

# **Is the Eurozone on the Mend? Latin American Examples to Analyze the Euro Question**

**Eduardo A. Cavallo, Eduardo Fernández-Arias and Andrew Powell<sup>1</sup>**

**August 2013**

## **Abstract**

Several European countries face challenges reminiscent of those faced by the emerging economies of Latin America. The economic booms in some peripheral Euro zone countries financed by large capital inflows; the credit and asset price booms and then the busts including Sudden Stops in capital flows; the strong interaction between sovereign debt and domestic banking systems; the role of foreign banks and contagion; and all in the context of a fixed exchange rate, are familiar plotlines for Latin American audiences. For those Eurozone countries that built up large Euro-denominated external liabilities, Latin America's experience is particularly relevant and worrisome. Still, Europe may be in a better position to navigate a path out of the crisis given cooperative mechanisms that were absent in Latin America and in particular the availability of massive liquidity support. However, such support buys time, it does not guarantee success and we argue that reflecting on Latin America's experience provides useful lessons for Europe to improve the chances for a successful resolution.

JEL: E61; F33; F34; F36; F53; G01.

**Keywords:** Latin America; Financial Crisis; Euro; Debt Overhang; Banking Crisis; Sudden Stops; Real Devaluations; Currency Union; Fiscal Devaluation.

---

<sup>1</sup> The authors are grateful to Mark Joy, Alessandro Rebucci, José Juan Ruiz and participants at the INFINITI conference in Aix en Provence in June 2013 for very useful comments, and to Fernando Arce, Paula Cifuentes and Mathieu Pedemonte for research assistance. The opinions expressed in this paper are strictly those of the authors and do not necessarily reflect the views of the Inter-American Development Bank, its Board of Directors, or the countries they represent.

## 1. Introduction

Many peripheral Euro zone countries are suffering from financial and competitiveness problems reminiscent of previous Latin American challenges. Drawing on these experiences, our aim is to provide a comparative analysis with a focus on Sudden Stops, competitiveness and growth issues, the relation between sovereigns and banks and the resolution of debt problems - all areas where unfortunately Latin America has considerable history (see Table 1 in the Appendix for a list and taxonomy of crises in Latin America).

We conclude that relevant and useful lessons that can be drawn, although we are fully aware that there are also significant differences between the challenges on the two continents. While some Latin American countries adopted hard currency arrangements there is no close analogy to the common currency and its associated set of institutions. We argue below that while the currency union may complicate the recovery, those institutions provide a set of strategies and instruments to address the crisis that were not available to Latin American countries. A case in point is the powerful European Central Bank (ECB). The IMF, and in some cases bilateral lending, provided assistance during some Latin American financial crises, but the ECB (and Euro system financing more generally) has played a wider and deeper role in financing Sudden Stops in private capital flows and maintaining lower interest rates in the Eurozone that we argue has been critical to the survival of the common currency itself.

Our analysis suggests that while current crises in Europe are more complex and potentially more perilous than previous crises in Latin America, Europe also stands a better chance of successfully navigating the dangers due in large part to the availability of better tools to tackle the problems. Nevertheless, the path is uncharted, and success is by no means guaranteed. Our contribution is to highlight the areas in which the Latin American experience may be useful in shedding light on current European policy challenges.

Disentangling the underlying factors responsible for a crisis is a difficult task. The Argentine crisis of 2001/2002 provides perhaps the closest analogy to the current dilemmas facing some countries in Europe's periphery, in terms of overall complexity and certain features such as the Sudden Stops in capital flows, currency rigidity and the relation between banks and sovereigns. The crisis in Argentina has been the object of numerous and diverse retrospective

analyses concerning its diagnosis and, a fortiori, applicable treatment.<sup>2</sup> In particular, whether the main cause of the collapse was fiscal unsustainability, a lack of competitiveness related to the rigidity of the currency board, or other factors remains contested. It has been suggested that there were multiple equilibria, and a particularly bad one emerged due to the interaction of the anticipation of a potential break of the currency board, low growth, concerns regarding fiscal sustainability and vacillation from the international official sector about continuing financial support.<sup>3</sup> Diagnosing the underlying factors of the European crises with precision while events are still unfolding is ill-advised. Furthermore, the political support needed in democratic societies may impose critical limitations to feasible policy responses, both in crisis and core countries. To ensure effectiveness of the policy responses, it may be prudent to control risks on all fronts, without disregarding any of them a priori, and bear in mind political economy limitations to policy decisions. It is in this agnostic spirit that we recommend the reader to consider the relevance of the Latin American experience analyzed below.

The paper is organized as follows. In the next section the experience and implications of Sudden Stops in capital flows are outlined. In particular, a model that is motivated by the Latin American experience, which illustrates the links between Sudden Stops, required adjustments and debt sustainability, is calibrated to a set of Euro-zone countries. This then leads to a discussion regarding underlying competitiveness and growth in section 3. The links between banks and sovereigns is discussed in section 4 and section 5 pulls the various strands together to consider the resolution of debt problems as may be required. Section 6 concludes.

## **2. Facing the Challenge of Sudden Stops**

### **2.1 Calibrating a Latin American Model to Europe**

In common with several economies of the Eurozone in the 2000's, Latin American countries in the 1990's ran current account deficits and built up large external liabilities. On the one hand such periods of strong capital inflows are to be welcomed as they fuel investment and higher growth. However, at the same time they may give rise to vulnerabilities and in particular to the risk of a Sudden Stop or a reversal in capital flows. Sudden stops occur when foreign investors

---

<sup>2</sup> For a review of the Argentine crisis, see Cline (2003).

<sup>3</sup> See Powell (2002).

reduce holdings of domestic assets (collapse in gross capital inflows) and/or when local investors suddenly accumulate foreign assets (surge in gross capital outflows). Regardless of how they materialize, sudden stops affect the financing of the overall balance of payments. As a result, an affected country that was running a current account deficit has to abruptly close it. This is usually done through large real exchange rate depreciations.

In this section we review some of the dimensions of the vulnerability to sudden stops and compare the Latin American and the Euro-zone cases. We argue that, while there are clearly differences in institutions and available policy responses, the vulnerabilities in the Eurozone in this regard are analogous to those in Latin America and hence the Latin American experience should be of considerable interest both in terms of the analysis and to gain an understanding of the true nature of the problem and also in terms of the implications and hence potential remedies.

Figure 1 plots capital inflows into Latin America in the 1990's and selected peripheral Eurozone countries in the 2000's. There were considerable net capital inflows to Latin America in the 1990's, of around 6% of GDP, fueled by gross inflows of around 8% of GDP. The drop in 1995 is the Tequila crisis which hit Mexico and Argentina in particular and, as can be seen, net flows fell to below 4% of GDP that year; a forewarning of things to come. Gross inflows to the peripheral countries in Europe dwarfed those of LAC but net inflows were about the same order – around 5% of GDP – until about 2005. From 2005 and until the financial crisis, net inflows rose dramatically, particularly for the case of Ireland but also in other peripheral countries, and the average for this group reached over 30% of GDP. Several Latin American countries suffered a Sudden Stop in net flows in the late 1990's driven mostly by a fall in gross inflows, although there is also evidence of a rise in outflows (see Table 1 in the appendix for a list of sudden stops in Latin America). Argentina was a particular case given its crisis in 2002 but as can be seen in the graph the fall in gross inflows and net inflows preceded the Argentine crisis, and in fact followed the 1997 Asian crisis and particularly the 1998 Russian default. In the case of the Eurozone countries the Sudden Stop was even more dramatic, with net flows turning negative by 2010 and a severe collapse in gross inflows.

**Figure 1: Capital flows in Selected Latin American and Eurozone Countries**

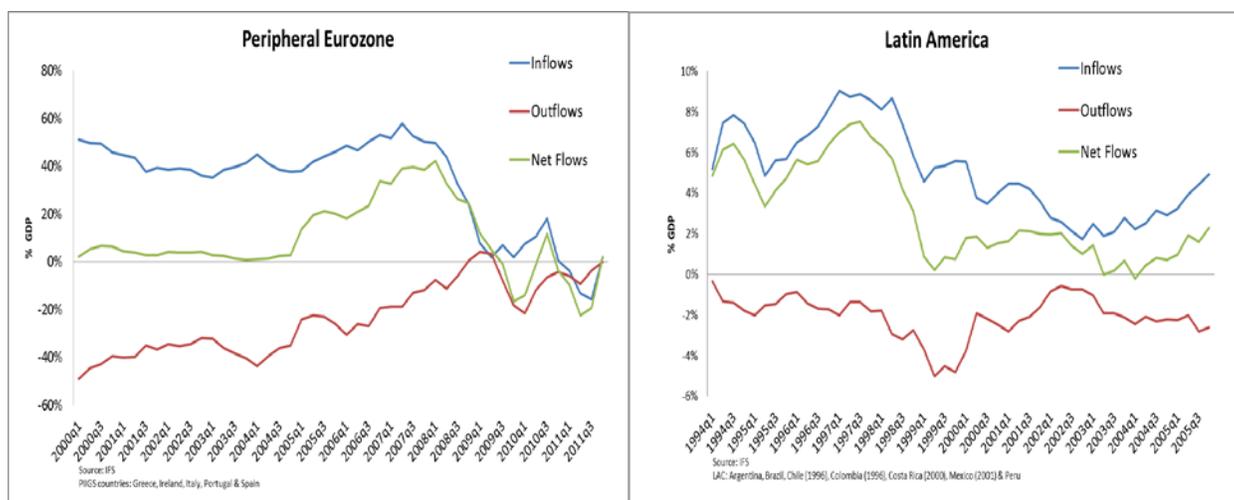


Figure 2 compares the average change in GDP and the real exchange rate depreciations of Latin American countries in the 1990's and Eurozone countries over the period of identified Sudden Stops.<sup>4</sup> As can be seen Sudden Stops in both continents were associated with significant declines in GDP. An interesting difference however is that Sudden Stops in Latin America were associated with significant and immediate real exchange rate depreciations. This has not been the case in Europe's periphery, although as can be seen from the graphs, there is evidence of a change in trend.<sup>5</sup> Namely while there were real appreciations before the Sudden Stop these changes to real depreciations after. We come back to this point below.

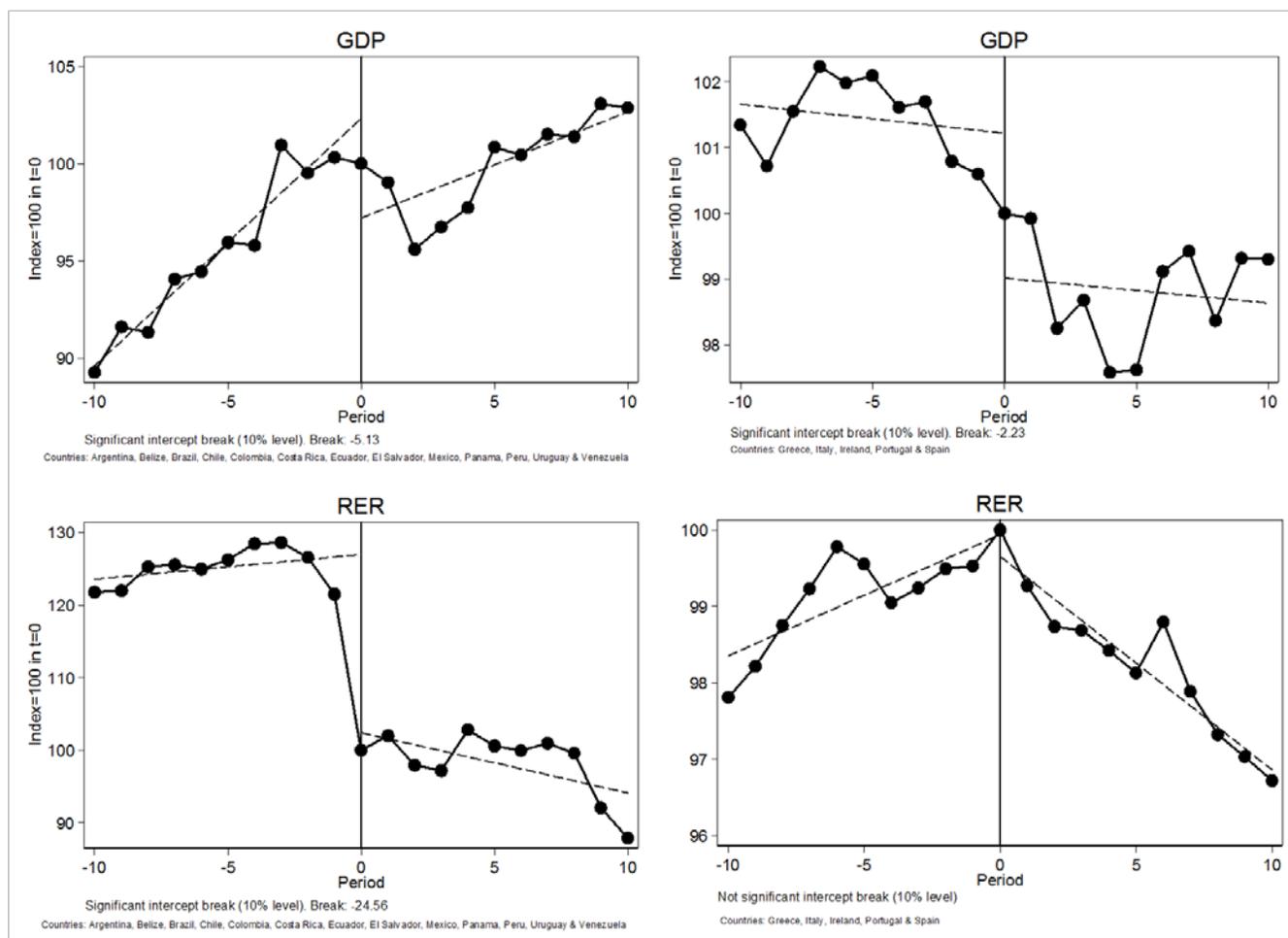
<sup>4</sup> See Cavallo et al (2013) for a new suggested taxonomy of Sudden Stops and a review of the different types of Sudden Stops in advanced and emerging countries and how they have changed over time.

<sup>5</sup> Formally the intercept dummy on the relevant regression was not significant for a break in the real exchange rate around the Sudden Stop indicating no immediate impact on the real exchange rate.

**Figure 2: Capital flows in Selected Latin American and Eurozone Countries**

**Latin America**

**Peripheral Europe**



In the Latin American case, the disruptive nature of sudden stops was compounded to a large extent by liability dollarization and by the low ratio of tradeable to total output in many countries. For a given current account deficit, the smaller the tradable component of output in an economy, the larger the required real exchange rate depreciation to close the current account deficit when external financing dries up.<sup>6</sup> Large real exchange rate depreciations, in turn, may be disruptive because they increase the cost of servicing foreign currency debts, triggering bankruptcies and large output costs.<sup>7</sup>

<sup>6</sup> See Cavallo and Frankel (2008).

<sup>7</sup> See Calvo, Izquierdo, and Mejía (2008).

Given the existence of substantial Euro-system financing, the European case is somewhat different, but only to a degree.<sup>8</sup> Any external financing shortfall imposed by the crisis on peripheral economies that is not offset by liquidity support from external sources needs to be accommodated; therefore adjustment remains a problem. While the ability of the ECB to do what it takes to provide balance of payments support compares favorably with that of IMF support to help offset Sudden Stops in Latin American countries, it cannot resolve the crisis if underlying economic fundamentals call for adjustment. Despite European economies in general being more open and with larger tradable sectors, the currency union eliminates the possible use of the nominal exchange rate to engineer the adjustment in the real exchange rate depreciation and may induce a recessionary adjustment to dampen domestic demand. However, with low growth, high unemployment and protest movements in some countries, the market may not always consider the irreversibility of the Euro as absolute. This then may compound the problem pushing interest rates higher to compensate for redenomination risks. Again, the Euro-system back stop is critical to maintaining lower interest rates to give a chance for growth to recover and to ensure debt sustainability.

To consider the issue of debt sustainability in the presence of a Sudden Stop more closely, in the remainder of this section we adapt and apply the model of Calvo, Izquierdo and Talvi (2003) to the case of various European nations. The idea of this model is to consider how countries that suffer a Sudden Stop of capital flows make adjustments in their current accounts to ensure the balance of payments remains in balance. If net capital inflows fall from a substantial positive figure to zero then, failing other forms of financing, net exports must rise. In order to engineer such an adjustment the country must become more competitive and that implies a real depreciation or in other words a reduction in the price of non-tradeables versus tradeables. Total country GDP is made up in part of tradeable and in part of non-tradeable production. Similarly, an assumption of the model is that debt is also denominated part in the price of non-tradeables (which may be thought of as domestic currency debt) and part in the price of tradeables (which might be considered as debt in an external currency unit). Consider two cases: in the first case, if

---

<sup>8</sup> For a review of policies in the Euro zone refer to IMF (2013a). In this paper we refer to Euro-financing as a general term to include liquidity support from the ECB, the program of Outright Monetary Purchases and other support within the Euro system.

100% of debt is denominated in the price of non tradeables but only some part of GDP is made up of non tradeables (and the other part in non tradeables), the real depreciation in the aftermath of a sudden stop has the effect of reducing the debt to GDP ratio. Hence the adjustment process required to ensure that the balance of payments remains in balance actually implies an improvement in debt sustainability. Of course, debt sustainability may be harmed by other issues such as a fall in growth or a rise in the interest rate. However, contrast this to the case where all debt is denominated in foreign currency – the price of tradeables. In this case, the real depreciation causes the value of GDP to shrink relative to the value of the debt. The debt to GDP ratio then rises and debt sustainability suffers. The Calvo, Izquierdo and Talvi (2003) model then combines a standard debt sustainability type methodology with the potential effects of a relative price adjustment with different assumptions regarding debt denomination.

One of the motivations for the development of this model was the fact that Latin American countries tended to be heavily dollarized and sovereigns and the private sector alike had significant debts denominated in nominal dollar contracts. Hence any negative shock that implied a required adjustment in the current account and hence that required a real devaluation had an impact on debt sustainability. These shocks included negative terms of trade shocks, such as a fall in commodity export prices but particularly Sudden Stops in capital flows. In the case of Latin America, a massive Sudden Stop was experienced in the late 1990's particularly after the 1988 Russian default. The model clearly demonstrates the potential danger of dollarized debts and the potential advantage of escaping what has been termed "original sin".<sup>9</sup>

In the case of Europe, a pertinent question is the treatment of Euro debt. Consider the case of Spain. If Spain suffers a Sudden Stop and has no other sources of financing it has to adjust and as discussed that implies a real depreciation in order for the balance of payments to remain in balance. As Spain has adopted the Euro, the value of which is not determined by Spain's particular set of circumstances, but rather that of the Euro zone as a whole, it is clear that having Euro debt is just like having debt in an external currency. In the context of the Calvo, Izquierdo and Talvi (2003) model it is akin to having debt denominated in tradeables and not in

---

<sup>9</sup> Original sin has been defined as the lack of an ability to issue debt in one's own currency – Eichengreen and Hausmann (1999).

(Spanish) non-tradeables. This suggests that Spain would suffer in a similar fashion to the economies of Latin America in the face of a Sudden Stop and a real depreciation would have a negative impact on debt sustainability.

In order to analyze the magnitude of this potential problem we calibrated and ran the model for a set of European peripheral countries as of 2012 using medium term historical averages for growth and interest rates following standard practice.<sup>10</sup> The results are shown in Table 2.

**Table 2: Results from a Simulation of a Sudden Stop Debt Sustainability Model**

Growth and interest rates are medium term averages, debt, and other economic characteristics are as of 2012

Country	Required RER Depreciation	DEBT (% GDP)	Estimated New Debt (% GDP)	Primary Surplus (%GDP)	Required Primary Surplus to	Required Primary Surplus to
					Stabilize Debt using Hist. Interest Rates (% GDP)	Stabilize Debt using Higher Interest Rates (% GDP)
Portugal	9.91%	122.99%	130.13%	-0.75%	5.03%	7.60%
Italy	4.57%	126.98%	130.98%	2.31%	3.60%	6.19%
Greece	25.86%	158.55%	187.27%	-1.20%	15.46%	19.16%
Spain	8.62%	84.08%	88.80%	-7.86%	0.96%	2.69%

Source: authors' calculations.

The first three columns indicate, for the parameters employed, the required real depreciation for each country –assuming the materialization of a sudden stop that forces Spain to close the outstanding current account deficit—; the actual debt level (i.e., observed); and the estimated new debt level assuming that level of depreciation is achieved.<sup>11</sup> Hence, in the case of Spain, an estimated 8.6% depreciation would be required, the debt level by year end 2012 was 84.1% of GDP, and the estimated new debt level would, with that real depreciation, be some 88.8% of GDP. The most startling case illustrated is that of Greece where it is estimated that a further 26% real depreciation would be required to restore balance of payments balance and this would then increase the debt level from 158% of GDP to 187% of GDP. However, it should be stressed that the assumption here is that no new financing is available. If at the other extreme the Euro system financed a Sudden Stop in private flows completely then no adjustment would be

<sup>10</sup> See Appendix table 2 for the key parameter values used in the model for each country.

<sup>11</sup> The parameters employed in the simulation are 1984-2012 historical averages and are detailed in the appendix. As is standard practice in considering long run debt sustainability, medium to long run averages of the critical parameters are employed as the concern here is medium to long run debt sustainability. In this simulation we use an elasticity of how tradeables respond to the real exchange rate of 0.4 (i.e.,  $\chi = 0.4$ ), following Calvo, Izquierdo and Talvi (2003). In the appendix we also give results using an elasticity of 0.8, the quantitative results change but not the overall messages.

required at all. Although, this does not appear to be a full solution and in fact the Euro-system would have to maintain financing forever and so the Euro system would have to continue to increase assets in the country and the country would have increasing Euro system liabilities, until such time as the adjustments indicated took place, or another solution was implemented.

Apart from Greece, one might take the view that the required depreciations and the effects on debt levels are not that dramatic. Still, the primary surpluses required to avoid debt levels increasing further are considerably higher than the actual 2012 levels (table 1, columns 4 and 5). While the primary surplus to stabilize this new debt level is estimated to be about 1% of GDP for the case of Spain, the 2012 primary balance was actually a deficit of almost 8% of GDP.<sup>12</sup> The higher debt levels tend to exert even greater pressure on the fiscal accounts to maintain debt sustainability. The final column of table 2 calculates the required primary surplus if interest rates were 2% higher than the historical levels. This gives some indication of the sensitivity of the required fiscal adjustment to interest rates given the extra pressure of higher debts due to the required real depreciations. For some countries this gives very high required primary surpluses, 20% for Greece and 7.6% for Portugal. And for Spain implies an even larger adjustment from the current negative primary balances. These estimates underline the importance of a lender of last resort such as the ECB, and Euro financing more generally, in order to maintain lower interest rates.

Moreover, several of the peripheral European countries continue to have high unemployment. The Calvo, Izquierdo and Talvi (2003) model does not consider such problems, indeed it might be interpreted as a full employment model, or in other words the estimated required real exchange rate depreciations are those to maintain the economy at full employment. This suggests that the required depreciations detailed in table 2, would not necessarily reduce the existing unemployment levels but rather would be required in order to effect adjustment and for the situation not to get worse. This then raises the question as to how much adjustment in the balance of payments to date has been effected through a required change in relative prices and how much has been simply through a reduction in demand and recession. Table 3 details the results of running the model in the years 2010, 2011 and 2012.

---

<sup>12</sup> For a recent detailed analysis of Spain's fiscal position please refer to IMF (2013b).

**Table 3: Sudden Stop Debt Sustainability Model, Spain vs. the U.K.**

Country	Year	Required RER Depreciation (Baseline; $\chi=0.4$ )	DEBT (% GDP)	Estimated DEBT/GDP (assuming all debt is foreign)	Estimated DEBT/GDP (assuming all debt is domestic)	Primary Surplus (% GDP)	Required PS to stabilize estimated DEBT/GDP (all debt is foreign - historical interest rate)	Required PS to stabilize estimated DEBT/GDP (all debt is domestic - historical interest rate)
Spain	2010	38.09%	61.32%	76.65%	55.51%	-8.25%	0.65%	0.47%
	2011	29.92%	69.12%	82.28%	63.33%	-7.51%	0.77%	0.59%
	2012	8.62%	84.08%	88.80%	81.81%	-7.86%	0.96%	0.88%
UK	2010	19.44%	79.44%	89.56%	74.98%	-7.56%	0.77%	0.90%
	2011	9.89%	85.44%	90.96%	82.78%	-5.09%	0.84%	1.04%
	2012	25.73%	90.31%	104.99%	83.50%	-6.09%	1.06%	1.12%

Source: authors' calculations

The results indicate that in 2010, Spain would have required a real depreciation of some 38% if external financing had dried-up completely, in 2011 this fell to 30% and in 2012 and fell again to the 8.6% quoted above. If these real depreciations had actually occurred this would have pushed the debt to GDP ratio from the actual values (column 4) to the higher estimates as detailed in column 5. Interestingly those estimated levels are not too far off the trajectory of the actual debt to GDP ratios. However, as we discuss in the next section, Spain does not appear to have experienced the real depreciations estimated as required by the model. Rather, Spain attracted other sources of financing –mostly official financing through the ECB—, and while net exports have risen, arguably this has been more a result of reduced domestic demand than price adjustment. We would then argue that this modeling exercise suggests that if Spain does not get access to new private capital flows, and yet wishes to reduce the stock of Euro system financing and get back to somewhere close to the level of unemployment of 2010, then it will have to continue the adjustment process, engineer greater real depreciation and consequently the debt to GDP ratio will have to continue to rise. A pessimistic assumption in this regard would be that Spain still requires a 38% real depreciation and this would increase the debt ratio by another 15% of GDP. While this seems overly pessimistic, as some price adjustment has occurred and also Spain will surely have recourse to further Euro financing and may indeed obtain access to private capital given the Euro systems back stop, the results underline that further significant price adjustment and increases in debt ratios may be forthcoming.

Whether private capital flows resume to a country in Spain's type of position may be subject to a type of Catch-22 situation.<sup>13</sup> If Spain is sustainable then it is to be expected that private capital will flow back and then the adjustment detailed in the model may not actually be necessary. But in order to demonstrate sustainability, the adjustment may be required. There may even be multiple equilibria in such a setting. A best case might be that Euro financing allows whatever adjustment is required considering only real factors, and makes unnecessary the "excessive adjustment" that is required under the assumption of a Sudden Stop. But it seems likely, and the experience of Latin America suggests, that the private sector will force significant adjustment beyond that minimum before private capital flows will resume to significant levels. In the next section, we will consider the underlying competitiveness issues.

Table 3 also includes information regarding the UK as an interesting comparator case. Note that UK debt is in pounds and for the purposes of the Calvo, Izquierdo and Talvi (2003) model can be considered as denominated in UK non-tradeables. The model indicates a 20% real depreciation would have been required for the balance of payments to adjust assuming a Sudden Stop and no other access to private capital. Now, assuming all debt is denominated in non-tradeables, the real depreciation would provoke a reduction in the debt ratio from 80% to 75% of GDP. This shows the value of having debt denominated in the same units as domestic non-tradeables as opposed to the nominal Euro debt of peripheral European nations or dollar debts, prevalent in Latin America in the 1990's. Note that if UK debt had been denominated in tradeables (which would have been the case if the UK had joined the Euro) then a real depreciation of 20% (the estimate of the required real depreciation in 2010) would have increased UK debt from 80% to about 90% of GDP. As can be seen the estimate of the required real depreciation in the UK fell significantly in 2011 to just 9% but then increased in 2012, to as high as 25%.<sup>14</sup> Curiously perhaps the UK real exchange rate has actually appreciated. In fact, there is little evidence that the UK now suffers from a Sudden Stop in private capital flows at all and hence these estimates of required depreciations – required if there were a Sudden Stop - may

---

<sup>13</sup> Joseph Heller's famous phrase refers to the problem of a bomber pilot in World War II, where claiming insanity was one way to avoid flying the dangerous missions over enemy territory, but if a pilot claimed that due to insanity they could not fly those missions then clearly they were not insane at all.

<sup>14</sup> The estimated required real depreciation for the UK fell in 2011 because the current account deficit shrunk to 1.3% of GDP in 2011 from 2.5% of GDP in 2010. Similarly, the estimated required real depreciation increased in 2012 because the current account deficit increased to 3.5% of GDP in 2012.

not be particularly relevant. Interestingly, some attribute the rapid re-access to private external capital of the UK to the fact that the UK has its own Central Bank and its own monetary policy and own currency, with debt denominated in that currency, and so as illustrated depreciations will tend to help debt sustainability and not harm it.

To complete the analysis, Table 3 also illustrates how things would be if Spanish debt were miraculously transformed and were denominated in Spanish non-tradeables. As can be seen this would have implied that in 2010, if the required real depreciation of 38% had been effected then debt would have fallen from 61% to 55%. It is tempting to suggest that there would then be a great advantage of Spain leaving the currency union. However, this would only be the case if Spain not only left the union but also transformed the denomination of its debt from Euros to whatever domestic currency unit Spain then adopted – a new peseta let's say. And of course this ignores the huge transition costs that this would entail – these costs are also discussed in more detail in the next section.

## **2.2 Coping with Sudden Stops: Cyclical vs. Structural Challenges.**

Drawing the lessons from the Latin American experiences for Europe, the challenge for governments facing sudden stops is to smooth the adjustment to a tighter external financing constraint. In a review of policy responses to sudden stops in Latin America, Cavallo and Izquierdo (2009) document the crisis resolution mechanisms of the late 1990s for eight Latin American countries. They conclude that successful crisis resolution is more likely to be achieved when countries are able to stimulate the economy through expansionary macroeconomic policies during the external credit crunch. Nevertheless, the authors caution that, unless the international community is prepared to step in with large sums of largely unconditional money to bridge a protracted fiscal gap, a successful crisis resolution requires that each country finance its own stimulus by saving when times are good. Given that countries in distress are rarely able to fend by themselves on the fiscal front, a lesson from the Latin American experience is that external financial packages are the crucial financing mechanism to smooth the post-sudden stop adjustment. This explains, for example, why Mexico recovered fairly quickly in the aftermath of the Tequila Crisis in 1994 after receiving a US\$ 50 billion package that was partially financed by

the U.S. government, whereas Argentina's economy collapsed when the IMF withdrew its support in November 2001.

In the case of Europe, impediments to expansionary macroeconomic policies are particularly relevant because euro zone countries do not control their monetary policy and peripheral countries experiencing "sudden stop" symptoms have very limited fiscal cushions. However, while individual countries may lack the tools to implement countercyclical policies, those tools do exist at the euro zone level. Of course, using those tools would inevitably entail a reallocation of resources within the European Union, from the creditworthy countries to the less creditworthy ones. Such support is reminiscent of a standard external financial package, which would carry moral hazard risks to the extent that it is given as a transfer or lent with credit risk.

On the structural front, a lesson from the Latin American experience is that the longer it takes for private capital flows to resume, the more likely it is that solvency will be at risk and require some form of debt restructuring and/or growth-oriented policy reforms to restore it. In the late 1990s when the effects of the Asian and Russian financial crises began to be felt in Latin America, there was still a lot of confusion about the nature of the shock and the possible implications. The region had only recently recovered from the contagion effects of the Tequila banking crisis of 1995, and for a time it was believed that the 1998 crisis would be similar, that is, the credit crunch would be short-lived and contagion would ultimately be contained. But things proved to be quite different: three years into the crisis, capital flows had not yet returned to the region at normal levels. Assessing the damage caused by liquidity stress and the point at which liquidity problems cease to be temporary is critical to policymaking. For example, in the case of Argentina, more than three years into the credit crunch, the authorities were still working under the assumption that liquidity could be restored, and they bought additional time by pursuing a debt swap that pushed obligations forward in time. When the authorities finally switched strategies in late 2001 by launching an orderly debt restructuring program to reduce the debt burden to sustainable levels, the IMF also changed strategies by withdrawing financial support due to disagreements with authorities over the macroeconomic framework.<sup>15</sup> The

---

<sup>15</sup> Argentina's vulnerability made it clear that a protracted sudden stop requiring substantial real exchange rate depreciation almost inevitably called for debt restructuring, given Argentina's substantial liability dollarization. However, there is reason to believe that the restructuring process could have been much more orderly had it been conducted with international support.

unfortunate timing precipitated the events that led to a disorderly sovereign debt default, the end of the currency board, and the collapse of the domestic financial system.

Dealing with sudden stops is difficult because there may be conflicts between the cyclical challenge (to stimulate the domestic economy) and the structural challenge (to adjust to a permanently tighter financing constraint). From a cyclical standpoint, expansionary macroeconomic policies may help to smooth the adjustment. If countries are not able to finance the stimulus themselves—as is usually the case—external official assistance is needed. In the context of the present discussion in Europe, the implication is that without Troika financial support—including decisive intervention by the European Central Bank to backstop stress in sovereign debt markets—countries that are exhibiting “sudden stop” symptoms in peripheral Europe would likely experience a disorderly adjustment leading to costly outcomes (perhaps with exit from the euro zone by one or more countries).

However, to the extent that a sudden stop in a country is underpinned by structural factors (for example, insolvency due to debt overhang and weak growth prospects), external resources alone are no solution. In that case, unconditional external financial assistance would only serve the purpose of delaying an otherwise unavoidable adjustment in the economy to a permanently tighter financing constraint. Countercyclical policies financed with external financial assistance can allow time for economies to adjust, but they are no substitute for structural reforms aimed at reducing the underlying vulnerabilities and restoring long-term growth. Troika financial support would not be a solution by itself. External support ought to be conditional on the country strengthening its structural weaknesses.

### **3. On Competitiveness and Growth**

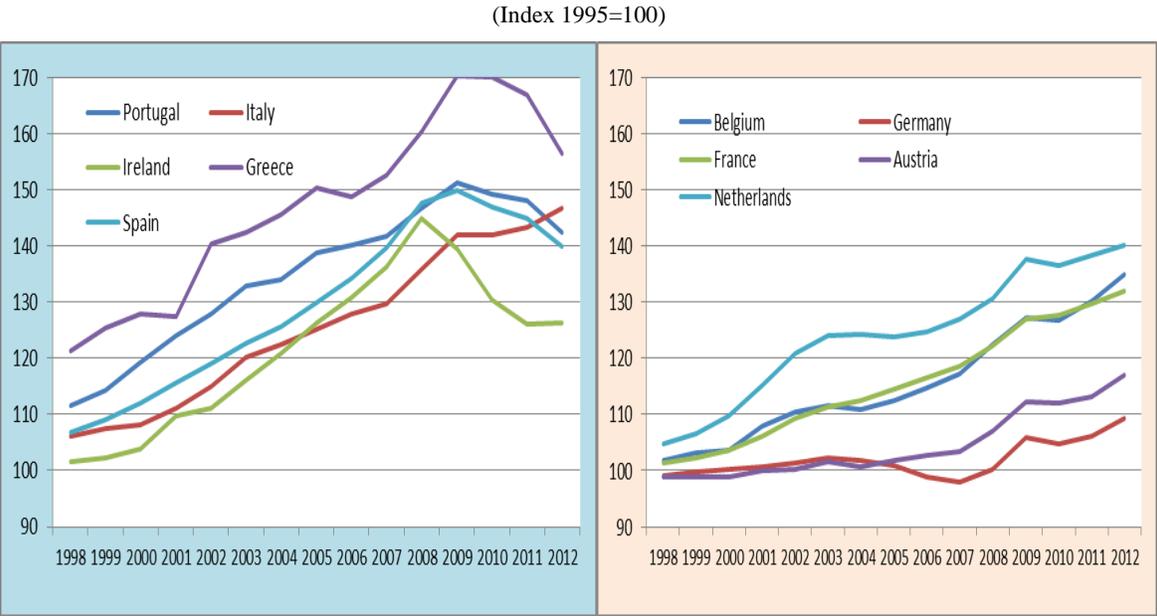
Restoring robust growth is an essential part of resolving financial crises, increasing the denominator of the debt to GDP ratio reduces high debt burdens, improves tax collection and tends to increase both the quantity and the quality of bank assets. Moreover, one central problem (perhaps the problem) of the Euro zone has been the differences in competitiveness which led to the build-up of large external liabilities in some countries, increasing their vulnerability to Sudden Stops. In this section we first consider the nature of this underlying problem and how it might be rectified drawing on experiences in Latin America. The section concludes with a

review of the experience of structural reforms as a potential remedy summarizing the lessons that might be drawn from Latin America in this regard.

### 3.1 The Competitiveness Problem

A lack of competitiveness may be at the root of low growth in peripheral Euro zone countries affected by the financial crisis. Consider figure 3 below that compares unit labor costs across Euro zone countries. Nominal unit labor costs are a measure of competitiveness as they divide nominal remuneration to labor by (real) output. It is clear that some core Euro zone countries have had a very different trajectory to others in the periphery. Indeed it is quite astounding that Germany’s nominal unit labor costs are only about 10% higher than their 1995 values, whereas the peripheral countries’ nominal unit labor costs increased by as much as 40%-70% by 2009.

**Figure 3: Nominal Unit Labor Costs: Peripheral and Core Euro zone Countries**



Source: AMECO

German inflation has also been lower than that in other periphery countries and so a graph of real compensation to labor, if one uses countries’ CPI as the deflator, does not look the same and in fact real compensation to labor has grown faster in Germany than in both Italy and Spain. Moreover, it is not that labor productivity in Germany has been extremely high, and in fact according to OECD data, was outpaced by that in Portugal, Greece and Ireland over the period,

but more that German workers received less as a share of output.<sup>16</sup> However, while understanding the underlying cause is of interest, the relevant fact for the purposes of the discussion here is that nominal unit labor costs, the better measure of competitiveness in the common currency, has been quite divergent across countries.

The countries that suffered a loss in competitiveness were also more affected by the financial crisis. They therefore have to adjust not just to restore competitiveness but may also need to adjust much more to generate higher net exports to replace net capital inflows, assuming they do not count on other new financing. So the question is now what can countries do?

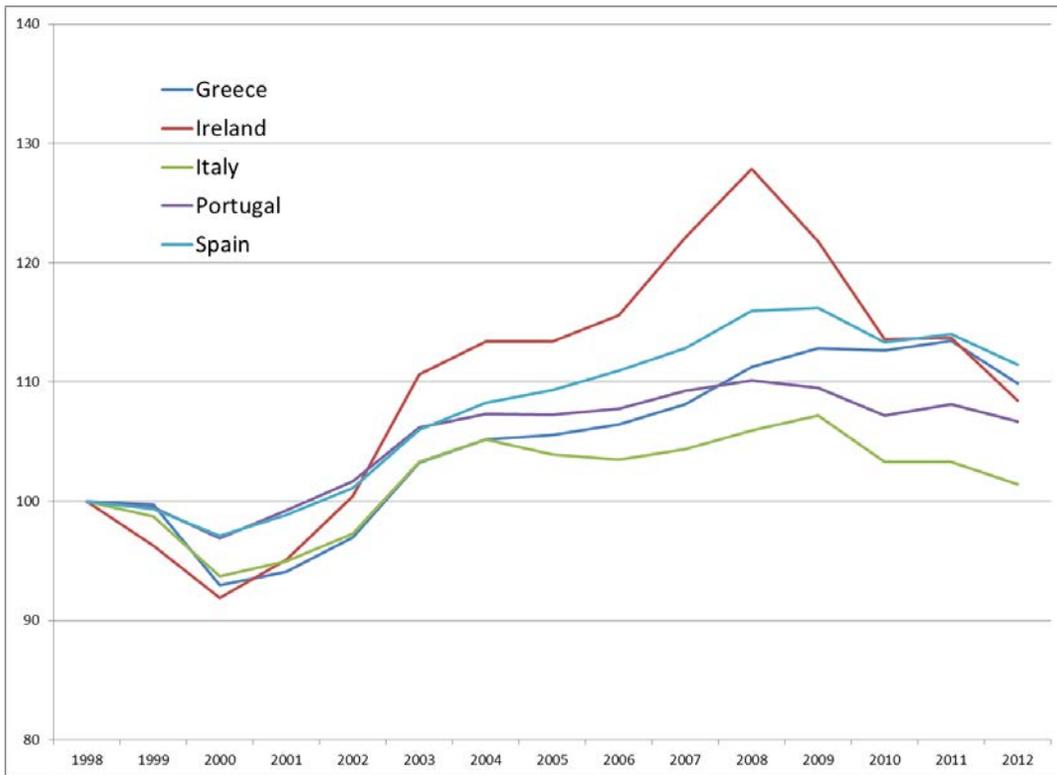
Given the common currency, one route is to attempt to engineer the real depreciations through reductions in wages and in prices. To some extent this is happening. Figure 3 shows that nominal unit labor costs have been falling in most peripheral countries since the financial crisis. However, there has been a mixture of price adjustment and labor shedding, with more wage adjustment in Ireland and more labor shedding in the case of Spain.<sup>17</sup> A further piece of evidence is provided by Figure 4 which plots the Real Effective Exchange Rates for a set of Euro zone countries. An increase implies a real appreciation and as can be seen there were substantial appreciations up until the crisis of 2008. Since then, real exchange rates have been adjusting. The most dramatic reversal again being that of Ireland, which has depreciated the real exchange rate by over 15%, while Spain has depreciated by about 4% from the peak to 2012 according to this measure.

---

<sup>16</sup> See Lapavitsas (2013) for an interesting analysis of these indices for Euro zone countries.

<sup>17</sup> See IMF (2013) for further comment and analysis.

**Figure 4: Real Exchange Rate for Peripheral European Countries**



Source: Real effective Exchange Rate (IMF-IFS).

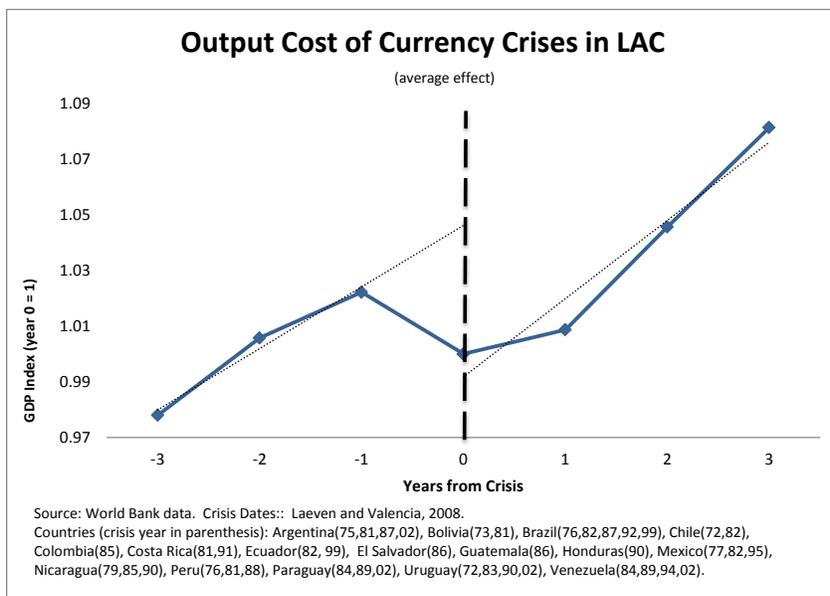
While there have been real depreciations, they have then in general been less than the estimated required depreciations detailed in the previous section. At the same time the fall in demand and the recessions have been severe. One interpretation is that as price adjustments have been sluggish with the brunt of the adjustment through reduced demand and on employment. Another interpretation however is that real depreciations through prices are themselves contractionary. As debts are denominated in nominal currency units then as domestic prices fall debts in real terms increase. Balance sheets, particularly for firms in the non tradeable sectors suffer and deleveraging sets in. This experience seems similar to that of Latin America and particularly that of Argentina during the currency board period. The generally deflationary environment from 1998 to the crisis in 2002 was considered to have had a negative impact on growth.<sup>18</sup>

At the same time, nominal devaluations may trigger inflation, high volatility and overshooting. The Latin American experience, illustrated in Figure 5, does not support the notion that growth

<sup>18</sup> See Cline (2003) for a review.

can be restored painlessly by devaluing local currencies. A simple event study shows that currency crises (i.e., large nominal devaluations) in Latin America led to output drops of 2 percentage points on average during the crisis years and that output drops persisted at least three years after the crisis. The bottom line is that currency “freedom” is no panacea, and is, in fact a double-edged sword, an instrument with very costly side effects in the presence of financial dollarization. Devaluation has often led to inflation running out of control and triggered high inflationary costs.

**Figure 5: The Output Cost of Currency Crises in LAC**

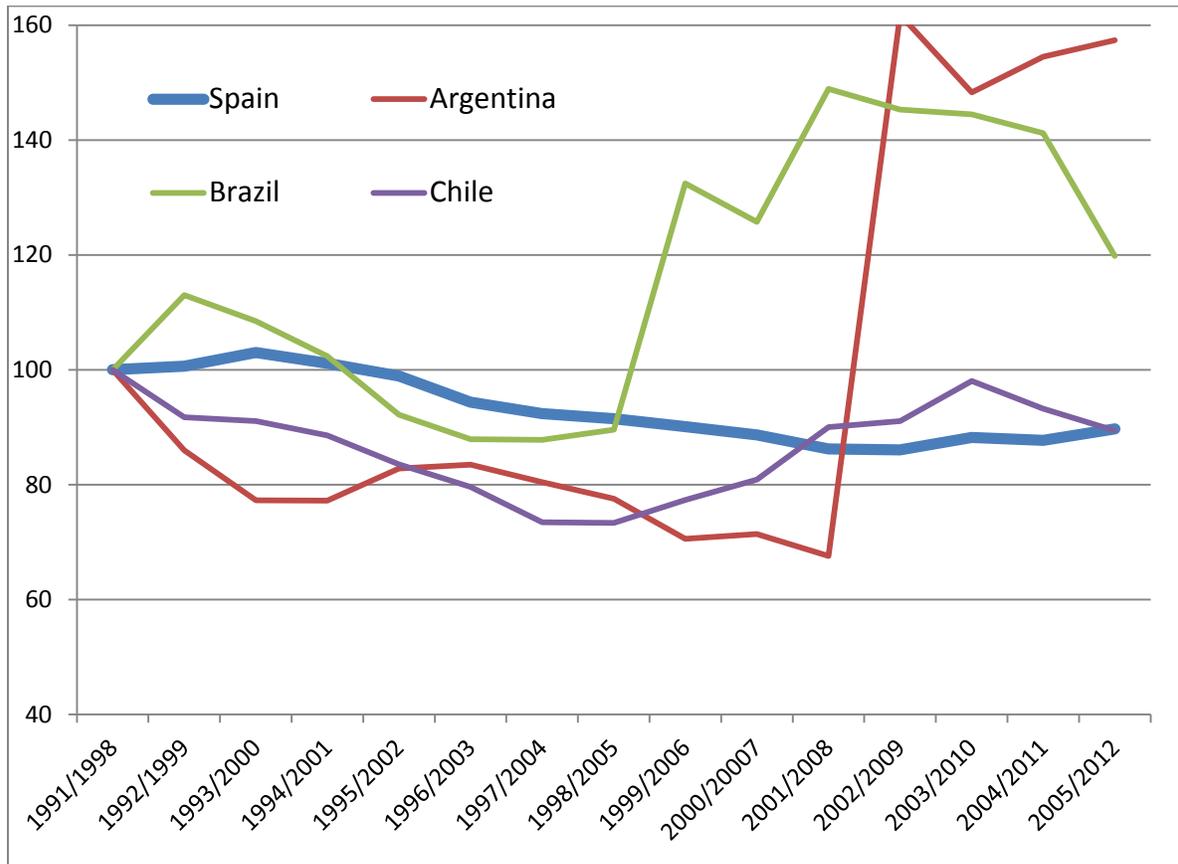


However, several countries in the region did abandon pegs despite the costs involved. Figure 6 shows real depreciations comparing Latin America in the 1990’s and Spain from 1998. In this graph an increase is a real depreciation. For example Brazil and Argentina both appreciated through the early part of the 1990’s, and both countries used a fixed exchange rate as part of a stabilization plan that brought inflation down. However, Brazil abandoned that system in 1999 and devalued resulting in a sharp real depreciation. This had a deleterious effect on Argentina whose currency, pegged through the currency board arrangement to the US dollar, appreciated in real terms – Brazil is Argentina’s largest trading partner. As is well known the currency board finally collapsed in 2002 with the largest recession in the entire (volatile) history of the country. Also graphed is Chile that slowly transformed its monetary system from one of exchange rate

bands to a fully-fledged inflation targeting system from 1992 onwards. As can be seen while Chile appreciated in the early 1990's, it managed to engineer a real depreciation in part through a depreciation of its nominal currency from 1998 to 2003.

It is interesting to compare Spain to these experiences. On the one hand Spain did not appreciate as much as its Latin American cousins during the appreciation phase but the estimates in the previous section coupled with the divergence in unit labor costs since the inception of the Euro above suggest there is a substantial amount of real depreciation that is required for Spain. The current account has now approached balance and so some have argued that the adjustment process has now surely terminated. But the current account has reached balance at close to zero real GDP growth and at very high levels of unemployment. The dilemma is that to get back to a more normal growth path that would make significant progress in reducing unemployment, it appears further adjustment is required and yet that adjustment will imply deflation which is itself contractionary and hence risks pushing unemployment yet higher. In the case of Argentina and Brazil the real depreciations that were required did not prove to be feasible politically under the fixed exchange rate systems of those countries and maxi-nominal devaluations were pursued despite the costs involved. In Chile the floating exchange rate did help to attain a more substantial real depreciation.

**Figure 6: Real Exchange Rate for Spain and Latin American Countries**



*Notes: for Spain the real exchange rate is the Real Effective Exchange Rate (source is IMF's IFS), for the Latin American countries the source is Latin Macro Watch (IDB) and it is the real multilateral exchange rate.*

In the case of Euro zone, nominal devaluations are precluded. What can countries then do to maintain it and still regain external competitiveness, while avoiding the perils of deflationary adjustment? A higher level of euro inflation in core countries would provide space to peripheral countries to open an inflation gap in order to regain competitiveness without incurring the macroeconomic costs of deflation. Indeed, the measure of peripheral inflation that high euro inflation would afford could also be helpful to diluting nominal wage contracts impeding the adjustment necessary for full employment and competitiveness down the road. Of course, this assumes that, in contrast, wages in core countries are renegotiated to incorporate euro inflation. This is a scenario that could materialize only if there is cooperation between countries. In the Latin American experience, inflation typically played a key role in resolving financial crises by diluting debts in local currency and allowing a rapid reduction in real wages at full-employment

levels (nominal wages, being sticky in nominal terms, tend to impede adjustment in both the public and the private sectors).

In our view, fiscal devaluation is a further possible alternative to currency devaluation without the risks of inflation. Fahri, Gopinath and Itskhoki (2011) define fiscal devaluation as a set of unilateral fiscal policies that implements the same real allocation as under a nominal devaluation, but holding the nominal exchange rate fixed. Two sets of policies have been proposed: i) a uniform increase in import tariffs and export subsidies; and ii) a uniform increase in Value Added Taxes (VAT) and a reduction in payroll taxes (to make the price of domestic output cheaper relative to that of domestic absorption).

There is limited experience in Latin America with successful fiscal devaluations.<sup>19</sup> Argentina implemented those policies before the crisis exploded in late 2001 through a series of sectoral “competitiveness plans” that lowered labor costs in certain economic sectors by allowing firms to expense payroll taxes against the VAT. In addition, the government levied a uniform tariff on imports of final goods that was transferred to exporters. These policies were ultimately insufficient to avert the crisis in Argentina because the fiscal situation deteriorated sharply and the country lost access to credit, including from the IMF. European countries would have a larger scope for fiscal devaluation because they have more extensive and better-enforced tax systems (and external support to allow these policies time to work). In the case of Europe, the relevant question is: how much fiscal devaluation would be required to achieve the necessary reduction in labor costs to restore competitiveness in peripheral countries? This is a key issue that has received some attention in the media and discussion forums, but it is still not center stage in policy discussions in Europe.<sup>20</sup> The effectiveness of fiscal devaluations would be strengthened if the relatively more competitive countries in the European Union applied opposite measures (i.e., fiscal revaluations) to strengthen the competitiveness of peripheral countries within the euro-zone.

---

<sup>19</sup> Fernández-Arias and Talvi (1999) were early proponents of fiscal devaluation in the Latin American context.

<sup>20</sup> See Cavallo and Cottani (2010); de Mooij and Keen (2012); IMF (2011).

It would be a significant omission if we did not also discuss the other alternative, namely an exit from the Euro. There is no doubt that a flexible exchange rate arrangement may be useful to facilitate necessary relative price changes in the face of external shocks and, in retrospect, perhaps this is a factor that was not sufficiently appreciated. However, in all likelihood, exiting the Euro and introducing a new currency would imply breaking up existing domestic contracts such that they could then be expressed in the new local currency and this would likely result in high levels of uncertainty, a further dramatic drop in investment, capital flight and a deeper economic crisis. The new local currency might well then be shunned as a store of value, which would lead to financial “Euroization”. In turn, this might lead to financial controls and debt default on foreign debts whose terms cannot be converted to the local currency.

Latin America does not have many examples of such phenomena with the closest being Argentina in 2002—when the currency board finally collapsed, leading to “pesoification” of dollar contracts and controls on financial dollarization. It would be hoped that a European country would find more efficient techniques than Argentina did, which as mentioned prompted the largest economic crisis in the country’s history. However, there might be an analogy in that with the withdrawal of the IMF at the end of 2001, Argentina was really left on its own to find a resolution technique and went through four Presidents in one month. One might argue that the political upheavals contributed substantially to a poor set of policy choices that exacerbated the crisis leading to large economic costs. If a country in the Euro zone exited the common currency without the cooperation of its European partners one can imagine a similar political crisis occurring which would not be conducive to finding policies to avoid an economic crisis. Indeed, as a matter of political economy it seems highly unlikely that a country in the Euro zone would choose such a route, unless the domestic economic situation had become quite untenable politically. To the extent that the domestic situation became so desperate with little investment and massive capital flight, it could be argued that much of the costs of a Euro exit had already been paid. A lesson from Latin America is then that only under such quite appalling circumstances would it become more likely see a Euro exit seriously contemplated by a sitting Government.

### 3.2 Structural Reforms in Latin America

A further way to stimulate growth is through an aggressive program of structural reforms. To what extent did structural reforms promote growth in Latin America? Following Lora and Panizza (2002), we focus on five areas of reform: trade liberalization, financial reform, tax reform, privatization, and labor code legislation. The central focus of the reforms first adopted in the late 1980s was largely to liberalize markets and remove controls on the allocation of productive resources. During that period, the structural reform process in Latin America was incomplete and quite uneven, both across countries and across areas of reform. The greatest advances occurred in the early 1990s in the areas of trade liberalization and financial market reforms to avoid financial repression.<sup>21</sup> Results in the areas of tax reform and privatization have been more uneven across countries. Labor reforms are the only area in which progress was quite limited, both in degree and in the small number of countries pursuing it.

In terms of the economic impact of reforms, Lora and Panizza draw two main conclusions. First, the reforms had significant but transient effects on growth: growth accelerated by more than 1 percentage point on average in the aftermath of the strongest wave of structural reforms, but the growth effect abated as the reform impetus waned.<sup>22</sup> The implication is that in order to enhance the effectiveness of reforms to accelerate growth, the reform impulse has to be sustained over time. Second, the growth-enhancing effect of reforms was higher in countries with better institutional environments. A concern was the capacity within the public sectors of the region to implement the reforms fully and appropriately. A common criticism was that reforms were too much a one-size-fits-all approach without paying particular attention to country circumstances and particularly implementation capacity. This was particularly true of reforms that needed local monitoring through subnational entities.

What are the implications for Europe today? Applying the lessons from the Latin American experience to Europe in this area too loosely would be unwarranted. In the areas in which Latin America had the most reform in the 1990s (e.g., trade openness and financial market reform), European countries arguably do not need reform. Instead, in the area of labor markets,

---

<sup>21</sup> The main objective of financial sector reforms was to improve the efficiency and soundness of a country's financial system by eliminating interest rate controls and other mechanisms, such as directed credit.

<sup>22</sup> The estimates imply that in the period of fastest reform (1991–93), reforms accelerated annual growth by 1.3 percentage points. However, when the reform process started decelerating, the growth effect dropped substantially; from 1997 to 1999, it accounted for only 0.6 percentage points of additional growth.

where peripheral European countries have more room to reform in the direction of liberalizing markets, Latin America did not pursue deep reforms. There are clearly parallels when it comes to differences in implementation capacity. Some aspects of the reform agenda for Greece were ambitious to say the least given the Latin American experience. A further important lesson from Latin America is that the crisis itself may present opportunities to implement growth-enhancing reforms. Crises are, in essence, periods in which important policy decisions altering the status quo are made both within countries and in the international arena. The experience in Latin America shows that it is more likely that growth-enhancing reforms will be implemented in the aftermath of crises in countries where political institutions foster cooperative behavior.<sup>23</sup> Arguably, these empowering conditions are more likely to be met in European countries where the institutional framework is generally stronger. Furthermore, the political union embodied in the supranational nature of the European Union facilitates cooperative outcomes by meshing together the interests of countries, while in Latin America regional political integration was not as deep. To the extent that political union is preserved to a substantial degree amidst the crisis, it is more likely that reform impulses could be stronger and more resilient in Europe.

#### **4. Sovereigns and Banks**

One of the critical issues in the Euro zone is the relationship between banks and sovereigns. Latin America has had several significant banking crises and of particular interest to analyze banking crises linked to public debt crises, which often go hand in hand and reinforce each other (and underlie the high incidence of twin banking and debt crises in the region). When the public sector finds itself temporarily cut off from access to financing, recourse to bank liquidity by means of financial repression may be a second best option. However, banks loaded with sovereign debt, either as a result of financial repression or by choice, inherit the risk of a debt crisis. Conversely, deeper financial systems may yield a substantial growth dividend, but at the expense of making banking crises more costly to resolve when they occur (see Appendix for

---

<sup>23</sup> Cavallo and Cavallo (2010) study the conditions under which crises can lead to growth-enhancing reforms and conclude that this will depend on the prevailing institutional framework at the time of the crisis, with democratic regimes being the most conducive of growth-enhancing reforms. In a similar vein, Tommasi (2004) argues that even though crises might facilitate the introduction of some policy reforms, in general, how well those policies are implemented depends on the quality of the implementation of those policies, which in turn is conditioned by the country's overall institutional environment.

a comparison of the fiscal costs of banking crises in Latin America and Europe). In particular, resolving banking crises after expansions that turn unsustainable usually draws fresh resources from the public sector, causing a substantial jump in public debt. Latin America has had interesting experiences, both successful and unsuccessful, in dealing with what can be a “fatal embrace.”

An important element of some banking crises that have been resolved successfully is the use of mechanisms to contain and isolate the banking crisis, minimizing the interaction with sovereign risk. If liquidity risks appear to be at play in a situation of bank distress, experience shows that it is paramount to swiftly provide ample liquidity, in accordance with the traditional Bagehot doctrine, rather than to wait to confirm whether that treatment is necessary and will be effective for the problem at hand. At the outset of the Tequila crisis in Argentina in late 1994, the Central Bank was heavily constrained in acting as a liquidity lender of last resort, due to a set of complementary policies associated with the current board. However, as the crisis grew from a set of small wholesale banks to a wider set of larger institutions, those rules were altered to allow the central bank to use its “excess reserves” to assist the heavily dollarized Argentine banking sector (which did not count with deposit insurance before the crisis). These policies helped to contain the crisis. Due to the sovereign risk link, it is better to err on the side of overtreatment than let preventable bank liquidity problems end up infecting sovereign debt.

Fundamental bank insolvency problems are more difficult to address because insolvent banks require additional capital to operate. Nevertheless, the principle of minimizing the entanglement between banking crisis resolution and sovereign debt still applies. With a fragile public debt situation, it is better to err on the side of resolution mechanisms that economize public resources. For example, in the case of Argentina in the immediate post-Tequila period, new resolution mechanisms were introduced to allow banks to be reorganized into a “good bank” and a “bad bank” which then allowed the good bank to be sold and the bad to be liquidated. Allowing the largest part of existing problem institutions to remain viable and minimizing very costly liquidations helped to minimize the burden of resolving the aftermath of the Tequila banking crisis. These resolution techniques were then copied in some other Latin American countries including Guatemala which promptly used them to resolve one of that country’s larger banking institutions given problems in that institution.

The catastrophic crisis that took place in Argentina in 2002 when the currency board broke down is an example of how explosive banking and debt risks can be when the two are mixed. To begin with, increasing political and sovereign risks contributed to bank runs in late 2000 and through 2001. Crisis resolution in Argentina conflated risks by penalizing bank assets through currency conversion (i.e., pesoification) at arbitrary conversion rates which, in turn, were compensated with public debt. This arrangement extracted the remaining capital from healthy banks and failed to inspire confidence in depositors, who could only be contained from running by enacting highly punitive controls. Argentina emerged from the experience with a minuscule and dysfunctional banking sector and, despite a deep debt-restructuring haircut, substantial public debt.

In contrast, Uruguay, facing a similar but arguably larger shock (resulting in part from the Argentine debacle), minimized entanglement by allowing foreign banks in a strong financial position to take care of their depositors themselves and sort out loan renegotiations with their clients on a private, bilateral basis. As for the remaining institutions, all available external resources were pooled to ring-fence and fully secure the payment system, while the maturities of time deposits were gradually stretched by legal fiat to help stabilize the system by itself. In parallel, public debt was restructured separately with bondholders at large (a tactic that also followed a minimalist approach of stretching maturities and restoring pre-crisis interest rates). This balkanization strategy was successful in diffusing the financial crisis and allowing normalization afterwards.<sup>24</sup> Nevertheless, it would not have been possible without external support. First, foreign banks were not made part of the problem, thus simplifying resolution of the crisis. Second, the IMF and other multilateral institutions put together a line of credit large enough to credibly shore up the resolution strategy for the banking system, and were generally supportive of the debt-restructuring strategy.

These experiences contain important lessons for some European countries with fragile public debt situations whose banking systems are under stress. First and foremost, entangling banking crisis risks with sovereign debt crisis risks is a recipe for disaster. There is a high premium on keeping these risks separate. Depending on the circumstances, this general principle may take different forms. If liquidity considerations due to contagion or panic are at work, it is important to swiftly provide ample liquidity even if some resources are put at risk, rather than

---

<sup>24</sup> See Fernández-Arias (2007).

wait for more clarity. The spread of banking risk to sovereign risk may be a point of no return. On the other hand, if banking problems are more fundamental (e.g., bad real estate loans), liquidity remedies will be ineffective and decisive banking crisis resolution must be implemented, but always with an eye to minimizing emerging fiscal liabilities. In the Latin American experience, some of the methods utilized to this end include: the privatization of troubled public banks; the reluctance to recapitalize banks with public money to salvage institutions; and the use of a minimalist approach of reducing the size of the required support and attendant contingent public liabilities, leaving healthy banks (generally foreign ones) free from interference and concentrating resources in key functions, such as the payment system.

Financial dollarization in the banking system was a critical complicating factor in the Latin American experience because Central Bank support required committing scarce international reserves or relying on multilateral help, as opposed to printing money to back up local currency bank liabilities. This complication is absent in euro zone countries because the ECB can provide unlimited bank support in euros. Nevertheless, ECB decisions are mediated by a cooperative arrangement requiring the agreement of others, as opposed to being under sovereign control as in the case of a country's own Central Bank. In any event, the protection of the sovereign is, of course, maximized when financial resources to support the banking system are external. In the European context, their own EU institutions (not just the IMF) may support bank liquidity and provide credit lines to implement needed bank support. It is clear that for the purpose of minimizing entanglement, it is preferable that these resources not be sovereign guaranteed. While this was an unthinkable privilege in the case of Latin America, it may be feasible in the context of EU supranational entities such as a banking union, to the great advantage of peripheral European countries.

## **5. Implications for Sovereign Debt and Resolution of Debt Problems**

The Latin American debt crises of the 1980s, ominously known as the Lost Decade, may turn out to have useful lessons for Europe now. While most of the crises were caused by fiscal excess leading to mounting public debt that suddenly became unsustainable when external borrowing conditions changed, their lessons do not apply exclusively to fiscally profligate economies such as Greece. For starters, the socialization of private debt—a scenario that applies

to Ireland and may in the course of time apply to Spain—contributed significantly to excessive public debt in Latin America (e.g., Chile’s excessive public debt resulted from a bank bailout). More generally, irrespective of how debt unsustainability originated, the resulting fiscal adjustment and debt restructuring contain lessons for all countries with impaired access to credit.

Having lost access to market financing, countries were forced for some 10 years to rely on external official financing and focus on fiscal adjustment. Commercial debt obligations, mostly in the form of foreign bank loans in hard currency, were managed through protracted rescheduling (since they were issued in foreign currencies, they could not be reduced through inflation). This form of debt management was first supported by the United States Federal Reserve and then through a multilateral strategy called the Baker Plan. This strategy was designed to diffuse the threat of a banking crisis in the United States and the U.K. that could result from major international banks’ inability to absorb impaired sovereign loans. The region lived through a period of chronic recession in which income per capita actually declined by about 10 percent on average for the largest countries. Three major forces combined to push the region into a decade-long contraction.

First, fiscal austerity proved inimical to growth. In particular, the collapse of public investment and infrastructure maintenance reduced economic productivity and the return to private investment (inflationary financing of public deficits led in some cases to high inflation, further contributing to distorted investment incentives). Second, the unyielding debt overhang acted as an implicit tax on investment (the fruits of growth would increase countries’ capacity to pay and then be captured by external creditors) and, possibly more importantly, created deep uncertainty as to how the burden of the ultimate costs would be distributed across different economic agents. The debt overhang was dead weight on economic activity, paralyzing investment until it could be eradicated. And third, balance-of-payments pressures further constrained economic activity. A substantial portion of the adjustment took the form of import contraction (in response to large real depreciation) which, because it is intensive in machinery and productive inputs, further depressed investment and production.

The passive strategy of protracted debt rescheduling securing just enough liquidity to keep countries afloat led to chronic depression and debt unsustainability. After several years, a new multilateral strategy eventually emerged, prompted by the start of social upheaval. This new strategy, the Brady Plan, recognized that the debt overhang needed to be eliminated through deep

debt reduction. Multilateral institutions lent long term substantial amounts to finance discounted debt buybacks or financial enticements (e.g., collateral) of the so-called Brady bonds to be exchanged for bank loan debt. Brady bonds were tailored to creditors' circumstances, but they all entailed substantially lower debt obligations over time. The external official sector facilitated bilateral debt restructuring between countries and creditor banks, arguably to the benefit of all parties involved.

At the same time, it was also recognized that debt reduction would only pave the way to recovery. To effectively use the new opportunity for economic recovery by lifting the cloud of the debt overhang, it was imperative that the policy framework be geared toward encouraging investment (both high-return, domestic investment opportunities and secure savings from abroad to finance them). Countries became eligible for the Brady Plan only after meeting these investment readiness requirements. Starting in 1989, one country at a time, debt in Latin America was restructured. Markets were forward-looking, recognizing that the new regime emerging from the cleanup offered good business opportunities for both foreign direct investment (FDI) and portfolio flows (which were plentiful shortly afterwards).<sup>25</sup>

What are the lessons of interest to the European Union that these experiences offer? First, correct diagnosis of the nature of the financial crisis in the affected country is crucial. Financial distress caused by panic/contagion or other transient market conditions can be remedied by liquidity provision. Otherwise, if the crisis is not counteracted with ample external liquidity to cover any temporary dislocation in financial markets and prevent deteriorating fundamentals from validating a market run (as in the traditional bank run paradigm), it will cause real damage, possibly leading to full-fledged debt crises. Yet at the same time, if the fundamentals themselves are the problem, liquidity alone will only feed debt unsustainability. How to know whether external liquidity provision is enough? It is paramount to discern the factors behind the extreme financial distress in affected European countries, and why it has been resistant to liquidity support so far. The persistence of financial distress despite liquidity support is sufficient reason to refocus current policy debate to seriously consider the issue of debt overhang and debt restructuring as a policy alternative.

Second, when economic fundamentals underpin financial stress, liquidity provision to problem countries may simply postpone the day of reckoning. Fiscal adjustment may be

---

<sup>25</sup> Fernandez-Arias and Montiel (1996)

insufficient or even counterproductive to right the economy even if fiscal profligacy is the root cause of the problem. Debt overhang, fiscal contraction, and worsening capital accounts tend to reinforce one another in depressing economic activity. While a first attempt to stabilize the economy on the basis of liquidity support and fiscal austerity may be given the benefit of the doubt, a vicious cycle of low growth and prohibitive market financing costs should not be allowed to go unchecked, as it did in Latin America during the Lost Decade.

Third, a debt overhang is a permanent drag on growth. Debt restructuring to eliminate debt overhang should be considered as soon as it becomes reasonably clear that excessive debt cannot be reduced by prudent fiscal adjustment and expected growth. Liquidity provision to avoid disorderly debt default makes sense as a stopgap measure but digs a deeper hole over time if debt is unsustainable. Furthermore, it compromises the liquidity provider, which is increasingly exposed to credit risk and may be eventually unable to offer financial support when debt restructuring becomes unavoidable. Experience shows that recognizing debt restructuring as part of the solution is a difficult decision and one that is often excessively delayed (Sturzenegger and Zettelmeyer, 2007). Parties involved usually have incentives to postpone needed restructuring for far too long: creditors benefit from any upside and, perhaps, debtors pass on political responsibility.

Fourth, external multilateral intervention has a key role in helping to ensure that debt restructuring is orderly and constructive, to the benefit of creditors (and financial stability in creditor countries) and debtor countries.<sup>26</sup> In this regard, the cooperative institutions of the euro zone such as the ECB compare favorably with the lack of a system to restructure sovereign debts more generally. If by restructuring the debt overhang is removed, this can be a winning proposition for all parties.

Fifth, concerns about market reluctance to invest after a debt restructuring have generally not been borne out by experience. Debt restructuring that was justified by fundamentals and certified by multilateral institutions following the logic of bankruptcy proceedings has tended not to have negative consequences for regaining market access.

## **6. Conclusions**

---

<sup>26</sup> See Fernández-Arias (2011) for a proposal to reform the international financial architecture aimed at empowering multilateral institutions to intervene systematically in debt crisis resolution, consistently integrating their supporting roles in the areas of liquidity, economic adjustment and debt restructuring.

Latin America provides a number of useful lessons concerning the need to provide swift and ample external liquidity support to mitigate the financial stress caused by sudden stops of capital flows, spikes in sovereign risk, and banking system instability. Arguably, limited external support was behind the depth of Latin America's great collapses. At the same time, as the Latin American failed experience with the Baker plan for debt restructuring in the 1980s shows, if underlying fundamental problems are at the root of financial distress, liquidity alone is no cure. It even becomes counterproductive over time because it allows the rot to deepen and embroils official liquidity providers in credit risk.

The Latin American experience with Sudden Stops appears particularly relevant for peripheral European countries with large external liabilities. In our estimation the full implications of a lack of access to private capital markets, the need for relative price adjustments to boost net exports and the implications for debt sustainability may not yet be fully appreciated in the Euro zone context. Adjustments in real exchange rates are likely to continue to increase debt ratios.

The Latin American experience is then that a debt overhang can be deleterious to growth because it acts as an implicit tax on investment, especially in the absence of clear rules for its resolution. Fiscal contraction may easily fail to reduce the debt overhang to the extent that it depresses economic activity. The recognition that debt reduction is in order tends to be delayed, leading to a protracted state of recession, and sometimes social unrest or political instability. The Latin American experience shows that orderly debt reduction in the right economic environment for growth can be the solution to growth recovery and renewed capital inflows. Where debt restructuring is needed, multilateral support conditional on an appropriate policy framework appears to be instrumental to ensuring that debt reduction is a solid base for recovery.

Another relevant lesson from Latin America is that entangling banking crisis risks with sovereign debt crisis risks is a recipe for disaster. If bank troubles require injecting more capital to banks, banking crisis resolution must be implemented with an eye to minimizing emerging fiscal liabilities. In the Latin American experience, some of the methods utilized to this end include: the privatization of troubled public banks; the liquidation rather than the re-capitalization of some banks; and a minimalist approach to only address problem banks and target assistance to preserve key functions of the banking system, such as the payment system.

In all cases, successful crisis resolution requires restoring economic growth to reduce high debt burdens, improve bank assets and reduce the probability of political backlash. External official support to troubled economies can provide time for economies to adjust, but is no substitute for structural reforms aimed at reducing structural vulnerabilities and restoring long-term growth. The experience in Latin America shows that it is more likely that growth-enhancing reforms will be implemented in the aftermath of crises, especially in supportive institutional environments.

The Latin American experience—as it relates to some of the fundamental policy choices concerning financial distress in public debt markets and the banking sector, as well as fiscal adjustment and low growth—is relevant to peripheral euro-zone countries. Some of the policies concerning how to deal with Sudden Stops, debt restructuring, banking crisis resolution, countercyclical policy and structural reforms for growth, are directly applicable depending on each country's specific circumstances. However, the ability to effect a real exchange rate depreciation to promptly regain competitiveness that has been so prevalent in Latin America is severely impaired for countries in the euro zone. Lacking this policy instrument makes the European problem more complex and, in a sense, more worrisome than in Latin America.

On the other hand, the existence of the European Union creates possibilities that were not available in Latin America. The scope for regional cooperation is much larger. Supranational institutions, such as the European Central Bank, are able and ready to play supporting roles to national policies concerning sovereign debt, the banking system, and general balance-of-payments support. Furthermore, the core of the European Union is resourceful and in a position to help. While currency devaluation is not an option, cooperation could enlarge the scope of alternative competitiveness policies, such as complementing fiscal devaluation in less competitive economies with fiscal revaluation in core countries in the euro zone, and buy time for these policies to work gradually. None of these conditions of regional cooperation were available to Latin American countries, which could only count on limited, and not necessarily reliable, multilateral senior loans. Having these resources of international cooperation available makes the European problem easier to solve.

The fact that the euro zone has more tools to address the complex problems that peripheral countries in Europe are currently facing does not guarantee success. The euro zone is navigating through uncharted waters and determining the correct course of action for

policymakers in crisis and core countries alike is difficult and requires innovation. Furthermore, democratic governance in European countries may limit the policy space of national governments trying to find a cooperative solution.

## References

- Calvo, G., A. Izquierdo and L-F. Mejía. 2008. “Systemic Sudden Stops: The Relevance of Balance-Sheet Effects and Financial Integration.” NBER Working Paper 14026. Cambridge, United States: National Bureau of Economic Research.
- Calvo, G., A. Izquierdo and E. Talvi. 2003. “Sudden Stops, the Real Exchange Rate and Fiscal Sustainability: Argentina’s Lessons.” In: V. Alexander, J. Mélitz and G.M. von Furstenberg, editors. *Monetary Unions and Hard Pegs*. Oxford, United Kingdom: Oxford University Press. Also available as NBER Working Paper 9828.
- Cavallo, A. and E. Cavallo. 2011. “Are Crises Good for Long-Term Growth? The Role of Political Institutions.” *Journal of Macroeconomics* 32(3): 838–57.
- Cavallo, D., and J. Cottani. 2010. “For Greece, a ‘Fiscal Devaluation’ Is a Better Solution Than a ‘Temporary Holiday’ from the Euro zone.” VoxEU.org, 22 February.
- Cavallo, E.A., and J.A. Frankel. 2008. “Does Openness to Trade Make Countries More Vulnerable to Sudden Stops, or Less? Using Gravity to Establish Causality.” *Journal of International Money and Finance* 27(8): 1430–12.
- Cavallo, E. and A. Izquierdo, editors. 2009. *Dealing with an International Credit Crunch: Policy Responses to Sudden Stops in Latin America*. Washington, DC, United States: Inter-American Development Bank.
- Cavallo, E., A. Powell, M. Pedemonte, and P. Tavella. 2013. “A New Taxonomy of Sudden Stops: Which Sudden Stops Should Countries Be Most Concerned about?” Working Paper IDB-WP-430. Inter-American Development Bank, Washington, DC. Forthcoming.
- Cline, W.R. 2003. “Restoring Economic Growth in Argentina. World Bank Policy Research Working Paper 3158. Washington, DC, United States: World Bank.
- De Mooij, R.A., and M. Keen. 2012. “Fiscal Devaluation and Fiscal Consolidation: The VAT in Troubled Times.” In: A. Alesina and F. Giavazzi, editors. *Fiscal Policy after the Crisis*. Cambridge, United States: National Bureau of Economic Research.
- Eichengreen, Barry and Ricardo Hausmann (1999), “Exchange Rates and Financial Fragility”, Paper presented at the symposium New Challenges for Monetary Policy, 26 to 28 August, Jackson Hole, WY
- Farhi, E., G. Gopinath and O. Itskhoki. 2011. “Fiscal Devaluations.” NBER Working Paper 17662. Cambridge, United States: National Bureau of Economic Research.

- Fernández-Arias, E. 2007. “Algunas Enseñanzas de la Crisis Financiera de 2002.” In: *Uruguay: ¿Qué aprendimos de la crisis financiera de 2002?* Washington, DC, United States: World Bank.
- Fernández-Arias, E. 2011. “International Lending of Last Resort and Sovereign Debt Restructuring.” In: P. Braga, C. Gallina, and V. Gallina, editors. *Sovereign Debt and the Financial Crisis: Will This Time Be Different?* Washington, DC, United States: World Bank.
- Fernández-Arias, E., and P.J. Montiel. 1996. “The Surge in Capital Inflows to Developing Countries: An Analytical Overview.” *World Bank Economic Review* 10(1): 51–77.
- Fernández-Arias, E., and E. Talvi. 1999. “Devaluation or Deflation? Adjustment under Liability Dollarization.” Paper presented at the XIV Meeting of the Latin American Network of Central Banks and Finance Ministries, Inter-American Development Bank, Washington, D.C.
- IMF (International Monetary Fund). 2011. *Fiscal Devaluation: What Is It and Does It Work?* Fiscal Monitor. Appendix 1. Washington, DC, United States: IMF.
- IMF (2013a), "Spain: 2013 Article IV consultation," IMF Country report No. 13/244, International Monetary Fund, Washington, DC.
- IMF (2013b), "Euro Area Policies: 2013 Article IV Consultation," IMF Country report No. 13/231, International Monetary Fund, Washington, DC.
- Laeven, L. and F. Valencia. 2008. “Systemic Banking Crises: A New Database.” IMF Working Paper 08/224. Washington, DC, United States: International Monetary Fund.
- Lora, E., and U. Panizza. 2002. “Structural Reforms in Latin America under Scrutiny.” Research Department Working Paper 470. Washington, DC, United States: Inter-American Development Bank.
- Powell, A. 2002. “Argentina’s Avoidable Crisis: Bad Luck, Bad Economics, Bad Politics, Bad Advice.” *Brookings Trade Forum* (2002): pp. 1-58.
- Powell, A., and L. Arozamena, 2003. Liquidity protection versus moral hazard: the role of the IMF. *Journal of International Money and Finance* 22, 1041–1063.
- Tommasi, M. 2004. “Crisis, Political Institutions, and Policy Reform: The Good, the Bad, and the Ugly.” In: B. Tungodden, N. Stern, and I. Kolstad, editors. *Annual World Bank Conference on Development Economics—Europe 2003: Toward Pro-Poor Policies: Aid,*

*Institutions and Globalization*. Washington, DC, United States and Oxford, United Kingdom: World Bank and Oxford University Press.

Sturzenegger, F., and J. Zettelmeyer. 2007. *Debt Defaults and Lessons from a Decade of Crises*. Volume 1. Cambridge, United States: MIT Press.

## Appendix

1. **History of Financial Crisis in Latin America: Table 1 provides a list of recent crises in Latin America.**

**Table 1: Recent Crises in Latin America**

Country	Systemic Banking Crisis	Currency Crisis	Sovereign Debt Crisis	Sudden Stops
Argentina	1980, 1989, 1995, 2001	1975, 1981, 1987, 2002	1982, 2001	2001
Bolivia	1986, 1994	1973, 1981	1980	1982
Brazil	1990, 1994	1976, 1982, 1987, 1992, 1999	1983	
Chile	1976, 1981	1972, 1982	1983	1982, 1983, 1998
Colombia	1982, 1998	1985		1998, 1999
Costa Rica	1987, 1994	1981, 1991	1981	1981, 1996
Dominican Republic	2003	1985, 1990, 2003	1982, 2003	
Ecuador	1982, 1998	1982, 1999	1982, 1999, 2008	1983, 1999
El Salvador	1989	1986		1979
Guatemala		1986		
Mexico	1981, 1994	1977, 1982, 1995	1982	1982, 1994, 1995
Nicaragua	1990, 2000	1979, 1985, 1990	1980	1986
Panama	1988		1983	2000
Paraguay	1995	1984, 1989, 2002	1982	2002
Peru	1983	1976, 1981, 1988	1978	1998
Uruguay	1981, 2002	1972, 1983, 1990, 2002	1983, 2002	2002
Venezuela	1994	1984, 1989, 1994, 2002, 2010	1982	1994

Source: Systemic Banking Crisis, Currency Crisis & Sovereign Debt Crisis: Laeven & Valencia (2013). Sudden Stops: Cavallo & Frankel (2008)

2. **Assumptions used for the calibration of the Calvo, Izquierdo and Talvi (2003) model to Europe**

### L-R Averages assumptions year 2012

Country	Real Growth	Interest rate	(Exports + Imports)/GDP	Current Account Balance/GDP
Portugal	1.40%	5.32%	39.07%	-1.55%
Italy	1.08%	3.86%	30.17%	-0.53%
Greece	1.26%	9.62%	25.35%	-2.88%
Spain	2.60%	3.70%	32.18%	-1.07%
UK	2.50%	3.53%	31.71%	-3.50%

3. **Results from a Simulation of a Sudden Stop Debt Sustainability Model for alternative elasticity assumption (i.e.,  $\chi= 0.8$ ).**

Simulation as of 2012 Using Medium Term Parameter Values

Country	Required RER Depreciation	DEBT (% GDP)	Estimated New Debt (% GDP)	Primary Surplus (%GDP)	Required Primary Surplus to Stabilize Debt using Hist. Interest Rates (% GDP)	Required Primary Surplus to Stabilize Debt using Higher Interest Rates (% GDP)
Portugal	4.95%	122.99%	126.63%	-0.75%	4.90%	7.39%
Italy	2.29%	126.98%	128.99%	2.31%	3.54%	6.10%
Greece	12.93%	158.55%	173.36%	-1.20%	14.31%	17.73%
Spain	4.31%	84.08%	86.51%	-7.86%	0.93%	2.62%

Note: Growth and interest rates are medium term averages, debt, and other economic characteristics are as of 2012.

Source: authors' calculations based on Calvo, Izquierdo and Talvi (2003) model.

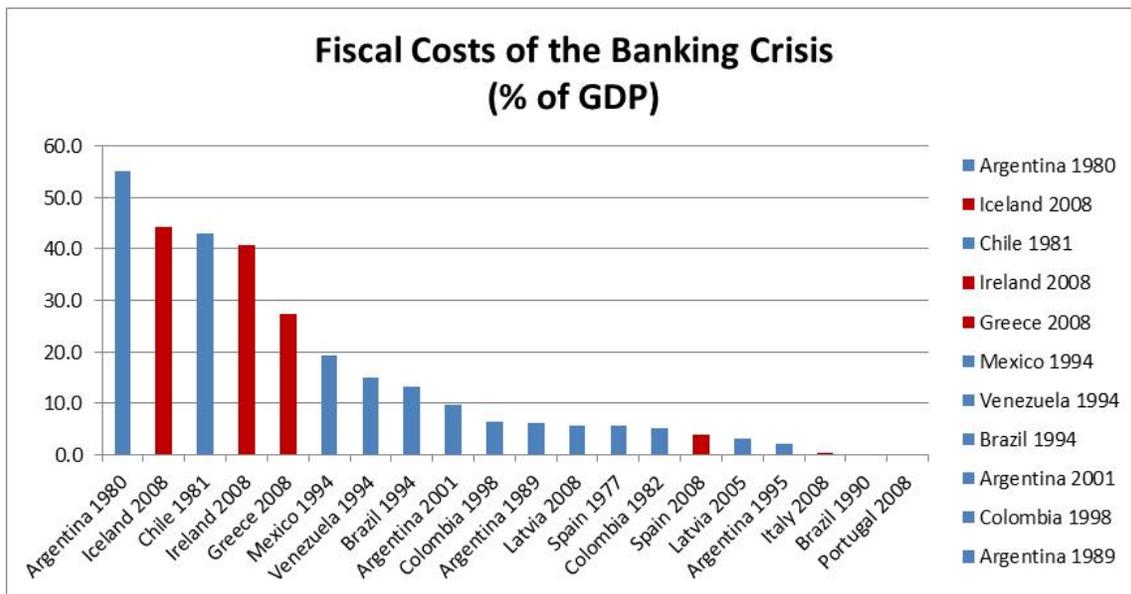
Sudden Stop Debt Sustainability Model, Spain vs. the U.K.

Country	Year	Required RER Depreciation (Baseline; $\chi=0.8$ )	DEBT (% GDP)	Estimated DEBT/GDP (assuming all debt is foreign)	Estimated DEBT/GDP (assuming all debt is domestic)	Primary Surplus (% GDP)	Required PS to stabilize estimated DEBT/GDP (all debt is foreign - historical interest rate)	Required PS to stabilize estimated DEBT/GDP (all debt is domestic - historical interest rate)
Spain	2010	19.04%	61.32%	69.36%	58.27%	-8.25%	0.59%	0.98%
	2011	14.96%	69.12%	75.99%	66.10%	-7.51%	0.71%	1.71%
	2012	4.31%	84.08%	86.51%	82.93%	-7.86%	0.93%	2.83%
UK	2010	9.72%	79.44%	84.64%	77.14%	-7.56%	0.73%	0.66%
	2011	4.95%	85.44%	88.24%	84.09%	-5.09%	0.81%	0.78%
	2012	12.86%	90.31%	97.94%	86.77%	-6.09%	0.98%	0.87%

Note: Growth and interest rates are medium term averages, debt, and other economic characteristics are as of the end of the corresponding year.

Source: authors' calculations based on Calvo, Izquierdo and Talvi (2003) model.

#### 4. Fiscal Costs of Banking Crises in Latin America and in Europe



Source: Laeven and Valencia (2013)