Capital Flows, International Imbalances and Economic Policies in Latin America*

July 17th, 2012

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Abstract: Capital flows to Latin America have been mostly determined by push factors

(global ones) rather than by pull factors (associated with domestic factors). After a

succession of currency crises, Latin American countries adopted a floating exchange

regime but at the same time have made use of foreign exchange reserves accumulation

policy in order to reduce the effects of capital flows volatility. More recently, capital

inflows to Latin America have increased substantially. The response of governments,

however, has differed between countries. This paper aims at analyzing the causes and

consequences of the recent capital flows boom to Latin America, focusing on the major

countries of the region. Going in this direction, it tries to answer the following

questions: What are the specific determinants and features in the recent wave of capital

inflows to Latin America? Why did Latin American countries succeed in facing the

contagious of the 2007-08 international financial crisis? How have Latin American

major countries managed the recent intensive wave of capital flows?

Key-words: Capital flows; financial liberalization; Latin America; emerging economies

JEL Classification: E21, F32, F40

To be published in the International Papers in Political Economy (IPPE) Series, Edited by Philip Arestis and Malcolm Sawyer, Palgrave Macmillan.

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1. Introduction

Capital flows to emerging economies have followed a markedly pro-cyclical global pattern and tend to exacerbate economic booms, when they do not cause them. Empirical literature shows evidence that capital flows to Latin America have been mostly determined by push factors (for instance, economic policy of the developed countries) rather than by pull factors (associated with domestic factors). After a succession of currency crises, most Latin American countries adopted floating exchange regime but at the same time have made use of foreign exchange reserves accumulation policy in order to reduce the effects of capital flows volatility.

The 2007-08 international financial crisis, that induced the 'great recession', has substantially changed the dynamic process of the world economy. The Latin America countries are no exception. The financial crisis generated mechanisms by which it was transmitted to these economies, including: (i) withdrawal of portfolio capital and foreign direct investment (FDI); (ii) interruption of credit, particularly for foreign trade; (iii) falling commodity prices; (iv) declining exports to developed countries; (v) volatile exchange rates; and (vi) rising levels of profit repatriation by transnational corporations. As a result, governments of developed and emerging economies have responded to the 2007-08 international financial crisis and 'great recession' with massive fiscal and monetary stimulus, by rescuing financial and non-financial corporations and by reintroducing a more hands on approach to deal with the economic problems (Griffith-Jones *et al.*, 2010; Arestis *et al.*, 2011). In Latin America countries, alongside the countercyclical policies aimed at smoothing the negative impacts of the external environment, some central governments have been trying to implement more active developmental policies.

Moreover, the implementation of the 'quantitative easing' monetary policy in the United States, combined with the attraction of FDI due to the commodities boom, capital inflows to Latin America have increased substantially. This trend has put pressure on the economic policy of countries of the region and has had consequences in the real side of the economy (output, industry etc.). The responses of government, however, have differed in each country.

This papers aims at analyzing the causes and consequences of the recent capital flows boom to Latin America, focusing on the major countries of the region, such as Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela. The main questions

that we seek to discuss in this chapter are: What are the specific determinants and features in the recent wave of capital inflows to Latin America? Why did Latin American countries succeed in preventing the contagious nature of the 2007-08 international financial crisis spreading to them? Have Latin American countries been successful in managing capital flows?

Besides this brief Introduction, the chapter is divided into six sections. Section 2 discusses the relationship between financial globalization, capital flows and economic policy in emerging economies. Section 3 analyses the adoption of 'Washington Consensus' policies during the 1990s in Latin America, as well as the implementation of the 'New Consensus Macroeconomics' policies in an important group of countries. Section 4 focuses on the recent trends and features related to capital flows, external vulnerability and economic policy in Latin America. Section 5 analyses specifically the contagious of the 2007-08 international financial crisis in Latin America and the economic policy responses. Section 6 shows some economic policy implications of the surge of capital inflows in the region. Finally, section 7 summarizes the paper.

2 Financial globalization, capital flows and economic policy in emerging economies

Financial globalization is a phenomenon that has been intensified since the 1970s in consequence of a set of factors that includes: (i) the development of eurodollars market, that was the 'embryo' of the international and de-regulated financial markets; (ii) the end of the Bretton Woods system, with the end of the fixed but adjustable exchange rate regime; (iii) the development of technological innovations in telecommunication and informatics that allowed a faster data computing and an online integration of different geographic regions; and (iv) the financial de-regulation that happened initially under the context of the adoption of neo-liberal policies in the United States and United Kingdom and elsewhere. In other words, financial globalization is a process in which there is a greater integration among financial markets and capital flows cross-border at the global scale, a certain tendency to the erosion between countries' borders, and an increase in the volume and velocity of financial resources in the international financial market. Other dimensions of financial globalization include: (i) the loss of hegemony of the banks as the main providers of finance to firms due to the growth of corporative securities market; (ii) the rising of big institutional investors, such as pension funds, investment funds, insurance firms etc. as important demanders of securities; (iii) the spread of new financial instruments, such as debt securitization and derivatives; and (iv) the formation of financial conglomerates and brokers with global power (Ferrari-Filho and Paula, 2004).

Stiglitz (2000) states that capital flows in emerging countries are markedly procyclical and exacerbate economic booms, and that financial liberalization exposes countries to the vicissitudes associated with changes in economic circumstances outside the country; so that such economies are exposed to sudden change in lenders' and investors' perceptions. Such shifts can increase capital outflows. According to Stiglitz (2000): "capital market liberalization is systematically associated with greater instability, and for good reason: capital flows are markedly pro-cyclical, exacerbating economic fluctuations, when they do not actually cause them (...) In addition, capital market liberalization exposes countries to vicissitudes associated with changes in economic circumstances outside the country: a sudden change in lenders' perceptions concerning "emerging market risk" can lead to huge capital outflows, undermining the viability of the entire financial system" (p. 1080).

One of the major drivers of capital inflows during the beginning of the 1990s boom and during the 2000s capitals flows' boom was the low interest rates in developed economies. Capital flows volatility can translate into huge macroeconomic instability in the domestic economies of main Latin American countries, complicating in particular the macroeconomic management and entailing tradeoffs in attaining macroeconomic objectives (economic growth, financial stability, price stabilization, avoiding exchange rate appreciation etc.). Indeed, "large surges in capital inflows can lead to strong upward pressure on the exchange rate and contribute to macroeconomic overheating, widening current account imbalances through an appreciating exchange rate as well as inflationary pressures and asset price bubbles to the extent that a nominal exchange rate appreciation is resisted and monetary sterilization is either not undertaken or is ineffective. The financial sector generally plays an important role in amplifying these asset price bubbles, and can exacerbate macroeconomic cycles" (Ghosh, 2010, p. 2).

Some analysts stress that with the financial liberalization and the emergence and spread of new financial instruments (such as derivatives), the likelihood of occurrence of speculative financial operations increases substantially. Tobin (1978), for instance, states that the main macroeconomic problem related to integrated financial markets is not the choice of the appropriate exchange rate regime but the excessive short-run capital mobility that reduces the autonomy of national governments to pursue domestic

objectives with respect to employment, output and inflation. According to Tobin (*op. cit.*), "the mobility of financial capital limits viable differences among national interest rates and thus severely restricts the ability of central banks and governments to pursue monetary and fiscal policies appropriate to their internal economies" (p. 154). In the same contribution, Tobin also doubts whether a flexible exchange regime is a panacea: "I believe that the basic problem today is not the exchange rate regime, whether fixed and floating. Debate on the regime evades and obscures the essential problem. That is the excessive international – or better, inter-currency – mobility of private financial capital." (p. 153).

In contrast with financial markets closed to foreign capital, capital flows in liberalized markets can have disruptive action on countries, damaging the autonomy of domestic macroeconomic policies, and even generate speculative attacks on domestic currencies. As Eichengreen *et al.* (1995) state, "volatility in exchange rates and interest rates induced by speculation and capital flows could have real economic consequences devastating for particular sectors and whole economies" (p. 164). In other words, financial globalization has been a source of broader instability related to the occurrence of currency crises and speculative attacks, and also of the reduction in the degrees of freedom in the implementation of a more autonomous economic policy. Indeed, under the action of 'global players', in a more liberalized and integrated market, the operational way of working of the financial markets became a sort of big and global casino. The high capital mobility of today's global economy has increased the arbitrage and speculative transactions in foreign exchange markets (Alves Jr. *et al.*, 1999/2000).

Recent empirical studies undertaken by the IMF (2011b) and other economists, such as Cardarelli *et al.* (2009), found some findings that are line with Stiglitz (2000) analysis of the effects of the capital flows to emerging economies:

- (a) Volatility of capital flows has increased over time and fluctuations in net flows are much sharper for emerging economies compared with developed economies in the latter, gross outflows largely offset gross inflows, generating smoother movements in net flows. By contrast, in emerging economies, gross inflows and net flows both fell dramatically during the crisis and rebounded sharply afterward (IMF, 2011b, p. 125).
- (b) Episodes of large capital inflows are associated with acceleration of GDP growth, but afterwards growth often drops significantly: over one third of the completed episodes ended with a sudden stop or a currency crisis, what suggests that abrupt

endings are not a rare phenomenon (Cardarelli *et al.*, 2009, p. 5). Thus, there is an inverted V-shaped pattern of net capital flows to emerging economies outside the policymakers control (IMF, 2011b).

- (c) Fluctuations in GDP growth have been accompanied by large swings in aggregate demand and in the current account balance, with strong deterioration of the current account during the inflow period and sharp reversal at the end (Cardarelli *et al.*, 2009, p. 5).
- (d) The surge of capital inflows also appears to be associated with a real effective exchange rate appreciation, damaging the competitiveness of export sectors and potentially reducing economic growth (Cardarelli *et al.*, 2009).
- (e) Historically, portfolio flows have been more volatile and their volatility has recently risen. Bank flows have historically been less volatile but their volatility rises sharply around crisis times FDI is only slightly more stable than other types of flow for emerging economies, and its volatility has increased recently due to increase of direct borrowing by a firm subsidiary (IMF, 2011b).

Greenville (2000) states that the problems related to the exchange rate volatility are greater for emerging economies due to the following reasons: (i) they have no long historical experience of market-determined exchange rate; (ii) there are few 'Friedmanite' stabilizers speculators acting in the exchange market, that is there has been a lack of players willing take contrarian foreign exchange positions in emerging countries; (iii) exchange markets are prone to exhibiting herd behavior generating swings in the exchange rate; (iv) these economies have much larger and volatile capital flows, in relation to the size of their capital markets and economies more generally; and (v) fundamentals cannot explain the behavior of the exchange rate over a short/medium-term horizon.

Exchange rate volatility in general is higher in emerging economies than in developed ones as the former have small and less liquid foreign exchange markets that make such economies more vulnerable to one-way expectations and herd behavior. Indeed such economies face problems related to the 'asymmetric financial integration' as they have much larger and volatile capital flows compared to the size of their capital

¹ Friedman (1953) argues that speculator who consistently earns profits must stabilize the exchange rate, as profits can be made only by buying when the price is low and selling when it is high. Such purchases increase the prices while the sales lower them, so that speculation can reduce the magnitude of exchange rate fluctuations.

market and economies more generally. That is markets in emerging economies are thin and subject to a high degree of uncertainty and information asymmetries. Foreign exchange markets in most emerging countries continue to be relatively small and less liquidity than their counterparts in the industrial world. Countries with high debts, currency mismatches and/or fragile financial sector are particularly vulnerable (Moreno, 2005). Furthermore, the benchmark used to evaluate the performance of managers of global investors portfolio does not include financial assets in emerging economies; so, "[they] can reduce or eliminate their positions quickly, at any signal of deterioration of expectations, or due to new and more attractive opportunity for investment in advanced markets or increase in the investors' risk aversion (Freitas and Prates, 2001, p. 83).

In particular, exchange rates can influence inflation ('exchange rate pass-through') through the prices of traded final goods and imported intermediate goods, and their impact on agents' inflation expectations. Ho and McCauley (2003) show evidence that: (i) domestic income is negatively and significantly correlated with pass-through as lower-income economies have a larger portion of traded goods in the consumption basket; (ii) "exchange rate pass-through has tended to be stronger in Latin America than in Asia even though Latin American are not necessarily more open than their Asian counterparts" (p. 6). The explanation for such difference is that countries with histories of high inflation – as is the case of many Latin American countries, especially in the 1980s – are more sensitive to exchange rate fluctuations, probably due to the existence of an inflationary memory (Eichengreen, 2002). Thus, considering the important influence of the exchange rate on domestic inflation in these economies, exchange rate considerations can be expected to play a more prominent role in emerging economies.

One important discussion in the literature about macroeconomic issues in emerging economies is which exchange rate regime is more appropriate for these economies. On the one hand, according to the 'bipolar view', intermediary regimes – that involve all sorts of intermediary exchange rate regimes between a freely floating regime and a fixed exchange rate regime – are less appropriate for economies with substantial involvement in international capital markets. The main argument is that such exchange rate regimes make countries more vulnerable to speculative attacks (Fischer, 2001). On the other hand, the view called 'fear of floating' points out that many emerging economies that adopted flexible exchange rate regime in practice sought to limit exchange rate movements. Such resistance to floating arises from their low policy and institutional credibility and high degree of pass-through of exchange rate changes

into domestic prices, among other factors (Calvo and Reihart, 2002)². Other reasons as to why monetary authorities seek to limit exchange rate movements are related to the effects of excessive exchange rate volatility (mainly devaluation) on the outstanding foreign currency debts of banks and the corporate sectors with un-hedged foreign currency liabilities, and also on governments with large foreign currency debt or debt indexed to the exchange rate, raising questions about their fiscal sustainability. In addition, exchange rate fluctuations may generate uncertainties that could impede trade. For instance, prolonged real appreciation associated with large capital inflows can adversely affect export competitiveness and investment in the external sector (Bresser-Pereira and Gala, 2007).

Some flexibility in the way the floating exchange rate is managed can be helpful in absorbing the capital inflow, in buffering external shocks, and responding to the changing productive capacity of their economies; it can also inhibit some short-term flows, by serving as a constant reminder that exchange rate volatility can outweigh the interest rate advantage of foreign currency borrowings (Grenville, 2000, p. 59). Moreover, a sort of administered floating exchange rates regime can be useful if the objective of the central bank is to reduce the exchange rate volatility and also influence somehow the real exchange rate for international trade purposes. Central bank intervenes in foreign exchange markets to achieve a variety of macroeconomic objectives, such as controlling inflation, maintaining competitiveness and/or maintaining financial stability. Differently from a pegged exchange rate, authorities' interventions to limit exchange rate movements may not target a certain level of the exchange rate but may influence its path and/or volatility.

In order to enhance the possibility of a successful management of exchange rate regime in emerging economies some measures to reduce the volatility of capital flows and the likelihood of speculation attack on domestic currency are necessary. One possibility is the use of official intervention in the foreign exchange market, which may exert direct influence on nominal exchange rate as it alters the relative supply of domestic and foreign currency assets. On the one hand, the countries' ability to resist currency depreciation is limited by its stock of foreign exchange reserves and its access to potential credit lines. Thus, reserve accumulation can be seen as an insurance against

² Emerging economies as a group have a higher pass-through than developed economies since lower-income economies have a larger portion of traded goods in the consumption basket so that the significance of the exchange rate in the evolution of domestic inflation tends to be greater in such economies (Ho and McCauley, 2003).

future negative shocks and speculation against domestic currency, as emerging economies have limited access to the international capital market. On the other hand, the ability to avoid currency appreciation may require the use of sterilized intervention. Monetary authorities have often sought to sterilize impact of foreign exchange intervention through open market operations and other measures, such as increasing bank reserve requirements. If central banks have a target for the short-term rate, then they can attempt to offset increases in bank reserves selling domestic assets or issuing their own securities (Mohanty and Turner, 2006). Moreover, sterilization often implies quasi-fiscal costs, as it in general involves the central bank exchanging high-yield domestic assets for low-yield foreign reserves (Cardarelli *et al.*, 2009).

Another possibility to enhance the management of exchange rate regime (that is not excluding official intervention in the currency markets) in emerging economies is the use of 'capital management techniques' that includes capital controls, that is measures that manage volume, composition, and/or allocation of international private capital flows,3 and/or 'prudential domestic financial regulations', which refer to policies, such as capital-adequacy standards, reporting requirements, or restrictions on the ability and terms under which domestic financial institutions can provide to certain types of projects (Epstein et al., 2003, pp. 6-7). Capital controls can be used for different though related objectives, such as: (i) to reduce the vulnerability of a country to financial crises, including capital flight during currency crisis; (ii) to drive a wedge between onshore and offshore interest rates in order to provide monetary authorities with some policy autonomy at least in the short-run; and (iii) to maintain some shortterm stability of nominal exchange rate and to reduce exchange rate pressures derived from excessive capital inflows. Capital controls may be limited and temporary, that means that they should be used in the magnitude necessary to be effective, and dynamically adjusted to compensate the tendency of financial systems to elude them.

Magud and Reihart (2006) review more than 30 papers that evaluated capital controls either on inflows or outflows around the world (the evaluation excludes countries with comprehensive capital controls, such as China and India), making use of a capital controls effectiveness index in order to standardize the results of the empirical studies. They conclude that "capital controls on inflows seem to make monetary policy more independent; alter the composition of capital flow; reduce real exchange rate

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³ Capital controls can target inflows and outflows, and can be *tax-based* (for instance, reserve requirement taxes against certain types of investments) or *quantitative* (for instance, outright bans on certain investments, restrictions or quotas, or license requirements).

pressures (although the evidence is more controversial)", but "seem not to reduce the volume of net flows (and hence, the current account balance)", while "limiting private external borrowing in the 'good times' plays an important prudential role because more often than not countries that are 'debt intolerant'" (pp. 26-27). Based on this, Magud and Reihart (2006) argue for enhancing the effectiveness of controls by taking into account country-specific characteristics in their design.

To sum up, set against the adoption of orthodox economic policies is the perceived need to preserve the autonomy of developing countries' fiscal and monetary policies. This has reinforced the opinion of heterodox economists and some policymakers of the necessity of introducing capital controls and an exchange rate regime that prevents exchange rate fluctuations. These economists argue that such policy autonomy is fundamental to assure sustainable economic growth and harmonious social development. This is particularly important given that emerging economies suffer from more volatility than developed countries and this contributes to recessions of longer duration (Hausmann *et al*, 2004).

3. 'Washington Consensus' and the 'New Consensus Macroeconomics': The Latin American case

Most Latin American countries entered a deep economic recession in the beginning of the 1980s under the context of the 'external debt crisis', that resulted from the combination of the increasing external indebtedness during the 1970s and the rise in the foreign interest rate after the implementation of a tightened monetary by the Federal Reserve (FED) in the United States in 1979, that contributed to increase current account deficits. The external crisis contributed to the deterioration of public finance, and also to the acceleration of inflation, due to the shocks caused by the large devaluations of the exchange rate in order to enhance the competitiveness of the exports. In particular, economic crisis weakened the Latin American governments' ability to intervene in the economy.

At the end of the 1980s and beginning of the 1990s there arose a set of economic policies that aimed at promoting a new strategy for growth to Latin America after one decade of stagnation ('the lost decade of the 1980s'). These economic policies were proposed by Williamson (1990), economist of the World Bank, and they were largely known as the Washington Consensus, as they served as inspiration for the liberalizing economic reforms imposed by Washington-based institutions, particularly in Latin

America. The term 'Washington Consensus' originally had 10 propositions: (i) Fiscal discipline; (ii) A redirection of public expenditures priorities toward fields offering high economic and social returns, such as primary education; (iii) Tax reform; (iv) Interest rate liberalization; (v) A competitive exchange rate; (vi) Trade liberalization; (vii) Liberalization of inflows of FDI; (viii) Privatization of state-owned firms; (ix) Deregulation (to abolish barriers to entry and exit); and (x) Secure property rights. The recommendations aimed at stimulating economic growth through a set of economic policies and liberalizing reforms, notably macroeconomic discipline (understood mainly as price stabilization), trade openness, and market-friendly microeconomic policies. The proposal for liberalization of capital account was not included in the original Washington Consensus, but it was added to the proposals by the multilateral institutions, such as the World Bank. Liberal reforms, to a greater or lesser extent, were applied in a lot of Latin American countries in the 1990s, including Argentina, Brazil, Chile and Mexico.

Policymakers in Latin America and other emerging economies, following the Washington Consensus ideas, believed that structural reforms, such as trade and financial liberalization, capital mobility and privatization, were needed to reduce inflation and allow growth to return. Indeed, Latin American countries adopted liberal reforms (privatization, trade liberalization and capital account liberalization) during the 1990s, but with different styles. For instance while Argentina adopted a 'big bang' reform, Brazil adopted a more gradual approach to reform. Moreover, most countries experimented with a quick and deep process of capital account liberalization, including portfolio capital liberalization for both residents and non-residents.

The results of the implementation of the Washington Consensus strategy were somehow disappointing, in particular in reference to economic growth and financial stability. Argentina, considered by IMF during the 1990s as an example of success of the Washington Consensus strategy, was in fact an enormous failure. The Washington Consensus was criticized in various aspects by Stiglitz (1999) and Arestis and Sawyer (2005), such as: domestic financial liberalization caused in various countries banking crisis; capital account openness stimulated frequently speculation on domestic currency and currency crises, even when economic fundamentals were fine, and had negative effects of real variables (output and employment); privatization failed in some countries because, on the one hand, it was not followed by economic policies for the promotion of

competition and it did not improve the market efficiency; and the excessive focus on inflation control was in some cases harmful to growth.

According to Kregel (2008), the Washington Consensus policies in Latin America during the 1990s implemented domestic policies (exchange rate anchor, high interest rates, and financial liberalization) that hindered the domestic productive and technological re-structuring that could contribute to boost economic and employment growth in the region. Moreover, price stabilization plans with the use of some exchange rate anchor were implemented in some Latin American countries, such as Argentina, Brazil, Mexico, and Peru.

As is well known, experience with stabilization programs involving some kind of exchange anchor shows that, generally speaking, such plans at first generate an abrupt drop in the rate of inflation, accompanied by marked appreciation in the exchange rate. The local currency appreciated in real terms as a result of differential evolution by domestic and foreign prices in a context where the nominal rate of exchange remains stable, causing the balance of payments current account to contract substantially, due principally to the increase in the value of imports. Normally, the resulting deficit is accompanied by a large capital account surplus, thus not only enabling the former to be financed, but allowing the volume of the country's international reserves to grow. The latter increase occurs as a result of the surge of foreign capital entering the country drawn by the stabilization plan's initial success, combined generally with liberal structural reforms (Ferrari-Filho and Paula, 2003).

Higher domestic interest rates, an added attraction to external financing, are normally used to reinforce these factors still further. The introduction of tight monetary policies and greater freedom for foreign investors create an interest rate differential sufficiently large to attract arbitrage capital inflows. The increasing influx of foreign capital, however, can lead to a still greater real appreciation of the exchange rate, leading to a further increase in imports and also a downturn in exports. Thus, the need to maintain high interest rates in order to attract foreign capital, and efforts to sterilize the inflow of foreign capital (also requiring high interest rates) lead to increasing public internal debt and also a deteriorating fiscal balance, as it was the case of the experience of the main Latin American countries.

In this context, a larger and growing current account deficit will only be sustainable if equivalent levels of long-term external funding are available, associated with productive investment capable of generating a future flow of exchange revenues sufficient to pay off outstanding debt. The precise nature of capital inflow is fundamentally very important, since one of the great perils of stabilization plans with exchange rate anchors is that a reversal in the flow of foreign capital can lead to a balance-of-payments disequilibrium of such a magnitude that it becomes unfeasible for the government to maintain the existing exchange rate. Expectations for exchange rate devaluation are generated among international investors, leading in turn to further shrinkage in inflows of foreign capital and, consequently, a fall in levels of reserves, leaving the government no option but a substantial devaluation in the nominal exchange rate. This in turn may have a prejudicial effect on domestic prices.

Therefore, balance-of-payments disequilibrium (related to both current account deficits and capital account surplus) results from the fact that, in a world of globally mobile financial and productive capital investments, domestic stabilization policies are inherently destabilizing. This is because, under these conditions, the initially successful application of an internal stabilization policy comes to generate an endogenous process of deteriorating economic conditions (a growing public deficit, a growing deficit in its current account and dependence on foreign capital, among others), which may leave a country vulnerable to speculative attacks on its currency and thus subject to currency crises (Kregel, 1999).

Summing up, the 1990s were marked by the economic openness (trade and financial), privatization of state-owned firms, and price stabilization with the use of exchange rate anchor. However, they were also characterized by the contagions of external crises under a context of high external vulnerability. The currency crises in Mexico (1994-95), in Russia (1998) and in Brazil (1999) and the collapse of Argentina (2001-02) showed that the evidences of these economic policies were weak and, sometimes, contradictory. This sparked a debate among economists about the virtue, for instance, of financial liberalization and capital mobility. On the one hand, some political economists (Haggard and Webb, 2000) pointed to the absence of attention to institutions and argued that rule of law, a competent judicial and governability, among others, were necessary to assure stability and economic growth. On the other hand, Rodrik (1998) led the charge against blind support of liberalism and globalization arguing that particular policy approaches might work better than a dogmatic set of policies. Going in this direction, Stiglitz (2002) suggested a number of economic policies and reforms, a 'post-Washington Consensus', which were more likely to produce sustainable and equitable development.

The main outcome of this debate is that, on the one hand, according to the conventional view, implementing a free-floating exchange rate regime and ample capital mobility, even when backed by responsible or credible economic policy, in line with the Washington Consensus prescriptions, leaves emerging economies prone to the short-term logic of capital accumulation. The conventional argument on the difficulties facing such economies is to attribute the volatility of foreign financing to the irresponsible economic policies they adopt (Caramazza and Aziz, 1998). On the other hand, the heterodox view regards floating exchange rate regime and high capital mobility as a destabilizing combination of factors that intensify exchange rate crises in developing countries (Ferrari-Filho and Paula, 2006).

After the 1990s currency crises, some important Latin American countries adopted a regime of macroeconomic policy inspired by the 'New Consensus Macroeconomics', based on floating exchange regime, inflation targeting regime, and the implicit commitment with fiscal equilibrium. Brazil, Chile, Colombia, Mexico and Peru are the Latin America countries that have adopted the inflation targeting regime. ⁴ Chile was the first Latin American country to adopt an inflation targeting regime in 1990, but since 1984 made use of an exchange rate regime of the type of 'crawling bands', based on purchasing power parity-adjusting moving bands. Brazil, Colombia and Mexico adopted formally an inflation targeting regime in 1999, and Peru, that had managed floating exchange regime since beginning of the 1990s, did the same in 2002.

Brazil, with the introduction of the Real Plan's, in July 1994, adopted an active crawling peg exchange rate regime, in which the nominal exchange rate was devaluated on a more or less fixed value: the exchange rate depreciated about 0.6-0.7% per month on average (Ferrari-Filho and Paula, 2003). After the Brazilian currency crisis, in January 1999, the government authorities implemented a floating exchange rate regime.

Argentina and Venezuela did not adopt the 'New Consensus Macroeconomics' policies. Argentina that had implemented the Convertibility Plan in 1991 with a fixed exchange rate and a sort of currency board, after the 2001-02 crisis and a huge exchange rate devaluation that followed the beginning of the crisis, began to make use of managing floating exchange rate regime that has aimed to maintain the real exchange

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⁴Latin American countries that adopted inflation targeting regime (ITR) plus floating exchange rate system implemented an institutional arrangement of ITR that includes a range for the inflation target, the use of the headline inflation index as reference and the calendar year as commitment horizon.

rate in a competitive level.⁵ Venezuela, since January 2002, has implemented a fixed dual exchange rate system of the *bolivar*.⁶ Mexico had before the December 1994 crisis a pegged exchange rate regime, where the *peso* exchange rate was stuck at the upper limit of a band. Started from the end of 1994, a floating rate policy has been maintained by the government, with Central Bank of Mexico intervening in the foreign exchange market under exceptional circumstances to minimize volatility and ensure an orderly market. However, since 1999 Mexico has Mexico has opted for a 'cleaner float', that is a pure flexible exchange rate. Chile also has operated a floating exchange regime, but the government intervenes massively in the currency markets through the stabilization funds.

Table 1 resumes the main features of the monetary and exchange rate policies of the main Latin American countries.

Table 1. Main Features of the Monetary and Exchange Rate Policies of the Main Latin America Countries

Country	Monetary policy regime	Exchange rate system	
Argentina	Discretionary	Managed floating	
Brazil	Inflation targeting regime	Floating exchange regime*	
Chile	Inflation targeting regime	Floating exchange regime*	
Colombia	Inflation targeting regime	Floating exchange regime*	
Mexico	Inflation targeting regime	Floating exchange regime	
Peru	Inflation targeting regime	Floating exchange regime*	
Venezuela	Discretionary	Fixed dual exchange rate	

Source: Elaborated by the authors.

Note: * denotes dirty floating.

As is well known, the 'New Consensus Macroeconomics' maintains that the main focus of the economic policy is price stabilization, and that inflation targeting regime is the best arrangement for economic policy, as it provides some freedom degrees to accommodate output fluctuations due to non-anticipated shocks (Bernanke *et al*, 1989). Under such arrangement, fiscal policy is no longer viewed as a powerful

⁵ According to Frenkel and Rapetti (2010), the Central Bank of Argentina, however, never made an explicit statement regarding the existence of a real exchange rate target.

⁶The new system offered a 2.6 *bolivar* per dollar rate for imports of essential items such as food, medicine, and industrial machinery, and a 4.3 *bolivar* per dollar rate for imports of other products, including cars and telephones. *Comision de Administracion de Divisas* (CADIVI), the government body which administers currency exchange, continues as the only administrator of the foreign currencies and executor of this devaluation.

macroeconomic instrument, and should be aligned and subordinated to monetary policy (Mishkin, 2000). Monetary policy is a flexible instrument for achieving medium-term stabilization objectives, in that it can be adjusted quickly in response to macroeconomic developments. In most Latin American economies that adopted the inflation targeting regime, this macroeconomic arrangement has been characterized by a sort of tripod of economic policy: floating exchange regime, inflation target regime, and generation of primary fiscal surplus in order to achieve long-term fiscal equilibrium⁷. A certain and moderate autonomy of economic policy (for domestic purposes) is achieved under the context of capital account convertibility due to the working of a floating exchange rate regime.

One should be careful in the adoption of the 'New Consensus Macroeconomics' style of economic policy in emerging economies, as it can inhibit some necessary flexibility in the economic policy and at the same time can constrain economic growth. (Paula and Ferrari-Filho, 2010). Economic authorities have to face some policy dilemmas. One potential dilemma is that inflation and exchange rate developments can be such that they call for opposite monetary policy action. For instance, using monetary policy to counter adverse exchange rate movements may jeopardize the inflation target, although frequently, in emerging economies, inflation target have in practice responded with some flexibility to the various challenges posed by exchange rate fluctuations, using not only monetary policy (Ho and McCauley, 2003). Mohanty and Scatigna (2005) report that a number of emerging economies relied on interest rate interventions to stem exchange rate volatility. The solution of some dilemmas of economic policy in emerging economies could be solved by the use of non-traditional tools of economic policy, such as credit controls and capital controls.

To sum up, the above debate suggests that the financial liberalization and capital mobility did not produce stability and sustainable economic growth that were expected while less liberalized systems grew more robustly in a context of price and external stability. Moreover, the 'New Consensus Macroeconomics' model of economic policy, however, has been managed with some flexibility in Latin America, before and after the 2007-08 international financial crisis, as we will see in the next sections.

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⁷ Primary fiscal surplus is understood as necessary to enable government to pay interest expenses related to public debt.

⁸ See, for instance, Ferrari-Filho and Paula (2006).

4. Capital flows, external vulnerability and economic policy in Latin America: recent trends and features

Since the seminal paper of Calvo *et al* (1993), the determinants of capital flows to emerging economies can be divided in *push factors* (global ones), that are related to global factors that affect almost all emerging economies across the board, such as developed economies' interest rates and global risk appetite, and in *pull factors* (specific ones) that typically refer to domestic factors that attract capital inflows, such as capital account liberalization, domestic potential growth and high domestic interest rates. In this regard, Reinhart and Reinhart (2008) analyzed the macroeconomic implications of a large set of surges in capital flows that took place over the period 1980-2007 and concluded that global factors, including changes in commodities prices, international interest rates, and growth in developed countries are the driving forces of international capital flows. Indeed, abrupt and volatile outflows are one of the main reasons why emerging economies are concerned about large inflows of capital.

Table 2 summarizes some factors that have affected capital flows to emerging economies.

Table 2. Some Factors Affecting Capital Inflows in Emerging Economies

Factors	Cyclical	Structural
Push	Low United States interest rates Low global risk aversion Strained developed economies balance sheets	International portfolio diversification Low developed economies potential growth
Pull	High commodity prices High domestic interest rates	Capital account liberalization in emerging economies High emerging economies potential growth Trade openness

Source: Elaborated by the authors based on IMF (2011a, p.16).

Beginning in the 1990s we can identify, broadly speaking, three waves of episodes of capital inflows to Latin America: a first one from early 1990 until 1997-98 Asian and Russian crises; a second wave from mid-2004 until the global contagious that

followed the Lehman Brothers bankruptcy; and, finally, a third wave began by mid-2009, that is after the recovery post-contagious in Latin America.

Concerning the first wave of capital inflows, one distinguishing feature was the reintegration of Latin American economies into the international financial market, which occurred after the lost decade of the 1980s when such markets were virtually closed to potentially private borrowers. The reintegration was stimulated by the Brady Plan (1993-94), which renegotiated the external debt, towards the securitization of the debt that resulted in both the reduction in the interest paid and the lengthening of the debt. Considering the *push* determinant of the new surge of capital flows, the initial impulse was given by the expansionary monetary policy in the United States in the beginning of the 1990s, that eventually caused a boom in the liquidity of the international financial market, and combined with the search of risk diversification of the global institutional investors pushed up a flux of capitals to emerging economies. As a *pull* factor one should consider that, as we have already stressed, since the end of the 1980s there was in Latin America a process of capital account liberalization for both capital inflows and outflows.

In terms of the composition of capital flows, during the 1990s there was a predominance of portfolio flows, favored by the interest differential and increasingly of the FDI, that was much more stable than the other sources of capital flows, especially when compared to the portfolio investments. Compared to the wave of capital flows of the 1970s, where inflow derived mainly from lending by groups of banks, in the 1990s they came mainly from international bond issues. Consequently, there was a large shift in the composition of foreign liabilities, with the reduction in borrowing and the rise of securities portfolio liabilities (equities and bonds markets).

Most emerging economies made use of some sort of intermediary exchange rate regime or semi-pegged ones in the 1990s. In the case of Latin America, the use of fixed or semi-pegged exchange rate by most countries for price stabilization purposes, such as Argentina, Brazil, Chile and Mexico, generated current account deficits financed by external indebtedness that contributed to increase the external vulnerability of such economies, which very often faced speculative attacks on domestic currencies. Indeed, capital flows have been very volatile in Latin America: after the surge of capital inflows from 1991 to 1994, they were shortly interrupted by the December 1994, due to the Mexican crisis, began quickly in 1995, and ended abruptly with the 1997-98 Asian and Russian crises. Brazil, the biggest economy of the region, was the main recipient of

capital flows in Latin America, followed by Mexico and Argentina, that increased capital inflows between 1996 and 1998. Figure 1 and Figure 2 show, respectively, the capital inflows to the Latin America countries and, especially, Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela.

FIGURE 1

FIGURE 2

From 1999 to mid-2004 net capital flows in Latin America reduced dramatically, due to both the worsening in the supply of funds by international financial markets (as a result of the increase in the risk aversion of the investors) and the macroeconomic instability that was predominant in the region during this period, marked by the 1999 Brazilian currency crisis and 2001-02 Argentinean Convertibility Plan collapse. Indeed the reduction in the net capital flows, with large exit of capital outflows, was commanded by Argentina and Brazil, while Mexico had the highest flux of capital inflows in the region.

A new surge of capital inflows to emerging economies that started in the middle of 2004, which appears to mark the beginning of the exuberance in international financial markets, was related to both push factors, as the low United States interest rates due to the loosening of FED monetary policy, and the reduction in the global risk aversion, and a set of pull factors, that include high emerging economies potential growth and increase in the commodities prices that contributed to enhance the exports of the emerging economies that are exporters of commodities. Indeed the 2000s was known until the 2007-08 international financial crisis as the period of 'great moderation': low interest rates that accompanied the decline in the inflation indexes around the world and commodities boom, both in part due to the positive shock derived from the 'China's effect'. Economic growth in the emerging economies had not been connected anymore to the growth of the developed countries since the 2000s. Greater GDP growth contributed somehow to attract FDI to both productive sectors oriented to exports or domestic market.

Surging commodities prices was an additional cyclical force pushing capital toward commodity exports, that was important factor for some Latin American countries such as Brazil, Chile, Colombia, Peru and Venezuela. Indeed, strong

improvement in the terms of trade resulting from high world metal prices has attracted FDI to the mining sectors in Brazil and Peru. As we can see in the Figure 3, the price of the commodities increased gradually and sharply since the beginning of 2003, with a peak after the mid-2007 due to the rise of the price of energy. After August 2008 there was a sharp decline in the commodities prices until beginning of 2009. The improvement of the terms of trade favored especially Venezuela and Chile due to the increase in the oil and cooper prices, respectively. However, other major Latin American countries – Argentina, Brazil, Colombia and Peru – all of them exports of commodities, were also favored by the improvement in the terms of trade. As a result, current account-over-GDP ratio, with the exception of Colombia, increased a great deal in the 2003-2007 period, what eventually resulted in surplus for most countries, as it was the case of Argentina, Brazil, Chile, Peru and Venezuela.

FIGURE 3

During the 2004-08 period of surges of capital flows in emerging economies, there was a predominance of net FDI flows relative to net financial flows (portfolio and other flows) in all emerging regions, and such cycle involved a larger set of countries.

Brazil again was the most important recipient of capital flows in Latin America. It should be stressed, however, that foreign investment abroad (that is commanded by domestic firms) increased significantly during the 2000s as there was a trend of internationalization of Brazilian domestically-owned firms. This movement started to gain momentum as an initiative by a few large firms with significant direct investment abroad, mainly in natural resources-intensive sectors (mining, energy, steel makers etc.). Resource-seeking strategies helped these firms to control their supply of raw materials, as well as to place them in a stronger competitive position in the international market (Baumann, 2010).

Other countries also increased their capital inflows significantly as in the case of Mexico, Peru and Colombia, while net capital flows have been low or negative in case of Argentina, a country that had to renegotiate reducing compulsorily its external debt after the 2001-02 Convertibility Plan collapse, which left international financial markets

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⁹ Carvalho and Senne (2009) present details of the main abroad investments of some Brazilian transnational companies. According to them, the Brazilian steel, mining, energy and food major companies (Gerdau, Vale do Rio Doce, Petrobras and JBS) have invested, respectively, in 13, 25, 26 and 14 countries around the world.

somehow closed to Argentina since then. The most striking case is Venezuela, where since 2005 net capital flows have been most time negative with significant amounts, evidence that this country has had an almost permanent capital flight commanded by residents. The performance of this country and its balance of payments depend crucially on the conditions of the oil market.

New features of the international financial integration of the emerging economies in the 2000s can be stressed: much stronger current account positions for most emerging economies with surplus or reduction in the deficit, and substantial acceleration in the accumulation of foreign reserves. The combination of net capital inflows and current account surpluses contributed to generate significant foreign reserve accumulation. As can be seen in Figure 4, foreign reserves increased in all the major Latin American countries, with the exception of Venezuela. Brazil in particular increased sharply its reserves by USD 50 billion in 2004-05 to more than USD 200 billion in 2008. 10 The availability of international reserves reduced the default risk of public and private debts due to the lack of international liquidity in case of a sudden stop, and at the same time provide extra to the central banks instruments to intervene in the foreign exchange market (Frenkel and Rapatti, 2011).

FIGURE 4

There was a marked reduction in the external vulnerability of the emerging economies during the 2000s due to the combination of massive self-insurance through foreign reserve accumulation, the reduction in the public external debt, the implementation of flexible exchange rate regime that allows to absorb external shocks, and the development of domestic financial markets which made some governments less dependent on external financing (Ocampo, 2012).

The second wave of capital inflows ended in 2008 as the flows of international capital have been curtailed due to the global financial crisis, in particular after the Lehman Brothers collapse. Financial contagious of the collapse that followed the Lehman Brothers bankruptcy was deep and short, but in 2009 many emerging economies resumed access to the international credit with low interest rate.

The third wave of capital flows to Latin America began in the middle of 2009, with a quick recovery of capital inflows. The main drivers behind of this wave are: (i)

¹⁰ In the beginning of 2012, the Brazilian foreign reserves reached USD 370 billion.

the loosening of monetary policy in advanced economies due to the 'quantitative easing' monetary policy of the FED, and later of the European Central Bank (ECB) that expanded the liquidity of the financial system, widening the interest rate differentials and creating abundant global market liquidity; (ii) better economic performance of the emerging economies and the slow recovery of the developed countries; (iii) sound fiscal and debt position of the emerging economies relative to advance economies; and (iv) the prices of commodities recovered quickly and continually until May 2011, after the sharp decline of the prices after the spread of the global financial crisis to emerging economies in 2008. By mid-2011, however, the prices started a decline trend. So, all these factors, along with improved global risk appetite, have attracted capital inflows, especially portfolio debt capital flows.

The recovery of capital flows was driven primarily by portfolio flows, and secondarily by FDI. The current episode is characterized by the predominance of volatile portfolio inflows, much more than in the previous wave. According to IMF (2011a, p. 13), "[t]he larger role played by portfolio flows, especially compared to banking flows, could persist in the coming years and likely reflects that international banks that intermediate cross-border flows are still in the process of balance repair".

In the case of Latin America, portfolio investments commanded the wave of capital flows with a sharp and unprecedented increase in the flows (net flows of more than USD 50 billion in some quarters according to Figure 1), followed by the FDI that have increased in 2011. Indeed, the smaller share of bank and other private capital flows compared to portfolio debt flows for most regions of emerging economies may reflect deleveraging in external asset positions by the banks in developed economies. Historically portfolio flows have been more volatile than other types of flows and their volatility has recently risen. The largest recipients of capitals among the emerging economies are Asian and Latin American ones, South Africa and Turkey. Brazil had records of capital inflows in the recent wave, followed far above by Mexico, Colombia, Peru and Chile (see Figure 2).

Despite significant accumulation of international reserves, with the levels before the crisis quickly restored, real exchange rate has in most cases appreciated back to precrisis level or even more. Figure 5 shows that the current account to GDP ratio decreased in 2010-11 due to both rise in the imports and in the current account' incomes services, but has not reached critical levels.

FIGURE 5

5. The contagious nature of the 2007-08 international financial crisis and policy responses in Latin America

Reduced external vulnerability was the principal reason for the fair performance of emerging economies during the recent global financial crises, and it is associated empirically with a set of factors: (i) lower current account deficits; (ii) competitive exchange rates; (iii) high level of foreign exchange reserves; (iv) reduced short-term external liabilities; and (v) capital account regulations in place (Ocampo, 2012). The combination of stronger external accounts, the accumulation of international reserves and flexibility of the exchange rate showed the most emerging economies were prepared to face the contagious of the global crisis. Thus, with the exception of some Western European countries, most emerging economies did not have an external and financial crisis, although all regions in the world showed high levels of stress in the final quarter of 2008. In particular, financial stress in emerging economies – that rose in response to capital outflows initiated by investors in advanced economies – was much stronger in the 2007-08 international financial crisis, in line with the larger impulse from developed economies.

All the major countries of Latin America took advantage of the commodity price boom by reducing public external debt during the period 2004-2007, and building up international reserves. Brazil, Chile and Mexico in 2005 decided to restructure its external debt and to reduce the external debt stock and its costs, as C-Bonds¹¹ had been issued when the country-risk was very high, that is with high premium risk. Later, Argentina used part of its foreign reserves to reduce the external debt, a dramatic event that eventually caused the resignation of the Chairman of the Central Bank of Argentina. Figure 6 presents the public external debt to Latin America countries and the main emerging economies of the region.

FIGURE 6

¹¹ 'Capitalization-Bonds' (with front-loaded interest rate reduction) of external debt issued by the main emerging countries in the mid-1990s as part of the Brady Plan, in which some countries restructured their external debts.

The contagious of the 2007-08 international financial crisis in Latin America, in terms of GDP growth rate, was deep, short and synchronized, as can be seen in Figure 7. Indeed, not only Latin America, but all the other regions of the world recovered quickly. All the major Latin American economies, with the exception of Venezuela, recovered sharply in 2010.

FIGURE 7

Latin America was affected directly by the 2007-08 international financial crisis (capital outflows) and indirectly (international trade) in the fourth quarter of 2008. International financial crisis translated internationally to the emerging economies by the following channels: (i) reduction of the external credit; (ii) capital flight due to increase of risk aversion; (iii) lower global economic growth (mainly in case of the developed economies); and (iv) fall in the price of the commodities (CEPAL, 2009). Specific countries' factors are related to the domestic and external vulnerabilities and the degree of trade and financial integration. In particular, the "significant reversal in capital flows, the collapse in commodity prices and the deterioration of confidence following the Lehman Brothers bankruptcy triggered sharp currency depreciations and higher costs of external financing across the region" (Jará *et al.*, 2008, p. 57). However, although the size of the exchange rate adjustment was very large, its effects were limited, due to the widespread use of flexible exchange rate regimes and lower currency mismatches.

In the case of the major economies of Latin America, in most countries the reduction of public external debt, the previous policy of international reserves accumulation and the reduction and improvement in the composition of public debt (increase of domestically-denominated debt) provided some policy space for countercyclical and stabilization policies. Actually the combination of the reduction of public external debt (external liabilities) with the increase in the foreign reserves (external assets) meant that most countries had a positive net balance in foreign currencies, so that the immediate and direct impact of the exchange rate devaluation on the public finance was positive, instead of negative – as it was the case in other previous occasions. Consequently, governments could make use of some countercyclical fiscal policy to face to effects of the financial crisis, when in other occasions they made use of tightened policies. As can be seen in Figure 8 the overall fiscal balance did not deteriorate in 2008, and it was only in 2009 with the combination of short recession and

some expansionary fiscal policy that there was a reduction in the fiscal balance, that quickly improved in 2010.¹²

FIGURE 8

The countries' reaction to the crisis varied in the region with the use of different tools of political economy. The economic policy responses include a large range of tolls that included (Jará *et al.*, 2009; CEPAL, 2009):

- (i) Central banks provided foreign currency liquidity to the private sector, to ensure both the continued operation of foreign exchange markets and the continued availability of external financing.
- (ii) External resources provided significant additional support to Latin American countries during the global financial crisis: central bank of Brazil and Mexico established reciprocal currency arrangements with the FED totaling USD 30 billion each, while IMF created FCL financing facilities, that was used by Mexico (USD 47 billion) and Colombia (USD 10.5 billion).
- (iii) Some central banks increased the range of assets accepted as collateral to improve access to short-term funding, such as Argentina, Brazil, Mexico and Peru. Many central banks also relied heavily on lower domestic currency reserve requirements (Colombia, Brazil and Peru).
- (iv) However, central banks delayed lowering rates until late 2008 or early 2009, due concerns about inflationary pressures and the potential impact of the exchange rate depreciation, and such behavior contributed negatively for reducing economic growth in 2009.
- (v) Some countries made use of countercyclical fiscal policy, by the reduction of the taxes to stimulate consumption (Brazil and Chile) and/or by the increase in the public expenditures (Argentina, Brazil and Colombia).

Looking at specifically the economic policy responses of the Brazilian government to the contagion effect of the 2007-08 international financial crisis, it is important to mention that, on the one hand, before the onset of this crisis, the Brazilian government adopted some structural initiatives – including the expansion of the social protection and income transfer programs, the real increase in the minimum wage,

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¹²According to CEPAL (2009), countries with high percentage of non-taxes resources related to natural resources, low tax burden and/or greater trade aperture suffered major reductions in the governments' revenues, as it was the case of Venezuela.

expansion of the credit supply by state-owner banks (mainly Brazilian Development Bank – BNDES), reduction in the public external debt, and some expansion of investment expenditures – that contribute to preventing a greater drop in economic activity and also facilitate the policy response to the 2007-08 international financial crisis. On the other hand, in 2008, due to the adoption of previous policies oriented toward reduction of the external vulnerability (reserve accumulation, reduction of public external debt, etc.), Brazil had some degree of freedom in adopting countercyclical economic policies.¹³

In 2010-11, the main economies of Latin America retook economic growth, in part because many of them had some capacity to implement policies at helping sustain demand, favored by set of macroeconomic factors that include: foreign reserve level was restored, public accounts in general improved with low level of indebtedness, ¹⁴ inflation stopped rising, and still the fact that "2008 global financial crisis left the region a legacy of experience in coordinating countercyclical fiscal and monetary policies and measures for heading off a liquidity crisis in domestic financial markets" (ECLAC, 2011, p. 27). On the external front, however, worsening terms of trade and lower export volume has caused a deterioration of the balance of payments current account balance.

6. Some economic policies implications of the surge of capital inflows

As we have already seen, there was a quick and deep contagion of the 2007-08 international financial crisis in Latin America, but recovery was also quick. The previous policy of reduction of external vulnerability plus adoption of floating exchange rate regime provided some space for countercyclical economic policies. In several countries the economic recovery in 2010 and 2011 was sustained in part by the countercyclical policies implemented to offset the impact of the economic and financial crisis of 2007-08 (ECLAC, 2011, pp. 13-14).

One of the main challenge of the Latin American economies is the "entry of large capital inflows in the form of both FDI and portfolio investment, fuelled by interest rate spreads between markets in the region and in developed economies

¹⁴ However, public revenue is some countries of the region is highly dependent on commodities prices, what can eventually endanger fiscal accounts and lead to the deployment of pro-cyclical public policies.

¹³ The countercyclical implemented by the Brazilian government produced the expected impact, because from the second half of 2009 onwards the Brazilian economy began to show signs of recovery, in turn encouraging expectations among consumers, businesses and the financial system, even to the point of persuading them to take decisions, respectively, to spend (consumption and investment) and borrow. As a result, the Brazilian economy grew by 7.5% in 2010.

traditionally perceived as low-risk, together with the positive growth outlook and limited risk perception for the Latin American countries" (ECLAC, 2011, p. 23). In part due to this, most currencies of the region came under strong upward pressure in 2010-11.

Concerning monetary policy, emerging economies – including Latin American countries – have more recently refrained from tightening aggressively, despite emerging inflationary pressures, out of fear that a tightening would pull more capital flows. A further reason is the increase of uncertainty related to the performance of the global economy, due to slow recovery of the United States economy, the unknown future of the Euro zone, and the reduction of the Chinese economic growth in 2012. Some emerging economies have complemented macroeconomic policy with other measures to manage capital inflows, such as taxes on certain inflows, minimum holding periods, macro-prudential measures and currency-specific reserve requirements, motivated by concerns about export competiveness, financial stability, sterilization costs etc.

As we have already stressed, intervention in the currency markets, including accumulation of reserves, has been massive in Argentina, Brazil and Chile and very high in Colombia and Peru. However, for some economies there was a gradual trend to real appreciation of exchange rate due to massive capital flows. This was the case of Brazil and Colombia, who together with Venezuela, are the countries whose currencies had a strong upward pressure in real terms. According to Figure 9, Argentina, Chile and Colombia have maintained more or less stable the real effective exchange rate (REER) from 2005 to 2011, while Mexico has its REER depreciated in the period 2009-2011¹⁵ – although Mexico is the only among the seven largest countries of the region where official intervention in the foreign exchange market has been limited. Argentina is the only country where there is an implicit exchange rate target – indeed, the maintenance of a competitive exchange rate is one the cornerstones of macroeconomic policy (Ocampo, 2007). Venezuela, a big exporter of oil, suffers typically what is called as 'Dutch disease', that is, the chronic overvaluation of the exchange rate when comparing with its real exchange rate average in the 2000s, caused by the abundance of cheap

¹⁵ Mexico has REER similar to the real exchange rate bilateral with United States due to the high concentration of trade with this country.

¹⁶ The maintenance of a competitive exchange rate requires the build-up of foreign reserves during upturn be matched by measures to sterilize their monetary impact – that is why fiscal surplus is essential complement to this sort of policy, what has been relaxed more recently in Argentina.

natural and human resources compatible with a lower exchange rate than the one that would pave the way for the other tradable industries.¹⁷

FIGURE 9

Although the improvement in the terms of trade can be contributed to the appreciation of the currency, the strong currency appreciation in Brazil and Colombia was clearly associated with capital inflows, under an environment of exuberance in international financial markets. In both countries exchange rate appreciation has contributed to the deterioration of the current account. Brazil was one of the emerging countries that had a stronger trend of currency appreciation until February 2012, due to the combination of huge capital inflows, the commodities boom, high domestic interest rate, and the existence of a sophisticated and deep foreign exchange derivatives market totally open to foreign investors that provides space for speculation on the exchange rate. However, since the beginning of March 2012, due to, basically, the effects of the European crisis, the *real* has been devaluated.

Large capital inflows can help to reduce the cost of capital, but also can complicate macroeconomic management. Current account deficit widened more recently in the region (1.4% of GDP on average in 2011, according to ECLAC, 2011), due to increase in imports and income deficit, but still is not so high, and can be managed as the economies have combined a flexible exchange rate, with low external indebtedness and foreign reserves accumulation.

The degree of sterilized foreign exchange interventions has varied among countries. As we have seen in section 2, these interventions can allow countries to manage exchange rate volatility, while allowing keeping monetary aggregates under control in order to determine the short-term interest rate. Sterilized intervention has been used in Brazil and Peru as a dominant line of response against surging inflows, in order to smooth exchange rate volatility and slowing the rate of appreciation at least in the short term (IMF, 2011a, p.26). Sterilization costs, however, is high in some countries that have high domestic interest rate as it has been the case of Brazil, and can

¹⁷According to Bresser-Pereira (2008), "Dutch disease is a market failure resulting from the existence of cheap and abundant natural resources used to produce commodities which are compatible with a more appreciated exchange rate than the one that would be necessary to make competitive the other tradable industries. By using cheap resources, the respective commodities cause the appreciation of the exchange rate because they can be profitable at a rate which is incompatible with the rate that other goods using the best technology available worldwide require" (p. 50).

pose a constraint especially where fiscal positions are already weak. Rodrik (2003) argues that if sterilization costs are high, it can be the case of using alternatively capital controls in order to face the consequences of the surge of capital inflows.

In the face of rapid exchange rate appreciation, Brazil reinstated the Tax on Financial Transactions ('Imposto sobre Operações Financeiras' in Portuguese - IOF) in October 2009 to discourage carry trade operations and also increased in twice on debt inflows in October 2010, when it also extended it to cover margin requirements in derivatives transactions. After implementing some slight capital controls in 2009 and 2010, ¹⁸ it was only after January 2011 (when the first prudential financial regulation tool was implemented and Brazilian government imposed reserve requirements on banks' short foreign exchange positions in the cash market) and, mainly, after July 2011 (when the Brazilian government adopted a broader regulation of the foreign exchange derivatives operations) a more comprehensive regulation has been launched, encompassing both capital controls, prudential financial regulation and foreign exchange derivatives market regulation. Table 3 summarizes the main measures related to capital account regulation and derivatives market regulation after the global financial crisis in Brazil.

¹⁸The IOF was too low to stem the derivatives carry trade due to its high leverage degree, and private agents found loopholes to circumvent the regulations. One of the main channels of circumvention after October 2010 was the increase in bank's short dollar positions in the spot currency market. In fact, the IOF on portfolio inflows encouraged the build-up of long real/short dollar positions in the on-shore derivatives market, that is, the derivatives carry trade supported by resident banks which take the other side of non-resident investors in the derivatives market. For more details, see Prates (2012).

Table 3. Brazil: Capital Account Regulation (Capital Controls and Prudential Financial Regulation) and Derivatives Market

	1	Regulation) and Derivatives Market
Date	Kind of	Measure
	regulation	
October	Capital	The Ministry of Finance implemented a 2% of IOF on non-
2009	controls	resident equity and fixed income portfolio inflows.
October	Capital	(i) IOF increased from 2 to 4 percent for fixed income
2010	controls	portfolio investments and equity funds.
		(ii) IOF increased to 6 percent for fixed income investments.
		(iii) Limitations were also introduced on the ability of foreign
		investors to shift investment from equity to fixed income
		investment.
October	Derivatives	(i) IOF on margin requirements on foreign exchange
2010	Market	derivative transactions increased from 0.38 percent to 6 per
	Regulation	cent.
	Regulation	(ii) Loopholes for IOF on margin requirements were closed:
		foreign investors in the futures markets were no longer
		allowed to meet their margin requirements via locally
		borrowed securities or guarantees from local banks, which
		allowed them to avoid payment of the tax.
January	Prudential	Non-interest reserve requirement equivalent to 60 percent of
2011	financial	bank's short dollar positions in the foreign exchange spot
	regulation	market that exceed USD 3 billion or their capital base,
	regulation	whichever is smaller (to be implemented over 90 days).
March	Capital	Increased to 6 percent the IOF on new foreign loans (banking
2011	controls	loans and securities issued abroad) with maturities of up a
2011	Controls	year. Companies and banks previously only paid a 5.38
		percent IOF on loans up to 90 days.
April 2011	Capital	(i) 6 percent IOF extended for the renewal of foreign loans
11p111 2011	controls	with maturities of up a year.
	Controls	(ii) 6 percent IOF extended for both new and renewed foreign
		loans with maturities of up to 2 years.
July 2011	Prudential	The Non-interest reserve requirement became mandatory for
J =	financial	amounts over USD 1 billion or their capital base (whichever is
	regulation	smaller).
	regulation	
July 2011	Derivatives	(i) The Monetary Council of the Brazilian Central Bank
July 2011	Market	(CMN) became the agency responsible for regulating the
		derivatives market;
	Regulation	(ii) All foreign exchange must be priced according to the same
		method;
		(iii) All foreign exchange derivatives must be registered in
		clearing houses;
		(iv) The foreign exchange exposure of all agents must be
		consolidated (liquid position);
		(v) Excessive long positions on BRL off all agents pay a
		financial tax of 1 percent. This tax can be increased up to 25
		per cent.
December	Capital	IOF on equity and fixed income (linked with infrastructure
	F	The state of the s

2011	controls	projects) portfolio inflows reduced to 0%.
March 2012	Capital controls	 (i) 6 percent IOF extended for both new and renewed foreign loans with maturities of up to 3 years; (ii) Export advanced payment transactions with maturities of more than a year prohibited; (iii) 6 percent IOF extended for both new and renewed foreign loans with maturities of up to 5 years
March 2012	Derivatives Market Regulation	Exporters hedge operations (up to 1.2 times the exports of the previous year) exempted from the IOF.

Source: Paula and Prates (2012) based on BCB (2102) and Minister of Finance (2012).

In Argentina, although there had been considerable devaluation in 2009, exchange rate policy continued its trajectory of the REER (Figure 9). The stable and competitive real exchange rate strategy was a result of the exchange rate administration by the Central Bank of Argentina and its intervention in the monetary market to control the interest rate. In this connection, both the continuing trade surpluses (even with world GDP and trade growth slowing from 2008 onwards) and the policy of accumulating foreign reserves helped to stabilize the exchange rate market and assure a relatively comfortable external situation. However, since 2011 there is a deterioration trend in the trade surplus due to both the decline in the prices of agricultural commodities (Figure 3) and the appreciation of real exchange rate (Figure 9) in consequence of the deterioration of the terms of trade and the increase in the domestic prices. Argentina's government has responded such situation by implementing administrative controls on foreign currencies, in order to seek to avoid a further deterioration of the exchange rate.

Concerning the Chilean economy, the Central Bank of Chile continued intervening in the exchange rate market throughout 2008 and 2009, either to prevent the *peso* from appreciating or depreciating, or to buy foreign currency so as to strengthen Chile's foreign exchange reserves. Thus, in a context in which the exchange rate was being held stable in real terms, added to a significant reduction in imports and slight improvement in copper prices on the international market, the current account balance of payments was reversed from a deficit in 2008 to a situation of surplus in 2009 and 2010 (Figure 5).

As we have already seen, Colombia since 2004 has had a steady trend for exchange rate appreciation, one of the higher among the major Latin American economies. *Banco de la República*, the central bank of Colombia, has implemented a

flexible exchange rate scheme with the following objectives: "(i) To maintain an adequate level of international reserves that will lessen the economy's vulnerability to external shocks (...); (ii) To limit excessive volatility of the exchange rate in the short term; and (iii) To moderate excessive appreciation or depreciation of the nominal exchange rate that could jeopardize the achievement of future inflation targets, as well as the economy's external and financial stability" (Banco de la República, 2012). To prevent currency appreciation, in September 2011 Central Bank of Colombia replaced the reserve purchase program involving daily actions of up to USD 20 million with options auctions in an effort to control volatility (ECLAC, 2011, p. 80).

Like other emerging economies, the Central Bank of Mexico, to aim at containing the currency appreciation, *peso* against dollar, and to lower the risk of a possible capital flow reversal, implemented some measures in the exchange rate market, such as the international reserve accumulation was expanded and capital flows were limited (Banco de Mexico, 2012). In addition, the flexible line of credit with the IMF was increased in January 2011 from USD 48 billion to USD 72 billion for a period of two years.

Peru also introduced a wide range of measures to tackle rapid capital inflows, and upward pressure on the exchange rate. Among other measures, in July 2010 government implemented additional capital requirements for foreign exchange credit risk exposure, and in September 2010, reserve requirements were raised, including 120% reserve requirement for nonresidents' deposits in domestic currency. The highly restrictive reserve requirements on domestic and foreign currency deposits and active intervention have helped maintain low exchange rate volatility and restrain credit growth in Peru (IMF, 2011a, p.31).

In Venezuela, due to the possibility that an inflationary shock might result from the global trend towards exchange rate devaluations, the monetary authorities adopted an essentially restrictive monetary policy characterized by high basic interest rates and higher levels of compulsory deposits to be held by banks, which reduced liquidity and credit in the economy. More recently Venezuelan Government decided to control the exchange rate, to avoid the "exchange rate pass-through" mechanism, and continue as the only administrator of the foreign currencies and executor of this devaluation. Indeed, high level of inflation in Venezuela has resulted in some difficulties for the economic authorities to avoid the appreciation of REER.

Some authors (Bresser-Pereira, 2008; Frenkel and Rapetti, 2011) have warned of the risks of a sustained trend of exchange rate appreciation in countries like Brazil and other Latin American economies: it can lead to the end of industrial firms and the destruction of human capital, technical and entrepreneurial know-how, horizontal and vertical integration with other firms, and reduction of the access to external trade markets. Real exchange rate appreciation and the contraction of industrial sector can have negative consequences to the long-term growth of the economies. Indeed in semimatured countries that constituted a manufacturing sector, a trend of real exchange rate appreciation can translate in a gradual process of reduction of the aggregate value of industrial sector and industrial employment – an effect that can only be felt in the long term (Frenkel and Rapetti, 2011). Indeed, it can be the case that some of the Latin American economies may be going through a sort of 'early de-industrialization'. Furthermore, there is some evidence that show that Brazil, Chile, Colombia and Peru have been in a process of 'primary sector exports priorization' 20, that is the economies become specialized in exporting commodities goods that have natural comparative advantage, while at the same time they reduce the share of manufacturing good in total exports.

7. Summary and Conclusions

Capital flows have been volatile and with a pro-cyclical behavior in Latin America, following a pattern that has been described in the literature on capital flows. In particular, we have seen that capital flows to Latin America have been mostly determined by push factors (for instance, economic policy of the developed countries) than to pull factors.

Brazil was the main recipient of capital inflows, but other countries, such as Colombia, Mexico and Peru took part of the surge of capital flows in the 2000s. Commodity price boom in the 2000s was an opportunity to reduce external liabilities and build up international reserves. In most major Latin American countries the reduction of public external debt, the previous policy of international reserves accumulation, the reduction and improvement in the composition of public debt

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¹⁹ Classic de-industrialization is seen in the literature as a secular decline in the share of manufacturing employment in the advanced economies, in part due to the shift in domestic expenditure from manufacturing to services caused by the increase in the average per capita income. For more, see Rowthourn and Ramaswamy (1997).

²⁰ This process is also called as 're-primarization'.

(increase of domestically-denominated debt) provided some policy space for countercyclical and stabilization policies during the contagious of the 2007-08 international financial crisis. In 2010-11, the main economies of Latin America retook economic growth, in part because many of them had some capacity to implement policies at helping sustain demand, but there are a lot of concerns about the performance of the economy of the region due mainly to the uncertainties related to the global economy, such as euro crisis, semi-stagnation of the American economy, reduction in the growth of the Chinese economy etc.).

After the 1990s currency crises, some important Latin American countries – Brazil, Chile, Colombia, Mexico and Peru – adopted a regime of macroeconomic policy inspired in the 'New Consensus Macroeconomics'. Some countries, like Argentina and Venezuela, did not adopt such model of economic policy. The 'New Consensus Macroeconomics' model of economic policy, however, has been managed with some flexibility in Latin America, before and after the 2007-08 international financial crisis. It should be useful to evaluate in future studies if a sustained and stable economic growth in Latin America is compatible or not with the 'New Consensus Macroeconomics' model of economic policy – indeed the region has underperformed when compared with the most dynamic Asian economies (China, South Korea and India, among others), and there is some concern that some Latin American economies may be going through a sort of 'early de-industrialization', due to the currency appreciation caused by the 'Dutch disease' that resulted from the commodities boom.

Two lines of thought crystallize out from the 2007-08 international financial crisis. On the one hand, as highlighted by Prates and Cintra (2009), in previous crises – more particularly the contagious of the currency crises of the 1990s (Mexico, 1994-95; East Asia, 1997; Russia, 1998; and Brazil, 1998-99) and the Argentinean Convertibility collapse in 2001-02 – most emerging countries took pro-cyclical (restrictive) measures, in line with IMF principles and approval, to aim to regain the confidence of the financial markets as a necessary condition for foreign capital to flow back to those emerging economies. However, in view of the systemic nature of the 2007-08 international financial crisis, emerging economies' monetary authorities decided such policies would be ineffective. Rather they would contribute to aggravating the developments from the crisis by setting off a vicious circle of exchange depreciation, credit squeeze, asset deflation, and crises of effective demand and unemployment. In that light, these economies met the contagion effect – as did the developed countries –

by putting in place anti-cyclical measures to render their currencies less volatile, prevent balance of payment deterioration, assure liquidity for their domestic financial systems, stabilize prices and bring growth back on track. Thus, most of the world's monetary authorities responded to the 2007-08 international financial crisis by operating countercyclical economic (fiscal, monetary and exchange rate) policies in order to mitigate the effects of the crisis on the financial and real dimensions of their economies.

On the other hand, unlike the financial and exchange rate crises of the 1990s, where the emerging economies suffered more from the repercussions on the economy, the economic impacts of the present crisis have been much more damaging to the developed economies.

Finally, massive capital inflows – in consequence of large capital inflows in the form of both FDI and portfolio investment, fuelled by interest rate spreads between markets in the region and in developed economies – have put some macroeconomic problems in the main emerging countries of the region, including exchange rate appreciation and quick increase in domestic credit. The relevant question is: What to do in the face of massive capital inflows? Capital controls can be useful tool as a complement of macroeconomic policy, but in order to be effective they need to be comprehensive and should be dynamically adjusted to compensate the tendency of financial markets to elude them. Capital account regulations should be seen as an essential part to the macroeconomic policy toolkit and not seen as measures of last resort. In particular, during the boom periods, they can help authorities to manage economic policy by avoiding exchange rate appreciation, the risks associated with rising current account deficits and useless foreign exchange reserve accumulation. Furthermore, for multiplicity of policy objectives - economic growth, reduction of external vulnerability and financial stability, among others – economic authorities should actively search for more instruments, such as capital controls, prudential measures on credit etc..

Another relevant question is: How could inflation targeting and exchange rate targeting be compatible? Frenkel and Rapetti (2011) and Ocampo (2012) suggest a mix of administered exchange rate flexibility with active foreign exchange reserve accumulation, regulation of capital inflows and active sterilization of international reserves combined with low domestic interest rate and fiscal restraint. To evaluate deeply the macroeconomic problems and their consequences, to identify the trade-offs

of economic policy, and to choose the right economic strategy is the main challenge of the economic policy in the Latin American countries.

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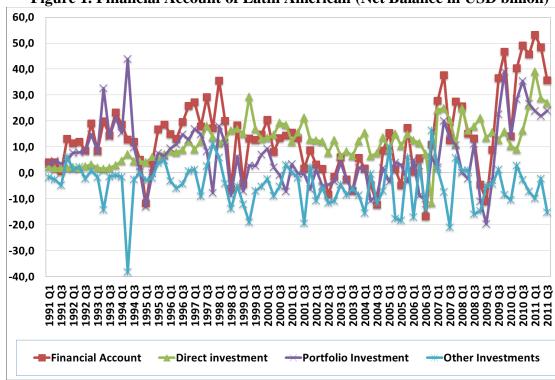


Figure 1. Financial Account of Latin American (Net Balance in USD billion)

Source: ECLAC/Data Bases and Statistical Publications (2012) and IMF/International Financial Statistics (2012).

Note: Latin America figure is calculated by the simple average of the seven major economies.

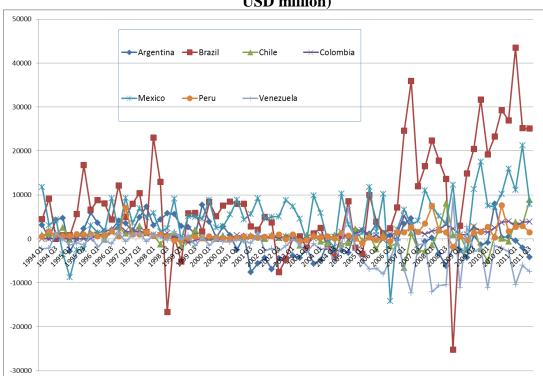


Figure 2. Financial Account of the Main Latin America Countries (Net Balance in USD million)

Source: ECLAC/Data Bases and Statistical Publications (2012) and IMF/International Financial Statistics (2012).

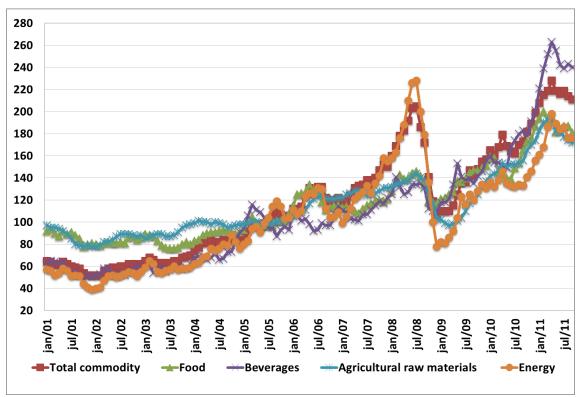
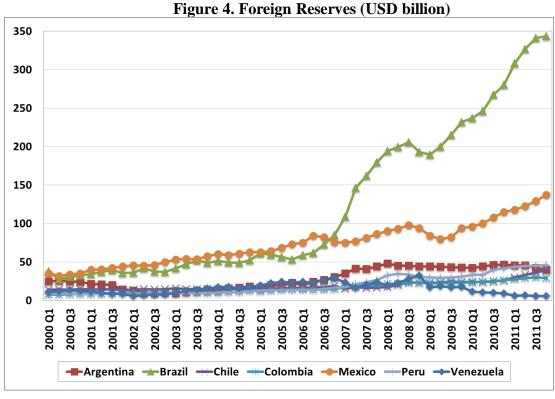


Figure 3. Commodity Price Index (2005 = 100)

Source: ECLAC/Data Bases and Statistical Publications (2012).



Source: IMF/International Financial Statistics (2012).

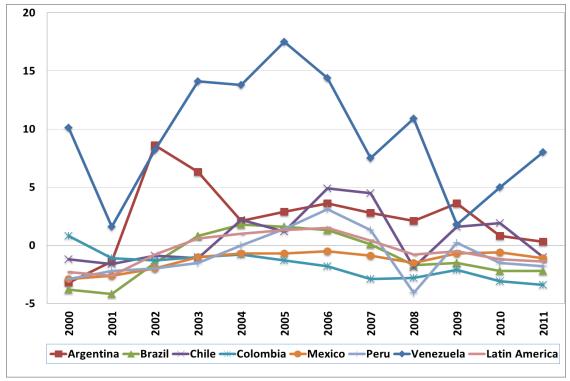


Figure 5. Current Account-Over-GDP (%)

Source: ECLAC/Data Bases and Statistical Publications (2012).

Note: Latin America is calculated by the simple average of the seven major economies.

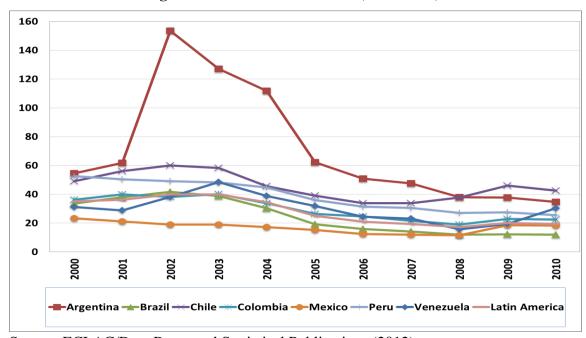


Figure 6. Public External Debt (% of GDP)

Source: ECLAC/Data Bases and Statistical Publications (2012).

Note: Latin America is calculated by the simple average of the seven major economies.

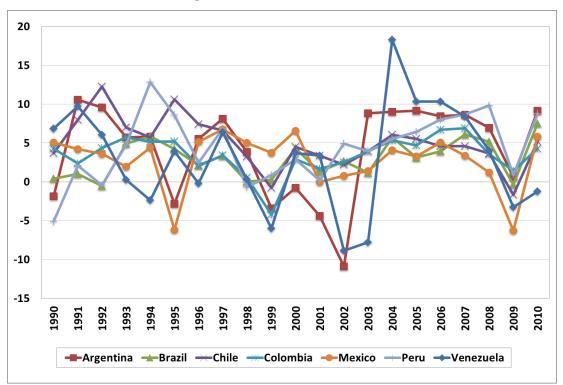


Figure 7. GDP Growth Rate (%)

Source: IMF/International Financial Statistics (2012).

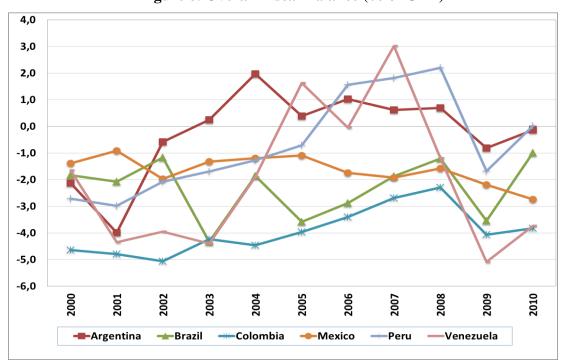


Figure 8. Overall Fiscal Balance (% of GDP)

Source: ECLAC/Data Bases and Statistical Publications (2012).

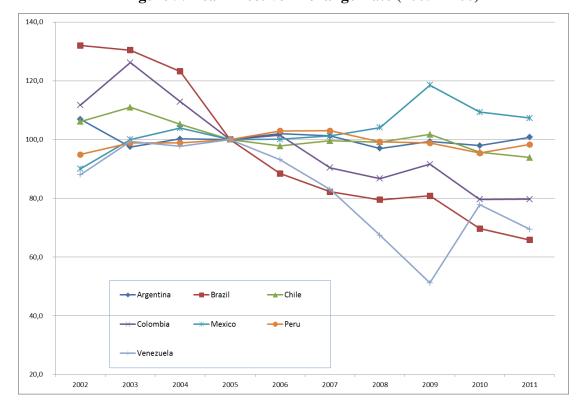


Figure 9. Real Effective Exchange Rate (2005 = 100)

Source: ECLAC/Data Bases and Statistical Publications (2012).

Note: Annual averages. A country's overall real effective exchange rate index is calculated by weighting its real bilateral exchange rate indices with each of its trading partners by each partner's share in the country's total trade flows in terms of exports and imports. A currency depreciates in real effective terms when this index rises and appreciates when it falls.