An Appraisal of Floating Exchange Rate Regimes in Latin America*

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The exchange rate regime is a crucial variable in international economic relations. This presentation attempts to evaluate the performance of floating exchange rate regimes in the major Latin American countries.

Every balance of payments-financial crisis experienced by developing economies during the recent period of financial globalization occurred in the context of fixed or predetermined exchanges rates. This was the case, for example, of the so-called "Latin American debt crisis" endured by the countries of the region in 1981-1982, and also of the crises suffered by Mexico in 1995, Argentina in 1995 and 2001 and Uruguay in 2002. The crises underwent by five East Asia economies during 1997-1998, the one suffered by Russia in 1998 and the crisis in Turkey in 2000 also came about with fixed exchange rate regimes.

On the other hand, the balance of payments-financial crises experienced by Greece, Ireland, Italy, Portugal and Spain since 2008 took place in the context of the Eurozone monetary unification. The common currency, in the case of the Eurozone, and the fixed exchange rates, in the case of developing economies, played analogous roles in the financial boom phases that precede crises, as has been shown by some of those here present.

During the first 30 years of financial globalization (between the beginning of the 1970s and the end of the 1990s), developing economies that began taking part in the financial globalization (with the exception of China) did so as recipients of net capital inflows that financed current account deficits. In each of these cases, the countries had a fixed exchange rate regime. This began to change during the last years of the 1990s. The Asian and Russian crises of 1997-98 had large negative real and financial impacts on developing economies; these impacts triggered other national crises experimented later, during the end of the 1990s. The critical episodes of the last years of the 1990s had a great influence in the evaluation of fixed exchange rate regimes because they clearly showed the incompatibility between fixed exchange rates, free capital mobility and the volatility of capital movements. By the end of the 1990s the opinion of influential players at the international level and the IMF's position had turned in favour of the adoption of floating exchange rate regimes in developing economies, preserving free international capital mobility and taking the volatility of international capital movements as an unavoidable component of financial globalization.

During the first years of the 2000s, most Latin American countries had already implemented floating exchange rate regimes. Mexico adopted this type of regime following its 1995 crisis. Brazil, Colombia and Chile began floating in 1999. Argentina and Uruguay maintained their fixed exchange rates until their end-of-decade crises and recover from these crises with floating exchange rates in 2002. Peru had had a managed floating exchange rate regime since the 1990s and formally adopted an inflation targeting regime in 2002.

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During these years the IMF stood strongly behind its bipolar view, emphasizing the free floating of exchange rates. Central banks' interventions in foreign exchange markets were discouraged, either because there were destined to fail in their intents to affect real exchange rates or because the effects would be distortive. A frequent argument was that governments do not have any information advantage over the private sector in their goal of determining the equilibrium real exchange rate, and that therefore this relative price would have to be set by the market through the free floating of the currency.

Nevertheless, Latin American countries, which did not have at the time a need for IMF resources and which were not subject to its conditionality, did not strictly follow its recommendations. While exchange rates were left to be set in foreign exchange markets, central banks have reserved for themselves the faculty to intervene discretionally in these markets. These are the so called 'managed floating regimes'. Some central banks have intervened in fewer occasions, as has been the case in Chile and Mexico. Others have intervened more intensively, like Argentina, Brazil, Colombia and Peru. Compared to fixed exchange rate regimes, managed floating has the advantage of flexibility. At the same time, in managed floating regimes the central bank retains the ability to intervene in the market to restrain or to smooth unwanted appreciation or depreciation trends. The central bank's capacity to intervene as a seller in foreign exchange markets in order to smooth depreciations depends on the amount of its international reserves. Many countries in the region took advantage of the period of high commodity prices and large capital inflows to accumulate reserves. The Chilean government, which intervened less in its foreign exchange market and accumulated less reserves, accumulated foreign currency-denominated assets in an important sovereign fund.

There is a visible correlation between these innovations and the fact that there have not been new crises in the region. It is striking that Latin America has not experienced new balance of payments and financial crises since the beginning of the 2000s. It is also striking that the 2008 global crisis did not trigger crises in Latin American economies, in spite of the capital inflows boom the region underwent between 2003 and 2007 (econometrics shows that these booms are good predictors of crisis) and also despite the fact that the negative impacts of the global crisis, both in financial and real terms, were of similar magnitudes than those caused by the Asian and Russian crises of 1997-98.

t is clear, however, that the modification in exchange rate regimes was not the only novelty of the 2000s. The commodity price boom that began in 2003-4 generated current account surpluses in almost every South American country (with the exception of Colombia), so that external financial fragility was relatively subdued when the 2008 negative shock impacted the region. However, the new exchange rate flexibility allowed these countries to use the foreign exchange market as a buffer, depreciating the local currencies at the end of 2008. The Mexican case is particularly interesting because its economy had not previously benefited from improved terms of trade. Moreover, Mexico had a significant current account deficit in 2008 and it was fully impacted by the crisis in the US, its main trading partner. But this time Mexico did not suffer a crisis.

It seems clear that the greater resilience shown by these economies was related to the flexibility in their exchange rates. The evidence suggests that exchange rate flexibility is a good vaccine to avoid the balance of payments-financial crises that were frequent in developing economies during the first thirty years of globalization.

Is it possible, however, to conclude that these countries have found the optimum way to integrate themselves in the financial globalization? Is the combination of free capital mobility and exchange rate flexibility the best that macroeconomics has to offer to developing

countries? I don't think so. To have avoided the crises that hit developing economies during the first thirty years of financial globalization is a great virtue, but the difficult situation that Latin America is currently facing makes me think we are far from having found the optimum way of international financial integration. In developing economies, macroeconomics, in addition to ensuring stability, must focus in economic growth. It has to be a macroeconomics for development.

To find more precise answers we have to take the analysis a little further and examine the macroeconomic policies that have been implemented by the countries that chose these innovative exchange rate regimes.

The *trilemma* says that a country inserted in the financial globalization cannot simultaneously reach the following three objectives: preserving free capital mobility, controlling the local interest rate and determining the exchange rate by intervening in the foreign exchange market. In a context of free capital mobility, the *trilemma* argues that if a government chooses to determine the exchange rate it loses the ability to control the interest rate (it loses the control of monetary policy). The *trilemma* is the main argument behind pure floating exchange rate regimes.

But the *trilemma* is not valid in every circumstance. It is not valid when the central bank intervenes in a context of abundant supply of foreign currency that pushes the exchange rate towards appreciation. Latin America experienced this circumstance in the 2000s, until recently. In this situation, it is possible to control the exchange rate without losing the control of the monetary policy.

Such is the conclusion I arrived at in a couple of papers I wrote a few years ago, trying to draw lessons from the 2000s experience. In those papers I showed that – under certain circumstances – it is possible and sustainable to maintain control over the local interest rate while at the same time having a central bank that intervenes as a buyer in the foreign exchange market to avoid the appreciation of the local currency. I showed that the central bank can sterilize the monetary base expansion that results from the buyer interventions in the forex market. By doing this, the central bank preserves its policy interest rate. The key issue at this point is the possibility to sustain sterilization operations over time, a possibility that depends on the financial cost incurred by the central bank through its foreign exchange interventions and sterilization efforts.

The conditions that make this policy possible and sustainable are: i) at the nominal exchange rate that the central bank has targeted there is an excess supply in the foreign exchange market (that is, the central bank's intervention is aimed at avoiding currency appreciation); ii) the local interest rate is moderate. This means that there is a maximum rate that allows the sustainability of sterilized interventions. Interest rates higher than this threshold would lead to an unsustainable increase in the central bank's financial deficit. Under these conditions the trilemma is not valid: the exchange rate and the interest rate can be jointly controlled while free capital mobility is maintained.

The *trilemma* is valid, on the contrary, under circumstances in which there is an excess demand for foreign currency at the exchange rate that the central bank wishes to defend (that is, when the central bank wants to avoid the depreciation of the local currency). In this case the exchange rate policy faces the limit imposed by the availability of international reserves and an increase of the local interest rate becomes essential to halt the loss of reserves.

Until recently, in Latin America, particularly in South America, many countries had balance of payments conditions that invalidated the trilemma and that would have allowed central banks to control the exchange rate without losing control over monetary policy. Many

countries simultaneously experienced current account surpluses and important net capital inflows (until the global crisis, every South American country except Colombia did so). In the countries that had current account deficits (Colombia and Mexico, for example), capital inflows were – until recently – larger than the absolute value of current account deficits, in a way that also these economies experienced balance of payments surpluses that would have permitted them to defend real exchange rates from appreciation.

Some of the Latin American countries had, in addition, domestic financial conditions able to make central banks' buying interventions sustainable. Such is the case of low-inflation countries such as Chile, Colombia and Peru. In Chile's case, it seems clear that the central bank took the explicit decision not to intervene: it undertook few buying interventions in the forex market and let the currency suffer a persistent appreciation trend. This tendency was also present in Colombia, despite the fact that this country's central bank intervened more intensely than Chile, without being nevertheless able to revert the trend. On the contrary, Peru's central bank was the most successful in its defence of the country's real exchange rate stability, systematically operating in the foreign exchange market. As a result, Peru shows the most stable real exchange rate in the region. In Argentina's case, the central bank intervened successfully to preserve a competitive and stable real effective exchange rate between 2003 and 2007 (aided by a tendency towards real appreciation in Brazil, Argentina's main trading partner). However, later on, local authorities took a clear decision to let the real exchange rate systematically to appreciate as part of the shift to populism that the Argentine economic policy underwent since 2010.

Some countries, even with adequate balance of payments conditions, did not have the domestic financial conditions that would have allowed them to undertake sustainable buying interventions in foreign exchange market. Brazil, for example, maintained policy interest rates higher than the ones that would have permitted a sustainable sterilization policy. The Brazilian central bank bought foreign currency for years without being able to stop the tendency towards appreciation. It sterilized its currency purchases issuing bonds at the high real interest rates that the central bank thought necessary to control inflation. As a consequence, the central bank's financial deficit made a significant contribution to the increase of the Brazilian public debt/ GDP ratio. The reduction of this ratio is presently the main objective of the Brazilian macroeconomic policy in the context of the difficult situation that the country is suffering.

In short, the brief analysis of the exchange rate and monetary policies implemented by Latin American countries in recent years shows a varied panorama. Some countries, even when they had the financial and balance of payments conditions to control nominal interest rates and preserve competitive and stable real exchange rates, chose not to do so. Instead, they allowed a strong real exchange rate appreciation to be imposed by the markets. Other countries decided to intervene more intensely in forex markets with the goal of mitigating the tendency towards appreciation; they nevertheless refrained from making this objective explicit to avoid being accused of manipulating the exchange rate. These buying interventions did not succeed in curbing real exchange rate appreciations. Some governments took advantage of the short-term expansionary properties of exchange rate appreciations to kick-start populist economic policies. Peru looks like the only country that succeeded in maintaining a relatively stable real exchange rate. But Peru's is quite a particular case, because the degree of dollarization of its financial system is a great incentive for the domestic central bank to keep the real exchange rate stable, while at the same time limiting its ability to devaluate the local currency in the face of a negative shock like the one the country is currently undergoing together with its Latin American peers.

In a few words, some countries did not want to, other countries did not know how to and other countries did not succeed. So what is the verdict on Latin America's experience in the 2000s now that terms of trade have fallen and international capitals are leaving the region? Latin American economies need to cut the current account deficits they incurred during the boom period and grew larger when commodity prices dropped. Foreign exchange markets are home to large depreciations. Growth has stalled across the region and some economies have entered into recession.

To the contractionary effect of a decrease in export values, one has to add that – in the short term - depreciations also have contractionary effects on aggregate demand and accelerate inflation. It has been observed that the pass-through ratio (a coefficient that measures the proportion of the depreciation rate that is reflected in a rise in the inflation rate) is larger the larger the inflation rate at the time the currency is devalued. Consequently, it is to be expected that countries with the higher inflation rates see their inflations accelerate the most, experience the largest drops in real wages and suffer the largest contractionary effects caused by the devaluation. In countries with low inflation, such effects are of a smaller magnitude. However, current account adjustments throughout devaluations have inflationary effects as well as real and distributive costs in every circumstance. They also have negative financial implications, which might currently not be a cause of crises but that nevertheless contribute to the contraction in GDP.

If a country succeeds at stabilizing inflation and the financial system, readjusting its fiscal situation to the new circumstances, and preserving a new set of relative prices that includes a more competitive real exchange rate, this country would have succeeded at generating the necessary conditions to recover growth. For some of the countries in Latin America (Argentina and Brazil, for example) these goals seem very difficult to secure, risking a rise in social and political unrest. Other countries are bearing the adjustment costs with less difficulties. However, in every case, the new growth process will have to be based on the production of tradable goods and services that allow a country to increase its exports or to reduce its imports, taking on the role played by commodities production in the preceding growth pattern.

A more competitive exchange rate can have the potential to foster growth through the incentive it provides to the production of tradable goods and complex services (goods and services that can be exported or replace imports). However, this depends on the presence and relative weight of tradable activities in each country's economic structure. This potential is currently smaller than it used to be in Latin America, because such tradable activities have been victims of a *Dutch disease* generated by a long period of appreciated real exchange rates. The region has experienced a reduction in its capacity to produce tradable goods different than commodities, because the appreciated real exchange rate (the persistent increase in foreign currency-denominated unit labour costs) reduced or eliminated these activities' profitability. The share of complex tradable activities in GDP and employment generation dropped in favour of a rise in the importance of commodities, construction and non-tradable services. The region was de-industrialized. To revert this *Dutch disease* will take time.

We Argentines have a saying: *el que se quema con leche ve una vaca y llora (chi si brucia con latte vede una vaca e piange.)* I quote the saying to point to the hysteresis effects of Dutch Disease on investment decisions in tradable activities. The activities that were discouraged by a long period of real exchange rate appreciation need new investments to grow. Investment is mainly dependent on expected profitability, and is therefore tied to the expectations that the real exchange rate will be maintained at a competitive and stable level in the future. Real exchange rates have depreciated substantially (although not in every Latin

American country), but it will be difficult to convince people to invest in tradable industries after the 'cold shower' of the commodities boom years.

Who is to blame? Obviously, the region's governments and central banks, particularly in those countries that gathered the best conditions to preserve competitive and stable real exchange rates. To better understand why they chose not to we examine the incentives they faced.

On one hand, they had political incentives. The tendency towards currency appreciation is popular, as it is well-known by people attending this conference. It facilitates and incites an increase in the consumption of tradable goods and services, while allowing real wages to grow more than productivity without generating inflationary pressures. Such political incentive is the main cause for real exchange rate appreciation in countries with populist governments, but it is also present to some degree in every case.

We also need to take into account the forces driving central banks in inflation targeting regimes. A mandate that is exclusively focused on inflation biases interest rate policy in favour of real exchange rate appreciation.

This time we don't have IMF conditionality to blame for our mistakes, given that most Latin American economies did not need its assistance. But the IMF has a share of responsibility. Independent central banks – and even those that are not legally independent, such as the Brazilian central bank – believe it is important not to conflict with IMF's orientation, as they don't want to be seen as heterodox by the national and international financial community. Even when they are applying measures that do not belong to the orthodox book of the moment (as was the case with Chile's currency policy at the beginning of the 1990s), they are always trying to dress them up in Washington clothes.

When floating exchange rate regimes were adopted at the end of the 1990s the IMF was emphatically in favour of free floating. In the following years, the IMF doctrine allowed for currency interventions intended to soften tendencies towards appreciation or depreciation and to reduce foreign exchange market volatility. But the IMF doctrine is still based upon the diffuse notion of "equilibrium real exchange rate" and the presumption that market players, empowered with rational expectations, know this equilibrium rate with relative precision. As a consequence, the nominal exchange rate must be left to be determined by a free foreign exchange market, given that central bank interventions would be fruitless (for some) or distortive (for others).

In several papers written during the 2000s different economists drew attention to the effects of the *Dutch disease*. We demanded that the real effects of a lengthy currency appreciation were taken into account and avoided through exchange rate policies. This was fruitless. Some economists at the IMF believe the *Dutch disease* to be an optimum restructuring of production and employment in the face of new international conditions (high commodity export prices and abundant capital inflows). Now that export prices have fallen and capital is leaving, it is said, it is evident that the new equilibrium real exchange rate is higher than the preceding one. I have heard important economists from multilateral organisms argue that the problem is that equilibrium real exchange rates are volatile. What sort of equilibrium is this one? What use can we give to the concept of a "volatile equilibrium"?

Beyond the theoretical discussion about equilibrium exchange rates and rational expectations in foreign exchange markets there is a common sense question regarding foreign exchange policy management. We economists unanimously accept that policy reaction in the face of a new economic circumstance must differ depending the transitory or permanent nature of the change. And many of us grant that generally it is impossible to know. The IMF

accepts this, but its orientation has been equivalent to considering the recent positive shocks experienced by Latin American economies to be permanent.

Dutch disease effects are irreversible in the short term (I hope they are reversible in a longer scope of time). On the other hand, balance of payments adjustments through devaluations have inflationary, real and financial costs. It would have sufficed to show a little prudence in the design of economic policies to avoid falling into *Dutch disease*s and to avoid the need for abrupt balance of payments adjustments, precisely because the future is uncertain. If you don't want to devaluate your currency, you shouldn't allow your real exchange rate to appreciate excessively. I repeat: in the face of uncertainty regarding the permanence of the very favourable commercial and financial conditions that the region experienced until recently, prudence called for the avoidance of large appreciations. And many countries had the necessary conditions to do so.

An assessment of the contribution made by exchange rate flexibility to macroeconomic performance turns out to be ambiguous. On the positive side, one must acknowledge its help in avoiding the balance of payments-financial crises that had been so frequent and intense in the thirty previous years. On a negative note, the destruction of firms, employment and human capital in the manufacturing sector and other tradable sectors has great weight, and will have hysteresis effects in the future. The favourable conditions – which we now know were exceptional – that were experienced by Latin American countries in 2003-2013 led to a rarely prolonged period of currency appreciation and consequently to a profound *Dutch disease*. In previous experiences of strong appreciations (the ones that led to crises) the lapse of appreciated real exchange rates was never so lengthy, except for the Argentine experience in 1991-2001.

It is of course clear that these results should not be attributed to the managed floating regimes, but rather to the way in which exchange rate policies were designed in those regimes, particularly in the cases that had the necessary conditions to preserve competitive and stable real exchange rates. Not every country, however, had such qualifications, and certainly there were countries that even if they had tried could not have succeeded in maintaining a competitive and stable real exchange rate (to my knowledge, Brazil is the most relevant example). This comment points toward the need to control capital inflows during booming phases.

A central bank's ability to sterilize in a sustained manner its buying interventions depends on the magnitude of the purchases it has to make: difficulties are larger the larger the necessary purchases to avoid appreciation. The problem does not lie on the current account surplus but on the amount of capital inflows.

The main driver for financial capital inflows is the foreign-currency profitability of domestic currency assets. This profitability depends on the local interest rate and on future nominal exchange rate expectations. When the local interest rate is high, sterilization efforts are not sustainable and lots of capital are attracted, multiplying the difficulties associated to the goal of defending an exchange rate target (such is Brazil's case). Capital inflows are also larger when the market has firm expectations of currency appreciation, because the expected profitability measured in foreign currency becomes bigger. This is why central bank interventions must fulfil another role, apart from setting the spot nominal exchange rate: central bank interventions must have an effect in currency expectations, inducing the market to project a stable tendency instead of a tendency towards appreciation. In this, Latin American economies have clearly failed.

If the central bank succeeds in generating expectations of a stable real exchange rate, the estimated profitability of foreign financial investments will be smaller and capital inflows

will decrease in magnitude. In spite of this, there are countries (or particular economic circumstances in some countries) with interest rates that would be attractive for international financial capital even if stable real exchange rates were expected. This comment points towards the need to control capital inflows, in order to reduce them in booming stages and make it easier for the central bank to stabilize the real exchange rate. The IMF now believes that placing controls to limit capital inflows is a legitimate policy. This comes a little late, because the IMF is supposed to advise governments by anticipating their problems, not limiting itself to learn from their bad experiences.

The Bretton Woods founding fathers had a clear view of the volatility and pro-cyclical character of international capital movements. They aspired to establish an international cooperative system for the control of capital flows. This proposal did not survive due to political considerations, but Bretton Woods did include an agreement to ensure member countries' freedom to impose capital controls. Developed countries started progressively lifting their capital controls since the 1960s, and developing economies did the same during the 1970s, in order to join the second process of financial globalization.

The Eurozone is a good example of the harm that can be caused by free capital mobility in an international system of fixed exchange rates. The design of the Euro kept the main deficiencies of the gold standard – the ones that the Bretton Woods founding fathers had wanted to fix and ended up failing to repair. The design of the Euro overlooked Bretton Woods's discussions and experience, reviving the gold standard's propensity to crisis without a change.

Foreign exchange flexibility helps to avoid crises but, as we have tried to show, does not offer a solution to every problem generated by free capital mobility. Capital controls as individual initiatives taken by specific countries are a weak remedy. Real exchange rate stability and capital controls that allow this goal to be achieved should not be some countries' heterodox adventure but rather the main ingredient in an international agreement that would result beneficial for developed and developing economies alike. It is nevertheless clear, in light of the difficulties faced in the discussion of remedial measures for the Euro's faults – even when it only involves 19 countries – that there is not much optimism to be had on the potentiality of a global accord.