# Financial and currency crises in Latin America

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### 1. Introduction

This chapter analyses the experiences of financial crises in Latin America (LA) between the 1970s and the 2000s. During this period the region went through two waves of financial crises. The first one, which spread virtually all over the region, occurred during the early 1980s and its effects extended almost throughout the decade. This is the reason why the 1980s in LA were labeled as the "lost decade". The second wave began with the Mexican crisis in 1995 and continued with those in Brazil in 1998-99 and in Argentina in 2001-02. These two waves of financial crises share a common feature: the fact that they were preceded by booms of capital inflows.

Each financial crisis has its own particularities. However, at certain level of abstraction, crises in developing countries have shared several important elements. In this regard, analyzing financial crises in Latin America has no value added compared to studying those in Asia, Russia or Turkey. For this reason, our analysis in this paper can easily be extended to financial crisis in other developing countries. There is something, however, making Latin America special. This is related to the fact that the region started to participate earlier in the international capital markets and was a pioneer in experiencing financial crises. Latin America suffered a higher number of crises than any other region and its major countries experienced more than one crisis in the last third of the twenty century. This gives a unique opportunity to draw lessons from the comparative analysis between countries in the same period but also from the analysis of the same country in different periods. Or, using the econometric jargon of panel data, the experience in LA provides "experiments" to control for both time-specific and country-specific effects. The analysis of crises in LA is the topic of the first part of this paper.

Between the Argentine crisis in 2001-02 and the financial disruption in the US in 2008-09, developing countries went through a prosperous period without suffering crises. LA countries were part of this process. Attempting to identify the cause of something that does not happen may not seem an attractive analytical strategy at first sight. However, after three decades in which financial crises occurred almost sequentially in the developing world, it seems relevant to raise the question of why no relevant financial crisis occurred during this time. This seems especially relevant because in this period capital inflow to emerging markets intensified while no major change in the international financial architecture and institutions occurred. The assessment of this issue is the topic of the second part of the paper.

## 2. Latin America during the first three decades of financial globalization

### 2.1 The financial context leading to crises

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All financial crises in developing countries have been associated with preceding booms of capital inflows. The first modern wave of foreign capital inflows to Latin America started in the late 1960s simultaneously to the process of deregulation and development of financial markets in developed countries. Major LA economies integrated to this process right from the beginning. Brazil started to tap the Eurodollar market in the late sixties, whereas Argentina, Chile, Colombia, Mexico, Peru and Venezuela did it in different moments of the 1970s.

The motivations and instruments to absorb capital from abroad varied among countries. Brazil initially attracted foreign resources to finance a moderate current account deficits caused by the high rates of economic growth that the country was experiencing during those years. Later on, after the oil shock in 1973, external finance requirements increased to sustain higher current account imbalances that resulted from the maintenance of rapid growth in a context of substantially higher oil prices. During this process, capital inflows were mostly intermediated by the government and targeted to support its centralized development strategy. The accumulation of external debt was mostly public since authorities applied severe controls on private capital inflows.

In the early 1970s, Argentina, Chile and Uruguay followed an extremely different approach. They open private access to external finance as a part of set market-friendly reforms that were meant to change the economic structure. Together with an almost complete opening of the capital account for the private sector, they liberalized the domestic financial systems, reduced taxes on trade, tackled fiscal imbalances and carried with different intensity the privatization of some public enterprises. In a way, the so-called Southern Cone experiments anticipated the reforms carried in LA and other developing countries in late 1980s and early 1990s under the Washington Consensus paradigm.

In between the Brazilian and the Southern Cone poles, other countries, such as Colombia, Mexico, Peru and Venezuela, also opened their capital accounts and allowed the private sector to engage to some extent in external finance.

This first wave of capital inflows to Latin America ended abruptly in 1981-82 causing severe financial and currency crises. A common response to the crises was to nationalize private sector external debts through different idiosyncratic mechanisms and to establish institutional arrangements in which debt payments and re-negotiations were intermediated by international commercial banks, the IMF and other international financial institutions. During most part of the 1980s, LA countries operated under a regime characterized by two main elements: 1) foreign finance was severely rationed and 2) the negotiations with creditors and international financial institutions imposed significant net transfers of resources abroad. Under these constraints, most countries in the region experienced a combination of low growth and high and rising inflation all along the decade.<sup>2</sup>

The region began to face more favorable conditions to stabilize their economies and provide an environment more conducive to growth only when the access to international finance was re-

<sup>&</sup>lt;sup>2</sup> The notable exception was Chile -and to a lesser extent of Colombia- which manage to recover growth and stabilize the inflation rate since the mid 1980s. Chile's exceptional performance was partly due to its ability to restructure its foreign debt and to get more generous funding from the international financial institutions.

established in the late 1980s. The Mexican default in 1982 is usually used as the date in which the first wave of capital inflows to LA came to an end. Similarly, the starting date of the second wave of capital inflows to the region can be set in 1989, when Mexican authorities signed the Brady agreement to restructure its external debt.<sup>3</sup> Thus, the region entered the new decade with a comfortable access to the international financial markets. This process coincided with the implementation of Washington Consensus reforms, which made LA countries more attractive to the eyes of the international financial community. An important difference between the beginning of the first and second waves of capital inflows is worth noting; namely that the second one found LA countries with a heavy burden of the financial obligations inherited from the first one.

With the development of this second wave of capital inflows to emerging markets, the faith in global financial integration gradually started to gain supporters. The predominant view held that the world was witnessing a new phase in which capital inflows to emerging market economies were meant to last for long. It was seen as the realization of a sustained process towards complete financial integration at global scale. This was certainly the view of the international financial institutions and market participants (IMF, 1997). It was also the view of LA policy-makers. The possibility of a financial crisis, herding behavior and contagion effects was widely undermined. The extension and magnitude of the capital inflows boom to emerging markets during the first half of the 1990s was certainly related to this underestimation of risks.

Contradicting these beliefs, the boom was interrupted in the end of 1994, when (again) Mexico faced a sudden stop of capital inflows. The Mexican crisis spread to other economies in the region, most notably to Argentina. It revealed the risks and volatility that emerging markets were exposed to, but it also showed that a rapid and effective international intervention could operate as a shield against financial disruption. Thanks to a generous assistance package with contributions of the IMF and the US Treasury, Mexico met all its financial commitments in time. This helped rebuild investors' confidence and by late 1995 capital inflows were booming again.

A new sudden stop of capital inflows to the region was triggered by the Asian and Russian financial crises in 1997-98. The financial and real negative effects caused by these crises were severe and led to a domino effect in South America. In late 1997, Chile began to experience a substantial reversion of capital flows but because of the higher degree of exchange rate flexibility and capital controls, it managed to cope with the adverse external conditions. In 1998, capital inflows gradually began to revert in Brazil; a process that finally led to a currency crisis in early 1999. The devaluation in Brazil put deflationary pressures to an already stagnant Argentina that in 2001 declared a massive default of its external debt and in early 2002 was forced to abandon its currency board and devalue its currency. The Argentine crisis in turn hit Uruguay, which also experienced a financial and currency crisis in 2002.

The sequence of crises during the 1990s had negative impacts in LA economies, especially in Argentina where the social cost of the crisis was extreme. But it also induced changes in the

<sup>&</sup>lt;sup>3</sup> The Brady Plan was a program launched by the US government in 1989, which aimed to help highly indebted countries relieve their debt burden with international banks. Debt was converted into bonds –called Par and Discount– collateralized with US Treasury bills. After Mexico, Costa Rica (1989), Venezuela (1990), Uruguay (1991), Argentina (1992), and Brazil (1992) signed debt restructuring agreements within this framework.

macroeconomic policies of the countries, especially in terms of their exchange rate policies. We analyze these issues in section 3.

#### 2.2 The crises

During the first half of the 1970s, Argentina, Chile and Uruguay had suffered severe economic and political crises that derived in persistently high inflation rates. The military coups that took power immediately afterwards tried to take advantage of the international financial conditions to induce radical changes in the economic structures and fight inflation at the same time. As mentioned above, the Southern Cone programs include the liberalization of the domestic financial systems, the reduction of taxes on trade and of fiscal imbalances and opening of the capital account of the balance of payments. In the second half of the 1970s, all three countries also oriented their exchange rate policies towards stabilizing prices, adopting active crawling peg regimes. The so-called *tablitas* were schedules of pre-announced rates of devaluation, which were meant to function as nominal anchors for inflation. In all three cases, the private sector was the main recipient of external credits. The experiences led to substantial real exchange rate (RER) appreciation and a rapid increase in current account deficits and foreign debts. In all three cases, the experiences ended up with massive financial and currency crises.

Mexico also opened its capital accounts and borrowed from the international capital markets, but did not abandon its traditional pegged exchange rates regimes nor introduced any other significant policy change as in the Southern Cone cases. Due to an excessively expansive fiscal policy during the early 1970s, Mexico suffered a balance of payment crisis in 1976, forcing the authorities to devalue for the first time in more than twenty years. After a year of sequential adjustments, the exchange rate was fixed again in early 1977. About that time, the discovery of voluminous oil reserves changed economic perspectives about the country. The perception that the change in oil prices represented a permanent change encouraged the government to initiate an ambitious industrialization program borrowing from the international capital markets. The economy expanded at rates of 8%-9% between 1978 and 1981, inducing an acceleration of the inflation rate, which remained about 20% yearly. Given the fixed exchange rate, the RER appreciated and current account deficit soared. This dynamic finally led to a severe a financial and external debt crisis in 1982.

The crises in the 1990s were those of México (1994-95), Argentina (1995), Brazil (1998-99), again Argentina (2001-02) and Uruguay (2002). A common feature of these crises -similarly to the Southern Cone cases- is that they were preceded by stabilization programs in which the fixation of the exchange rate was used as the main nominal anchor.

In 1988, Mexico launched a stabilization program that combined fiscal adjustment, fixation of the exchange rate and incomes policies. Since the stabilization program was launched, the RER tended to appreciate and the economy started to register increasing current account deficits. The change in the international financial conditions during the late 1980s helped the country maintain the macroeconomic policies thanks to the increasing capital inflows. This configuration persisted until 1994, when the fear of foreign investors concerning the sustainability of the (virtually) fixed exchange rate triggered a reversal of capital flows and a balance of payments crisis.

<sup>&</sup>lt;sup>4</sup> The exchange rate regime was later substituted by a slightly more flexible arrangement.

In 1994, Brazil launched the Real Plan, a stabilization program that included a comprehensive adjustment of fiscal accounts, an opened capital account, a monetary reform -in which a new currency, the "Real", was introduced- and an almost fixed exchange rate regime. The effects of the Real Plan on the real exchange rate, the external accounts and debt accumulation were similar to those observed in Mexico and Argentina. The process finally led to an exchange rate crisis in early 1999.

Argentina launched the so-called "convertibility" regime in early 1991, which was characterized by the fixation of the domestic currency against the US dollar and the establishment of a currency board system by law. The convertibility was implemented concurrently with liberalizing measures including an almost complete liberalization of trade flows and full deregulation of the capital account of the balance of payments. The program was very successful at curbing high inflation. However, as occurred in Mexico, stabilization came together with the appreciation of the RER, large current account deficits and a growing external debt. In 1995, the contagion of the Mexican crisis led to massive capital outflows. Granted a voluminous financial assistance package carried by the IMF, the Argentine authorities managed to preserve the currency board but they could not prevent a financial crisis that led many domestic banks to bankruptcy. As mentioned above, another reversal of capital inflows started in 1998 after the Asian and Russian crisis and accentuated after the Brazilian crisis in 1999. This time, the massive run against the domestic currency and bank deposits led to an extremely severe financial and external debt crisis in 2001 and the devaluation of the peso in 2002. The crisis spread to Uruguay that presented similar features: a virtually fixed exchange rate, overvalued RER and large current account deficits. In 2002, the country experienced a severe banking and currency crisis.

A more detailed analysis of the crises reviewed above indicates that certain features in the institutional and macroeconomic policy configuration were common to all: i) the exchange rate was fixed or semi-fixed; ii) the RER was overvalued and the current accounts were in deficits; iii) capital accounts were virtually fully convertible (i.e., free capital movements); iv) capital inflows in the preceding boom had been large in relation to the size of existing local money and capital markets; v) the regulation of national financial systems during the boom phase was weak and permissive. Such an analysis also reveals that the combination of these ingredients led in all these cases to a cyclical macroeconomic dynamic, with an initial expansionary phase followed by a period of stagnation or recession and growing financial and external weakness that culminated in financial and currency crises.

# 2.3 The cyclical dynamics leading to crisis<sup>6</sup>

The prototypical boom-and-bust cycle resulting from the above set ingredients and experienced by several LA countries can be described as follows. The rapid deregulation of previously

<sup>&</sup>lt;sup>5</sup> See Frenkel (2003).

<sup>&</sup>lt;sup>6</sup> The following narrative was originally formalized by Frenkel (1983b). The model was inspired by the Southern Cone experiences and later on synthesized and presented in English in Williamson (1983) and Taylor (1991). Taylor (1998) labeled this dynamics as "Frenkel-Neftci" cycle and found that it helps explain other developing-country crises, such as those in Asia in 1997-98 and in Russia in 1998.

'repressed' capital markets raises domestic interest rates.<sup>7</sup> In such a context, the combination of credibly fixed (or predetermined) exchange rates and capital account liberalization leads to significant spreads between the yields of foreign and domestic assets. Initially, a few local players take advantage of the arbitrage opportunities, issuing foreign debt to do so. Their exposure to risk essentially depends on the probability that the exchange rate rule is altered (i.e. the exchange rate risk). From the viewpoint of the individual investor, engaging in external borrowing to exploit an arbitrage opportunity has no significant effect on the sustainability of the exchange rate rule. However, since the first movers are exploiting significant benefits, other players have strong incentives to jump in, even when by doing so their combined actions may have negative macroeconomic consequences.

Capital inflows expand liquidity and credit in the economy. As a result, domestic interest rates and spreads fall, and output and employment grow. The expansion of aggregate demand leads to price increases (particularly in non-tradable sectors), which under fixed (or predetermined) exchange rate regimes generates an appreciation of the RER. The real appreciation reinforces the inflow of capital seeking capital gains by holding domestic assets and, therefore, further fuels the expansion of credit and output growth. The combined effect of RER appreciation and economic growth stimulates the demand for imports, while exports weaken. The worsening of the trade balance together with the increase in interest and dividend payments resulting from the reduction of the net foreign assets leads to a current account deficit.

Given the progressive worsening of the external balance, the credibility of the exchange rate rule weakens. As the probability of exchange rate devaluation increases, the balance sheet of the domestic financial system -which is short on foreign currency and long in local assets- becomes increasingly fragile. Some players, possibly the most risk averse or the best informed, begin undoing their positions in domestic assets, leading to a slowdown in the capital inflows. Authorities increase interest rates in order to retain capital. However, there eventually comes a point at which no interest rate can attract new external financing. Foreign exchange reserves at the central bank, which grew during the booming phase of the cycle, begin falling as the monetary authority intervenes to sustain the exchange rate regime. However, the run against central bank's foreign exchange reserves cannot be stopped and the exchange rate rule is finally abandoned. A sequential or simultaneous twin (currency and financial) crisis is the final outcome.

# 2.4 Financial crises in developing and developed countries<sup>8</sup>

Those who are familiar with the work of Hyman Minsky would find the cyclical dynamics that led to financial and currency crises in Latin America (and other developing countries) very intuitive. This should not be a shocker. The boom-and-bust cyclical dynamics described above was actually inspired by Minsky theory of financial crises.<sup>9</sup>

<sup>&</sup>lt;sup>7</sup> In a high inflation context, as observed in the LA countries where this set of policies was implemented in the form of stabilization programs, the likelihood of finding attractive domestic interest rates is even higher.

<sup>&</sup>lt;sup>8</sup> This section draws on Frenkel and Rapetti (2009).

<sup>&</sup>lt;sup>9</sup> A synthetic presentation of his model of financial crises can be found in Minsky (1977) and the most polished and mature exposition of his thought in Minsky (1986). Charles Kindleberger (1977) provides an exhaustive historical account of financial crises analyzed under Minsky's framework.

In Minsky's model, crises are always preceded by a period of economic and financial boom. During the booming phase, there are widespread optimistic expectations about the future. Confidence increases and risk perception reduces. In this environment, agents take risky positions and the system becomes increasingly fragile. At some point, some event calls agents' attention about the high degree of exposure to risk in the system. A phase of distress begins. The emerging perception of higher risk makes most agents switch their portfolios in favor of safer and liquid assets. The excess demand for liquidity and low-risk assets ends up pricking the bubble, which results in a massive loss of wealth. In this contractive phase, pessimistic expectations are dominant. Negative feedback effects are the rule in the contractive process, just as positive ones prevailed during the booming phase. The deflationary developments in the financial markets turn most agents either liquidity-constrained or bankrupt, affecting in either case their spending decisions negatively. Private consumption falls and investment collapses. What started as a contraction in the financial sector has now spread out to the whole economy. The financial crisis leads to a systemic economic crisis.

Recent financial crises in the US, Europe and other developed countries induced a revalorization of Minsky's work. It is not surprising why analysts and observers of the financial markets in US have brought Minsky's ideas back from an almost total intellectual exile. The conditions that caused and then helped develop recent crises correspond very neatly to Minsky's model.

In this regards, crises in Latin American (and other developing) countries shared a similar cyclical dynamics with those observed in developed countries and therefore are not singular. There is, however, a key difference between them. The difference lies on the factors that kicked off the booming phase of the cycles. In the case of Latin America, the financial bubbles and innovations that emerge and develop in the booming phase resulted from the implementation of new macroeconomic policy rules that provide a profitable environment for financial arbitrage between domestic and foreign assets. As described in section 2.2, the beginning of the booming period coincided with the implementation of a new macroeconomic configuration including fixed or semi-fixed exchange rate arrangements, the liberalization of the capital account and the domestic financial systems and a poor or lax regulation of them.

In sum, the trigger of the Minskyan cycle observed in Latin American crises has an important exogenous component. Foreign capital inflows and outflows then play a key role by multiplying the forces driving the cycle. On the other hand, the factors that trigger the cycle in the current financial crisis in the US and other crises in developed countries were essentially endogenous. This is, in fact, a key insight of Minsky's theory of financial systems: the bubbles and the innovations that emerge and develop in the booming phases are the natural and spontaneous result of the evolution of financial systems. The real state bubble and the financial innovations that started with the securitization of mortgages (and other debts) were key ingredients of the booming phase of the Minskyan cycle in the subprime crisis. Both the bubble in real estate prices and the financial innovations were processes that developed in the real estate and financial markets, which nurtured one to another during a long period. The comparison thus makes clear the difference between the exogenous nature of the elements triggering the booming phase in Latin American crises and the endogenous dynamics of the cycle in the subprime crisis.

### 3. A virtuous phase during the 2000s

In the last three decades of the 20<sup>th</sup> century, financial and currency crises in developing countries were frequent and severe. On the contrary, since 2002 and up to the eruption of the subprime crisis in 2008, developing countries experienced a period of unusual stability. This change was associated with a new set of macroeconomic policies followed by many of these countries that contributed to shape a new international financial scenario.

Two main changes within the macroeconomic policy framework in developing countries started to operate since the Asian crises (Frenkel and Rapetti, 2010). First, developing countries gradually switched their exchange rate arrangements from pegs to more flexible regimes. Exchange rate flexibility has traditionally been understood as the lack of official intervention in the domestic foreign exchange (FX) market. Flexibility in the current context, on the contrary, means that the monetary authority preserves the ability to intervene in the FX market whenever finds it necessary. In this sense, a pure floating regime does not have minimum commitment because it implies the commitment of not intervening. Manage floating represents the most flexible regime instead, because it allows monetary authorities to intervene discretionally.

Similarly to pure floating, an advantage of manage floating is its preventive role. A country adopting such an arrangement cannot fall victim of a speculative attack. A key advantage compared to pure floating is that managed floating allows intervening in the market so to give guidance to the evolution of the RER in the short and medium run. In this regards, manage floating combines the advantages of a pure floating with the discretion to use FX interventions to react to changes in the domestic and international context adjusting the level of the exchange rate to the requirements of economic policy. If not *de jure*, many developing countries have switched to *de facto* manage floating arrangements during this period.

The other major innovation in the macroeconomic policy framework followed by many developing countries has been that in the more recent period they have engaged in financial globalization as net suppliers of capital flows. Contrarily to previous decades, recently capital has moved from developing countries to developed countries. <sup>10</sup> Many of the emerging market economies, which had initially entered the system as recipients of capital inflows financing current account deficits, have in recent years started to generate current account surpluses —or to reduce significantly the previous deficits— and to persistently accumulate FX reserves.

In a set of 29 emerging market economies<sup>11</sup>, only four showed current account surplus in 1997. In the same set, the number of countries with current account surplus was fourteen in 2001, eighteen in 2004 and fourteen in 2006 respectively. In the same set of countries, the ratio

<sup>&</sup>lt;sup>10</sup> In the eighties, there was also a trend of net capital flows moving from low income to high income countries. But this was a transitory consequence of the external sector adjustments of Latin American economies after their crises. In the course of renegotiations of Latin America's defaulted external debts, which lasted from 1982-1990, there was no voluntary lending from private sources and most of these countries went through current account adjustments in order to pay some proportion of the interest dues.

<sup>11</sup> The data set comprises 24 out of 25 countries included in the Emerging Markets index elaborated by MSCI Barra (Argentina, Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Israel, Jordan, Korea, Malaysia, Mexico, Morocco, Pakistan, Peru, Philippines, Poland, Russia, South Africa, Thailand and Turkey) in addition to Bulgaria, Ecuador, Panama, Ukraine and Venezuela.

between the aggregate amount of the surpluses and the absolute value of the aggregate deficits was 0.35 in 1997, 1.40 in 2001, 3.93 in 2004 and 4.64 in 2006. Excluding China, the ratio was 0.04 in 1997; 1.13 in 2001; 2.73 in 2004 and 2.15 in 2006.

Current account surpluses and the availability of large amounts of FX reserves are indicators of external robustness because –as was emphasized along section 2- they indicate a low probability that the country will face difficulties in meeting its external commitments. These indicators are used by international investors in their portfolio decisions. Research has also shown that they perform well at predicting the probability of balance of payment crises (Kaminsky, Lizondo and Reinhart, 1998). Moreover, an increase in the number of surplus countries can also diminish the risk of deficit countries because it reduces the chances of herd behaviour and contagion. Overall, as the number of developing countries running current account surplus increases the risk premium in developing countries as a whole should go down.

This is what effectively happened since late 2002. Developing countries risk premia described a declining trend and by mid-2005 they had fallen below the minimum registered in the pre-Asian crisis period. In mid-2007, country risk premia reached their historical low, significantly lower than the minimum level of the pre-Asian crisis period and also significantly lower than the spread of US high-yield bonds. They only started to rise in July 2007, once the concerns about the subprime crisis emerged. However, since that moment up until the Lehman Brothers bankruptcy in mid-September 2008, developing countries risk premia remained in levels comparable to the low records of the pre-Asian crises period, showing a fairly robust relative performance of emerging markets' financial assets. The financial contagion following the collapse of Lehman Brothers was short and by 2009 many developing countries had recovered access to the international financial system at low interest rates.

These tendencies were clearly observed in Latin America.<sup>12</sup> LA countries both switch to more flexible managed floating regimes and actively accumulated foreign exchange reserves benefiting from a systematic reduction in their risk premia and experiencing a period of rapid growth without suffering any financial or currency crises.

After the crisis in 1994-95, Mexico let the peso float while using a monetary policy of monetary aggregates to control inflation. In 1999, the country switched to a regime combining floating exchange rate and inflation targeting (FIT). Also in 1999, Brazil, Colombia and Chile joined the club of Latin American countries using a FIT regime. Brazil did so as a result of the currency crisis it suffered at the beginning of that year. Peru had been using managed floating jointly with a monetary regime based on quantitative monetary targets since the early 1990s. In 2002, the central bank formally adopted a FIT regime.

Despite their public statements about their exchange rate regime choice, none of these Latin American countries have let their currency float the way assumed under a conventional pure floating regime. The central banks of these countries have not had a passive role in the determination of the exchange rate and therefore their regimes can be better classified as managed floating. Intervention in the FX market has been common practice among them countries. Moreover, central banks in these countries have explicitly claimed a right to intervene

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<sup>&</sup>lt;sup>12</sup> See Frenkel and Rapetti (2011) for details.

in the FX market. The process of reserve accumulation, however, was not homogenous across countries. Between 2004 and 2008, Brazil quadrupled its stock of FX reserves, Peru more than tripled it and Colombia doubled it. Mexico, although increasing the stock of FX reserves during this period (+50%), had a less systematic strategy. The Central Bank of Chile had a more passive role the FX market: it only began to accumulate reserves persistently in mid 2007, increasing its stock of FX reserves by 50% between that period and Lehman Brothers' collapse.

In search for greater flexibility, Argentina followed a somewhat different path than that of the FIT countries. After the 2001-02 crisis, the central bank adopted a pragmatic managed floating arrangement, which implicitly aimed to combine a certain degree of short-run exchange rate volatility with the preservation of a competitive RER in the medium run. The exchange rate policy has also had an explicit goal of FX reserve accumulation meant to protect against volatility in international financial flows. A competitive RER combined with fiscal discipline (to which the public debt restructuring in 2005 contributed substantially) provided the economy a sound macroeconomic configuration. It was the first time in its modern history that Argentina maintained current account and fiscal surpluses for such a long period (2002-2010). This macroeconomic configuration was undoubtedly a key factor in explaining the sharp acceleration of growth. Since the second half of 2002, the economy grew steadily at annual rates of 8-9%, maintaining a relatively dynamic export performance. Although, since 2007 the inflation rate accelerated substantially and the macroeconomic configuration started to show signs of deterioration, the economy remained a robust against financial contagion.

### 4. Conclusions

The history of crises in Latin America has revealed the weaknesses and inadequacy of loosely regulated domestic financial systems. A comprehensive regulation is essential to avoid instability and crises. However, the conclusion that follows from the study and analysis of the crisis episodes in LA economies suggests that the prevention of financial instability and crises in countries like these may involve elements that go beyond the regulation of domestic financial systems. Preventing crises in developing countries requires not only the regulation of domestic financial systems, but also a consistent macroeconomic configuration, which includes the exchange rate policy and the policies related to the management of the balance of payments and the stock of FX reserves. Crises episodes in Latin America (and other emerging markets) have shown, in particular, that developing countries should aim for 1) exchange rate systems that provide flexibility and reduce the space for speculation, 2) preventive measures to manage capital movements, and 3) policies that secure robust external accounts, including the accumulation of FX reserves and the avoidance of overvalued RERs. Latin American and other developing countries have adopted these policy orientations in the 2000s and this explains why there have not been financial crises during this period.

## **Further Readings**

The literature on analysing financial and currency crises in LA is vast. For a detailed description of the Southern Cone programs and crises see Canitrot (1981), Damill y Frenkel (1987), Fernández (1985) and Frenkel (1983a and 1983b) for the Argentina case; Corbo (1985), Diaz-Alejandro (1985) and Ffrench-Davis (1983) for the Chilean case; and Hanson and de Melo (1985) for the Uruguayan case. The Mexican crisis in 1994-95 and the "Tequila effect" have been analyzed in Sachs et al (1996) and Ros (2002). For the Bazilian crisis in 1999 see De Paula and Alves (2000) and Kregel (1999). Argentina's convertibility crisis generated an extensive discussion; see Damill, Frenkel and Juvenal (2002), Damill, Frenkel and Rapetti (2010), Galiani, Heymann and Tomassi (2003), Mussa (2002) and Perry and Serven (2002). Palma (1998) compares the East Asian crises of 1997/98 with those of Mexico in 1994-95 and the Southern Cone of the early1980s. He also anticipated somewhat the Brazilian crisis of 1998-99.

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