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The Euro Experience:

A Review of the Euro Crisis, Policy Issues, Issues Going Forward and Policy Implications for Latin America

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Abstract[*]

This policy brief reviews the experience of the countries under the Euro currency, focusing on those that have been under significant pressure in recent years—Greece, Ireland, Portugal and Spain, referred to as "emerging" economies. At first they experienced stable growth and converged to the most advanced countries, but subsequent adjustment has proven elusive due to macroeconomic conditions, worsening structural deficiencies, and incomplete integration. The conditions for the survival of the Euro zone are complex and still far from fulfillment. While Latin America has recently experienced a similar period of stable growth, there is no room for complacency. The main lesson from Europe's experience is that Latin America must take advantage of the current context of growth, stability and optimism in order to carry out much-needed reforms that will leave countries adequately prepared to face a downturn in the world economy.

JEL classifications: E42, E61, E65
Keywords: Euro, Europe, Latin America, Structural reform

[*] The views expressed here are those of the author and do not necessarily represent those of the Inter-American Development Bank.

1. Introduction

After a long and generally successful process of integration, which has involved a customs union as well as migration liberalization, the European Union (EU) decided to adopt a single currency, the Euro, in 1999. A notorious exception was the United Kingdom, which decided to stay out of the Euro zone and kept the Sterling regime.

In recent years, the EU has faced acute economic problems, somewhat linked or at least coincident with those of the United States after the Lehman collapse. The solvency of several countries that for years were presented as models of European integration success—because of their high rates of growth and productivity improvements—has been severely questioned by international capital markets. Those countries have been living in conditions of recession and unemployment, and they are subject to recurrent political crises. Among them, Greece has proven to be outright insolvent, Portugal may be next, and Ireland, Spain, and Italy have found it difficult to refinance their debt. In several instances their banking systems have faced systemic problems.

The following sections present a review of some key macroeconomic variables of several countries which adopted the Euro as a currency, referred to as Euro zone countries. The emphasis will be on a set of troubled economies—Greece, Portugal, Ireland, and Spain—and some comparisons will be made with both bigger economies and non-Euro zone European economies that are part of the EU. The reason for the emphasis on these economies, which at times will be called "emerging," is that this document focuses on policy issues related to development. In that vein, the first question addressed is whether or not the data show a growth impulse and a movement towards convergence after the adoption of the Euro. Second, the macroeconomic experience of the "emerging" Euro zone economies is examined in order to see to what extent they followed a "desired" path of integration and consequent growth on a sustainable basis during the first years of the Euro, up to 2007. Third, a review of the situation of the European economies, again focusing on the "emerging" ones, after the eruption of the crisis in 2008-2009, is presented.

The fifth section contains a conceptual interpretation of the genesis of the problems that the Euro common currency has had, trying to identify policy issues that can be relevant for present or future policy decisions in Latin America. The sixth section ventures some possible scenarios for the future, always within the assumption that the monetary union survives, and lists

its outstanding challenges. Finally, the seventh section presents policy implications for Latin America.

2. Growth and Convergence in the Euro Zone

It is natural to think that integration in an economic zone, like Europe, fosters growth and development. That is what economic theory predicts, particularly when integration refers to trade opening among countries. This has proven to be true in diverse experiences, in both directions: openness (to trade) promotes growth and being closed (to trade) deters it. Trade theory also concludes that (trade) integration is beneficial to all countries, large and small ("more trade is better than less"), and that that small economies are likely to benefit relatively more from integration.

Furthermore, we would expect that a stronger form of integration, like the common currency, would promote growth beyond the level due to trade integration alone. There is at least one way in which the adoption of a common currency fosters growth in the smaller economies, which is the impact of a strong currency like the Euro on access to financial markets. That is, sovereign debt denominated in Euros is likely to have lower interest rates and better conditions than would otherwise be the case. After joining the Euro zone, countries like Greece, Portugal, Spain and Ireland suddenly could access credit markets nearly limitlessly at lower costs. Capital inflows to those countries were huge between 1999 and 2007 and financed various kinds of aggregate demand, consumption and/or investment, public and/or private.

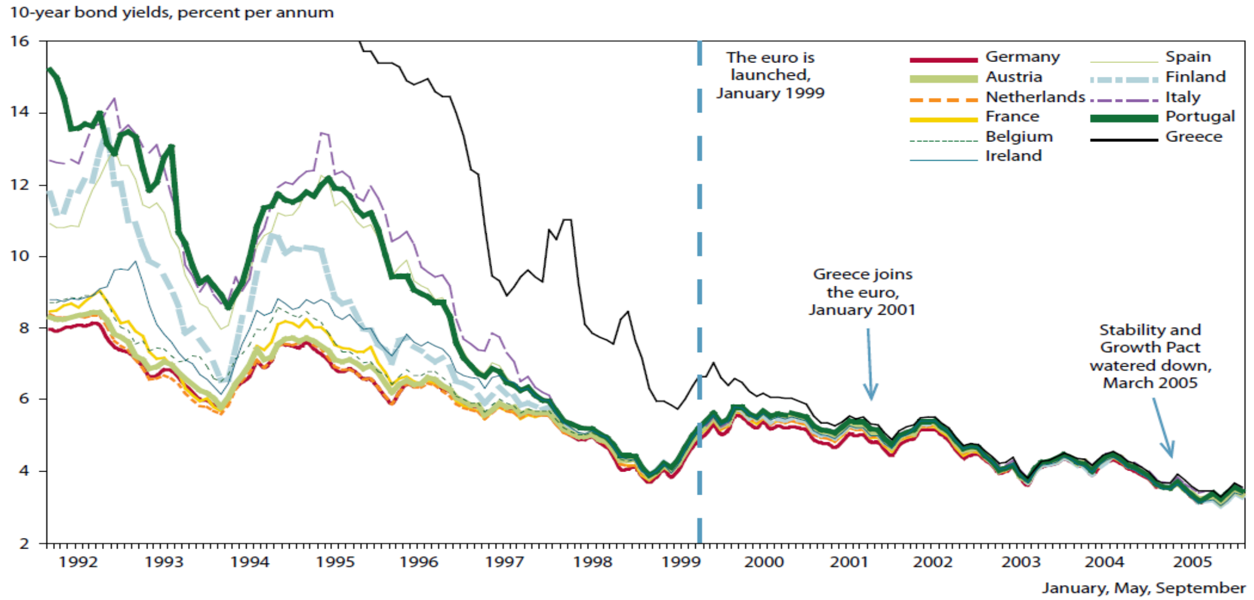
A quick examination of conventional data confirms that the costs of attracting capital fell significantly and capital inflows increased in the European "emerging" economies after the adoption of the Euro. Figure 1 shows that the spreads of interest rates on debt issuances in the Euro zone practically disappeared after the adoption of the common currency. In fact, sovereign risk seemed to have vanished for countries like Greece or Portugal: authorities could sell debt and banks could buy it very much in the same way they bought German or French bonds.

Figure 2 illustrates significant capital flows into the "emerging" economies after the establishment of the Euro zone. As will be seen later on, those flows facilitated major increases in domestic absorption via investment and/or consumption expenditure.

Additionally, to the extent that the common currency facilitates transactions of goods and services among countries, it may represent another transmission channel to growth. This effect

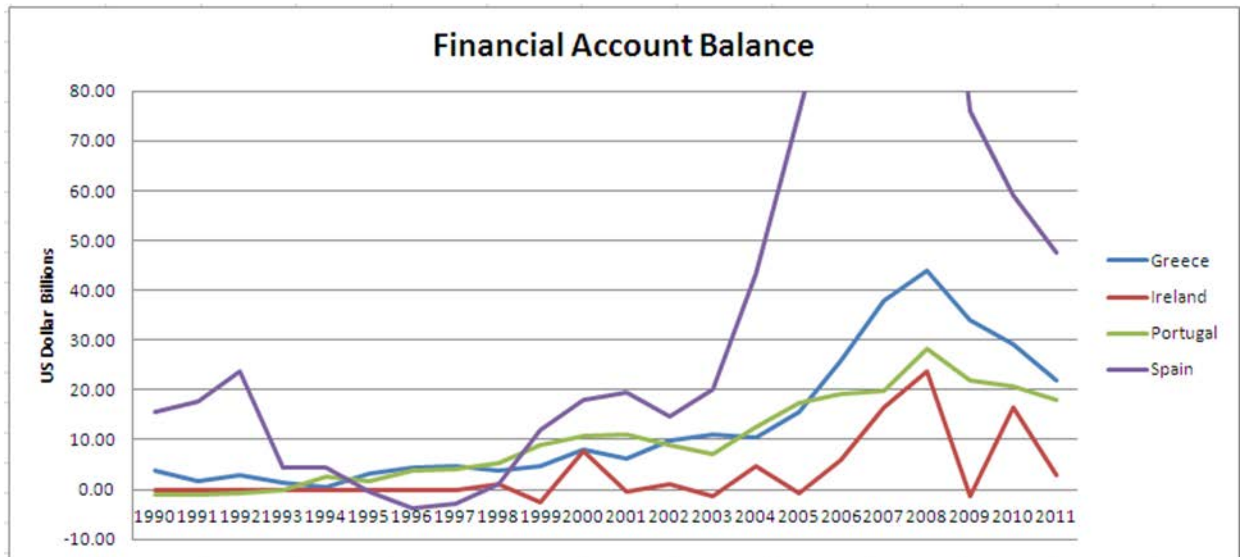
is consistent with the work of Micco et al. (2003) who, with data from 1992 to 2002 for 22 advanced economies, find that bilateral trade of countries of the Euro zone with each other and with non-Euro countries increased significantly with the adoption of the common currency. Further, they find no evidence of trade diversion as a result of it.

Figure 1. Ten-Year Bond Yields before and after Adoption of the Euro



Source: Bergsten and Funk (2012).

Figure 2.



Source: IMF, World Economic Outlook Database.

2.1 The Euro Experience and Growth

The Euro zone experienced significant rates of economic growth from the completion of the common market and the adoption of the Euro until 2007. In order to proxy economic development, the evolution of per capita income through GDP is examined. This is shown in Table 1 below, which reports the growth of real per capita income in local currency for 13 Euro zone countries,[1] seven of them relatively "more developed" (Germany, France, Austria, Belgium, Finland, Italy and the Netherlands) and four relatively "less developed" or emerging (Greece, Ireland, Portugal, and Spain). Looking at the period 1990-2007, it is clear that the whole group showed solid, sustained rates of growth both in the years before the adoption of the Euro and in the years after, up to 2007—around 2.35 percent and 2.6 percent annual averages for the whole group[2] for 1990-1999 and 1999-2007, respectively.

Table 1. Real per Capita GDP in Domestic Currency at Constant Prices, Euro Zone Group,* Cumulative Rates of Growth (%)

Country	1990-1999	1999-2007	2007-2011	1999-2011
Austria	18.9	16.1	2.2	18.6
Belgium	19.2	13.8	-0.5	13.2
Finland	12.5	28.7	-2.5	25.5
France	12.8	11.6	-1.9	9.4
Germany	12.4	13.9	2.7	17
Greece	12.4	37.1	-11	22
Ireland*	64.6	32.8	-14.6	13.4
Italy	12.4	8	-7	0.4
Netherlands	24.2	15.2	-0.5	14.6
Portugal	28	7.6	-3.9	3.4
Spain	23.1	29.3	-5.8	12.4
Average	21.9	19.5	3.9	13.6

Source: IMF, World Economic Outlook Database.
*Slovenia adopted the Euro in 2007 and Slovakia in 2009.
* See footnote 3.

[1] Euro zone countries also include Cyprus, Estonia, Luxembourg, and Malta, which are not considered in this analysis. Slovenia and the Slovak Republic joined in 2007 and 2009 and will be considered at times.
[2] Average figures for the countries groups are not weighted.

Growth does not accelerate after the adoption of the Euro for the group as a whole. Nevertheless, for the "emerging" economies it did, especially for Greece. Ireland[3] and Spain displayed significant growth rates between 1999 and 2007, though lower than those of 1990-1999. In contrast, Portugal's, GDP per capita growth decelerated strongly after the adoption of the Euro.

From 2007 to 2011, per capita income has contracted slightly in the region, with the exception of Austria and Germany, the biggest economy. The contraction has been especially acute in the most troubled economies: Greece (11 percent), Ireland (14 percent), Portugal (4 percent), Spain (6 percent), and Italy (7 per cent). Nevertheless, per capita income in 2011 remains in general well above 1999 levels (13.6 percent). Nonethelesss, Italy's per capita income is only 0.4 percent above 1999, while Portugal's, the second-lowest growth, is 3.4 percent over its 1999 level.

It would appear, then, that growth was enhanced by the adoption of the Euro, at least for most of the "emerging" Euro zone countries, judging from the behavior of per capita income. Non-Euro zone countries that are members of the EU, have also done better since the Euro was adopted. Table 2 shows the evolution of per real capita income in Denmark, Sweden, the United Kingdom, the Czech Republic, Hungary and Poland.[4] While their performance was slightly below the (above considered) Euro zone group in the years before the adoption of the Euro, 1990-1999, their growth was actually higher in the Euro years of 1999-2007.[5] Comparing the difference between real per capita GDP in 2011 and 1999 of the non-Euro zone group with that of the Euro zone group, again the former fares better: 30.3 percent (24.2 percent without Poland) vs. 13.6 percent. What these observations suggest is, of course, that the adoption of the Euro did not necessarily cause a significant wave of growth in European economies.

[3] Because of the condition of Ireland as a tax haven, it would be better to consider Gross National Product as an indicator for several purposes. Hence, Ireland's GDP is somewhat overestimated for the 1990s when many enterprises located their headquarters in Ireland. The difference between per capita GDP and GNP for the period 2003-2009 averaged over 16 percent, according to the Country Statistics of the OECD

[4] Non-Eurozone EU countries also include Bulgaria, Latvia and Lithuania, which are not considered in this analysis.

[5] The growth performance of this non-Euro group is strongly influenced by Poland's GDP, which has grown especially strongly over the two decades. But even if we considered the non-Euro group without Poland, its rate of growth is still significantly above that of the Euro zone group. Per capita GDP of non-Eurozone countries in the group considered here (excluding Poland) grew at an annual average rate of 3 percent between 1999 and 2007, while the corresponding figure for the Euro zone countries group is 2.6 percent.

Table 2. Group Real Per capita GDP in Domestic Currency at Constant Prices, Non-Euro Zone Group, Cumulative Growth Rates (%)

Country	1990-1999	1999-2007	2007-2011	1999-2011
Denmark	20.6	12.9	-4.8	7.4
Sweden	14.5	24.6	1.5	26.5
Hungary	14.5	24.6	-2.3	32.1
Poland	37.1	39.6	15.2	60.9
Czech Rep.	4.3*	41.2	0.1	41.4
UK	20.1	19.4	-5.2	13.3
Average	16.7	28.8	0.8	30.3

Source: IMF, World Economic Outlook Database.
*1995-1999

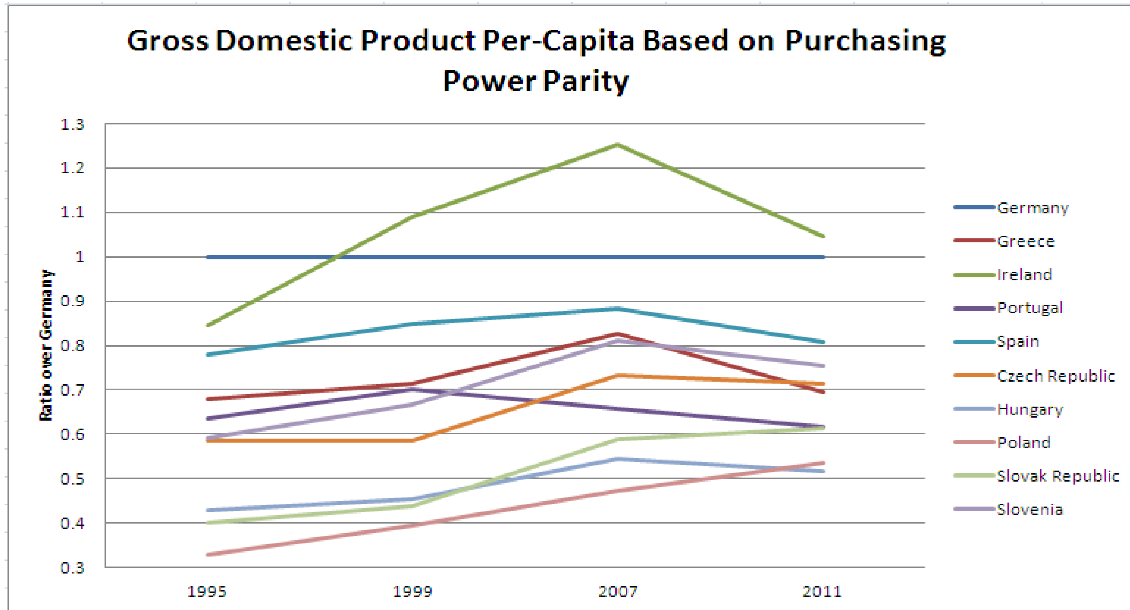
2.2 Convergence in the Euro Era

It appears, then, that growth was not especially stimulated by the common currency as such. Furthermore, it seems that countries not under the fixed regime of the Euro have fared better since the crisis began in 2008 (as will be stated later on, there are reasons to expect that). But what about convergence? That is, the question of whether real incomes of the emerging countries in the Euro zone have come closer to those of the richer countries.

In order to see whether there has been convergence, the per capita income of the Euro zone group is observed, but this time in US dollars based on purchasing power parity. The corresponding data are plotted in Figure 3, which shows the evolution of GDP in US dollars (PPP) of the "emerging" countries, including some outside the Euro zone (Slovenia and the Slovak Republic were outside the Eurozone from 1999 to 2007), relative to that of Germany, which is arbitrarily chosen as a reference for convergence.

Figure 3 shows that there was a tendency to convergence, in the sense that GDP per capita of the emerging economies has since 1990 approached that of Germany, a trend reinforced after the adoption of the Euro in 1999. However, this phenomenon is not limited to the Euro zone countries. In fact, Poland, the Czech Republic and Hungary show the same behavior towards convergence as the rest, as do Slovenia and Slovakia.

Figure 3.



Source: IMF, World Economic Outlook Database.

A general conclusion of this section is that, while the integration that has taken place in Europe over the years has set the ground for solid economic growth, judging by the observation of the behavior of per capita income of countries:

- The introduction of the common currency does not seem to have been a significant factor of growth for the participating countries.
- Non-Euro zone countries show a similarly robust, and occasionally stronger, evolution after the adoption of the Euro.
- There appears to be no clear link between convergence of (per capita) GDP of "emerging" countries towards more developed economies (Germany)—which actually happens before the 2008 crisis—and participation in the common currency.

Admittedly, these observations cannot be ascertained without a more complete quantitative study that takes into account the effects of other variables which may have influenced the behavior of per capita income. Nevertheless, they are suggestive and provide useful information to further study the situation. In the same sense, it is useful to see what the data show about each of the "emerging" Euro zone economies.

3. Experience of the Euro Zone "Emerging" Economies

A seen in the previous section, when relatively small economies joined more advanced economies in the common currency zone of the Euro, they experienced easier access to widened financial markets at lower costs and strong capital inflows. It is natural to expect that these would then be reflected in larger current account deficits or a reduction of surpluses. Spending in the economy should increase spontaneously in the form of (private) consumption or investment.

It would further be expected that these economies' higher absorption of resources would appreciate the real exchange rate. This is important because, if the appreciation is not accompanied by increases in productivity, the economy would suffer a loss of competitiveness in the tradable goods sector.[6]

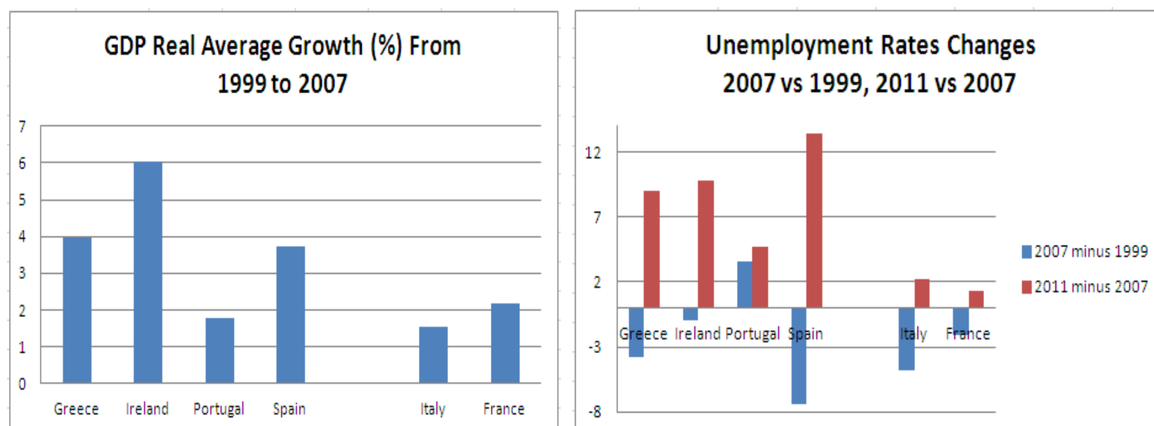
There is no clear automatic impact of the increased availability of financial resources on the public deficit, but it may induce the government to increase public expenditures by incurring debt (which is easier) and run deficits, in order to enhance public investment or consumption, thereby stimulating the economy. Alternatively, given that private spending increases, it may make the government decide to take advantage of the situation to reduce its debt.

In what follows, an examination of the behavior of these variables in the period from 1999 to 2007 for the group of "emerging" Euro zone countries is presented, along with figures that include Italy and France, whose capacity to face debt commitments has occasionally been questioned.

In any case, all these effects are consistent with significant growth rates and lower unemployment. This is observed in all the countries except for Portugal, where growth was meager and unemployment increased in the Euro years up to 2007.

[6] The effect of loss of competitiveness due to capital inflows and real exchange rate appreciation is similar to what is commonly referred to as "Dutch disease," where the absorption of resources comes from high prices of a certain exportable commodity and the rest of the tradables sector is "squeezed."

Figure 4. Real Average Growth Rate and Changes in Unemployment Rate for Selected Euro Zone Countries, 1999-2007



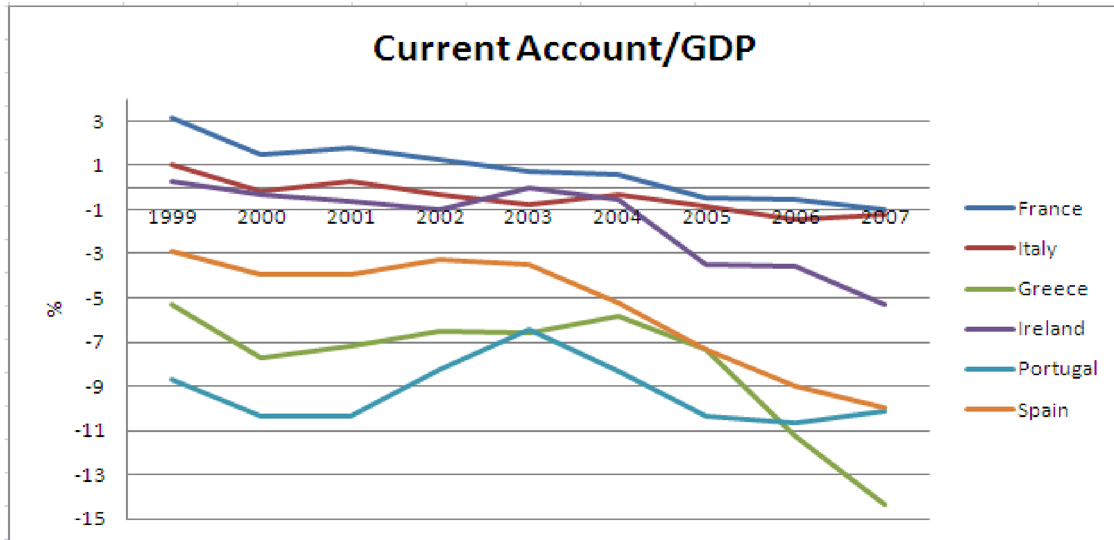
Source: IMF, World Economic Outlook Database.

The current account balance (Figure 5) of all the countries observed behaved as expected. That is, it always experienced an increased deficit (or a movement towards a deficit) between 1999 and 2007, reflecting the absorption of resources from abroad. The decline of the balance (increase of the deficit) was less pronounced for Portugal, but its deficit was high and persistent—on average 9.3 percent of GDP. Similarly, the current account deficit of Greece averaged 8 percent of GDP in that period. Spain's current account shows a pronounced decline from 2003 on.

From 2000 to 2007, there was in general a *net* transfer of resources from the relatively advanced economies to the less advanced ones, which is not a surprising result of integration and convergence.[7] As seen in Figure 5, all the emerging countries (plus Italy) showed annual current account deficits, while all the other Euro zone countries showed mostly surpluses throughout the period.

[7] The fact that there was a general *net* transfer from one group to the other does not imply that there may have been gross cross border financial movements from less advanced countries to the others. As will be seen later on, that is what happened on a large scale in leveraged gross cross country capital flows, which are not necessarily captured in the current account data. See Lane (2011) and Gourinchas, Rey and Truempler (2011).

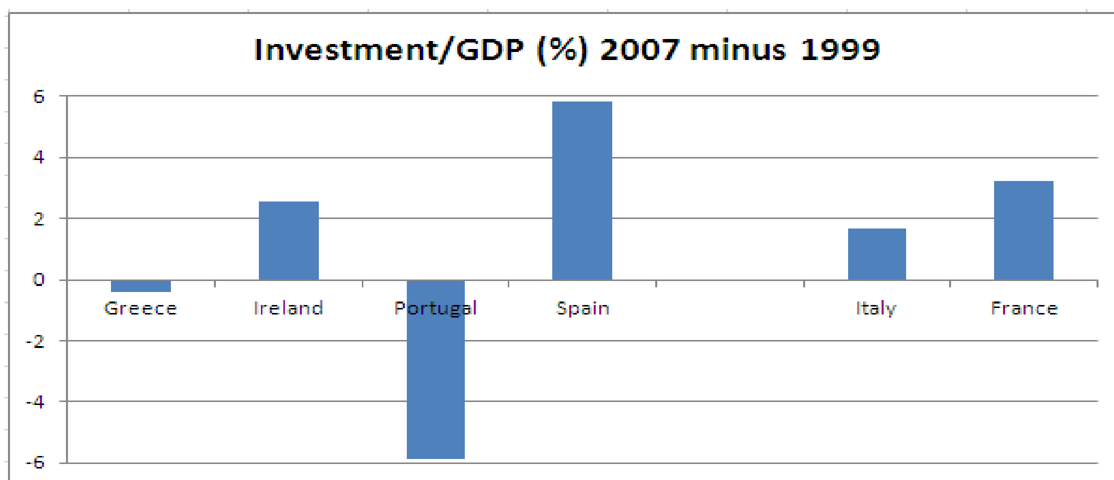
Figure 5. Current Account Balance of Select Euro Zone Countries, 1999-2007



Source: IMF, World Economic Outlook Database.

The absorption of resources was in general consistent in general with increased investment spending; this is observed in most cases, except Greece and Portugal. In the former, the decline of the investment to GDP ratio happens after 2003, while in the latter the decline is continuous. The country that showed the most consistent increase in investment over the years is Spain.

Figure 6. Changes in Investment/GDP Ratio of Selected Euro Zone Countries, 1999-2007



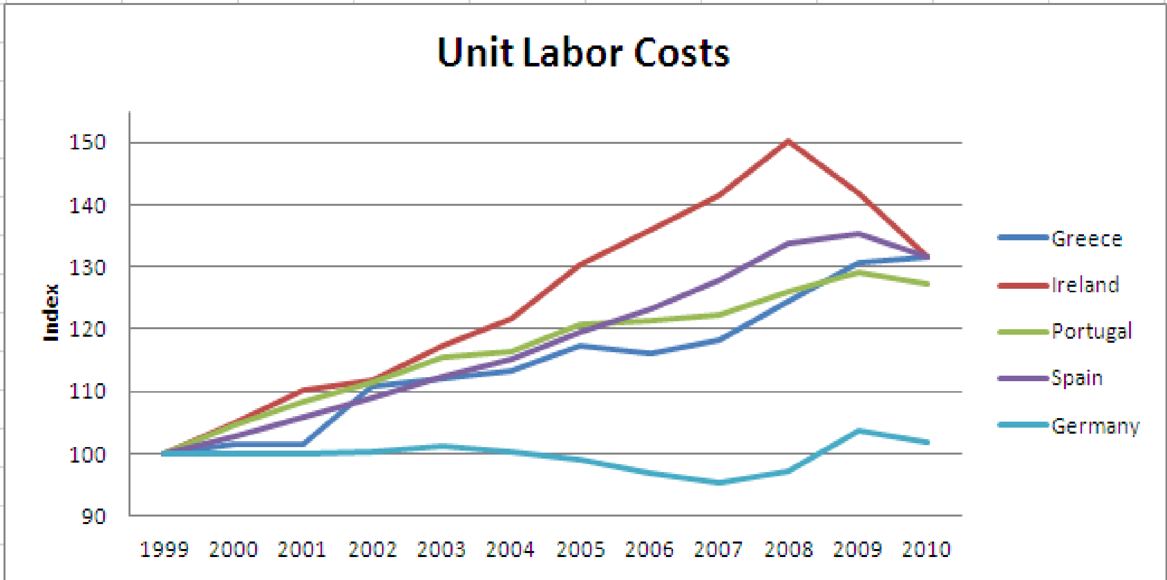
Source: IMF, World Economic Outlook Database.

Interestingly, while the investment/GDP ratios of the other advanced economies mostly fell over the period, those of Italy and France went up.

The higher absorption of resources of the "emerging" economies would have normally resulted in real exchange rate appreciation. However, because inflation rates were low and stable throughout the period and the nominal exchange rate was fixed, the usual way of approximating the real exchange rate does not reflect any significant effect. A useful proxy to measure what the real exchange rate intends to reflect is the unit labor cost, which combines the cost of labor and productivity.

Clearly, unit labor costs increased sharply in practically all European economies except for Germany.[8] That is, the countries shown in Figure 7 significantly lost competitiveness during the first nine years of the Euro, as labor costs were not compensated by productivity gains, as was the case in Germany.

Figure 7. Unit Labor Costs in Selected Euro Zone Countries, 1999-2010

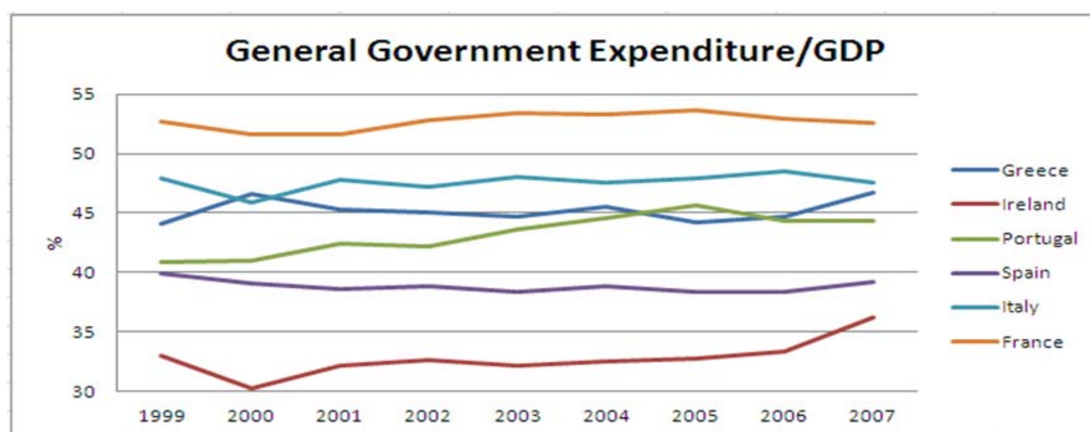


Source: OECD Statistics.

[8] The behavior of unit labor costs (ULC) in other European economies is similar to that shown in Figure 7. ULC increased sharply in all countries after 2000; the exceptions being more moderate increases in Austria, Finland, Sweden and Poland.

With respect to public expenditures in "emerging" economies—presently experiencing serious difficulties on the fiscal front—it is interesting to note that, contrary to popular belief, those expenditures did not increase significantly in the nine first years of the Euro, with the possible exception of Portugal.[9] It can also be noticed that public expenditure in the bigger economies, though very high, was maintained under control throughout the period.

Figure 8. General Government Expenditure/GDP of Selected Euro Zone Countries, 1999-2007



Source: IMF, World Economic Outlook Database.

While the increase in actual public spending in Greece was moderate, its structural[10] public deficit deteriorated notably. The same can be said about Ireland. But the structural fiscal balance was kept much under control in the other economies, including Portugal.

The fact that current public expenditure did not increase significantly in both Greece and Ireland, while their structural fiscal deficit went up sharply, suggests that spending was based on transient conditions—temporarily high revenues and/or temporarily low levels of certain expenditures—which probably generated a sense of complacency.

[9] As will be seen later on, there were important contingent liabilities hidden behind financial operations of banks whose rescue implied high public expenditure and public debt.

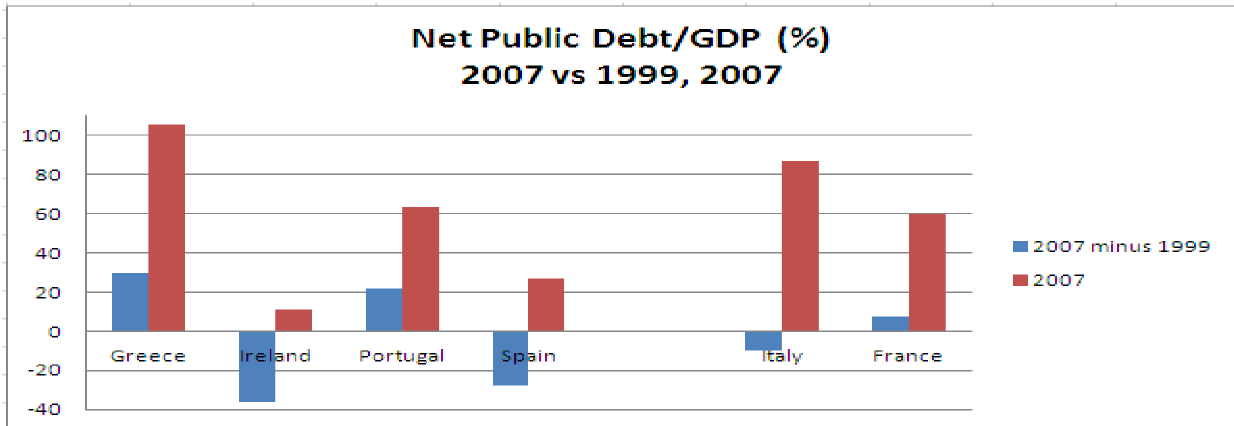
[10] The structural budget balance, as calculated by the International Monetary Fund, refers to the general government cyclically adjusted balance, adjusted for nonstructural elements beyond the economic cycle. These include temporary financial sector and asset price movements as well as one-off, or temporary, revenue or expenditure items.

Figure 9. Structural Fiscal Balance of Selected Euro Zone Countries, 2007 vs. 1999

Source: IMF, World Economic Outlook Database.

By the end of the period 1999-2007, the net public debt of Portugal and Greece had gone up by around 20 and 30 percentage points, respectively, and had already reached more than 60 percent and 100 percent of GDP, respectively. In sharp contrast, Irish and Spanish public debt had declined and represented only 11 percent and 27 percent of GDP, respectively.

Figure 10. Net Public Debt of Selected Euro Zone Countries, 2007 vs. 1999



Source: IMF, World Economic Outlook Database.

From examining the experience of this group of "emerging" European economies it is clear that from the adoption of the Euro until 2007:

- All achieved major growth and gains in terms of employment, with the exception of Portugal.
- All absorbed significant resources from abroad, as reflected in current account deficits.
- Unit labor costs (ULC) increased in all the "emerging" economies under consideration by about 10 percent over German ULC, reflecting a loss of competitiveness.
- Greece and Portugal appear to have experienced a period of high expenditure without channeling it to investment, as they expanded public expenditure and accumulated significant debt.
- Spain and Ireland saw their investment expenditure increase and maintained fiscal accounts under control, although Ireland's structural deficit deteriorated. In both Spain and Ireland there was a major reduction of public debt, and in both countries the stock of public appeared absolutely manageable by 2007.[11]
- The bigger economies of Italy and France had a similar experience in the first nine years of the Euro, from 1999 to 2007: growth, a decline in unemployment, absorption of resources from abroad, increased investment, and control over fiscal accounts. By 2007 the structural fiscal deficits of France and Italy were around 2.9 percent and 2.5 percent, respectively, and Italian public debt declined as a percentage of GDP in the period considered.

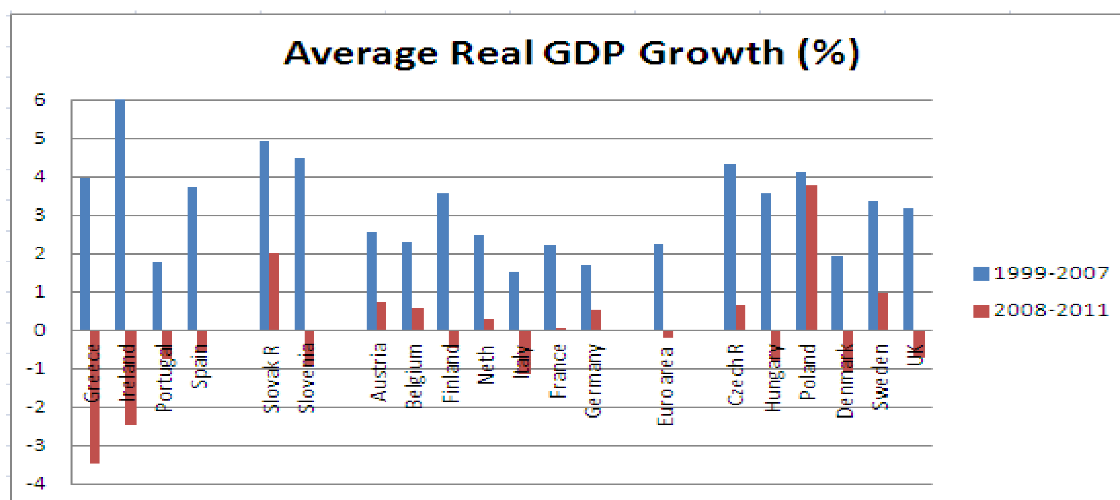
4. Developments After 2007

As shown in Figure 11 below, after experiencing significant rates of growth during the first nine years of the Euro up to 2007,[12] both Euro zone and non-Euro zone countries suffered on average a marked decline in either the rate of growth of GDP or in its value. The non-Euro zone economies seem to fare better, showing a small but positive growth from 1997 to 2011, although this figure is clearly affected by the outstandingly high growth of Poland. But even excluding

[12] While Section 2 and Tables 1 and 2 therein examine growth in *per capita* GDP, Figure 11 refers to GDP.

this country, growth for 1998-2011 of the non-Euro zone countries, while negative, is close to zero.

Figure 11. Average Real GDP Growth of Euro Zone and Non-Euro Zone Countries, 1999-2007 and 2008-2011



Source: IMF World Economic Outlook Database.

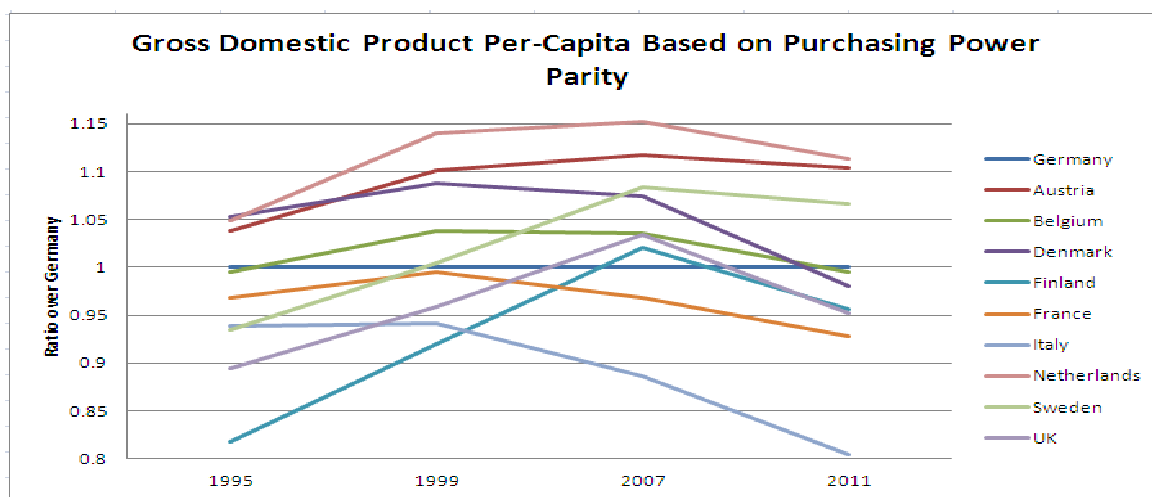
The trend towards convergence of the "emerging" economies was generally interrupted, as shown in Figure 3. There is even a reversal, a reduction of the ratio of the per capita incomes to that of Germany, in the cases of Greece, Portugal, Ireland and Spain. Interestingly, as shown in Figure 12 below, the per capita incomes of other advanced economies relative to Germany also clearly decline during the last four years. Italy displayed the sharpest decline, but France's was a close second.

The decline in the unemployment rate experienced by most Euro zone economies in the first years of the Euro was reversed in the period 2007-2011 (see Figure 4 above). By 2011, unemployment rates for the group of Euro "emerging" economies had reached double digits. At the time of writing Spain's unemployment is already above 20 percent, while those of Greece and Ireland are above 16 percent and 14 percent, respectively. While unemployment is presently extremely high in Spain, it is perhaps interesting to point out that, according to these data, in 2011 the country returned to an unemployment level similar to that of 1997.

In the following section it will be argued that the harsh effects of the financial crisis in the EU were magnified by the fixed exchange rate regime of the Euro when a significant real

exchange rate adjustment was needed, given certain rigidities of the economies. This is somewhat reflected in the resistance of unit labor costs to coming down (see Figure 7 above). The implication is that these economies have not been able to reduce wages and/or raise productivity in order to gain competitiveness. In fact, the conditions of the IMF programs for some of these countries reflect the need for productivity increases.[13]

Figure 12.

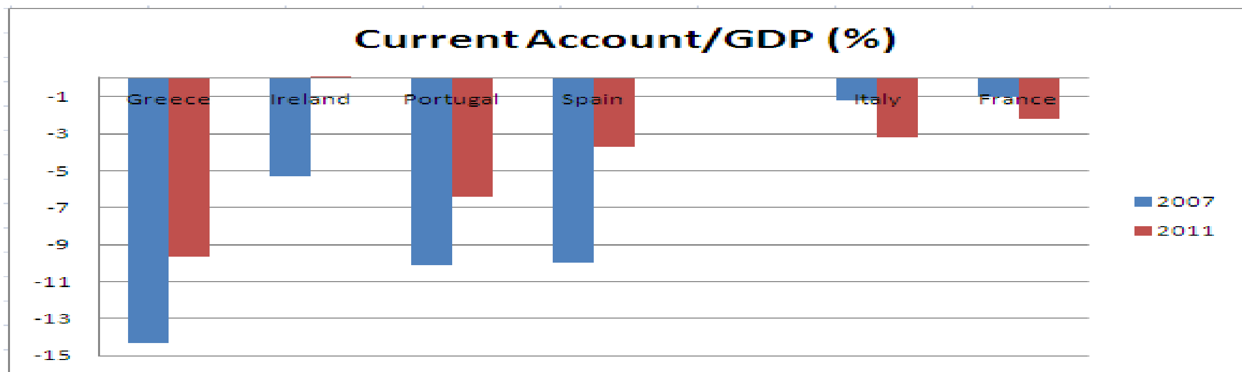


Source: IMF, World Economic Outlook Database.

As shown in Figure 13, by 2011 the substantial current account deficits existing in 2007 had been significantly reduced but generally not eliminated. This is, of course, expected, but some of the figures, especially those for Greece and Portugal are still extremely high. In the words of two IMF reports, in Greece the current account deficit is "still very high considering the length and depth of the recession" and in Portugal "external adjustment is underway, though it has been moderate so far."[14] It clearly seems that there is a need for further external adjustments in these two countries.

[13] See the following two footnotes.
[14] IMF Country Reports 11/351 and 11/363 (2011).

Figure 13. Current Account Balance, Selected Euro Zone Countries, 2007 and 2011



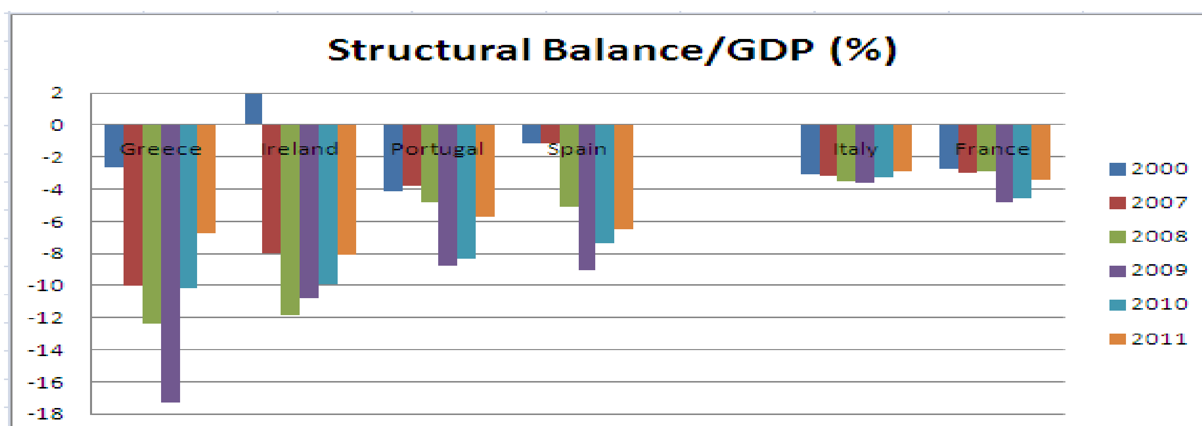
Source: IMF, World Economic Outlook Database.

Government expenditures continued growing as percentages of GDP in all countries, due, to different degrees, to capitalizations of troubled banks in order to rescue domestic depositors.[15] The corresponding spike of public spending is especially acute in Ireland between 2007 and 2011 (over 9 percentage points), but it is also significant in Spain, Portugal and France (close to 4 percentage points).

When the structural balance is considered,[16] fiscal deficits generally declined from 2007 to 2011, with a reduction in 2011 from the peak levels in 2008-2010. Those peak levels were of course the result of the increased spending linked to banking capitalizations and reduced revenues due to the generalized GDP slowdown. Already noticeable in 2011, the adjustment nonetheless did not suffice to reach the European Commission ceiling of the European Commission of 3 percent of GDP or the levels of 1999, and it is far from the fiscal rule of a maximum deficit of 0.5 percent of GDP that countries agreed to include in their legislation in January 2012.[17]

[15] IMF Country Reports 11/356 and 11/215 (2011).
[16] The evolution of the current (vs. structural) fiscal accounts is similar.
[17] See European Council (2011).

Figure 14. Structural Balance of Selected Euro Zone Countries, Various Years, 2000-2011



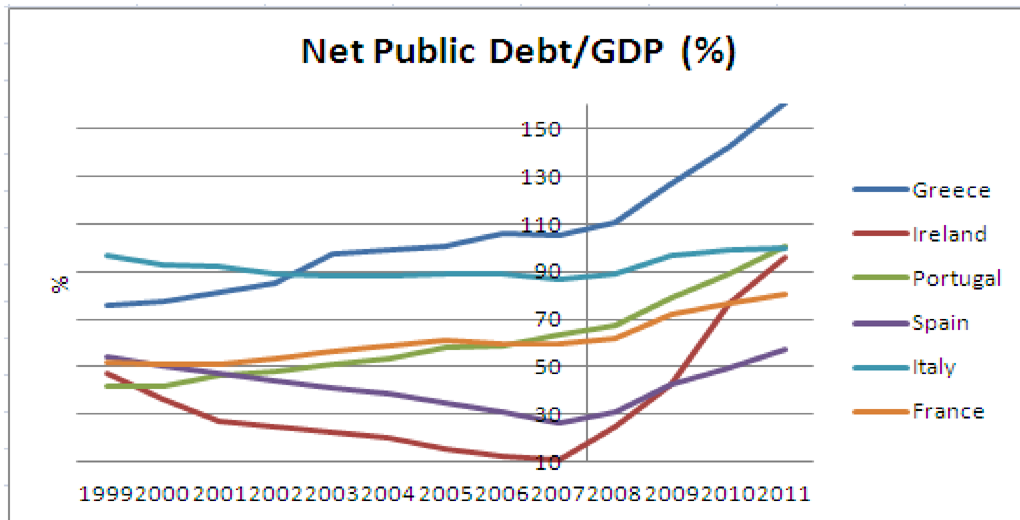
Source: IMF, World Economic Outlook Database.

As a consequence of the sharp deterioration of the fiscal deficit, indebtedness went up significantly in all countries. By 2011, the public debt of almost all the countries of the group under examination for which there is data surpassed 60 percent of GDP, which has been often cited as a maximum advisable level. Spain's public debt was just below that level.[18]

After the 2008 crisis erupted, Greece, Portugal, Ireland and Spain became the most vulnerable countries. Indeed, Figure 15 below shows how already-high Greek and Portuguese public debt rose faster after 2007. This is consistent with the behavior of several variables in those economies: an increasing public debt before the crisis, high current account imbalances, public deficits and slow growth, among others.

[18] The debt/GDP ratio threshold of 60 percent is important because it is one of the targets of the new rules of Euro zone coordination. It is worth noticing that Reinhart and Rogoff (2010) find a negative relation between public debt and growth at levels of 90 percent of GDP for advanced economies and 60 percent for emerging ones.

Figure 15. Net Public Debt/GDP, Selected Euro Zone Countries, 1999-2011



Source: IMF, World Economic Outlook Database.

However, there is also an effect on public debt-related changes in countries' net investment position, especially Ireland and Spain, and the absorption of losses by governments. Before 2008, both countries' public debts were declining; the current account deficit was moderate in Ireland, though high in Spain; and the fiscal deficit was very much under control in both countries prior to the crisis. The jump of the public debt in Spain and Ireland after 2008 is related to the assumption of private debt by the government and, of course, to financial bubbles in their highly leveraged markets. Moreover, Greece, Portugal, Spain and Ireland appear in the list of "The World's Top Ten Debtors, 2010" cited in Lane (2011), which shows the (negative) net financial position of selected countries vs. the rest of the world.

A large negative net asset position is generally the consequence of a sustained experience of aggregate expenditure or absorption, public and/or private, in excess of aggregate income. Normally, that excess would be expected to be reflected in a sustained current account deficit over the years, and in a corresponding accumulation of private and/or public debt. As seen above, in Figure 5, the cumulative current account deficit was clearly observed in the cases of Greece and Portugal, but less in Spain and not at all in Ireland.

The steep acceleration of the net public debt of Greece, Portugal and Spain, shown in Figure 15 above, is consistent with the behavior of the current account together with the assumption of private debt by the public sector, which happened to various degrees in the three countries.

But there may be another factor which can explain the accumulation of net liabilities of a country without being observed as a cumulative current account deficit. This factor is the existence of simultaneous gross cross-border capital movements—inflows as foreign debt and outflows as foreign assets, or the reverse—which are not detailed in balance of payments information. Some authors have argued that these flows were important in the cases of Ireland and the United States in recent years, and during the previous decade there were major changes in the net assets positions of several regions of the world.[19] For Ireland, Lane suggests "The foreign debt liabilities…were largely intermediated through the domestic banking system, which ran up a spectacularly-large net foreign debt position….[while] domestic pension and insurance funds were large scale holders of foreign equities…" In such a situation of high international leverage, the risk is that the value of the equity and real estate fall while the value of foreign liabilities remains unchanged. As will be argued in Section 5 below, these kinds of cross-border transactions represent a serious challenge for supervision authorities in a highly globalized and mobile financial market.

The real estate bubble in Europe had a significant effect on the net asset positions of the troubled countries, perhaps especially in Ireland and Spain, but this effect was manifested in different ways before the crisis erupted. Particularly, Ireland's explicit public debt was low and declining until 2007, but implicit risk materialized and took the form of explicit public debt (after the bail out of the banking system) in the following years.

The evolution of the group of "emerging" European economies after 2007 can be characterized by the following observations:

- The trend towards convergence was interrupted.
- The previous reduction of unemployment rates during the first years of the Euro was reversed.
- The substantial current account deficits of 2007 have been reduced but remain still too high in the troubled economies.
- Productivity gains and/or cost reductions to date have proven insufficient to return to 2000 levels of competitiveness relative to more advanced economies (particularly Germany).

[19] See Lane (2011), Song Shin (2011) and Gourinchas, Rey and Truempler (2011).

- Similarly, while fiscal deficits have decreased, they are still well above the desired targets.
- Public debt remains above desirable levels.
- Increases in public deficits and stocks of debt come from persistently high levels of public expenditure and/or from assumptions of debt from the financial sector.

5. Policy Issues

This section presents an interpretation of the policy issues that generated the current situation. As pointed out in the previous sections, a rosy picture prevailed for the first (nine) years of the Euro currency, not only in the Euro zone but also in the European Union as a whole. That is, until the bubbles burst, credit came to a sudden stop and the economies stalled and found themselves with extremely high levels of deficits and debt and had lost competitiveness. While things went well, several drawbacks or risks of the monetary union—which are now evident today—were not apparent. Some of the most important are the following.

5.1 Implications of the Fixed Exchange Rate

The fixed exchange rate nature of the common currency under the Euro and the absence of fast factor mobility within the EU and within the Euro zone, represent important differences of the necessary adjustment when compared to cases where the exchange rate can move, or to other monetary unions like the United States or other federations. Capital flows were substantial, but mainly cross-border transactions of claims and liabilities,[20] while equity has not been as mobile. Migration takes place, yes, but only over time.

In a monetary union, when real shocks are absent or insignificant there is no need of rapid relative price adjustments. The low speed of factor mobility is not a problem. Contrastingly, when significant reductions in real expenditure flows, the real stock of debt (and wealth) and real wages are called for, the impossibility of a nominal devaluation makes the adjustment very difficult to achieve, and it likely implies much political discomfort and leads to high levels of unemployment. The reality is that, nominal public expenditure is very difficult to reduce because of all kinds of commitments and earmarks, and it is hard to decrease internal debt

[20] See Lane (2011) and Gourinchas, Rey and Truempler (2011).

commitments in nominal terms (through some sort of default), particularly as nominal wages are quite rigid downwards. Politically, the opposition of legislatures, of bureaucracies, trade unions, and obviously of public debt holders to such nominal adjustments implies enormous challenges.

When the nominal exchange rate can move, this kind of macroeconomic adjustment normally takes place through a sharp nominal depreciation, which causes a real exchange rate depreciation. It quickly "deflates" the real values of public expenditures, outstanding stocks of domestic currency-denominated public debt, and wages. To the extent that it is unanticipated, such a sharp devaluation reduces private wealth held in domestic currency assets, and thereby is expected to reduce private expenditure.[21] As has happened on several occasions in Latin America and elsewhere, these adjustments are "instantaneous" and presumably—and desirably from the macro point of view in those situations—surprising.

But when the nominal exchange rate is fixed, as it is in the Euro zone, the adjustment has to take place by reducing the nominal values of public spending, debt and wages. This is sometimes called "fiscal" or "internal" devaluation. The adjustments cannot be surprises. They are anticipated and even negotiated politically, which make them extremely complicated. Legislatures have to accept cuts in public programs, and creditors have to accept—voluntarily or forcibly—"haircuts" on their holdings. Both recognitions cause a level of political discomfort that may be devastating.

Additionally, because labor mobility is not as fast as it would be in a monetary union like the United States, the adjustment is likely to produce much higher levels of unemployment than otherwise. This effect has already been pointed out. For example, Michael Bordo (2004), based on a review of the relevant literature, points out that among the hurdles that Europe still has to jump to be a successful monetary union is that of real integration of labor markets, which show immobility across countries and signals the risk of a "serious maladjustment problem for Europe." Specifically, Krugman (1993) argues that regional shocks in the United States are largely adjusted by outflows of workers to other regions, while in Europe the outcome is permanently higher unemployment.[22]

The fact that integration is limited to a monetary union implies that the Euro zone faces the rigidities of the fixed exchange rate, without benefiting from the advantages of a stronger

[21] That is why sometimes a sizeable devaluation is said to be an implicit "expropriation" tax.
[22] A similar argument about the consequences of the rigidities of nominal wages under fixed exchange rates is made by Schmitt-Grohe and Uribe (2012).

integration, like those of federal countries. Perhaps the difference with federal organizations is that, historically, their origin was the political will of integration while the monetary arrangement was a consequence.[23] In Europe the monetary union came without (or before?) other aspects of integration, in a way "putting the cart before the horse."

5.2 Implications of Incomplete Integration: No Fiscal Union

Neither the EU nor the Euro zone are fiscal unions, as opposed to unions or federations that have stronger forms of fiscal solidarity. In many countries, there is friction between different regions or states, often northern vs. southern provinces, and the like. But in the end there is a national understanding of solidarity and therefore a more or less efficient way to distribute losses and wins among all. The lack of a fiscal union in the EU implies national authorities are accountable to citizens only about national aspects and provision of national public goods, not about matters regarding other countries even when they are part of the economic union. In this sense, while in general politics is said to be "local," that is strictly true in European states.

This point has been evident in the discussions in Europe about the scope of the bailout of Greece, and about the possibility of others, and the conditions that have been placed for it. By 2011, the German fiscal deficit was under 2 percent of GDP, well below the levels of the troubled countries and most of the other advanced economies, and so was the German government's net debt. Furthermore, unit labor costs in Germany have remained stable over the last 11 years, while they have increased persistently in the rest of the Euro zone (see Figure 7 above). It is thus clear that Germany has had more moderate wage increase and/or advanced further in terms of productivity, relative to all other countries. It is understandable that German citizens, who may see themselves as prudent and frugal, may be reluctant to share the burden of adjustments with countries who have behaved differently (German taxpayers expect accountability from their government in regard to German affairs). Politicians in the stronger countries are obviously sensitive to these feelings, and their concern with domestic cohesion could be expected to come before the economic affairs of other countries.[24] That sensitivity

[23] See again Bordo (2004)
[24] However, it is curious that, in the words of Fred Bergsten (2012) "…faced with breaching the 3 percent deficit limit in 2002-2004, France and Germany pushed through a watering down of the SGP—Stability and Growth Path—in March 2005."

perhaps explains why solidarity around the cause of the solvency of the whole union has been so difficult to attain.

Nevertheless, there is political will to solve the problems of the Euro zone. After all, debt of the troubled countries is in the hands of banks from all over Europe, and for countries like Germany (and probably France) the economic union under the Euro is a convenient one, since they are able to maintain a relatively undervalued currency which supports their export-led model.[25] A systemic failure of the Euro zone, leading to a deep and prolonged recession in the troubled countries, would be disastrous for them. Political leadership in the more solid countries, especially Germany and France, has to walk a fine line in the middle of a trade-off between domestic political sensitivities and the economic health of the union and of their own businesses.

5.3 Implications of Incomplete Integration: No Common Budgetary Authority or Treasury

In contrast with most national federations, Europe has no common budgetary authority or treasury. As seen before, public expenditure and/or debt in the troubled countries rose to levels that are now recognized as unsustainable.

Public expenditure decisions are normally decided by an interaction between the Government and Congress or Parliament. Within the former, it is usually the ministry of finance, or the like, who designs the budget bill, and this is an important power in order to determine both the composition and the level of public expenditure. But the Legislature acts as a balance, verifying the appropriateness of both dimensions. In particular, it ascertains that the level of expenditure is in line with the national interest. Legislatures are also vigilant of the public indebtedness implications of expenditures (and revenues). Because the Euro zone is not a political or fiscal union, however, these checks and balances, normally present within democratic countries, are absent or at least weak.

The Maastricht agreements were loosely defined, and the rules of the so called Stability and Growth Path were weakened by France and Germany in the mid-2000s they breached the 3 per cent deficit ceiling. Moreover, the treaty's public debt threshold was not respected by several of the original Euro zone members.[26] Only well after the emergence of the 2008 crisis, and the revelation of the huge public debts incurred by the governments of the troubled

[25] This is because the value of the Euro is determined partially but importantly by the conditions of the "peripheral" economies, which are more expensive. See Bergsten and Funk (2012).
[26] See Bergsten and Funk (2012).

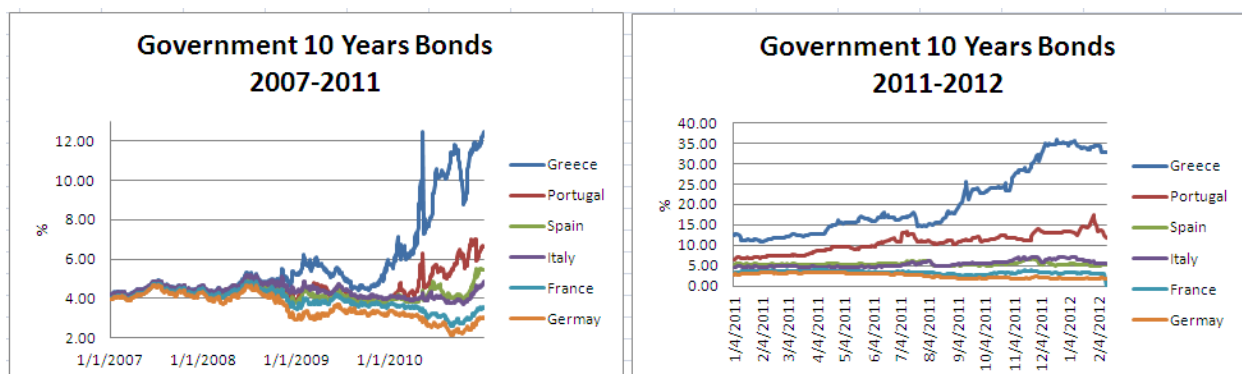
countries, did Euro zone countries agree on fiscal rules.[27] The new fiscal "compact," as those rules have been called, may be a first step towards a "minimal fiscal Europe" which should involve some sort of fiscal responsibility disciplines on member states in order to credibly achieve some sort of long-term fiscal sustainability. But for now, the recent fiscal rules will hopefully provide credibility to the strategy for the financial survival of the most troubled countries, which is clearly the urgent priority now.

As shown in Figure 15 above, by 2010 the public debt of the troubled economies of the Euro zone, including Italy but with the exception of Spain, were all above 70 percent of GDP, Greece's being the highest. The market reacted first against Greece, Portugal and Ireland, and later on punished Italy and Spain with high interest rates on their issuances.[28]

The events of 2008 seemed to mark the sudden appearance of a risk that had previously been absent or overlooked. In preceding years, those immediately after the adoption of the common currency, sovereign risk in government bonds within the Euro zone vanished, as clearly shown in Figure 1 above. Interest rate differentials on public debts fell practically to zero. At the beginning of 2007, for instance, the difference between the yield of 10 year government bonds of Greece and Germany was less than 20 basis points. From the start of the monetary union up to 2007-2008, all Euro zone sovereign debts were perceived as risk-free by investors. But the situation changed from 2008 on, as illustrated in Figure 16 below. Besides other problems that arose with the crisis (assumptions of debt, revelation of data, etc.) the interest rate increase on government bonds was not only the consequence of doubts on the part of the market about sustainability, but also the source of new uncertainty about the ability of countries to refinance their rollover, thus setting a vicious circle in motion.

[27] See European Council (2011).
[28] Fiscal unsustainability is not confined to the Euro zone countries, but it is rather widespread in the industrialized countries. See Buiter and Rahbari (2010).

Figure 16. Ten-Year Government Bonds Rates of Selected Euro Zone Countries, 2007-2011 and 2011-2012



Source: Bloomberg.

5.4 Implications of Incomplete Integration: No Lender of Last Resort

Again, to different degrees, federations have at their disposal national treasuries and rules for indebtedness and bailout of their sub-nationals, but in the Euro zone none of these features were clearly in place. The European Central Bank (ECB) cannot rescue governments, but it can lend almost limitlessly to banks, which in turn have bought sovereign debt issuances of troubled countries. In short, the possibility and scope of bailing out troubled member economies is not clear, and neither are the ECB's obligations.[29] Nevertheless, countries in the Euro zone seem to behave as if implicitly there were a lender of last resort or a "no default" policy.[30] It would otherwise be difficult to explain how investors poured enormous amounts of money into some of the troubled countries.

In contrast to the US case, where the institutions were in place to coordinate a full-scale rescue operation in 2008 (the Troubled Assets Relief Program), the Euro zone, when confronted with the problem of unsustainable public debts in several countries, found itself without institutions to deal with it, at least not to that scale. The ECB could not perform the "bridge function" like the Federal Reserve, and other institutions have had to be created from scratch, such as the European Financial Stability Facility (EFSF) and the European Stability Mechanism

[29] Several pieces discuss this issue. See for example, Buiter and Rahbari (2010), Boone and Johnson (2012), Cotarelli et al. (2010), Muellbauer (2011) and Gros (2011)
[30] See Boone and Johnson (2011)

(ESM).[31] Moreover, even if the necessary institutions had been in place, it is not clear that they would have been able to undertake a bailout of the size needed.[32]

This is not to say there should be a lender of last resort to provide blanket bailouts in Europe, or anywhere else. Nonetheless, the absence of clear rules on mutual obligations in the Euro zone seems likely to promote perverse behavior and aggravate market uncertainty.

Given high interest rates on sovereign bonds and uncertainty regarding the scope of bailouts, as well as the involvement and capacity of institutions, there is wide agreement that Greece is insolvent and a second bailout operation is already in effect. Portugal may follow. Increased liquidity in the Euro zone, funneled through banks by the ECB, has eased the situations in Italy and Spain for the moment.

In spite of these agreements, the Euro zone has struggled to convince markets that it is committed to rescuing member countries from their difficult situation. The message seems contradictory at times: the monetary union has to survive, but there is reluctance—mainly on the part of Germany—to act expeditiously to rescue the weakest economies. Instead, the latter are first required to make a series of fiscal commitments. Although it is reasonable to ensure fiscal responsibility in the future, delaying rescue measures risks widespread contagion, which may advance to bigger economies.[33]

In this context, the idea of so called Eurozone bonds, or Eurobonds, has been proposed. It would be a way to mutualize national debts, providing robustness by the participation of more solid economies. Obviously, the countries that would provide that robustness to the Eurobonds would require some sort of influence in the control of national public finances of the more troubled countries. But there are several factors that make Euro zone bonds neither desirable nor possible. Mainly, the argument is that the Eurobonds would not attack the root of troubled countries' problems, which are fiscal and of real competitiveness. The idea of Eurobonds with conditionality directed at the solution of root problems, however, has been proposed.[34]

[31] See Bergsten (2012).
[32] See Boone and Johnson (2012) for a discussion of why a "bazooka" solution is not likely to occur.
[33] Contagion has already threatened Italy and Spain and, to some extent, France.
[34] See Gros (2011) for arguments against Eurobonds and Muellbauer (2012) for arguments in favor of *conditional* Eurobonds

5.5 Failure of Banking Supervision

Similar to the American experience of 2008, it is clear that there were financial supervision failures in Europe. This is evident when the real estate bubbles and the growth of banks' balance sheets that took place before 2008 are considered. Moreover, banks in Europe had incentives several incentives to buy the sovereign debt of any Euro zone country, because the market and the ECB in its repurchase operations treated all of them equally.[35]

Of the countries in trouble under examination in this document, Ireland and Spain are the ones most affected by the burst of the financial bubble, which was related to the real estate market. In the Irish case, while initially many blamed the problem on events happening in the United States (the Lehman collapse and subsequent developments), the Governor of the Central Bank finally admitted that Ireland's difficulties were homegrown. The weakness of banks was not caused by the interruption of money from abroad, and "It is clear that a major failure of bank regulation and the maintenance of financial stability occurred."[36] In Spain, while regulation covered both banks and *Cajas* (regionally-based savings institutions that greatly expanded their mortgage lending during the real estate bubble) clearly prudential supervision failed to take measures to control credit flows from the latter. They injected enormous amounts of financing into the construction bubble, just like the banks in Ireland. In both countries, the extremely rapid expansion of financial institutions balance sheets was overlooked by supervisory authorities.[37]

The experience of the expansion of banking finance in Europe, not only within the Euro zone but also the United States, shows that finding the right way of supervising and regulating financial cross border transactions remains a serious challenge. Banks of several countries (including Ireland) were pouring money into transactions in Ireland, Spain, Eastern European economies, and even the United States, in a sort of carry trade whose profit was the increase of real estate prices. When these bubbles burst, they became a systemic global liability.

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[35] See Boone and Johnson (2011 and 2012).
[36] Honohan (2010).
[37] See Barth, Caprio, and Levine (2012)

5.6 Lessons for Policy

The interpretation of policy issues above leads to the following conclusions:

- The rigidity imposed by the fixed exchange rate has made it very difficult for countries to carry out the necessary adjustments.
    - Nominal values have to be reduced explicitly, in nominal terms, through a "fiscal" devaluation. This may be more or less appropriate than through devaluation/inflation, but the latter has proven to be extremely difficulty.
    - This, combined with the lack of factor mobility, has exacerbated effects on employment.
- The absence of stronger integration measures, like a fiscal union, has proven to be problematic.
    - There is no solidarity among constituencies, which complicates political commitments.
    - The absence of common budget authority and treasury impedes fiscal coordination.
- When the presence of sovereign risk was (suddenly) evident, and the cases of insolvency and illiquidity started to appear, there were no appropriate mechanisms to deal with them and there was uncertainty about the commitments of lender of the last resort, which exacerbated the problem and made it difficult to gain credibility from markets.
- There were failures of financial supervision both in internal and cross-border operations, which also exacerbated the problems.

6. The Way Ahead

Given the number of difficulties, neglected economic technical issues, and unanticipated obstacles that the Euro zone has encountered over the last four years, it is natural to doubt its possibilities of survival. However, national authorities have shown a strong and resilient political will to preserve the Euro with its current membership, in spite of the political and economic demands of some countries and of their constituencies. In what follows the survival of

the Euro is assumed, stating the main requirements for it, pointing out the risks and considering some alternative modalities.

For the Euro zone to prevail, several conditions must be achieved, primarily the following:

- Immediate measures to deal with excessive indebtedness in the cases of insolvency.
- Financial institutional arrangements with sufficient resources to provide a backstop signal for countries with liquidity problems. This implies clearly defined and predictable support from the ECB and the European Stability Facility.
- Aggressive and credible plans to reduce fiscal deficits and public debt.
- Permanent mechanisms to assure long-term fiscal sustainability.
- Institutional changes to reduce risks of excessive leverage.
- Economic reforms to increase competitiveness.

After what has happened in the last four years, it is clear that monetary policy will eventually have to tighten to allow for a recovery without inflation, and that debt as a proportion of GDP will have to be reduced. So called deleveraging has to take place.

While this path is of course reasonable, the question remains of how to manage this process in the medium term in order to minimize the possibility of a crisis. In a Staff Position Paper of the IMF, Cotarelli and Viñals (2009) point out that the desired result is monetary stability, as opposed to "liquefying" debt through inflation, and fiscal adjustment to take the debt/GDP ratio to pre-crisis levels. Assuming that fiscal adjustment is actually possible (i.e., that there is enough political will, ability and luck), the question is timing. Policymakers must consider when and at what pace they: i) start the monetary tightening and the unwinding of central bank balance sheets, and ii) undertake the necessary entitlement reforms, other spending cuts, and tax increases. Proceeding too quickly would impede growth and threaten the possibility of completing the adjustment. An overly gradual approach, on the other hand, would lack credibility.

6.1 The Need for Isolation and "Firewalls"

Before looking at the adjustment path in the medium term, there are some immediate actions—the first of the conditions above—that have to be taken with determination in order to reduce market pressure on the most troubled countries in a sustained way, while dealing with excessive indebtedness in the cases of insolvency.

Thus far, it has not been possible to present Greece as an isolated problem in a convincing way. After the second bailout announced in March 2012, markets have calmed down, but doubts persist about leaders' determination to take further necessary measures.[38] It is necessary to build a firewall around countries whose problem is definitely one of solvency, in order to differentiate them from those whose liquidity troubles can effectively be solved with policy. Portugal presently seems to be the other country that needs isolation, and Ireland is a probable candidate as well.

Although significant progress has been made recently, as noted above, the European Stability Facility must be ensured enough resources to convince markets that it can deal with troubled countries' problems and thus prevent contagion. The Facility must act as a credible sort of backstop mechanism (some have argued that it needs to be "bazooka size"). After all, for better or worse, Euro zone countries lost a degree of independence when they committed to the single currency, and it makes sense for them to receive some sort of protection in exchange.

After much discussion, the role of the ECB has been ratified, and it has provided significant amounts of financing to banks in the region. The markets seem to acknowledge that, while Spain and Italy are vulnerable and face liquidity problems, they can be solvent if they can escape the vicious circle of no growth, expectations of high indebtedness (relative to GDP), high interest rates, austerity measures and difficulties in refinancing. But most importantly, the institutional arrangements of financial protection and backstop or lender of last resort mechanisms have to be transparent, predictable and well-defined in their scope and limitations in order to avoid uncertainty in the future.

An alternative scenario, which is another kind of isolation, is a monetary union without Greece and possibly Portugal, at least temporarily, which would allow those countries to devalue and carry out the required real exchange rate depreciation and relative price adjustments, on top of the restructuring of their debt, to recover sustainability. Nevertheless, nowadays this option

[38] See, for example, Bini Smaghi (2012).

would be an outcome of failure rather than a strategy. Several reasons for this have been put forward, among others: the exit would be more costly to the exiting countries and to the Euro zone; it would be a political disaster, because the basic rationale of the Euro zone is political, with the characteristic of a common currency; it would involve too high a cost for investors holding Greek or Portuguese debt; and it would damage export markets for other Euro zone countries.[39]

6.2 Towards a Minimal Fiscal Europe[40]

If the Euro zone is going to survive, in order to meet the conditions above, beyond the bailouts and the financial backstop arrangements**,** it is natural to think that coordination in the zone has to be strengthened in more than one way. In fact, the announced fiscal compact (European Council, 2011), is certainly a step in that direction, in the sense that it sets forth presumably aggressive and credible plans to reduce fiscal deficits and public debt. The document explicitly notes that the measures agreed are a move towards a genuine "fiscal stability union."

But to make the new fiscal compact effective and assure long-term fiscal sustainability, the Council has to make sure that its sanctions are enforceable beyond doubt at all times, including those applicable to non-compliance with the conditionality implied in bailouts. This enforceability will almost surely imply much permanent surveillance of national budgets and their implementation, including privatization programs where required. For the fiscal compact to be effective, countries will have to find a way to surrender part of their political independence, especially with regard to the determination of fiscal budgets.

The implementation of institutional changes to reduce excessive leverage and financial risks will also need more coordination at the level of the European Union, and in this sense it would also be a move towards a minimal fiscal union. In particular, traditionally, European regulatory architecture "is best described as fragmented with primary responsibilities at the level of the individual nation states" and "several arrangements were in place in order to facilitate the supervision of cross border activities of financial institutions" across Europe.[41] As described in previous sections above, during the first nine years of the Euro, there were failures of financial regulation and supervision, especially in the real estate bubble experiences, whose

[39] See, for example, Boone and Johnson (2011), Buiter and Rahbari (2010), Bergsten (2011), and Bordo (2004).
[40] This term is borrowed from Buiter and Rahbari (2010.)
[41] Quotes from Boot (2007).

consequences were exacerbated by massive cross-border transactions, and investigations have revealed that regulators had warnings to take action but did not do so.[42] Further actions will have to be taken to tie the supervisory and regulatory powers of the recently established European System of Financial Supervision, particularly in the European Banking Authority, with those of individual countries. Similar to the budget issues mentioned before, this will necessarily imply a certain loss of independence of the national authorities.

A limited Union is realistic. The term "minimal fiscal Europe" seems appropriate in the sense that the union would be limited to economic coordination and rules. A stronger union or form of integration (the "United States of Europe") would imply even more controversial arrangements like a Legislature with representation of the peoples and states or countries. Popular representatives from all countries, elected in those countries, would have powers to vote on matters that affect other countries, as happens in a federation. This would be a major political challenge, and one that seems overly ambitious in view of what has happened in European politics over the last few years.

From the financial point of view, a stronger form of integration would also imply debt solidarity of member states, as occurs with treasury bills and the like in federations. This solidarity would go well beyond the well-defined, predictable, transparent, and clear institutional arrangements of financial protection and backstop mechanisms discussed above. Such an arrangement would imply issuance of Euro zone bonds, or Eurobonds, with shared liability of members; such bonds are unlikely to be issued under present circumstances.[43]

6.3 Economic Reforms to Increase Competitiveness

As pointed out previously in Section 2, during the first nine years of the Euro all the "emerging" economies experienced a high absorption of resources from abroad, as shown in their substantial current account deficits. The natural tendency for the real exchange rate to appreciate is well reflected in their sharply increasing measures of unit labor costs, which indicate a loss of competitiveness to Germany in particular. As seen in Figure 7, unit labor costs have declined since the eruption of the crisis, but they remain well above those of Germany.

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[42] See Sections 3 and 4 above; Lane (2011); Song Shin (2011); Gourinchas, Rey and Truempler (2011); Honohan (2010); and Barth, Caprio, and Levine (2012).

[43] Gros (2011) maintains, convincingly, that Eurobonds are "the wrong solution for legal, political and economic reasons." Alternatively, Muellbauer (2011) makes the case for "conditional" Eurobonds, as instruments to achieve reforms.

It is stated above that for the Euro zone to prevail several conditions must be met. Evidently, it is urgent to find a way out of the constraints from excessive indebtedness and providing credible plans for deficit reduction and debt control. The other institutional arrangements are vital. But in the end, for medium and long-term sustainability and for the stocks of debt to be reduced as a proportion of the GDP, GDP growth is of the essence. It is thus absolutely necessary that the troubled economies enhance their competitiveness.[44]

Of course, growth is based on many factors. A particularly important one is productivity. Total factor productivity is a complex concept, and so is labor productivity. What is interesting about unit labor costs is that it combines productivity of workers and the wage and non-wage costs of labor. Many countries in Europe suffer from high labor costs, both wage and non-wage, rising from costly welfare systems.

Of the countries examined in the previous sections, Greece, Ireland and Portugal have programs with the IMF at present, and obviously Spain is also being closely followed. The three programs include commitments by countries regarding their pension systems and labor markets. The objective is to fix structural problems in order to achieve a more flexible labor market, which is less onerous for employment and ultimately increases higher productivity. IMF staff are likewise following these issues in Spain.[45]

Additionally, the IMF programs and follow-ups address other structural problems which have to do with competitiveness and productivity in general and with fiscal consolidation, aside from the unwinding of macro imbalances. These issues include budget and tax reforms to achieve fiscal consolidation and economic efficiency; banking systems reforms, including public banks when applicable; privatization; and judicial reforms.

For countries in financial distress, like those reviewed in this document, it is obviously very tough to carry out these reforms when income is declining, as well as employment, and society is protesting against austerity measures. A lesson for Latin America, which will be developed in the following section, is that it is much better to fix structural problems and build prevention and insurance mechanisms during times of prosperity, like the years from 2000 and 2007 in the Euro zone, instead of waiting for the next downturn to carry them out.

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[44] This point is of course referred to in the recent literature about the European situation. See for example, Bergsten and Funk (2012) and Boone and Johnson (2012).
[45] See country reports of the International Monetary Fund (2011).

To summarize, this section on the way ahead for Europe has outlined the conditions necessary to ensure the Euro's viability. These conditions are the following:

- There has to be a carefully calibrated exit from the crisis, given the trade-offs between the start of monetary tightening and inflation, and between fiscal adjustment and growth.
- There is a need to isolate insolvent cases with firewalls, and to define transparent and predictable financial arrangements for protection and backstop mechanisms
- A move towards a minimal fiscal Europe is called for, enforcing the disciplines of the fiscal compact and strengthening and enhancing the coordination of both internal and cross-border financial supervision.
- The union will likely be limited because there are significant obstacles to the political and economic commitments that would be required by a stronger form of integration.
- It is essential to increase competitiveness through reforms.
- The lesson for other countries (i.e., Latin America) is that those reforms are difficult to achieve, and it is much better to carry them out in times of growth and prosperity.

The main assumption made here regarding the future of the Euro zone (and the EU) is that the main conditions for the survival of the Euro mentioned in the beginning of this section are met and that the consequent measures described are eventually taken, at least to a meaningful extent. But, given the corresponding (understandable) complexities involved, it is reasonable to assume that policy decision-making will be slow, troublesome and "bumpy." Consistent with this, it is assumed that the EU will experience several years ahead of slow growth and with repeated episodes of uncertainty and instability in financial markets.

7. Policy Implications for Latin America

The Euro experience holds implications of at least two kinds for Latin America: i) effects of the European deceleration and financial distress and ii) economic policy "lessons" (although the term may sound presumptuous).

The effects of the European crisis on Latin America are transmitted mainly through international trade and financial markets. The impact on trade has already taken place, and it has been assimilated and to some extent overcome, due, at least in part, to the persistence of beneficial terms of trade. But the Latin American economy has recently grown more commodities-dependent and, given the challenges faced by the European and Chinese economies, this is certainly a source of risk for future years. Further negative impacts on the region are likely to follow if the situation in Europe sharply deteriorates to the point of a continuing deep recession, which could happen if the conditions mentioned in Section 6 above are not met. For the moment, though, it seems that a more serious foreseeable risk for Latin American trade, especially for South America, is the anticipated deceleration of the Chinese economy.[46]

On the financial side, there are reasons to think that contagion from Europe to Latin America for the future is limited. Banks' liabilities are mainly locally sourced, banks are well capitalized, the withdrawal of equity funds has already happened, firms and governments are increasingly issuing bonds, and FDI is usually more long-term.[47] Moreover, Latin American countries have major international reserves stocks, and their foreign exchange regimes have been mostly flexible for years; both factors are important buffers against shocks.[48]

Under the assumption that the conditions for the survival of the Euro are met and that the scenario for the future in the EU is one of quite slow growth and with episodes of instability, but in the end a feasible one which will not result in a crisis of much greater proportions or a meltdown, the rest of this section will not focus on the transmission of the effects from the EU to

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[46] See IDB (2012), for an analysis of the risks for Latin America related to the commodities prices

[47] See IIF (2012), IDB (2012) and IMF (2011, "Regional Economic Outlook . . . ") for a discussion on the limited risk of banking sector spillovers from Europe. The latter estimates that in an adverse scenario, foreign bank credit reductions would be between 1.25 percent and 2.5 percent in Mexico, Brazil and Chile

[48] See IIF (2012) and Jacome, Erlend and Imam (2012). It is pointed out that fixed-income equity European outflows from Latin America still pose a major risk, and that Argentina and Venezuela present weaker trends than other countries in the region in regard to international reserves stocks.

Latin America, but rather on important economic policy lessons that Latin American countries can learn from the Euro experience.

Latin American economies in general are doing well and are often recognized to have been in a position of strength during the recent period of global instability. Their public finances had been healthy, in contrast to the region's history, and they were able to put in place countercyclical measures in 2008-2009; their financial systems are healthy and banks well capitalized. Most recognize that Latin America nowadays contributes significantly to world growth and stability, and optimism reigns. However, it is clear and widely accepted that growth in the region is based mainly on favorable terms of trade—especially high commodity prices—and easy external financial conditions, as well as domestic demand.[49]

While Latin America's stability and growth are good in comparison with the region's historical standards, they are not particularly positive from more structural point of view, especially when compared with other world regions' situation and experiences. Figures in the Appendix present several indicators that make this case about Latin American economies:

- Growth during the last nine years (2003-2011) is higher than that of Europe in both 1994-2000 and 2003-2011, but it is lower than:
    - growth experienced by a group of selected East Asian countries in both 1981-1995 and 2003-2011 and
    - growth experienced by another group of selected South Asian countries plus Israel in 2003-2011.
- Over the period 2002-2009, Latin America's growth is generally higher than the world's, but it is lower than the groups classified by the World Bank as South Asia and Developing East Asia and Pacific.
- By any standard, Latin America's productivity has been lagging behind that of other regions, as reported by Pagés (2010). This is also suggested by the increase of GDP per person employed in Latin America in 2003-2008, which is:

[49] See, for example, IMF (2011, "Regional Economic Outlook . . .").

    - lower than in selected East Asian countries during 1981-1995 and 2003-2008, and selected South Asian countries 2003-2008 and Europe in 1994-2000; and
    - higher than in Europe 2003-2008.
- Trade measured by exports as a percentage of GDP (2002-2010) is well below the world's average and the East Asian and Pacific economies, even though Chile and Mexico are quite high. The region's trade as a percentage of GDP is only marginally above that of South Asian economies.
- The index of Ease of Doing Business (World Bank) is diverse in the region:
    - it is generally well below East Asian economies
    - while in some countries it is comparable to "medium table" European economies, in others is more similar to those of South Asian countries
- The 2011-2012 competitiveness index 2011-2012 (World Economic Forum):
    - is lower than those of European and East Asian countries, and
    - on average it is similar to that South Asian countries
- The quality of education as measured by PISA 2009 test results is clearly lower than in Europe and South East Asia.

The focus below will be on policies of the kind that countries in Europe could have undertaken during growth years in order to fix structural, which could have mitigated the shocks after 2007, and which today those countries are being forced to undertaken take under the most inconvenient circumstances. Those growth years for the Europeans were similar to the present period in Latin America, and it would be wise for the countries to take advantage of current circumstances in order to fix certain deficiencies or build certain strengths that would equip them appropriately for future contingencies.

7.1 Policies for Productivity

As seen in Figure 7 above, unit labor costs in the troubled Euro zone countries went up sharply during the growth years, in comparison to those of Germany, the soundest economy. This means that productivity did not increase enough to keep pace with costs of labor. A similar dynamic can take place in Latin America if productivity does not increase to keep up with the sharp real exchange rate appreciation that has taken place in several major countries. If productivity does

not increase during the phase of real exchange rate appreciation, a country is left highly vulnerable in the face of a shock or a sharp downturn cycle.

Productivity growth in Latin America has lagged behind by any relevant standard, and it is a significant cause—if not the main cause—of the region's low growth rates in relation to those of the rest of the world. The performance of labor productivity has been poor across the region, but less so in Peru and Chile, where there is open concern and public debate about the issue.[50]

Productivity gains are the result of many factors that relate in complex ways: human capital, technology, business climate, competition and predictable policy, rule of law, regulation, public safety, government actions, and information, among others. Pagés (2010) proposes a series of actions for Latin American countries to improve their productivity levels. The list includes the following: i) making productivity an objective of the State and of all policies; ii) adequate transport infrastructure for trade; iii) simplifying taxes and broadening their base; iv) cutting the link between social security funding and employment (financing the former with general taxation); v) incentives for formalization; vi) linking innovation to business activity and strengthening intellectual property rights; vii) bringing business and labor to the debate; and viii) dissemination of the effects of productivity.

With the goal of increasing productivity in mind, each country in Latin America could design an appropriate sequence of reforms and policies to undertake during good times. But the important thing is to prioritize those that are more difficult to implement, in terms of the political capital required, precisely because an environment of growth and prosperity facilitates their implementation. Particularly worth mentioning are the following: i) competition policy and its enforcement, including bankruptcy laws, for facilitating entrance and exit of competitors to industries; ii) education reforms to ensure that resources are allocated to privilege quality rather than payroll protection; iii) enhancement of industrial and intellectual property legislation and its effective enforcement to combat piracy and provide incentives for innovation; iv) reforms to judicial systems in order to rationalize processes and increase efficiency and justice; v) reforms to decouple social protection from the payroll and to reduce implicit taxes on employment and incentives to low productivity informality; vi) and reforms to labor laws reforms to increase labor market flexibility.

[50] See Pagés (2010).

Of this list—which is by no means intended to be exhaustive—it is clear that labor reform represented the most pressing need in the Euro experience. As mentioned above, it is presently included in all the IMF programs and follow-up documents of the most troubled economies. Clearly, most labor laws across Latin America embed similar inflexibilities: rigid contracts, costly dismissals, and inefficient forms of worker protection, among others. The political opportunity to carry out the necessary reforms to the labor laws in Latin America.

7.2 Fiscal Policies and Institutions

As noted at the end of Section 6, countries in distress in Europe today are simultaneously trying to get out of short term solvency/liquidity problems and taking hard measures to achieve fiscal sustainability in the longer term, like reforming tax bases and collection, modernizing fiscal administration, reforming condition of their pension systems, and limiting other recurrent fiscal expenditures. In Latin America, the fiscal situation is far from that of Europe in the sense that fiscal deficits are generally under control. But again, the present years of growth and stability represent a valuable opportunity to introduce fiscal reforms that will prove useful when the economic cycle becomes less favorable.

There are several challenges ahead in tax systems across Latin America.[51] While the VAT is a basic pillar of tax collection, there are many exemptions, reduced rates, and simplified regimes which diminish its effectiveness; there is also an issue of decentralization of VAT regimes at the state level in Brazil, whose efficiency is highly controversial. In regard to personal income taxes, the region also faces serious challenges related to exemptions for low-income contributors, highly progressive rates with low collection, and low numbers of tax payers, among others. "Fiscal Expenditure" is an important problem as well, reaching on average nearly 1 percent of the region's GDP.

Modernization of tax and customs administrations across Latin America is another important task. While progress has been made in recent years, there remain problems related to the quantity and quality of human resources and technology (the region lags well behind OECD countries in this regard), the enforceability of sanctions, and tax monitoring and control.[52]

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[51] See Díaz, Barreix, and Velayos (2012), and Garciamartín, Barreix and Velayos (2012).
[52] Díaz, Barreix and Velayos (2012).

The fiscal balance in most of the major Latin American economies has been kept well under control in recent years, which has proven valuable in facing the slowdown of 2008-2009. In fact, the region was able to produce a countercyclical fiscal response, increasing public expenditures and lowering the primary surplus by some 4 percentage points of GDP for the typical country. There was in fact fiscal space—a surplus—that made this response possible. Unfortunately, once the region's economies, those primary surpluses did not return to their previous levels, and in recent years a propensity toward procyclical behavior has reappeared, especially on the side of public expenditures.[53]

A robust stabilizing fiscal rule is one that allows fiscal expansions in downturns but produces fiscal contractions in the booms. In that vein, Chile has adopted a fiscal rule that originally focused on the price of copper and now considers all government revenues. The rule has been quite successful in prevent procyclical behavior of the fiscal deficit and has acted as an automatic stabilizer, creating savings in high-revenue years and providing resources in low-revenue times. Other countries in Latin America have fiscal rules, but the key for the particular success of the Chile in that respect is not only that its rule is well specified, transparent, and has been subject to much scrutiny, but also that it is a cyclically adjusted or "structural" budget rule. Once again, it is during times of stability and growth such as the present that it is most appropriate to make the necessary reforms to achieve a structural budget rule.[54] Moreover, if such a rule is well designed, it is precisely during these years of high revenue that the rule would generate a buffer of savings to be used when needed in the future.[55]

The European experience is clear regarding pension systems. Most systems are financed in a pay-as-you-go fashion, and aging populations and excessive benefits have rendered them structurally bankrupt. As mentioned above, countries are being forced by conditionality, or simply by circumstances, to reform them in the worst of times. Several countries in Latin America have adopted capitalized regimes, at great current costs, which will basically solve the problem over the long run. A notorious exception is Brazil, where pension expenditure is extremely costly already and will only increase as the population ages. The present years of

[53] See IDB (2012) for an analysis of the fiscal developments in recent years

[54] Among others, the IMF (2011, "Regional Outlook . . .") proposes the adoption of rule-based structural fiscal frameworks

[55] There are other countries in the region with fiscal rules at present which would have to be adjusted to become structural or cycle adjusted rules, see Ter Minassian (2012). In particular, the rule adopted in the Budget Law of 2006 in Mexico is very close to a full structural rule.

growth and prosperity provide the country with an obvious opportunity to work on pension reform.[56]

7.3 The Financial Sector

The banking sector in Latin America is presently in good health. As stated above, banks are well capitalized, their funding is mainly local and Central Banks hold large amounts of international reserves. Nevertheless, it is important to recognize that the region still displays certain vulnerabilities. Therefore, as in other instances, there should be no room for complacency with regard to institutions and practices to face risks in the financial sector.

The region's financial vulnerabilities remain substantial. Countries in Latin America have a history of sudden capital outflows, their exports are concentrated in commodities and therefore subject to price risks, real credit is growing at an important pace, dollarization is high in some of them, and there are many institutions that because of their size are likely to turn too big to fail in case of trouble and represent fiscal contingencies. Another vulnerability which would be worth examining is the state of large development banks, which are especially important in some countries such as Brazil and Uruguay but also in Mexico, Argentina and Chile.

Again, times of growth and stability like the present in Latin America provide an opportunity to examine and enhance several areas related to banking prudential regulation and supervision, including various ways of institutionalizing macro prudential frameworks.[57] It would also be pertinent to review the quality of banks' and other institutions lending portfolios, assess the quality of their capital, enhance the capacities of supervisors, reduce information gaps, and review the rules of corporate governance of domestic commercial and development banks.[58]

[56] The lesson is also an obvious one for Argentina, where there has been a "counter reform" in the sense that pensions were nationalized

[57] See Jacome, Erlend and Imam (2012) for a useful discussion of possibilities going forward in macro prudential policies.

[58] Assessments and reviews of this type are widely recommended. See, for example, IMF (2011, "Regional Development Outlook . . .") and IDB (2012).

7.4 General Conclusions

Reviewing the Euro experience in its first phase (1999-2007), it is observed that:

- The common currency does not appear to be a particular factor of growth or convergence for the "emerging" economies. Non-Euro zone countries displayed similar or even better performance in terms of per capita GDP.
- All followed an expected path of absorbing external resources through current account deficits and, with the exception of Portugal, experienced growth and significant unemployment reduction.
- Public expenditure and debt grew solidly in Greece and Portugal.
- Spain and Ireland seemed to be growing with investment without over spending, and public debt declined.
- The behavior of the bigger economies of Italy and France was in general similar to the previous group.
- All the emerging economies suffered a loss of competitiveness (increased unit labor cost) vs. Germany.

After 2007 these trends largely reversed:

- The convergence trend changed to divergence, growth fell and unemployment resurged.
- Although current account fiscal deficits have started to decline, they are still too high, and competitiveness gains are still meager.
- Public deficits and debt levels are well above target levels, partly because of huge private debt assumptions, which were largely induced by financial bubbles and cross-border transactions.

Several policy issues led to the compromised position of the Euro zone economies after 2007. One is the rigidity imposed by fixed exchange rate that, in the absence of higher labor mobility, complicates the necessary adjustments and forces a "fiscal" or "internal" devaluation, which is cumbersome to achieve. This difficulty is exacerbated by the lack of other features normally present in stronger unions, such as solidarity among constituencies, common budgets and common treasuries. The lack of clear provisions with respect to bailout and lender-of-last-

resort commitments led to acute uncertainty when sovereign risk suddenly appeared in the Euro zone. There were also failures of financial regulation and supervision in the presence of huge bubbles and cross-border operations.

The survival of the Euro zone depends on several conditions. To meet them, countries will have to "fine tune" their way out of the crisis with the right timing of monetary tightening and fiscal adjustment, which has to be credible from the outset. The most difficult cases have to be isolated and the necessary firewalls built to prevent contagion. Further integration has to take place towards a limited "minimal fiscal Europe," with clear and enforceable disciplines and enhanced financial supervision. And it is essential to increase competitiveness through economic reforms.

There are no lessons for Latin America from the adoption of a common currency itself, and the most important effects of the European crisis through the financial markets and trade seem to have already taken place—or at the moment are under control or of limited risk—unless a prolonged deterioration of the situation takes place.

Although Latin America has so far appropriately dealt with the economic downturn and instability, when compared with other successful experiences its recent growth is not particularly high. Moreover, important structural problems remain and need reform. Thus, the main lesson for Latin America is that it is advisable to take advantage of the current context of growth, stability and optimism in order to carry out much-needed reforms which will leave the countries adequately prepared to face a downturn in the world economy. Particularly important are reforms to increase productivity along with the appreciation of the real exchange rate in order to avoid losing competitiveness. Specific areas for reform include social security and labor laws, competition and bankruptcy laws, property rights, and education and judicial systems, among others.

Similarly, fiscal policies and institutions could be reformed to tackle major deficiencies. Tax regimes and administration—including customs—face significant challenges, and expenditures need to be controlled. Moreover, some countries would benefit greatly from structural deficit rules, and there are also instances where pension reform is urgently needed. In the financial sector, it would be worthwhile to review the macro prudential regulation and supervision mechanisms as well as the role, size and contingencies of the development banks.

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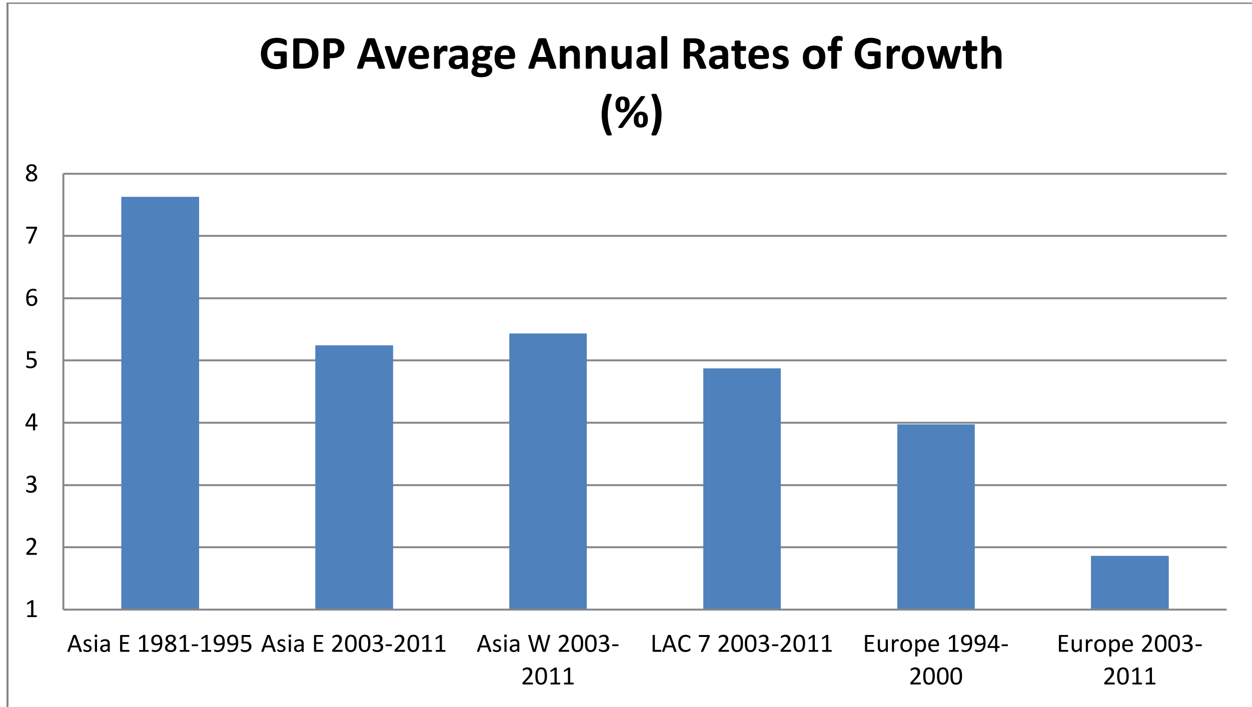
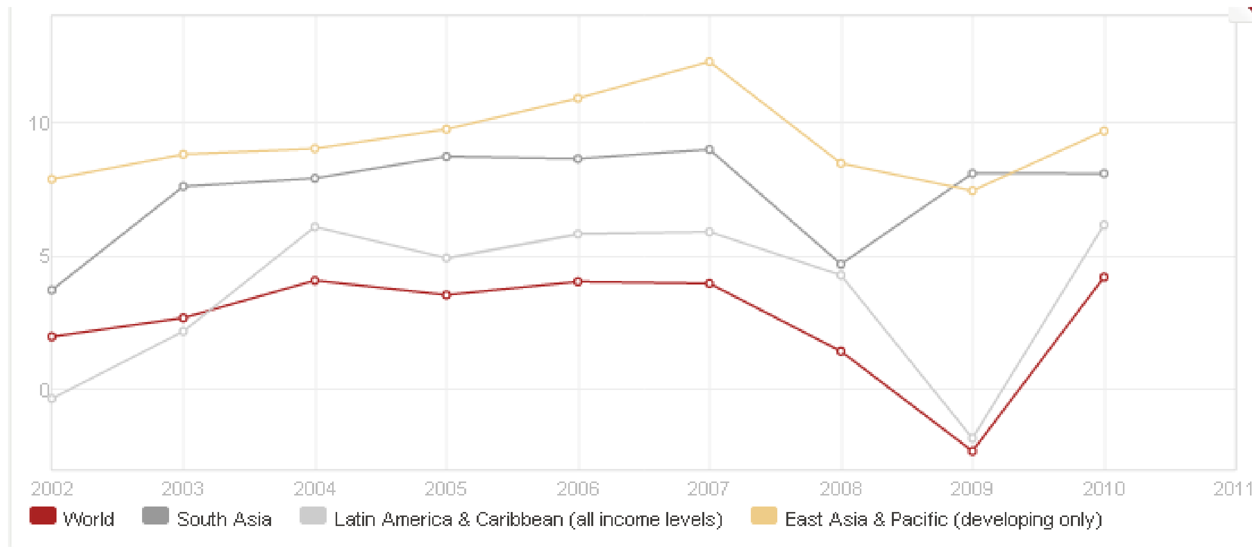
APPENDIX

Figure A1.



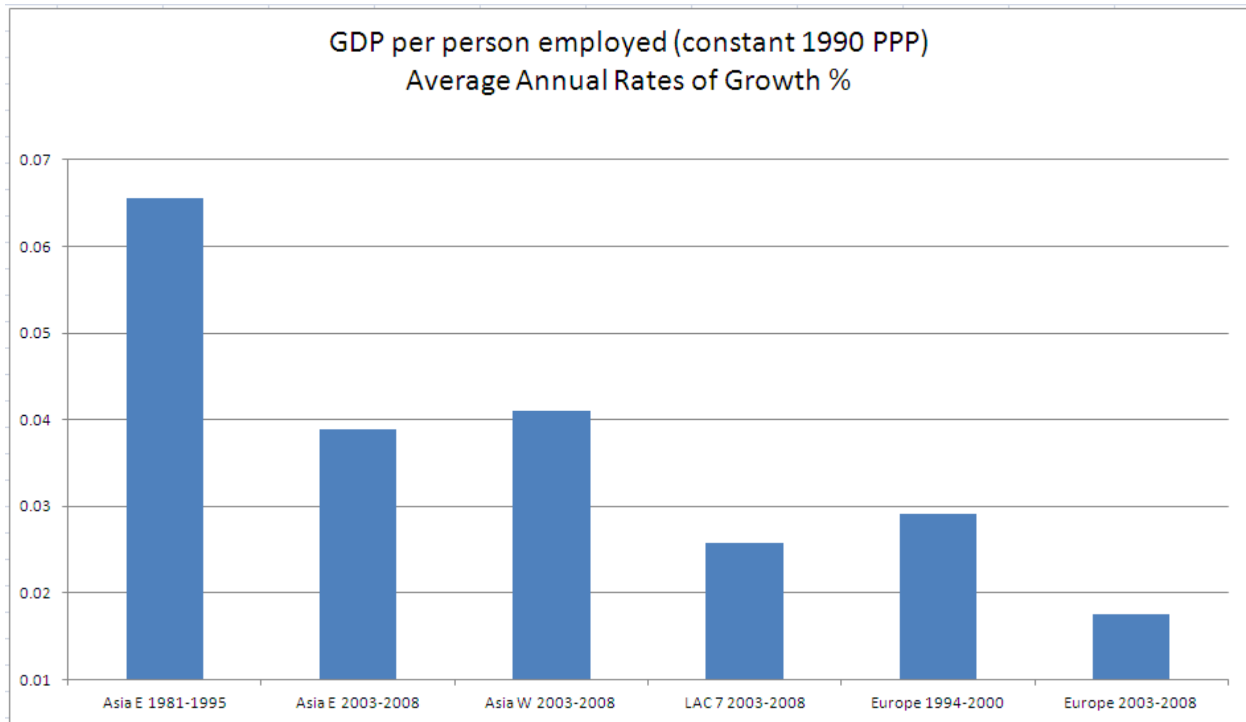
Source: IMF, World Economic Outlook Database.

Figure A2. GDP Growth (%)



Notes:
East Asia (all): Cambodia, China, Fiji, Indonesia, Kiribati, Korea, the People's Democratic Republic of Lao (Lao PDR), Malaysia, Marshall Islands, FS Micronesia, Mongolia, Palau, Papua New Guinea, the Philippines, Samoa, Solomon Islands, Thailand, Timor-Leste, Tonga, Vanuatu, and Vietnam.
South Asia: Afghanistan, Bhutan, Bangladesh, India, Maldives, Nepal, Pakistan, Sri Lanka.

Figure A3.



Source: World Economic Indicators, World Bank.

Figure A4. Exports of Goods and Services (percentage of GDP)

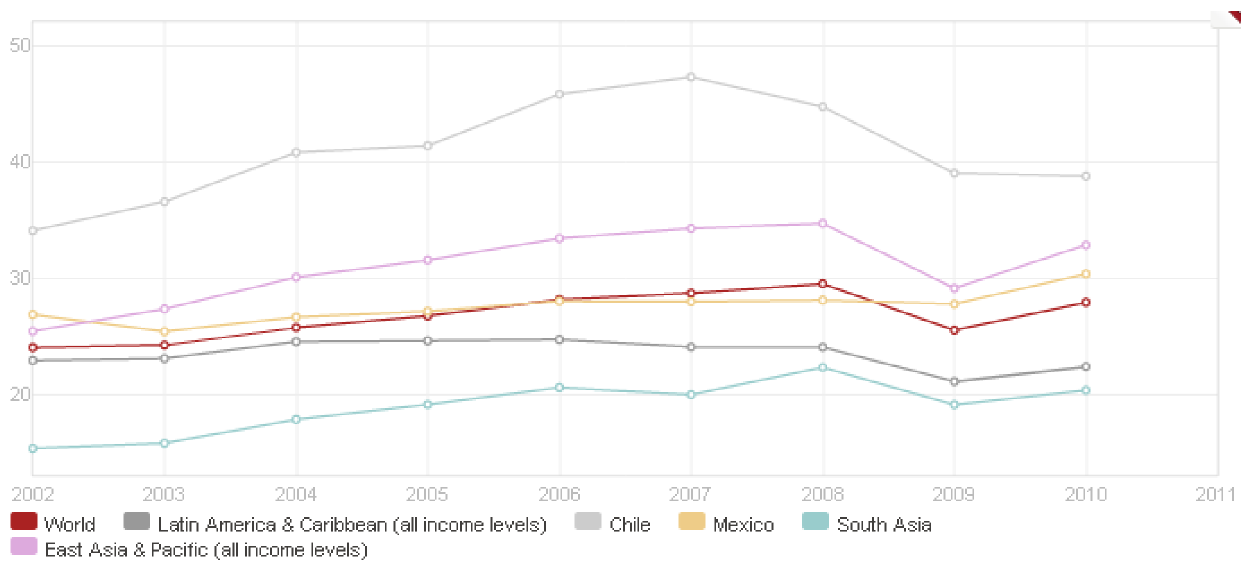


Figure A5.

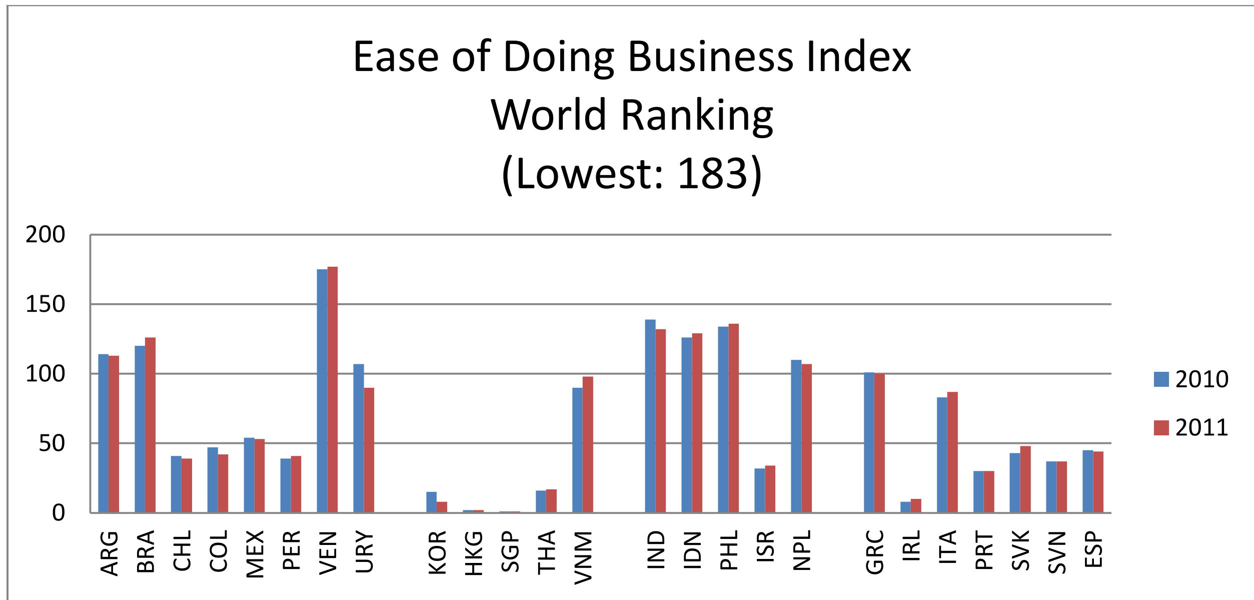
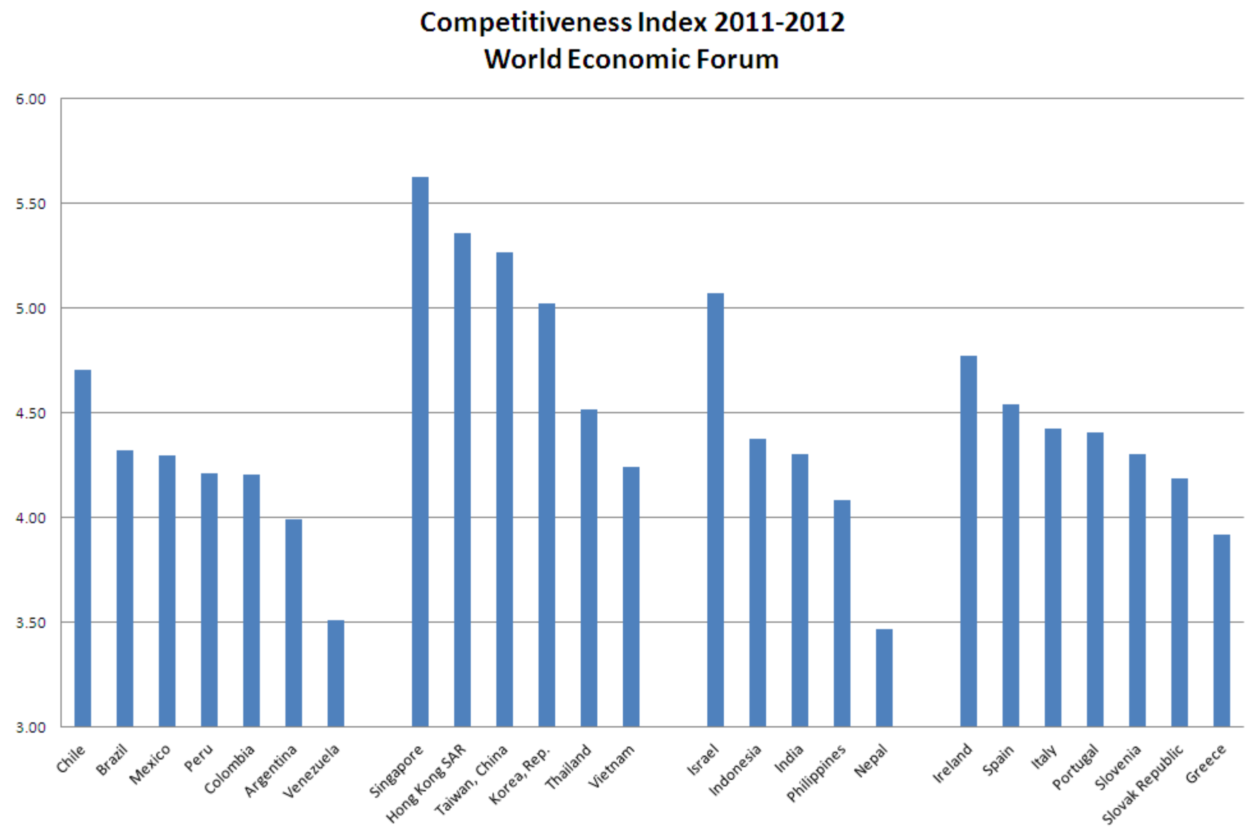
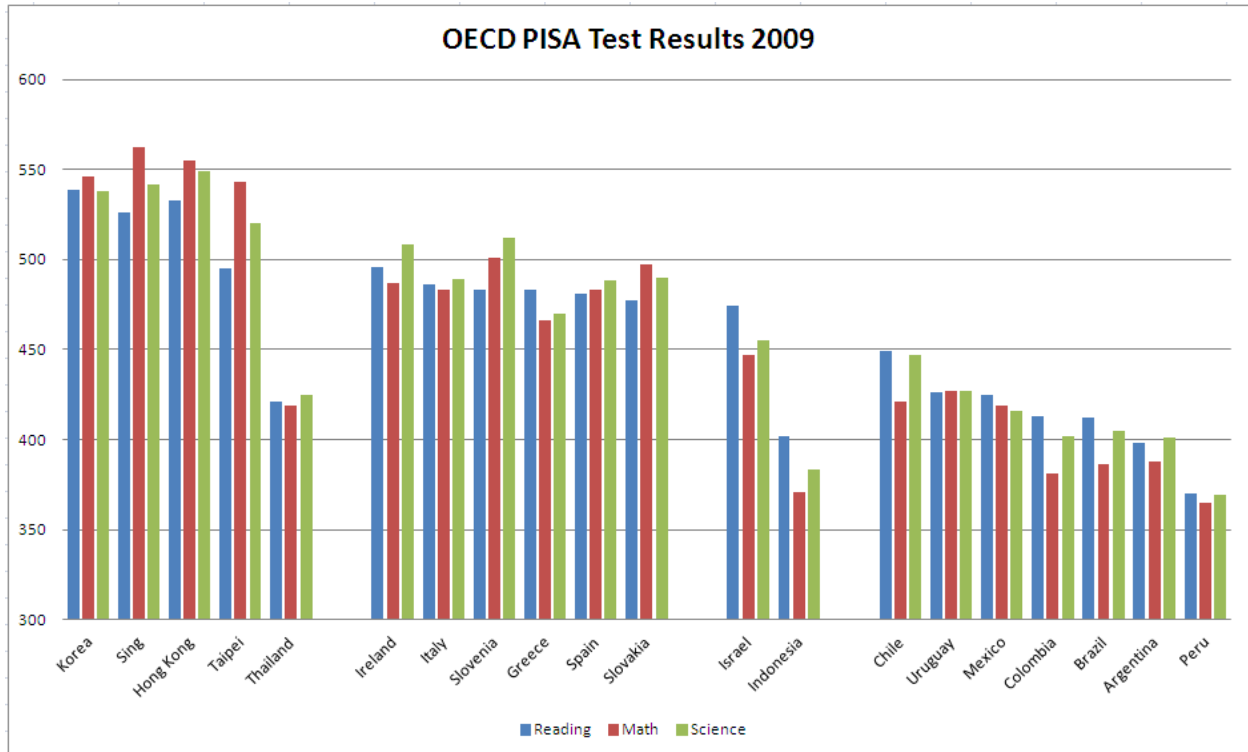


Figure A6.



Source: The Global Competitiveness Report 2011-2012, World Economic Forum.

Figure A7.



PISA (Programme for International Student Assessment) is an international study which began in the year 2000. It aims to evaluate education systems worldwide by testing the skills and knowledge of 15-year-old students in participating countries/economies. Since the year 2000 over 70 countries and economies have participated in the PISA.