruments and investment funds were to be taxed at 4% instead of 2%. Secretary of the Treasury Arno Augustin, said the IOF1 sought to dissuade short-term investors from speculating on possible exchange rate volatility, as well as to attract long-term investments. However, after three weeks the government declared that these measures did not sufficiently curtail exchange rate appreciation. They announced subsequent increases in the IOF1 tax levels to 6%. Finally, in December 2010, the government decided that tax rates would be reduced starting in January 2011, to 2%.

More recently, in July 2011, Brazil imposed a tax on derivatives⁵¹ with the explicit goal of making speculation on the real less profitable and preventing further exchange rate appreciation. The initial tax rate was 1% but the decree allows it to increase to 25% if needed.

Effectiveness of the measures

Kevin Gallagher, professor at Boston University, assessed the effectiveness of capital account regulations in several countries including Brazil.⁵² Through a statistical analysis he finds evidence that the taxes implemented in Brazil in 2009 and 2010 “are associated with a lower level of appreciation and an eventual slowing of the rate of appreciation” of the Brazilian *real*. He also found that regulations were effective in increasing monetary policy space. He demonstrates this by showing that after the taxes were implemented, the Brazilian and US interest rates became less correlated, and that the interest rate differential between the two countries widened.

Figure 5
Effective Real Exchange Rate (index, 2000 = 100)



Source: Instituto de Pesquisa Econômica (IPEA)

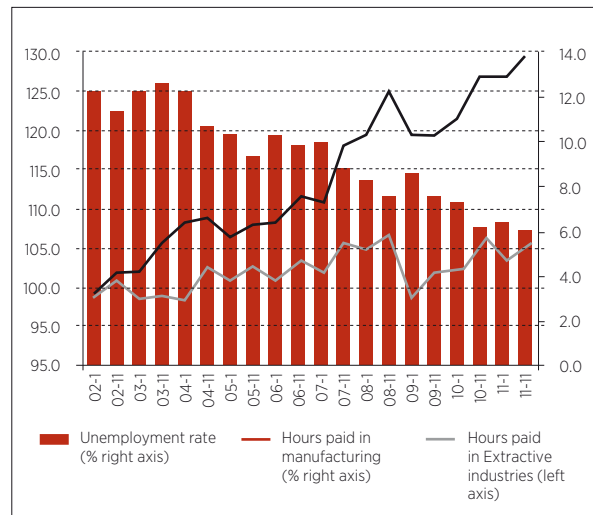
Interestingly, Gallagher finds that the effectiveness was stronger when the IOF rate was increased to 6%. These findings, he says, coincide with statements from fund managers complaining that “the appeal of the carry trade had diminished considerably” after the 6% tax, “especially for investors trading on timescales of less than a year.”

Other initial assessments also prove some effectiveness of the regulations. In July 2010, after concluding its Article IV consultation, the IMF declared that the tax implemented in 2009 appeared to have had an impact in slowing capital inflows.⁵³ Similarly, Eduardo Levy-Yeyati and Andrea Kiguel, researchers at Torcuato Di Tella University (UTDT), analysed the impact of the IOF1 and found that the Brazilian real “depreciated about 1.1% with the introduction of the tax and another 0.9% percent the following day as the market digested the measure, but the effect was partially undone later on. All in all, this exercise indicates that the IOF depreciated the currency by roughly 1.2%.”

Analysing the Brazilian case Levy-Yeyati and Kiguel suggest that when sterilised foreign exchange interventions entail significant costs (see Box 3), “tax-like measures such as the IOF should be seen as an alternative.” They conclude that especially in the current context of low interest rates in developed countries and large amounts of funds looking for short-term returns, capital account management should be considered by policy makers.

The sudden reversal of capital flows in September 2011 from emerging to developed countries, is the most recent example of how volatile short-term flows are. It also provides evidence of the need to establish regulations in order to prevent this volatility from impacting individual

Figure 6
Unemployment and number of hours paid in industry



Source: Instituto Brasileiro de Geografia e Estatística

Note: Number of hours paid in industry is an index, base January 2001 = 100 (seasonally adjusted)

economies.

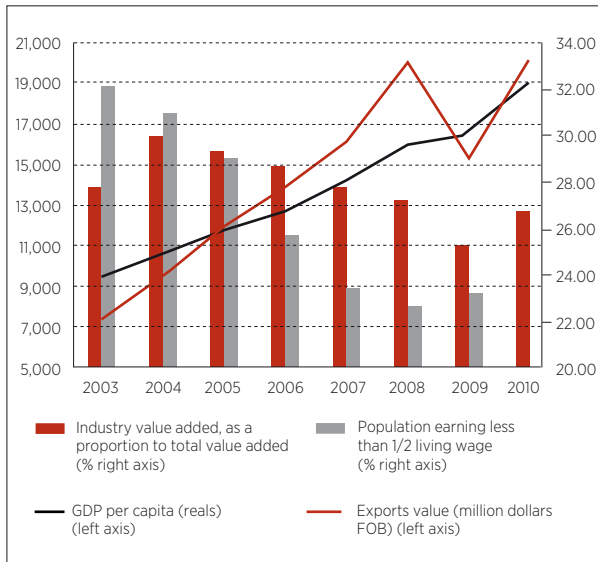
What are the social impacts?

Through the past ten years Brazil has shown considerable improvements in the living conditions of its population. The economy has expanded significantly. GDP per capita more than doubled between 2003 and 2010, increasing from 9,510 to 19,016 reais (\$3,042 to \$10,710⁵⁴). As shown in Figure 6, unemployment halved between 2002 and 2011, decreasing from 12% to 6%. At the same time, the percentage of population earning less than half of the living wage decreased from almost 32% in 2003 to less than 24% in 2009 (see Figure 7). Although levels of poverty remain high, this represents a significant improvement.

Exports have also increased rapidly, going from \$7.3 billion to \$20.1 billion between 2003 and 2010 (see Figure 7). However, manufacturing industries are losing space to extractive industries and, because of the labour intensive character of the former, this might undermine employment growth. As presented in Figure 6, hours paid in extractive industries expanded by more than 30% between 2001 and 2011, while hours paid in manufacturing industries increased only by 5%. At the same time, the proportion of manufacturing value added over total value added decreased from 30% in 2003 to 26% in 2010.

This explains the increasing concerns over the negative impact that the appreciation of the exchange rate might have on industrial production. The *real* appreciation

Figure 7
Industry value added, GDP per capita, exports (2003-2010)



Source: Instituto Brasileiro de Geografia e Estatística

of 46% against the dollar between 2008 and 2011 may not yet have impacted the export capacity of Brazilian industry. The negative effects of exchange rate appreciation on production and jobs manifest gradually, but when they appear they may be difficult or impossible to reverse.⁵⁵ In this sense, some point out that the positive social improvements of the country might be responding more to sound social policy and successful government investment programmes like the Growth Accelerating Program (PAC), than to macroeconomic policy.⁵⁶

A relevant question to ask about capital inflow taxes is if the rate is high enough, or if a higher rate would be more appropriate. In the current context of large capital inflows and high profits in the financial sector, it does not seem likely that further regulations or taxes will create a shortage of capital. Furthermore, the incentives and benefits received by short-term investors remain too large to be discouraged by a 2% tax. High interest rates are complemented by tax exemptions on the earnings of foreign investors who purchase public debt. Implemented in 2006, these benefits encourage short-term investors. A comprehensive macro-prudential framework would help to adjust these incentives.

Conclusions

The case of Brazil shows clearly how speculative, short term investments can destabilise the domestic economy. The two main negative effects observed in this case are currency risk and financial volatility. Between 2008 and 2011 short-term investments, known as carry-trades, flooded the country and artificially inflated the value of the *real*, posing a threat to the competitiveness of Brazilian industrial exports. Volatility broke out in two recent moments of global economic uncertainty, one in 2008 at the beginning of the financial crisis and another in September 2011 with the eurozone crisis.

The IOF is part of a pragmatic approach to reducing currency speculation and protecting the economy from external shocks, and also addressing the restrictions on monetary policy space in the context of open capital accounts. These taxes appear to have been somewhat effective in discouraging unwanted short-term inflows, helping moderate further appreciation of the exchange rate as well as increasing monetary policy space. Furthermore, the destabilising impact of the sudden reversal of flows experienced in September 2011 would have been clearly stronger in the absence of such regulations.

However, a 2% tax might be too small a tool to cope in the current context, with various factors creating incentives for investors to continue speculating with the *real*. These factors include the government's continued prioritisation of inflation control over economic activity, which translates into the maintenance of high interest rates, and the low interest rates in rich countries.

The main concern of policymakers and researchers is the impact this speculation and currency appreciation might already be having on industrial capacity and employment. Although recent work by the IMF on capital account regulations recognises their role in supporting the stability of the financial system, it leaves stability of the real exchange rate out of its analysis. The risks of not taking into account the latter are many, especially since the negative effects of exchange rate appreciation on production and jobs become manifest only gradually, by which time they may be hard to reverse.

4. Costa Rica

Financial liberalisation in Costa Rica since the early 1990s has helped to attract foreign direct investment but also portfolio investment that has increased financial volatility. The country has been amongst the most affected in Latin America by the global financial crisis in 2008. It has suffered both capital outflows and more recently large speculative inflows that increased ‘currency risk’, harming the capacity of local industries to compete internationally and risking the destruction of industries and employment. After 20 years of liberalisation of its capital account, in September 2011 Costa Rica decided that short-term foreign loans received by banks and other financial entities would require a non-interest bearing deposit to be made at the central bank, in order to discourage further appreciation of the real exchange rate.

Financial liberalisation

In the mid 1980s, Costa Rica began a process of liberalisation of its economy and World Bank-led structural adjustment. This process included reducing trade tariffs, cutting the size of the state and the public deficit, and reforming the financial sector. The country

also liberalised its capital account and, with the aim of attracting investment, started giving foreign investors the same treatment and protection that it gave national investors. In 1990, Costa Rica eliminated further trade restrictions by signing the General Agreement on Tariffs and Trade (GATT). In 1992, the requirement for the registration of capitals flows was eliminated and in 1995 a modification in the Central Bank’s Organic Law prohibited the central bank from imposing restrictions on foreign exchange transactions. Regulations on capital flows were also reduced by successive bilateral investment treaties (BITs).⁵⁷

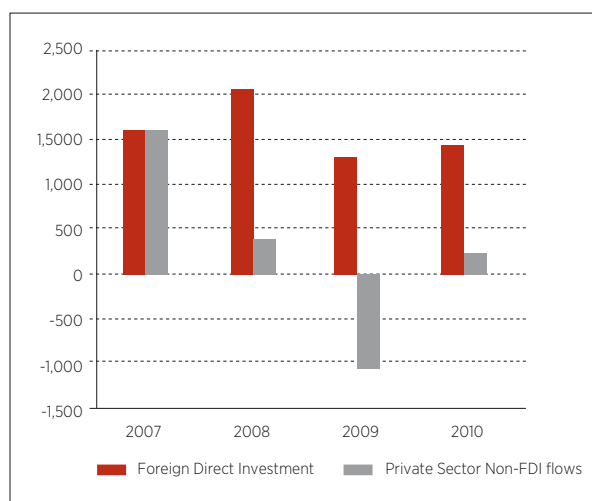
Economic development since the 1990s is considered satisfactory, with expansion of GDP higher than in most neighbouring countries, albeit more volatile and not as high as in the 1960s and 1970s. Another achievement of this period is the increase in investment and in industrial exports. However, social indicators have improved more slowly and income distribution has deteriorated. Costa Rica shows a steady decline in the Human Development Index from 28th position in 1990 to 48th in 2000. Real wage growth has been slow and social spending as proportion of GDP has decreased from 24% in 1980 to 15% in 1991, affecting the level and quality of public service provision.⁵⁸

Capital flows and exchange rate appreciation (2007-2011)

In 2007, concerns over inflation prompted the Central Bank to adopt a macroeconomic programme aiming at 8% inflation in 2007 and 6% in 2008. To do this, it started shifting the exchange rate regime from a crawling peg – with its currency adjusted periodically in small amounts at a fixed rate – to an independently floating exchange rate within an inflation targeting framework. This shift has been encouraged by the IMF at least since 2004 in its annual Article IV consultations on the country’s economic affairs.⁵⁹

Since the country shifted to a flexible exchange rate in 2007, the real exchange rate has appreciated considerably. In 2010, the bilateral real exchange rate against the US appreciated by 9.5%, and the international trade-weighted real exchange rate by 13.2%. This trend is being driven by carry trade capital inflows using money borrowed in low interest currencies and invested in Costa Rica to take advantage of the higher interest rates.⁶⁰ Although the inflation targeting scheme has been successful in constraining inflation, the induced currency

Figure 8
Capital Flows – In million dollars



Source: IMF Article IV Consultation - July 2011

appreciation may be undermining the export sector (see Figure 9).

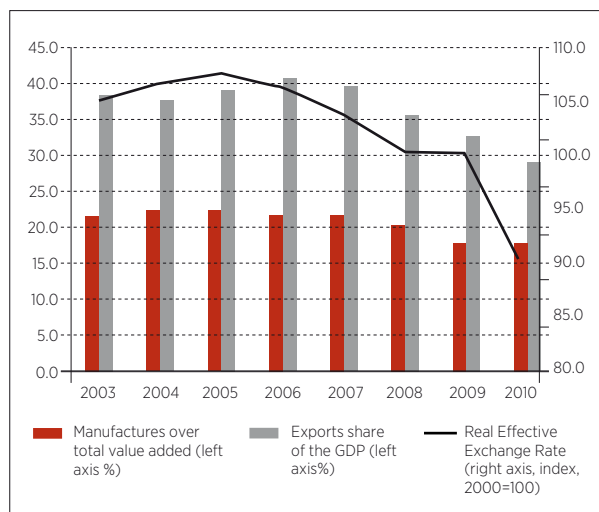
In order to dis-incentivise short-term capital inflows, the government reduced the short-term interest rate to 6.5% in January 2007 and 3.25% in January 2008. However, in early 2008 the combination of expected further appreciation of the currency, the *colón*, and a reduction of foreign interest rates stimulated an increase in capital inflows.

Although the openness of the capital account facilitated an expansion of foreign direct investment (from 2.3% of GDP in 1992 to 7.6% in 2007) it also increased the amount of short-term capital inflows, which increased financial volatility. This volatility was particularly felt during the global financial crisis. As seen in Figure 8, private sector non-FDI flows remained at high levels until 2008, then experienced a sudden reversal in 2009, but returned in large quantities again in 2010 and 2011.

In April 2009 Costa Rica signed a precautionary \$735 million stand-by agreement with the IMF, in order to cope with the global economic crisis. Despite overvaluation of the *colón* and increasing concerns from exporters, the IMF's final review of the stand-by agreement argued that the exchange rate continued to be consistent with fundamentals and encouraged the authorities to accelerate the transition to greater exchange rate flexibility and inflation targeting.⁶¹

During the 2000s Costa Rica consistently ran a current account deficit, with imports increasing faster than exports.⁶² In March 2010 the central bank carried out an assessment of the country's external financing

Figure 9
Manufactures over total value added, exports' share of GDP, and Real Effective Exchange Rate (2003-2010)



Source: Economic Commission for Latin America and the Caribbean and Central Bank of Costa Rica

structure to determine the sustainability of the current account deficit. The study estimated that the permanent component of foreign direct investment (FDI) inflows was around 5% of GDP in the period 1991-2008, which would enable the financing of a long-term current account deficit. However, the study avoided doing an assessment of the origins and composition of short-term flows. This is basic information that should have been included since short-term inflows can contribute to current account unsustainability.⁶³

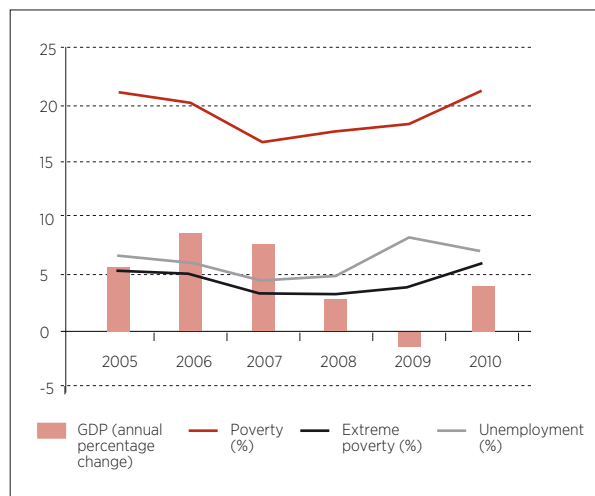
What are the social impacts?

Due to the exposure of the economy to external shocks, GDP was significantly affected by the global financial crisis, and now carry trade-driven exchange rate appreciation is also affecting the country's export capacity. After growing by 7.9% in 2007, the GDP grew by only 2.7% in 2008 and contracted by 1.3% in 2009, before bouncing back in 2010 with 4.2% growth (see Figure 10).

Although the loss of competitiveness of the economy may have not been fully felt yet, some indicators already suggest that the combination of the crisis and an overvalued exchange rate are hindering exports and industrial capacity. Exports' share of GDP has been falling steadily from 40% in 2007 to 28% in 2010. At the same time, the proportion of manufacturing value added over total value added has also decreased, from 21.4% in 2007 to 17.5% in 2010 (see Figure 9).

The period 2007-2010 also suffered a deterioration of the social situation, with increasing levels of poverty and

Figure 10
Growth, unemployment, poverty and extreme poverty 2005-2010



Source: Instituto Nacional de Estadísticas y Censos (INEC).

unemployment. In this short period, poverty rates went from 16.7% to 21.3%, extreme poverty from 3.3% to 6% and unemployment from 4.6% to 7.3%.

Implementation of capital account regulations

This situation induced the government, for the first time in 20 years, to impose regulations on short-term loans. In late 2010, the *colón* reached the top of its exchange rate band and remained within 2% of the ceiling until mid 2011.⁶⁴ In the first four months of 2011, the central bank had to buy more than \$350 million dollars to defend the upper limit of the band. The government started acknowledging that the open economy approach was having harmful effects on the country. In October 2010, Vice President Luis Liberman said that “the two topics that most concern the government are economic growth and real exchange rate appreciation, and its effect on export competitiveness.”⁶⁵ In November that year, Rodrigo Bolaños, the central bank president, added that exporting companies might not tolerate the appreciation of the exchange rate caused by increasing capital inflows.⁶⁶

At this stage the government started expressing their reluctance to continue buying the unwarranted inflows of foreign assets and currencies. As explained in the previous case studies, this alternative implies either higher inflation, because of the injection of *colóns* used to buy foreign currency, or high costs of issuing bonds to withdraw those *colóns*.

Considering that the appreciation of the exchange rate was being fuelled by temporary factors like the excess liquidity in developed countries, the government decided to take a more pragmatic approach towards capital account management. The central bank decided to require a holding deposit - or unremunerated reserve requirement (URR) - of 15% of the value of short-term foreign loans received by banks and other financial entities. The measure was implemented in the first week of September 2011.

It is still too early to know how effective this measure will be in stemming unwanted capital inflows. However, the fact that the URR covers only short-term loans, and leaves other flows unregulated, including trading

activities on stocks and bonds, suggests that there is still scope for short-term investments to affect the financial stability of the country. In this respect, it is important to point out that Costa Rica faces limits on imposing further regulations because of existing BITs and Free Trade Agreements (FTAs).

The case of Costa Rica also raises problems with the IMF’s position on capital account management. The Fund proposes that capital account regulations should be used only as a last resort after exhausting other measures like building up reserves, letting currencies appreciate and cutting budget deficits. As pointed out by a Boston University-convened task force on capital account regulations, “consigning such measures to ‘last resort’ status would reduce the available options precisely when countries need as many tools as possible to prevent and mitigate crises.” Indeed, their research found that “in the cases where the IMF found capital-account regulations to be effective, such measures were part of a broader macroeconomic toolkit, and were deployed early on, alongside other measures, not as a last resort.”⁶⁷

Conclusions

Within a broader free market programme, financial liberalisation in Costa Rica was successful in attracting both foreign direct investment and portfolio investment and facilitating sustained economic growth until the recent global financial crisis. During the past 5 years however, because of its open economy, the country has been amongst the most affected in Latin America by the crisis. It suffered both capital outflows and more recently large speculative inflows that increased ‘currency risk’, harming the capacity of local industries to compete internationally and hence risking the destruction of industries and employment.

After 20 years of liberalisation of its capital account during 1990s and 2000s, Costa Rica has begun experimenting with pragmatic management of its capital account in order to deal with speculative capital inflows. A reserve requirement on short-term loans received by banks and other financial entities has been established to deal with current circumstances of excess liquidity at a global level. The effectiveness of the measures will need to be studied after some time.

Final Remarks

After several financial crises with large negative social and economic impacts, developing countries are increasingly using instruments to reduce the risks of global financial integration and increase its potential benefits. Persistent volatility of global capital flows and the limitations of international forums like the IMF in dealing with them, pose new challenges of how to manage financial integration in a way that benefits the economy and contributes to key goals including the eradication of poverty. Pragmatic approaches to capital account management can contribute to these goals. The three case studies explored here show how different forms of capital account management are supporting developing countries' strategies for coping with the risks of volatile international financial flows.

In the case of Argentina, after the 2001 crisis left 50% of the population under the poverty line, the government implemented several regulations on capital inflows and outflows. The unremunerated reserve requirements on inflows implemented in 2005 managed to discourage exchange rate volatility and increase monetary policy space. Within a broader strategy of maintaining a stable and competitive real exchange rate, this prudential approach to capital account management facilitated sustained and high levels of economic growth and employment creation, and significantly reduced poverty and inequality. However, some challenges persist regarding the high levels of capital outflows as well as macroeconomic tensions and negative social impacts of high inflation.

While in Argentina the capital account regulations implemented since the 2001 crisis are part of a comprehensive policy 'toolkit' which represent a U-turn from 1990s financial liberalisation, in Brazil and Costa Rica the measures implemented - taxes and deposit requirements - come as isolated measures responding to a particular context of high capital inflows stimulated by low interest rates in rich countries.

Brazil and Costa Rica are suffering particularly the effects of currency risk, as investors speculate to profit from their high interest rates. Their inflation targeting strategies, together with flexible exchange rate regimes, attract short-term investments, known as carry-trades. These

short-term inflows are not only threatening their export and productive capacities, but also increasing the risk of a sudden reversal of inflows, increasing financial volatility.

Although the Brazilian *real* has strongly appreciated between 2009 and 2011, evidence shows that the taxes on foreign purchases on the Brazilian stock and bond market managed to slow capital inflows and reduce currency appreciation. Although the medium to long term social consequences of these measures are still to be seen, by preventing further appreciation of the *real*, these taxes are putting a stop to the potentially irreversible destruction of Brazilian industries, and protecting employment. Also, the sudden reversal of flows in September 2011 provides lessons in the importance of regulating short-term flows. In the current context of large short-term inflows and high profits in the financial sector it is important to ask if the rate of the IOF is high enough or if higher tax rates would be more appropriate.

Costa Rica has more recently acknowledged that in order to protect its economy from volatile capital inflows some form of regulation needs to be implemented. The specific recent measures cannot yet be assessed, but the previous policy stance was clearly undermining the achievement of social goals. In this sense, the case of Costa Rica provides evidence of the limitations of the IMF's proposal of capital account regulations as a last resort solution.

The case studies show some evidence of the usefulness of capital account regulations not only to achieve financial stability, as already acknowledged by the IMF, but also to prevent unwarranted appreciation of the exchange rate. Developing countries and their policy makers should explore pragmatic solutions and learn from the experiences of these Latin American countries. However, there are limits to what these kind of measures can achieve on their own. Reforms at both ends of capital markets are necessary, at the source of flows as well as at the receiving end. Furthermore, the widespread use of tax havens and other problems need to be tackled in order to limit the possibilities of large illicit capital outflows. Greater regional coordination of these measures could boost their effectiveness while limiting unwanted side effects.

Endnotes

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- 23 For details on the regulations see : Gaggero, J. (2010) *La Fuga de Capitales II: Argentina en el escenario global (2002-2009)* Documento de Trabajo N° 29, Julio de 2010, CEFID-AR, Argentina. Some of the restrictions imposed only on wholesalers (more than \$250.000) in 2007, like the need to prove legality of the money used to buy foreign currency, were extended to individual investors in November 2011. The impact of the latter is not covered in this report.
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- in the late 1990s ... another, less commented, factor that probably contributed to that outcome was that the country did not liberalise the capital account completely, an evidence that further supports gradualism.”
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