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Country adjustment to a 'sudden stop': Does the euro make a difference?

Daniel Gros and Cinzia Alcidi

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Country adjustment to a 'sudden stop': Does the euro make a difference?

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Abstract

A 'sudden stop' to (private) capital inflows is usually very disruptive to an economy because it forces an almost immediate reversal in the current account unless the country in question receives substantial balance of payments assistance. The analysis presented in this paper starts from the observation that two groups of European countries, neither of which could use the exchange rate as an adjustment instrument, experienced a sudden stop after the outbreak of the global financial crisis. The first group comprises the five euro area member states under financial stress (Greece, Ireland, Italy, Portugal and Spain = GIIPS) during the euro area debt crisis. The second group comprises four newer EU Member States in Central and Eastern Europe with euro exchange rates (Bulgaria, Estonia, Latvia and Lithuania = BELL).

We highlight the differences in the adjustment paths of these two groups and analyse the factors which can explain them. The main finding is that the adjustment was quicker outside EMU than inside. The shock absorbers provided by the financial 'plumbing' of the Eurosystem offset much of the reversal in private capital flows and seem to have created an environment in which the pressure for a quick adjustment was much weaker. We also find that the structure of the domestic banking industry plays a key role. Foreign ownership of banks provided a loss absorber in the BELL favouring a quick correction, while the legacy of the banking crisis in some of GIIPS, where foreign ownership of banks was limited, is likely to weight for long time on their still incomplete adjustment process.

JEL classification: E20, F32, F36, H60
Key words: Adjustment, imbalances, sudden stop, monetary union

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CONTENTS

Non technical summary

Soon after the creation of the Economic and Monetary Union (EMU) significant amounts of capital, largely intermediated by the banking system, started to flow from what are today called the core to the periphery of the euro area. Countries like Greece, Ireland, Spain, Portugal and, to a much lesser extent, Italy seemed to offer attractive investment opportunities relative to the economies of the core, which at the time, seemed much less dynamic. The elimination of the exchange rate risk appeared beneficial for both borrowers and lenders. These capital flows, and the associated current account imbalances, were then seen as part of a well-functioning monetary union and a by-product of the process of convergence towards higher output levels. The academic and political debate therefore simply disregarded the current account imbalances which arose over time.

With the eruption of the financial crisis in late 2007 and 2008 the large current account deficits of the periphery were no longer regarded as the side effect of a convergence process but rather as indicators of excess debt, construction bubbles and resource misallocation.

This led to a 'sudden stop' in the capital inflows periphery and such a sudden stop is very disruptive because it forces an almost immediate reversal in the current account unless the loss of private capital is made up by official sources. This happened in the euro area periphery via two different sources: Official loans to the government and via the monetary policy operations of the ECB. These official support operations allowed the countries in question to maintain current account deficits for longer than they would have otherwise been possible and the conditionality might have led to more structural reforms.

How could one judge the success of these so-called 'bail outs'? This study starts from the observation that large capital inflows and the associated external imbalances were not a phenomenon limited the euro area. The capital flows and external deficits even more extreme in some new EU member states which had all fixed their exchange rate to the euro, either as peg or in the form of a currency board. Indeed, Baltic States (Estonia, Latvia and Lithuania) and countries such as Bulgaria experienced huge capital inflows partially driven by the expectation that the catching-up potential among the BELL was much larger than for the GIIPS, given that the former were still much poorer (relative to the EU average). Accordingly, expected growth was larger in the EU periphery than in the euro-area periphery. These expectations were validated for quite some time as the capital inflows allowed the economy to expand. Whatever the reasons the average current account deficits were at close to 20 % of GDP almost twice as large for the BELL than for the euro area periphery.

The 'sudden stop' of lending was also not limited to EMU peripheral countries. After the outbreak of the global financial crisis, flows of private capital towards the BELL suddenly dried up. This 'sudden stop', forced these countries to undergo a profound adjustment process to correct their external position (in general by reducing private and public expenditure).

The analysis presented in this paper starts from the observation that two groups of European countries, neither of which could use the exchange rate as an adjustment instrument, experienced a sudden stop after the outbreak of the global financial crisis. The first group comprises the five euro area member states under financial stress (Greece, Ireland, Italy, Portugal and Spain = GIIPS) during

the euro area debt crisis. The second group comprises four newer EU Member States in Central and Eastern Europe with fixed exchange rate to the euro (Bulgaria, Estonia, Latvia and Lithuania = BELL). These two groups do not constitute quite a natural experiment, but the differences between them can show whether the existence of the euro led to a better adjustment process.

The main finding is that the adjustment was quicker outside EMU than inside with two factors crucial. First, the shock absorbers provided by the financial 'plumbing' of the Eurosystem seem to have created an environment in which the pressure for a quick adjustment was much weaker. The financing channel available through the Eurosystem protected the banking systems of the countries in the euro area from the immediate effects of a sudden stop. This led to a slower correction of imbalances.

Second, a large degree of foreign ownership of banks proved to work as loss absorber in the BELL, while the legacy of the banking crisis in some of GIIPS is likely to weight for long time on still incomplete adjustment process.

Only one of the BELL countries, Latvia, was subject to adjustment programme, whereas all the GIIPS had, under various degrees of stringency, to undertake structural reforms. However, there is no evidence yet that the EMU membership and the associated pressure from the economic governance mechanisms will deliver reformed and more competitive economies.

All in all, it appears that the 'softening' of the budget and liquidity constraint within EMU has delayed both fiscal and external adjustment.

The paper also attempts at providing an assessment of the two adjustment trajectories in terms of macroeconomic costs. All the indicators used by us suggest that the cost of adjustment was larger in the GIIPS than in the BELL (but the differences are not very large). Moreover, the quicker adjustment of the BELL also meant that they accumulated less debt over their adjustment paths.

In terms of policy prescription going forward, we observe that the 'short and sharp' adjustment in the BELL countries has allowed them to escape the debilitating effects of a long drawn-out crisis. The quicker adjustment was 'enforced' by much higher domestic interest rates and a lower availability of domestic credit (coupled with a tight fiscal policy). Such tough macroeconomic conditions are considered as excessively costly when they arise, but they had the advantage of accumulating less debt accumulated and the macroeconomic performance tend to be better when measured over time.

1. Introduction

Soon after the creation of the Economic and Monetary Union (EMU) significant amounts of capital, largely intermediated by the banking system, started to flow from the core to periphery. The euro area periphery, most notably Greece, Ireland, Greece, Portugal and to a much lesser extent Italy (GIIPS) seemed to offer attractive investment opportunities that make of them an even better place than emerging economies to allocate resources. Indeed, the elimination of the exchange rate risk appeared beneficial for both borrowers and lenders. These capital flows, and the associated current account imbalances, were then seen as part of a well-functioning monetary union and a by-product of the process of convergence towards higher output levels. On these grounds, the academic and political debate simply disregarded the current account imbalances which arose over time.

The eruption of the financial crisis in late 2007 and 2008 changed the perception of the risk as well as the attitude towards the relevance of macroeconomic imbalances within the monetary union. They no longer appeared as the side effect of a convergence process towards higher output levels, but rather as indicators of excess debt, construction bubbles and resource misallocation, which led to the accumulation of a large external debt.[1]

The reason why current account imbalances within a monetary union are different than those in a standalone economy is that if foreign investors refuse to continue lending, i.e. 'a sudden stop' of lending occurs, and domestic residents pull capital out of the economy, the entire economy, not just the sovereign, faces a liquidity run. This generally results in a currency crisis and/or being shut out of international financial markets. The experience has shown that in the euro area, however, a payment crisis cannot manifest as a fully-fledged currency run, as there is no currency on which to run. Furthermore, money continues to flow through the internal channels of the central bank. Yet payments problem still exist. This implies that the sensitive part of the imbalances has solutions on the demand side. Given unavoidable contractionary fiscal policies and in consumption, the countries under pressure desperately need improved current account balances to provide extra demand.

Large capital inflows and the associated external imbalances were not a phenomenon limited to the periphery of the monetary union. If anything booms and flows were even more extreme in some new EU member states. Indeed, the north-eastern periphery of the EU, i.e. the Baltic States (Estonia, Latvia and Lithuania) and countries such as Bulgaria experienced huge capital inflows. A common feature of all these countries is that they had all fixed their exchange rate to the euro, either as peg or in the form of a currency board.[2] In relative terms, the flows into these new EU member states were even larger than those within the euro area, partially driven by the expectation that the catching-up potential among the BELL (Bulgaria, Estonia, Lithuania and Latvia) was much larger

[1] Among others see Giavazzi & Spaventa (2010) on the why macroeconomic imbalances matter.

[2] Following the introduction of the euro, by 2002, the existing pegs were aligned to the euro. At the end of 2001, Estonia changed all necessary legislation to replace the peg to the German mark with the euro. In 2002 Lithuania changed the anchor of the existing currency board to the euro. Latvia opted to maintain the peg to the SDR, but in 2002 the share of the euro was increased to 30% of the basket (see Pettai & Zielonka, 2003). Since 1997 Bulgaria has been in a regime of currency board, with the German mark as anchor until the introduction of the euro.

than in the GIIPS, given the size of the difference in initial GDP per capita (relative to the EU average). Accordingly, expected productivity growth was larger in the EU periphery than in the euro-area periphery. These expectations were validated for quite some time as the capital inflows allowed the economy to expand.

Likewise inflows the 'sudden stop' of lending was not limited to EMU peripheral countries. After the outbreak of the global financial crisis, flows of private capital towards the BELL suddenly dried up.[3] The 'sudden stop' of lending combined with the impossibility for the foreign exchange rate to move,[4] and hence work as a shock absorber, forced the countries, which had run very large current account deficits and/or fiscal deficits, to undergo a profound adjustment process to correct their external position and their public sector balance. The Baltic States, which experienced current account deficits of the order of 20% of GDP at the peak of the boom, perceived no other option than rebalancing and by 2011 they had managed to move to a balanced or even a surplus position. Given the unrealistic hope to increase exports suddenly, the current account turnaround had to be achieved by a reduction in imports and was thus accompanied by large losses in domestic demand and GDP.

Within the EMU the external adjustment proved to be slower. Portugal, Spain and especially Greece, which also had large external deficits albeit of a somewhat smaller magnitude, did not manage to fully adjust not even four years after the start of the crisis.[5]

According to Reinhart and Rogoff (2009) a 'sudden stop' is one of the usual channels through which global financial turbulences can prompt sovereign debt crisis. When suddenly credit becomes hard to obtain, economic activity contracts and debt burdens are heavier against declining available resources. In the case of governments this leads to a sovereign debt crisis; in the case of private agents, this leads to defaults or requires state bail-outs, if a default is out of the question, like the experience of some banks suggests.

On the basis of the narrative experience and the literature,[6] our starting hypothesis of this piece of research is that the recent crisis has proved that, similarly to emerging market economies, advanced economies in a monetary union can experience sudden stops. Interestingly enough, countries in a monetary union share an important feature with most emerging economies: their governments borrow in international capital markets in foreign currency.[7] Indeed, having a central

[3] Calvo at al. (2004) conclude that while financial crisis can in principle occur in advanced and emerging market economies, empirical evidence suggests that sudden stops in capital flows are typical of emerging market economies, accompanying large real exchange rate fluctuations. The member states of the EMU by definition share a common currency, so in theory no country is exposed to risk of a speculative attack on the currency. Moreover EMU member states at the time of the introduction of the euro did not seem to constitute emerging economies. Following Calvo et al*., a priori*, within EMU the risk of sudden stops should have been zero. Yet reality seems to have been different.

[4] All the countries considered were, and still are, either part of the EMU or committed to hard currency pegs.

[5] It should be said that the sudden stop and therefore the beginning of the crisis does not coincide in the two groups of countries. In the BELL the flows dried up immediately at the onset of global financial crisis in 2008, while in the EMU periphery the crisis hit in 2010, after the Greek emergency.

[6] See for instance Merler & Pisani-Ferry (2012).

[7] The ECB cannot finance government spending; it can only, under certain circumstances, intervene in the market for government bonds. The governors of the national central banks which sit on the Governing Board of the ECB and participate in the monetary policy-setting process, including both standard and non-standard

bank that is not allowed to monetise government debt is equivalent to a sovereign borrowing in non-domestic currency. While this removes the inflation risk, at the same time it increases the risk of default.[8]

In this paper we will focus on and compare the experience of the periphery of the EMU with the north-eastern periphery of the EU and assess the kind of adjustment they went through in response to the sudden stop.

The ultimate reason for doing this is to understand the role of the euro, as a single currency, but also as an institutional framework, in the building up of the imbalances and then in the correction of the imbalances, once the sudden stop forces it. The comparison helps in highlighting transmission mechanisms that are related to membership in the monetary union and that are absent when outside a monetary union. As will be shown, overall, these mechanisms tend to make the adjustment process longer and less sharp. Whether this trajectory is less painful and politically more acceptable remains unclear, as the correction process in the EMU periphery is still incomplete. Nevertheless, the latest estimated cost of the adjustment on unemployment and potential output suggests that euro area countries are not clearly better off than the BELL.

The rest of this paper is organised as follows. Section two highlights similarities and differences between a fixed exchange rate regime and a monetary union as well as between the EU and EMU peripheries, focusing on structural factors and macroeconomic features. Section three compares how the correction has materialised in the two groups of countries, with an emphasis on the adjustment on the external position and private domestic demand rather than on the performance of the fiscal consolidation. Section four introduces the issue of structural reforms. It provides a list of alternative indicators with the aim of understanding the role of structural reforms in the adjustment process. As shown in the text, this task proves particularly difficult. The final section addresses some policy issues. The facts documented in the paper suggest that since the financial constraint is less binding in a monetary union, the correction mechanism tends to be less sharp and spread out over a longer period of time. While it is clear that that the correction process is inevitable, a less sharp and longer correction process does not seem to be necessarily less painful.

2. Is a fixed exchange rate regime different from a monetary union?

From a macroeconomic point of view, there should be little difference between a monetary union and a hard peg (e.g. a currency board). There is no national monetary policy autonomy in either case and the constraint on fiscal or budgetary policy should also be essentially the same in the long run.[9] If this is true, one should observe similar adjustment mechanisms at work in crisis-hit

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tools, do not represent their governments and should not feel that they represent their home country. This is the key condition for monetary dominance to hold. That said, there is no doubt that since the start of the crisis the role of the ECB has evolved significantly: the securities markets program (SMP), the long term refining operations (LTRO) and the outright monetary transactions (OMT) are three examples of unconventional monetary policy measures put in place by the ECB to safeguard appropriate monetary policy transmission and in more general terms reduce financial instability.

[8] See De Grauwe (2011) on this point.

[9] In fact, however, one difference still exists. In the case of a currency board, the country can break its commitment to keep the exchange rate fixed without causing any problems for the country to whom the

countries of the periphery of the eurozone and the new EU member states (e.g. the Baltic countries and Bulgaria, which are in a currency regime pegged to the euro; Estonia joined the monetary union in January 2011). However, this seems not to have been the case, at least at first sight.

The very large differences in the response to a fundamentally similar sudden stop might be due to differences in structural features of the links between financial markets within the euro area as compared to a country with a currency board, which has to be defended by the national central bank alone. Another reason why the two groups have reacted differently to the crisis might be that their economic structure differs. In this section we treat both arguments separately.

2.1 Comparing peripheries in the run-up to the crisis

Before assessing the macroeconomic adjustment patterns followed by the two groups of countries, a key question to ask is whether comparing north-eastern EU periphery plus Bulgaria with the (south) periphery of the euro area makes sense and what caveats should be applied to the conclusions. To account for this question, this section highlights the main features of the two groups of countries and tries to ascertain whether the Baltics are 'atypical'.

Table 1. Peripheries: Size and openness

	EMU periphery (GIIPS)					**EU periphery (BELL)**			
	Greece	Ireland	Italy	Portugal	Spain	Bulgaria	Estonia	Lithuania	Latvia
Population 2011 (million)	11.3	4.5	60.7	10.6	46.1	7.4	1.3	3.0	2.0
GDP 2011 (EUR Billion)	209	159	1580	171	1063	39	16	31	20
Openness (index)	0.6	1.7	0.5	0.7	0.6	1.2	1.5	1.2	1.0
Expected growth rate (%)	0.4	3.2	1.4	1.7	1.4	5.2	5.3	6.2	5.4

Sources: Eurostat and IMF WEO database (October 2012).
Note: Openness is measured by the sum of imports and exports relative to GDP and averaged over the period 2000-2011.Expected growth rates are based on IMF estimates. The numbers reported are the average of nominal GDP growth rates over the period 2013-2017

Table 1 summarises a list of indicators that spot the main features of each of the seven countries' economies involved in the exercise. As the GDP, population and the openness indicator suggest, the Baltic countries are definitely small open economies with high growth potential. Within the euro area group, only Ireland displays the similar feature of small open economy.

It is interesting to note that the standard indicator of openness, measured by the sum of imports and exports relative to GDP, may be misleading. While openness is usually considered a positive feature of an economy, signalling flexibility, in the context of countries running persistent current account deficits, the interpretation should be more cautious. Indeed a high degree of openness may

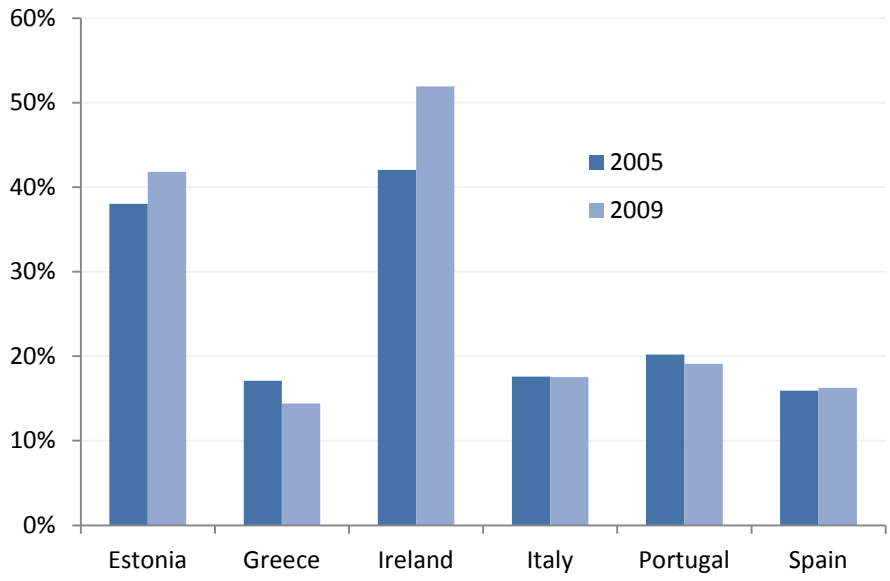
currency had been pegged (the collapse of the peg of the Argentine peso to the US dollar had no impact on the confidence in the dollar). However, in the case of the euro, the exit of any country would have a profound impact on the other member states of the currency area.

be driven simply by high imports rather than by the capacity to supply external demand. For this reason we try to complement this indicator with others.

One way of doing so is to consider employment in the tradable sector. Unfortunately these data are not readily available. As a proxy, we consider employment in the manufacturing sector. However, since services are not accounted for and in some countries make up a large part of exports, the picture that emerges is very mixed. Indeed, according to the latter, Italy, Portugal and Spain seem to be more open than suggested by the sum of imports and exports, while Ireland appears a rather closed economy. Greece is confirmed as small closed economy by both indicators.

A more useful indicator is provided by the measure of domestic content of exports. Figure 1 shows these data relative to GDP (unfortunately data are available only for OECD countries) and suggests that Greece exhibits the lowest domestic value exported (relative to the size of the economy). This is consistent with the indication provided by the openness indicator: indeed, Greece is a closed economy. As far as the other countries of the south periphery of the euro area are concerned, they look rather similar in terms of exported value added, while Ireland seems to excel. Yet, the Irish figures are likely to be biased by the presence of multinationals on the national territory.

Figure 1. Domestic value added of exports of goods & services relative to GDP



Source: Based on OECD/WTO TiVA dataset.

If Ireland is left aside, Estonia exhibits the highest share of exported value added.

Interesting information about openness is also given by the share of the imported component of exports (these statistics are also provided by the OECD-WTO dataset). Relative to the gross value of exports, Italy together with Spain and Greece emerge as the countries with the smallest component, all of them around an average of about 20% of the total for the years 2005 and 2009. This suggests that these countries exhibit a thin degree of integration in the value chain, either regional or global. In the specific case of Greece, this implies that not only the country is a closed economy, but its structure is such that it is extremely difficult to resort to external demand when a sudden stop

occurs. Under these conditions, the country is fated to endure a painful adjustment mechanism.[10] This aspect will be discussed more in-depth in the next sections.

Table 1 suggests that another important difference between the euro area and the EU peripheries is the much-higher growth potential for the new member states. This is what one would expect given that these countries begin with a very low level of income and have much more catching-up in front of them. Growth prospects are difficult to measure with precision, but IMF forecasts (October 2012 WEO) provide projections for a likely path (given information today) over the next five years. According to them, the average nominal growth rate is expected to be more than 5.5% p.a. for the Baltic States and Bulgaria, against a meagre 1.5% for the EMU periphery. This implies that in real terms growth is likely to be negative in the euro-area periphery over the coming years (with quite a significant heterogeneity across countries, between Greece and Ireland for instance). The difference in nominal growth rates is thus a big 4% per annum; when it comes to long-term sustainability assessment of debt, such a gap represents a big divide between the two groups of countries.

Another potential source of differentiation among the two groups of countries relates to flexibility. The Baltic economies are in general considered exceptionally flexible.[11] They have indeed been able to weather rather well both the Russian crisis of 1998 and the global financial crisis of 2008. That said, measuring the degree of flexibility of an economy is a very difficult task. Here we attempt to do so by focusing on two concepts of flexibility: the labour market flexibility as measured (inversely) by the employment protection legislation index and the product market regulation index, which should be an inverse indicator of private-sector dynamism.

As shown in Table 2, however, indicators of density of regulation are only available for the GIIPS and Estonia. According to the numbers, Estonia does not emerge as exceptionally good, it is indeed above the EU average for the EPL and just below for PMR. Ireland does better on both fronts, while for the other countries the result is rather mixed: some display a better ranking in one indicator and considerably lower in the other.

Table 2. Peripheries: Flexibility of the economy

	EMU periphery (GIIPS)					**EU periphery (BELL)**				**EU**
	Greece	Ireland	Italy	Portugal	Spain	Estonia	Lithuania	Latvia	Bulgaria	EU-21
Labour market flexibility (EPL 2008)	2.73	1.11	1.89	3.15	2.98	2.1	na	na	Na	2.09
Economic dynamism (PMR-2008)	2.30	0.86	1.32	1.35	0.96	1.24	na	na	Na	1.32

Source: OECD

Note: The EPL index ranges between 0 and 6, with 6 being associated with the most stringent legislation and in principle the lowest labour market flexibility. Similarly, the scale of the PMR index is of 0 to 6, with 6

[10] On this point see Alcidi & Gros (2012).
[11] See Purfield & Rosemberg (2010).

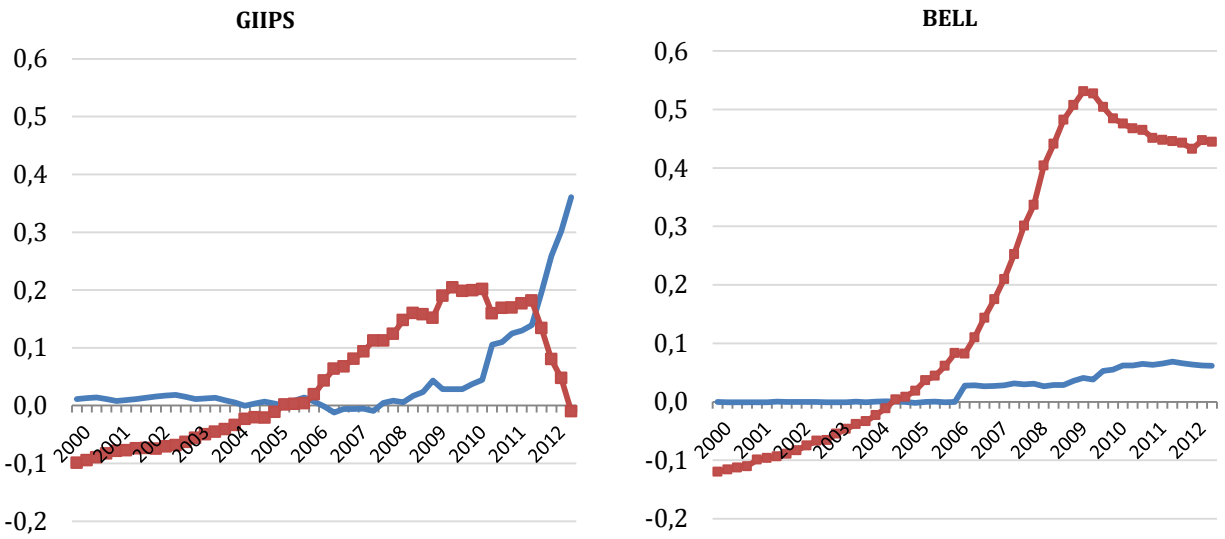
referring to the most restrictive regulation. EU-21 is the average for all EU countries without Bulgaria, Romania, Cyprus, Malta, Latvia and Lithuania, for which data are not available.

The next step consists of reviewing differences and similarities in the build-up of the imbalances during the period 1999-2007, which paved the way to the sudden stops.

2.2 Capital inflows

As stated in the introduction, the starting point of the study is that both the GIIPS and the BELL have experienced a sudden stop in lending. The purpose of this section is to provide some stylised facts that this was indeed the case. Figure 8 shows the developments in private and public financial flows, at aggregate level for the two groups and relative to GDP. The humped-shaped red line is the simplest representation of the sudden stop: first the increase in the flows of private resources into the economies and then the sudden reversal. Two remarks are worthy of mention here. The inflows of capital, relative to GDP, were much larger in the BELL than in the GIIPS,[12] the reversal much more drastic in the GIIPS than in the BELL. This latter aspect will be discussed further in the next section.

Figure 2. Private and public flows, cumulated (Stock financial account in 2000) (% of GDP 2012)



Note: Blue line is public flows; red line is private flows. Private flows are computed following the definition contained in the MIP Commission report. It is calculated in a residual way from financial accounts after subtracting public flows. The latter are given by the sum of changes in the Target2 balance plus the programme finance (for countries under emergency programmes). We neglect the capital account in the definition of private flows.
Sources: Eurostat and national central banks and IMF and European Commission for programme countries.

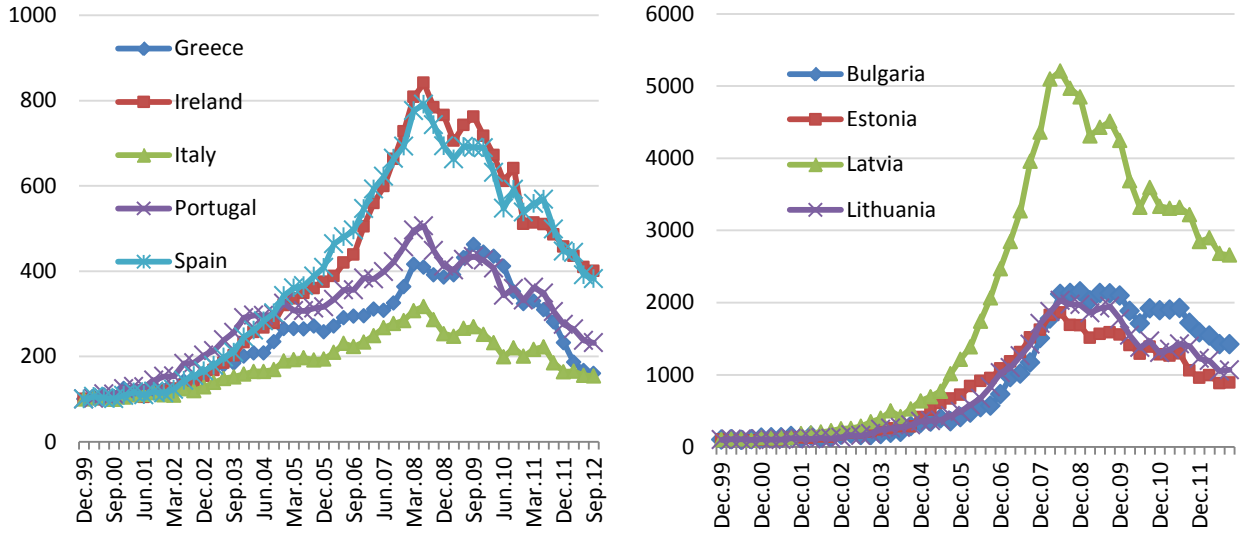
Another way to find evidence of sudden stops is through banks' external positions. Although FDI and portfolio flows played an important role as source of external financing of the BELL and the

[12] Italy is likely to be responsible for the large difference. It is the largest country in the GIIPS group in terms of GDP and the one with the slimmest inflows of capital.

GIIPS respectively, in Europe as whole a very significant part of financial flows (and current account imbalances) are channelled by banks. Figure 9 shows external assets, held by BIS-reporting banks vis-à-vis each of the countries of the two groups, and assumes that 1999 equals 100 in each of the countries. The normalization allows a comparison of the size and the volatility of banking flows into the different countries without the effect of specific features of individual economies.

Similarly to the private flows shown in Figure 2, the humped-shaped curves reflect the sudden stops. Consistent with Figure 2, the increase in external claims vis-à-vis the BELL is much larger than vis-à-vis the GIIPS[13] and impressive in the case of Latvia.

Figure 3. BIS-reporting banks' external position – Assets vis-à-vis individual countries (Dec 1999=100)



Source: BIS locational banking statistics, and authors' elaboration.

In fact, Figure 3 is also informative to another extent. It provides an indirect indication of another problem: the excess leverage in the banking sector. The main driver of growing leverage was of an economic nature and tightly linked to the flight of large capital flows from core eurozone countries into the periphery after the creation of the euro. The peripheral eurozone economies (Greece, Ireland and Spain) in their catching-up phase appeared to core European member states with large savings and little domestic investment prospects as a great investment opportunity.

An important consequence of capital inflows is that they generate their own fundamentals: high growth rates driven by strong demand for consumption and construction investment, supported by easy credit fed from abroad. In all this, the financial system and banks in particular, played a crucial role. They made the capital flows possible and magnified the availability of credit through leverage by generating a tight network of intra-sector exposures. This mechanism is what made the crisis expand from the GIIPS and the BELL to the entire euro area.

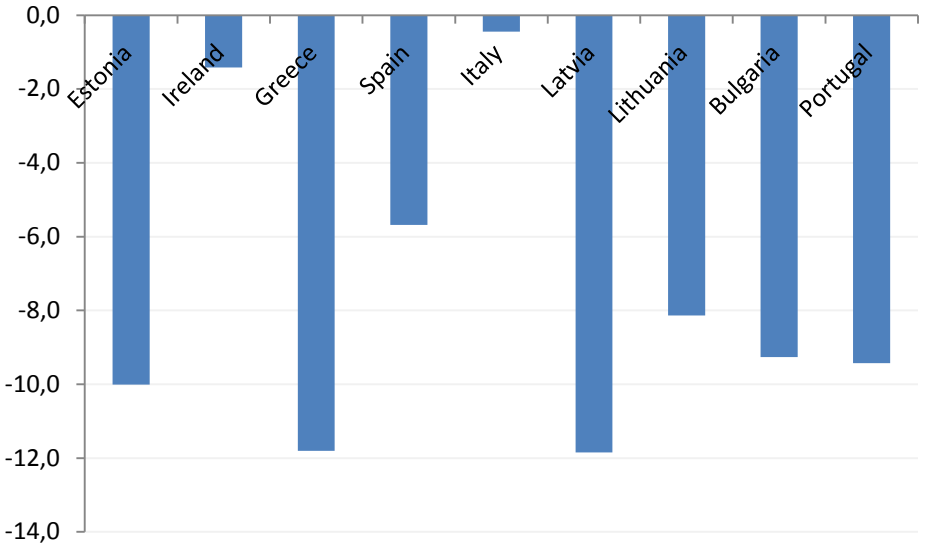
[13] It is worth noting that the scales in the charts are different, for the BELL is six times than for the GIIPS

2.3 Macroeconomic imbalances

In both groups of countries, macroeconomic imbalances, although to different degrees, have shown up mainly in the external position of countries. In the form of large and persistent current account deficits, which have contributed to a large accumulation of external debt, and accompanied by a generalised deterioration of the competitiveness relative to other eurozone core countries (most notably Germany, Austria and the Netherlands) as well as a significant resources (mis-)allocation in some specific sectors, like the real estate, which have fuelled housing bubbles.

As shown in Figure 4, during the period between 1999 and 2007, with the exception of Ireland and Italy which displayed only small negative current balances, both groups of countries have been systematically overspending relative to the resources available. With the exception of Greece, the numbers suggest that the BELL experienced the largest imbalances, at least on the external position.

Figure 4. Average current account balance as % GDP (1999-2007)

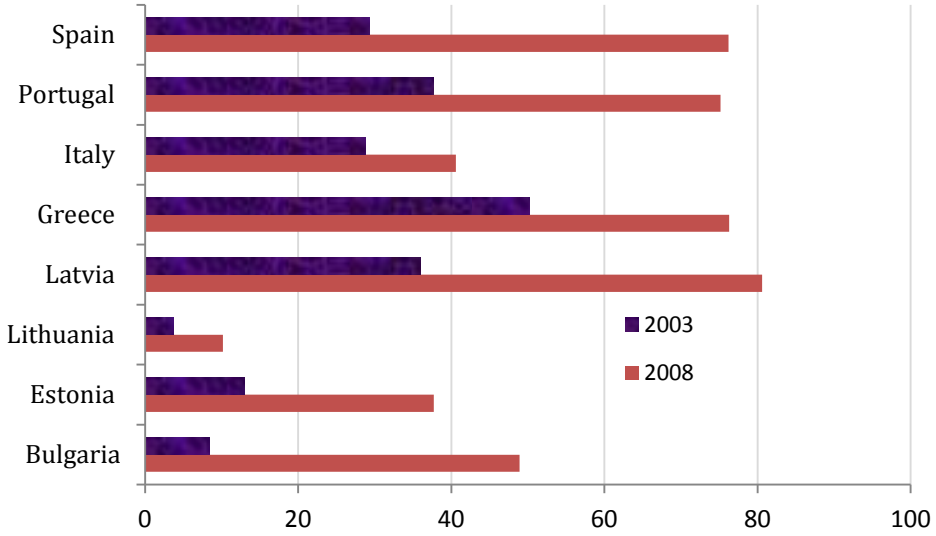


Source: Ameco.

As mentioned in the introduction, until 2007 these imbalances were seen as part of a process of catching up, either in the context of the monetary union or in the context of a transition towards a market economy system and, as such, considered not only innocuous but also a source of growth for both lenders and borrowers. Indeed, this is consistent with the vision of peripheries as emerging market economies. According to the general wisdom, a know-how-poor country is expected to be an importer of capital to develop production processes, which implies current account deficits, ideally, funded through FDI. Furthermore, underdeveloped or repressed financial markets make it necessary to rely on external funding. The problem, however, is that if this process contributes to increase drastically and/or systematically external debt relative to GDP, this may become a significant source of vulnerability for the country. On this front, we observe an important difference between the Baltics and the periphery of the EMU concerning the size of the stocks. The starting point was completely different: as shown in Figure 5, in 2003 except for Latvia, stocks were

non-existent for the BELL, while very non-negligible for most of the GIIPS and large for a country like Greece. The boom in the Baltics was somewhat shorter than in the euro area, but, as shown in the chart, it was strong enough to contribute to the accumulation of quite large stocks. The sequence of current account deficits contributed to a rapid accumulation of stocks of external debt. If one excludes Lithuania, which managed to keep its external debt very low, Latvia and Bulgaria overran even Italy. This implies that for both groups of countries, the reduction in the external debt is a key task in the framework of the external adjustment.

Figure 5. Net external debt (% of GDP)



Note: The net external debt is the subset of the net international investment position that does not include data related to equity and financial derivatives.
Ireland is not included, because it has a positive net external position, rather than a debt, but also because figures for its external position are affected by large multinationals that are located on the Irish territory but not really part of its economy.
Source: Eurostat and European Commission services (Ameco)

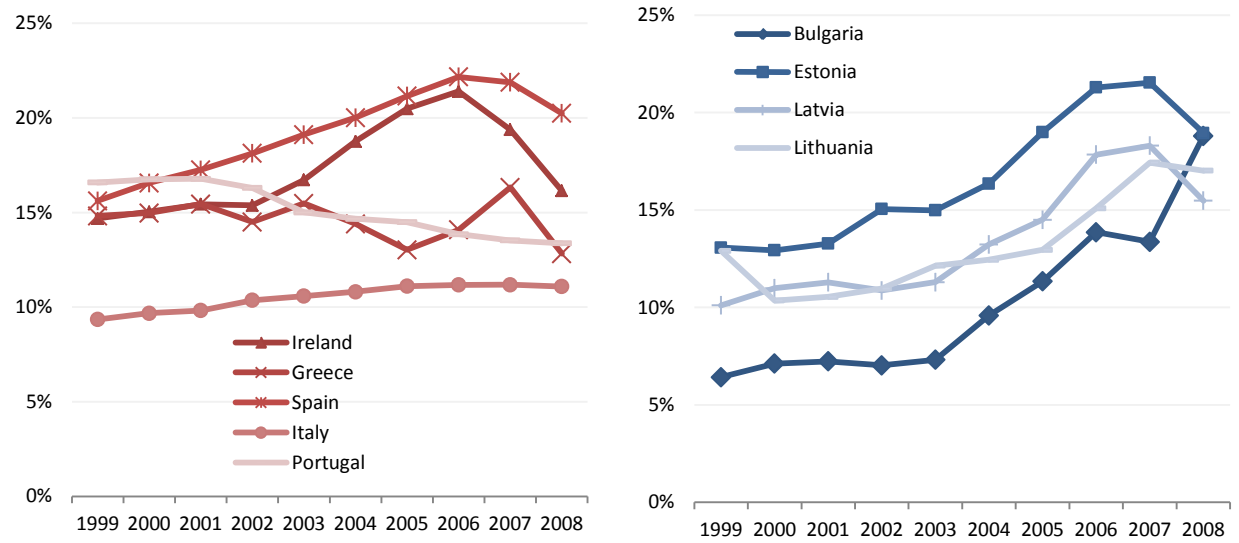
This characterisation of an emerging economy seemed to fit the Baltic States and Bulgaria in many respects, while only to a lesser extent some of the GIIPS. However, although made up of more mature economies, the some of the GIIPS (most notably, Spain, Ireland, Greece and Portugal) were perceived as having good growth potential in terms of income convergence towards higher standards of living of the oldest members, especially in some specific sectors. In the case of Spain and Ireland, the identified sector was clearly real estate.

One consequence of it was that during about ten years house prices increased dramatically: according to OECD data, house prices measured relative to rent, which is supposed to be a relatively stable indicator (similar to the price-earnings ratio), increased by over 80% and more than 140%

(more than in the US) in Spain and Ireland, respectively.[14] Besides the movements in prices, whose adjustment may have little macroeconomic relevance, other variables are key to detect imbalances.

The first is the size of the construction sector. Figure 6 shows the share of investment in construction relative to GDP and illustrates its huge increase, to reach more than 20 percentage point of GDP in Spain, Ireland and Estonia, and to a more moderate extent in Latvia and Lithuania. Developments in Italy, Greece and Portugal look completely different, with no significant increase in the former and even a fall in the other two. In this respect, it should be kept in mind that Italy and Portugal were growing, if at all, at much slower pace than the other countries, while the expansion of industry in Spain, Ireland and Estonia was one of the main drivers of economic growth.

Figure 6. Investment in construction (% of GDP)



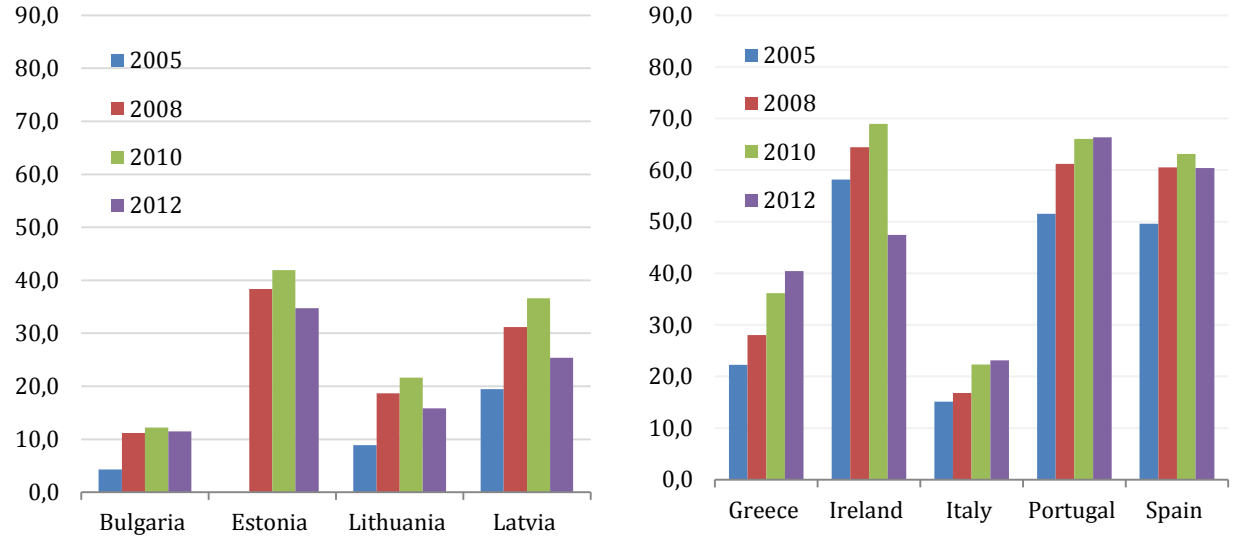
Source: European Commission services (Ameco).

The second key element is debt. Figure 7 shows developments in the balance sheet of households (and hence banks) related to house purchases. The charts display a steep increase in housing-related debt for households and, by mirror image, the increase in the exposure of banks to a potential burst in the real estate bubble.

The Baltic States experienced a very strong increase in housing debt over the period 2005-2008. Figure 7 shows the increase continuing until 2010, but this is related to the fall in GDP rather than to an increase in lending. Also some euro area member states experienced a raise in bank lending to households. This was especially the case in Spain, Ireland and Portugal, which were already displaying very level of debt in 2005. Therefore while the increase in lending was more marked in the BELL, the levels reached in the GIPS (excluding Italy) were much elevated, which points to larger balance sheet's deterioration.

[14] Unfortunately OECD data do not include any of the BELL countries; by contrast Eurostat has recently published the house price indicators for all 27 EU countries and an average for the Union, unfortunately the data do not date back enough in time to be used.

Figure 7. MFIs lending for house purchase (% of GDP)

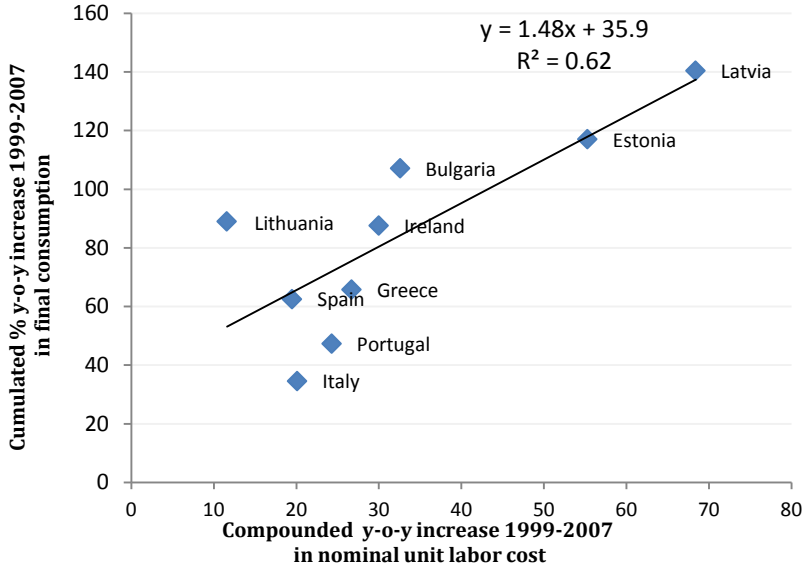


Note: Year 2005 is not available for Estonia.
Sources: ECB Statistical warehouse, MFIs balance sheet, lending to households for house purchase.

The ill-fated combination of booming housing prices with increasing private debt and a growing size of the construction sector in the economy promises to deliver an extremely dangerous cocktail. A burst in housing prices, which could in part be the result of large movements in a volatile asset price, when combined with debt overhang and a restructuring of a large sector of the economy, can have large consequences in terms of welfare losses and other long-lasting effects as it can trigger defaults, a banking crisis and high unemployment. With the advantage of hindsight, we know that this is indeed what happened in Spain and Ireland.

The boom of the construction sector and the increase in lending to households for home purchase are in fact timely examples of a generalised boom in demand, consumption in particular, and excess credit in most of the countries of the two groups. The generalised increase in consumption is accounted for in Figure 8, where the vertical axis shows the compounded growth rate in consumption over the period 1999-2007. The figure suggests that the rise was exceptional in the BELL and rather high in Spain, Ireland and Greece. What Figure 8 also shows is that this increase exhibits a strong positive correlation with a loss in competitiveness as measured (inversely) by the unit labour cost. In other words, the countries that experienced the highest increase in consumption are the same that experienced the highest increase in labour costs and hence the fall in competitiveness. Consumption behaviours are mirrored in the current account balances: as shown in Figure 4, the BELL together with Greece exhibits the largest deficits.

Figure 8. Demand and competitiveness

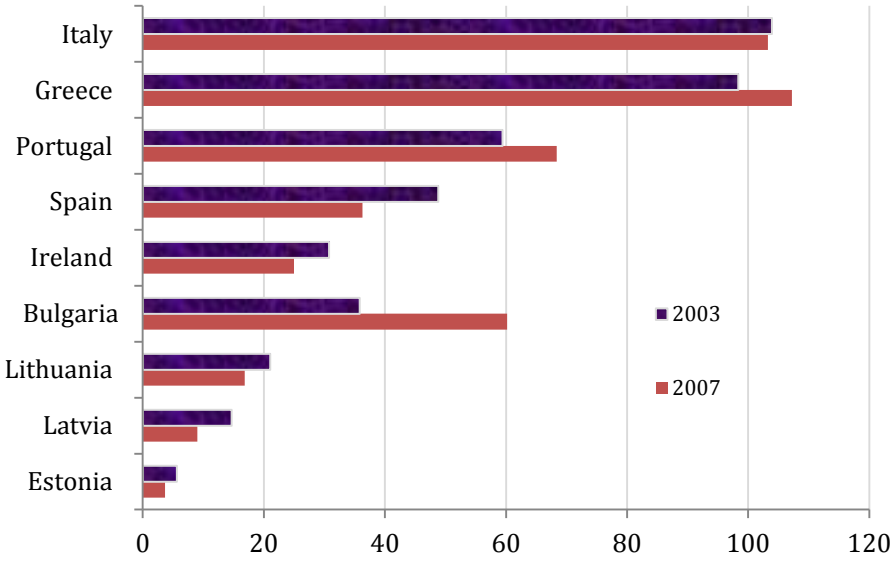


Sources: Eurostat and European Commission Services (Ameco).

Although Figure 6 is just a correlation matrix, economic reasoning suggests that the high levels of demand which have boosted growth, have contributed also to an environment that is favourable to large increases in wages. In this sense, within the EMU the falling competitiveness in the GIIPS and the growing divergence relative to the core countries was mostly a symptom of a deeper problem related to excessive credit and consumption rather than a problem *per se*.

In the case of the BELL, similarly to consumption, given the very low starting level of wages, the increases have been exceptional, but also Ireland and Greece experienced remarkable raises.

Figure 9. Government debt (of GDP)



Source: European Commission Services (Ameco).

In contrast with the external position which experienced very large imbalances, as shown in Figure 9, the fiscal position of the Baltic States remained virtuous over the boom period: in 2007, just before the peak of the crisis, Estonia almost had no public debt and Latvia and Lithuania a very small one relative to GDP, and less than in 2003. Only Bulgaria experienced a significant increase.

Conversely, the EMU member states that already had very large debt stocks at the time they joined the monetary union, like Italy, Greece and Portugal, did not manage to reduce their size most likely because of pro-cyclical fiscal policies. Ireland and Spain managed to reduce their level of public debt and to bring it at the lowest levels among the countries of the monetary union. Unfortunately, as the impact of the crisis will prove, budgetary results in those countries were tightly linked to the boom in the construction sector and the burst of the housing bubble resulted in a marked reversal in the budgetary positions.

Overall the analysis suggests that the accumulation of imbalances in the GIIPS group was quite heterogeneous: Greece experienced exceptionally high excesses in its external position, while in Ireland and Spain the housing bubbles shaped the boom phase and consumption increased markedly in each of the three countries. The phenomenon was much more modest in Italy and Portugal. The BELL experienced excesses in the external position of the order of Greece, construction booms compared to the one in Spain and Ireland and an increase in consumption much larger than any other GIIPS country. Most likely a composite indicator of imbalances would suggest that they were larger in the BELL than in the GIIPS. The main difference lies in the initial level and in the potential: the BELL had lower level of consumption, lower level of housing, lower level of debt and a much higher growth potential.

2.4 Financial sector: Ownership of banks

Another specific feature of the Baltic States is the very high foreign ownership of banks. In the early 1990s, during the post-communist transition phase characterised by a significant privatisation of the financial sector and the elimination of barriers to entry, international banks began to operate in these countries. The year 1998 witnessed several takeovers of Estonian banks by foreign banks, mainly Swedish. Ten years later, in 2008 more than 90% of the Estonian banking sector was foreign-owned[15].

The situation is not very different in Lithuania where the share of foreign owned banks (in terms of assets) increased from about 70% in 2004 to around 80% in 2010, up to 90% in 2011 following the bankruptcy of the largest domestic bank Snoras (European Commission Convergence Report 2012).

Latvia was an exception to this common feature being the only Baltic country with a domestic banking industry. Indeed in 2004 only about 40% of total assets where foreign owned. But since then (year of the EU accession) foreign-owned credit institutions in total credit institution assets has increased considerably and reached more than 70% in 2010.[16]

[15] Swedbank had almost 50% of the market share alone (OECD, 2011)
[16] See European Commission Convergence Report 2012.

The large presence of foreign European banks in the Baltic States makes financial sectors in these countries very well integrated into the EU financial system but also highly concentrated.[17] The foreign headquarters supplied large amount of funding, which was natural for the Swedish and other Nordic banks whose home countries were running large current surpluses. Their Baltic subsidiaries provided a convenient outlet for the domestic savings surpluses.[18]

Bulgaria makes no exception to the BELL group in terms of foreign ownership of banks. According to the European Commission Convergence Report 2012, over 80% of total credit institution assets are in the hands of foreign owned financial institutions, and this value has remained rather stable over time. Interestingly contagion from Greece has remained limited, despite significant Greek ownership in the Bulgarian banking sector.

Foreign banks thus play a crucial role in the BELL group of countries, with the national institutions limited to the supervision of subsidiaries whose lead supervisor resides abroad. It is likely that the foreign ownership of banks played an important role in the run-up to the crisis as it provided increasing supply of cross-border credit funded by parent banks.

The situation is completely different in the EMU, where the domestically-owned banking sector remains dominant almost everywhere. While in some respects this may be seen as strength of the country, it also implies that if a banking crisis were to occur it would produce a heavy legacy on the country, unless a system for burden sharing exists, while foreign owned banks would work as shock absorber.

Overall the elements that have been highlighted in this section point to important differences in terms of economic structure between the two groups.

At first sight the major similarity in the two groups of countries remains in the form of cross-border credit. Within the euro area, the high degree of integration of the banking sector at the wholesale level allowed banks in the periphery to borrow from other banks located in the core of the euro area.[19] Similarly foreign ownership of banks in the Baltics ensured access to cross border capital. Yet a significant difference exists: foreign-owned banks in the BELL were mostly borrowing from the same group. When it was not the same group, cross-border lending tended to be highly concentrated, with a very limited number of counterparts. Under these circumstances the incentive for the foreign lenders to withdraw, instead of internalizing losses in case of crisis is much lower, as the cost of withdrawing is larger. Indeed in the case of a parent bank that is providing the subsidiary with credit, the losses associated with a withdrawal would not only be in terms of equity but also asset losses. Similarly, if borrowing is highly concentrated vis-à-vis one single lender (or only few lenders), the latter will have an incentive to internalize some losses hoping to recover them over the long term rather than running away.

This helps explaining why the BELL, unlike most of the GIIPS, experienced only limited outflows of capital and not a full-blown banking crisis.

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[17] According to the Converge Report 2012 the CR5 ratio is above 60% in Latvia and Lithuania and much higher in Estonia (Based on OECD 2012)

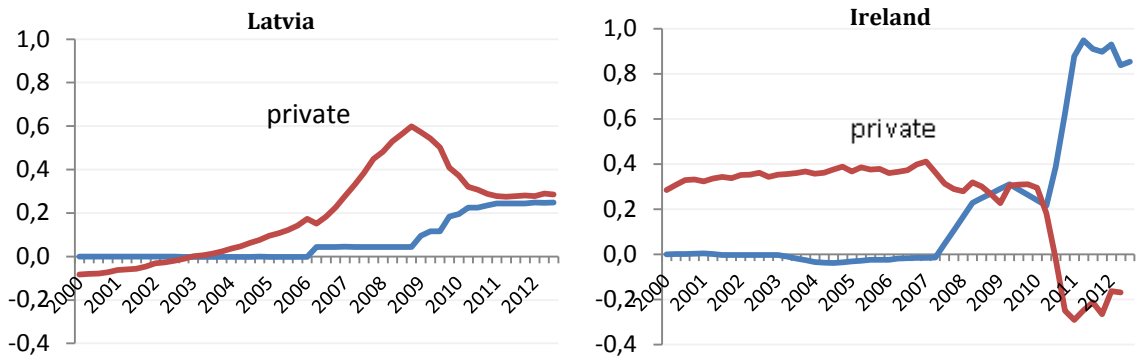
[18] Foreign banks thus play a crucial role in all the BELL group of countries, with the national institution limited to the supervision of subsidiaries whose lead supervisor resides abroad.

[19] The only partial exception to this is Ireland, where British banks had a non-negligible market share.

BOX. Ireland and Latvia

The elements of comparison shown in the main text suggest that Ireland and Latvia are the two most similar pair and most suitable for a comparison. As shown in Table 1 Ireland and Latvia are economies of different size and have different population mass. Furthermore financial flows up to the crisis exhibit a rather different behaviour.

Figure A: capital flows: private and public (% GDP 2011)



Source: see Figure 2

In Latvia the upward trend is very clear cut, it started from a very low level and it reached about 60% of GDP in 2008. By contrast in Ireland it remained rather flat throughout the first decade of the 2000s, at an average level of about 30% of GDP. Also the current account behaviour was rather different, as shown in Figure 4, while the average deficit in Latvia was of the order of 12% of GDP in Ireland it barely reached 2%. What was similar during the booming years was the increase in the size of construction sector: 6.4 percentage points of GDP in Latvia and 7.7 in Latvia, over the period until 2000-2006. But this is not the only common element. Ireland and Latvia share several important features of the post-crisis dynamics. As shown in the table A1, changes in GDP and in labour cost have been of similar magnitude likewise the increase in net migration since the crisis erupted and the level of unemployment reached din 2012.

Table A 1. Comparing Latvia and Ireland

	Latvia	Ireland
Change in GDP (from peak to trough)	-20.5%	-17.1%
Average net migration rate as percent of total population (2008-11)	0.5	0.45
Unemployment rate (2012)	15.2	14.8%
Cumulated change in nominal labor cost (2009-2012)	-15	-15.3

Sources: Authors' elaboration based on Eurostat data

The EU-IMF programme is another element of comparison. During the period 2009-2011 Latvia benefited from balance of payments assistance under the EU program, which was provided in conjunction with an IMF Stand-by agreement and was also financed by the World Bank, the European Bank for Reconstruction and Development and other countries. The program agreed in late 2008 successfully ended in January 2012. Over the two years Latvia borrowed altogether about EUR 4.5 billion out of the total EUR 7.5 (about 30% of GDP) billion that was available under the program.

The financial programme for Ireland is much larger, it provides for assistance of up to €85bn (i.e. more than 50% of GDP) over a three-year horizon shared equally amongst: the European Financial Stabilisation Mechanism, (EFSM), the European Financial Stability Facility (EFSF) together with bilateral loans, and the IMF. Interestingly, of the €85 billion, 50 billion are to cover public finance needs and up to €35bn for banking assistance. In other words if one excludes banking assistance, the program for Ireland is about 30% of GDP, exactly like Latvia. The inflows of official money are shown in Figure A1 by the red line. In the case of Ireland the total is well above the assistance program as it includes the changes in the Target II position of the country.

3 Comparing country adjustments

From the comparison between the GIIPS and the BELL, relative to the structure of the economy and the build-up of the imbalances, three main aspects emerge: i) the BELL are very small economies and very open; ii) unlike the GIIPS, they had no debt stocks when the boom period started but the flows during that period were extremely large, larger than in the GIIPS in several respects; and iii) the BELL do not have (or have a very small) domestic banks, which makes a banking crisis a non-systemic event.

Beyond economic and structural differences, there is also another aspect of differentiation to be taken into consideration. It relates to the institutional setting. As will be emphasised more forcefully below, a key difference between the two groups of countries is the existence of a lender of last resort: the intervention of the ECB is a key factor in making the adjustment pattern different. There is no doubt that the ECB played the role of last resort for the GIIPS, while the BELL did not really have an equivalent institution. Moreover, the ECB was not alone in this; the creation of the European Financial Stability Facility (EFSF) and then its permanent version, the European Stability Mechanism (ESM) worked together with the IMF to provide emergency support when necessary. In fact, the non–euro area countries had only the IMF for such kind of support and indeed Latvia is still under an IMF programme. Moreover, while the IMF is supposed to intervene only to offer balance-of-payments assistance, the spectrum of action of the ESM and ECB is much more extensive than that.

Against this background, we shall focus in this section on the country adjustment in terms of private demand, i.e. consumption, investment and current account, as well as on the fiscal correction and try to understand the reasons for the differences in the adjustment patterns across countries.

3.1 Private and public cross-border capital flows

After the creation of the monetary union, both peripheries boomed supported by integration within the EMU and the EU. In the case of the Baltics, the adoption of the *acquis communautaire* combined with a strong commitment to a stable exchange rate contributed to boosting expectations. The boom that followed was mainly driven by bank lending, in large part funded by borrowing from the Nordic foreign parents. Only in one case (Latvia) was the boom financed to a significant part by local banks. But they had no problem in attracting resources on the wholesale market. The capital inflow financed a corresponding acceleration of domestic demand, most notably consumption and construction.

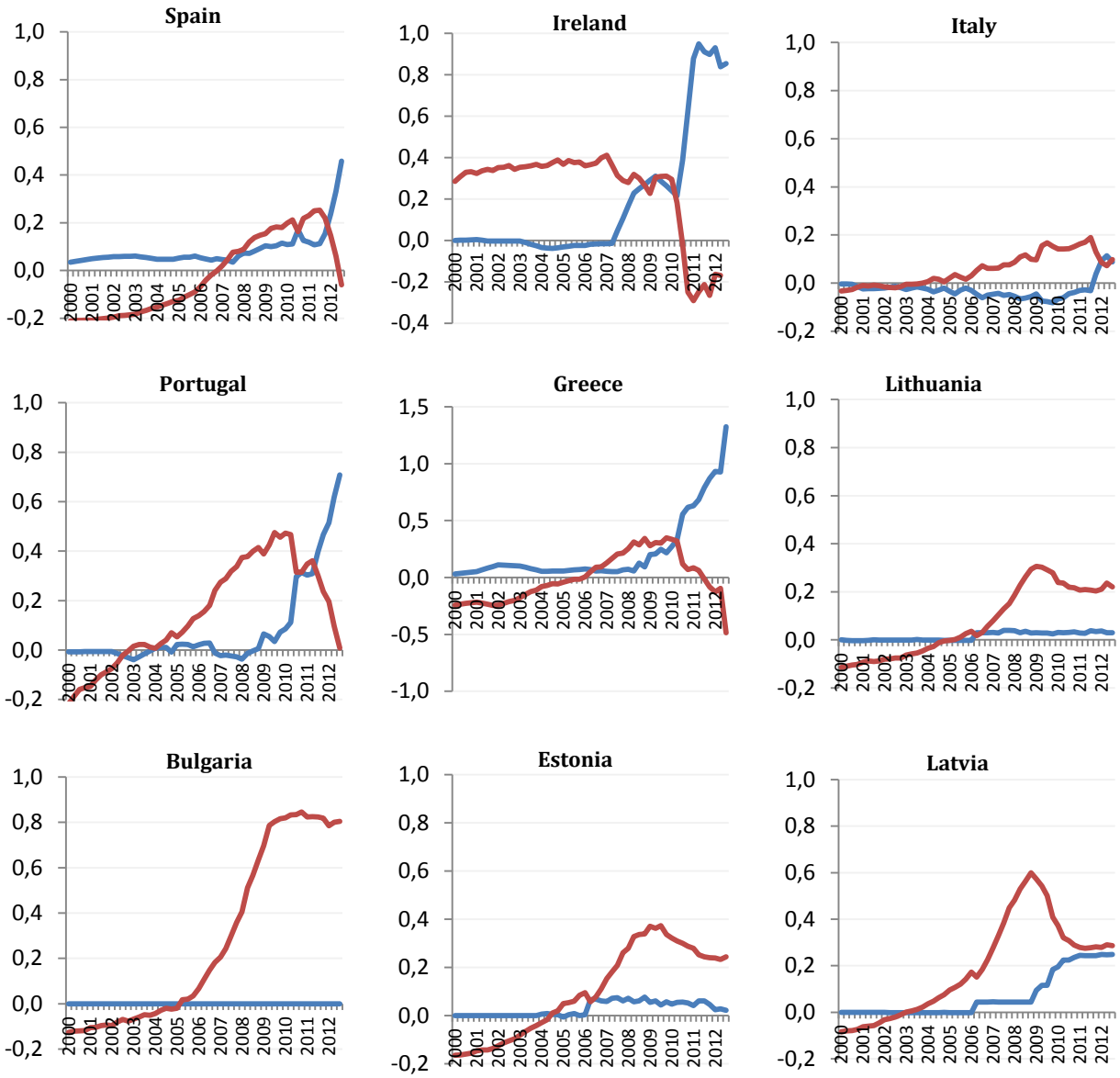
Similar patterns were at work in the periphery of the euro area. Greece, Ireland, Spain, Portugal and to a much less extent Italy, experienced large inflows of private capital intermediated by the banking system, on the back of a global credit boom, low global interest rates and widespread optimism concerning the expectation of rapid income growth resulting from joining the euro.

Once the global financial crisis started, foreign capital became suddenly much scarcer and the inflows stopped almost immediately in the case of the Baltic countries and Bulgaria. Initially it was widely thought that membership of EMU would protect the euro-area periphery from a 'sudden

stop'. But this changed over the following two years as the crisis also gradually affected the euro area.

At this point a marked difference emerges: in the case of the countries outside EMU private inflows stopped, but did not reverse; in other words there were little outflows – at least in those countries that did not receive balance of payments assistance. Indeed, given the limited foreign exchange reserves these countries had, it was not possible for private capital to flee.

Figure 10. Private and public flows, cumulated (Stock financial account 2000)



Note: Blue line is public flows; red line is private flows (% of GDP 2012).
Source: See Figure 2.

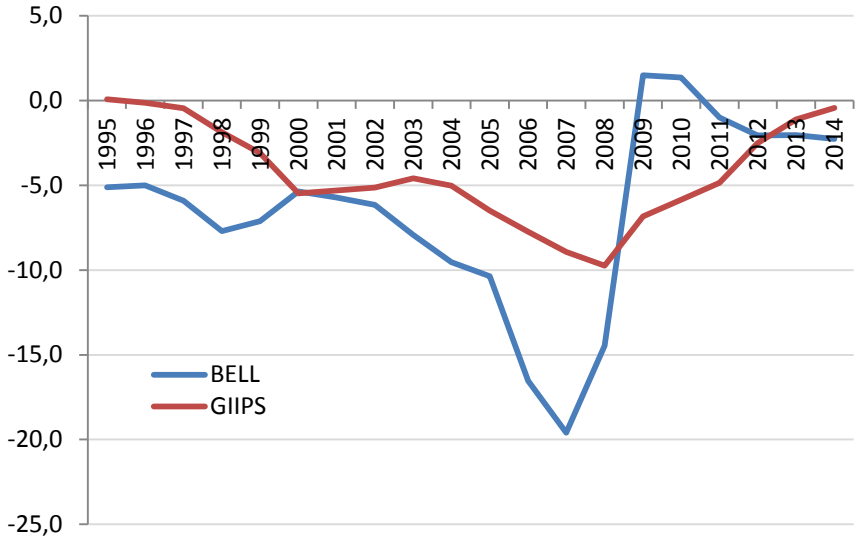
The consequences of the crisis were quite different in Latvia, where one sees a substantial outflow of private capital, offset by an equivalent inflow of official capital (the EU/IMF balance of payment

assistance). The offsetting flows of private and public capital in the case of Latvia look very similar to the ones for the euro-area countries where official financing (mainly via the ECB's Target system) provided the mirror image to the outflow of private capital. Figure 10 illustrates these trends.

There were substantial inflows of private capital between 2000 and 2007-08 in both groups of countries. But after this date trends started to diverge. Private capital flows out of euro area countries, but not countries outside EMU (except Latvia where balance-of-payment assistance financed the exit). *A priori* one would have expected the contrary, namely that private capital should be more stable within EMU than outside.

3.2 The adjustment in private demand

Figure 11. Current account turnaround

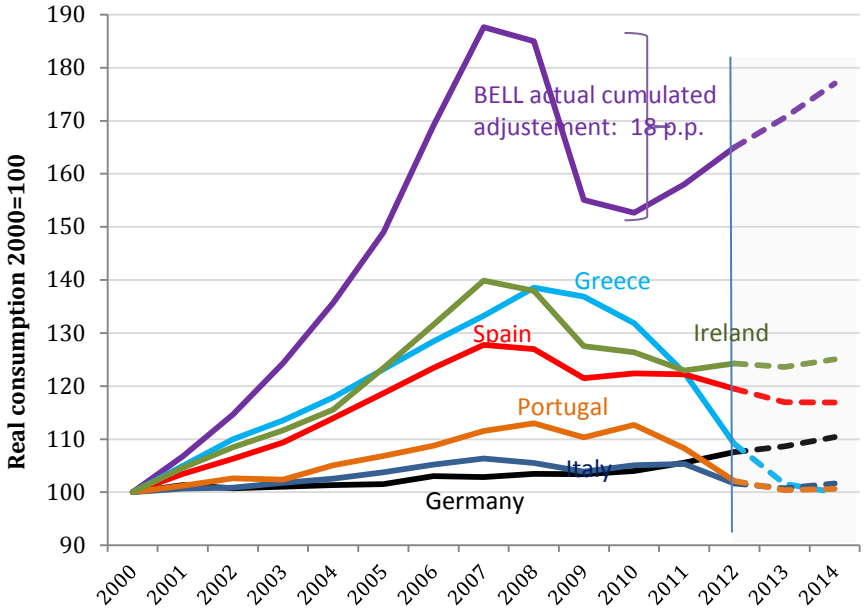


Source: European Commission Services (Ameco).

Figure 11 shows the current account deficits of the two groups (as a % of GDP) since 1995 and clearly illustrates the difference in the reversal that materialised after the crisis. It is apparent that the volatility is much higher for the BELL. Collectively this group recorded a current account deficit of about 20% of GDP in 2007, which turned into a small surplus only two years later and subsequently negative, signalling that in principle the worst of the crisis is over. By comparison Greece, Ireland, Portugal, Spain and Italy (GIIPS), as a group, had a much smaller current account deficit, and the largest value of about 10% was recorded in 2008, one year later than for the BELL. The most striking difference between the two groups is the pace of adjustment. While, the BELL current account improved by over 20 percentage points of GDP in two years, the GIIPS correction was much smaller and more gradual. Four years later, the current account deficit is still above 2% of GDP, implying an improvement of about 2 percentage points per annum, around one-fifth of the 10 points of the BELL. Data for individual countries prove that, while countries like Ireland and Spain have achieved a surplus, Greece is struggling to offset a still-large deficit.

What were the main drivers of the extraordinary improvement in the current account of the BELL? The key difference seems to be in the reaction of consumption. Figure 12 below shows the time path of real consumption with the level of the year 2000 set equal to 100 for each country. On this basis, a higher volatility emerges in the case of the BELL, exactly like the case was for the current account balances. In the BELL group, consumption increased much more, almost doubling between 2000 and 2006. But it adjusted very quickly once the crisis had started; falling by about 20% in the space of two years. The GIIPS countries, shown here individually, all recorded a much more gradual adjustment. However, the difference in the cumulative adjustment since the peak is much smaller than for the current account. In the case of Ireland, for example, consumption fell from an index value of close to 140 to around 120, a cumulative fall of about 15%, not that far from the value for the BELL, and in Greece the drop has been even larger, from an index value of 140 to 110, i.e. more than 21%. The main difference is the delay in the adjustment (it starts later in the GIIPS countries) and length of the fall. In the case of the GIIPS it is stretched over a longer time period. This is also proved by the fact that for the year 2013, the European Commission forecasts expected consumption to keep falling, or at best remain stable, in all the GIIPS, while significantly recovering in the BELL.

Figure 12. Adjustment in consumption



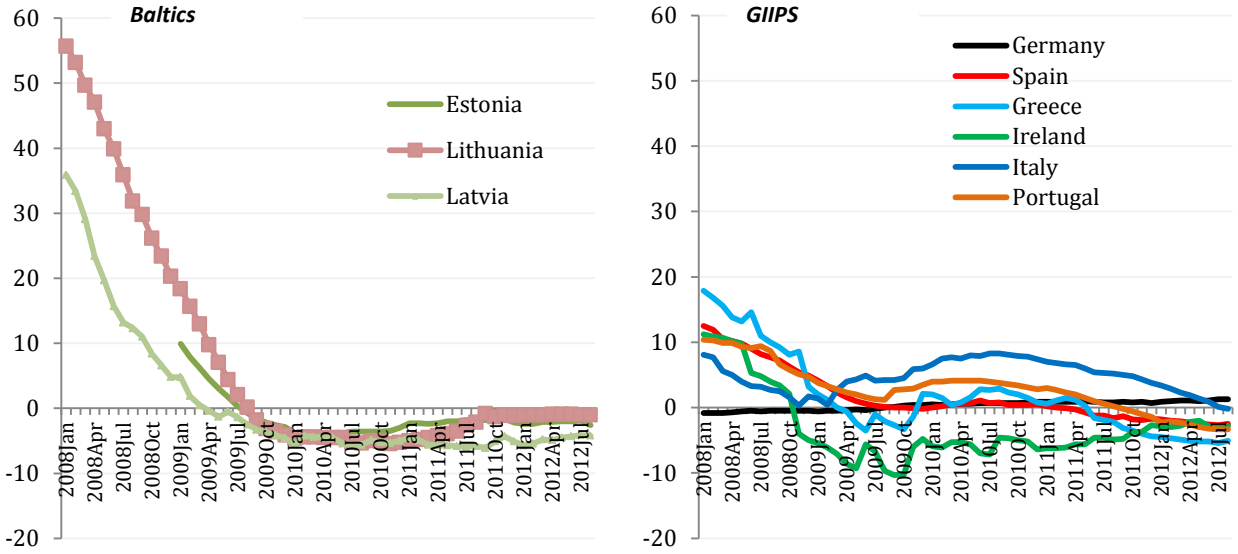
Source: European Commission Services (Ameco).

The current account data (shown in Figure 11) mirror this difference: the balance has deteriorated again for the BELL, but is projected to continue to improve for the GIIPS.

In section 2, it has been argued that a key driver in the build-up of imbalances is to be found in the excessive credit made available to the economy and the excessive consumption and housing investment in a number of countries associated with it. Figure 13, which displays the changes in the amounts of loans issued to households, shows the effect of the crisis on credit availability and helps explain the difference in the consumption adjustment patterns.

In the aftermath of the global financial crisis, credit fell sharply in both groups of countries, but the relative drop is far larger in the BELL. Interestingly, after mid-2009, the situation stabilised in the BELL, while different forces seemed at work in the context of GIIPS. Indeed, despite the ongoing crisis, in the EMU periphery, credit to households resumed during 2009. This was the consequence of the activation of extraordinary measures by the ECB to inject liquidity in the system and supply funding to euro area banks. This also explains the delay in the adjustment in consumption relative to the course in the BELL countries. There, the dramatic slump in the consumption loans is the driver of the huge fall in consumption and imports, with the consequences shown earlier on the current account.

Figure 13. Loans by MFIs to households after the crisis (annual growth rate)



Source: ECB statistical warehouse.

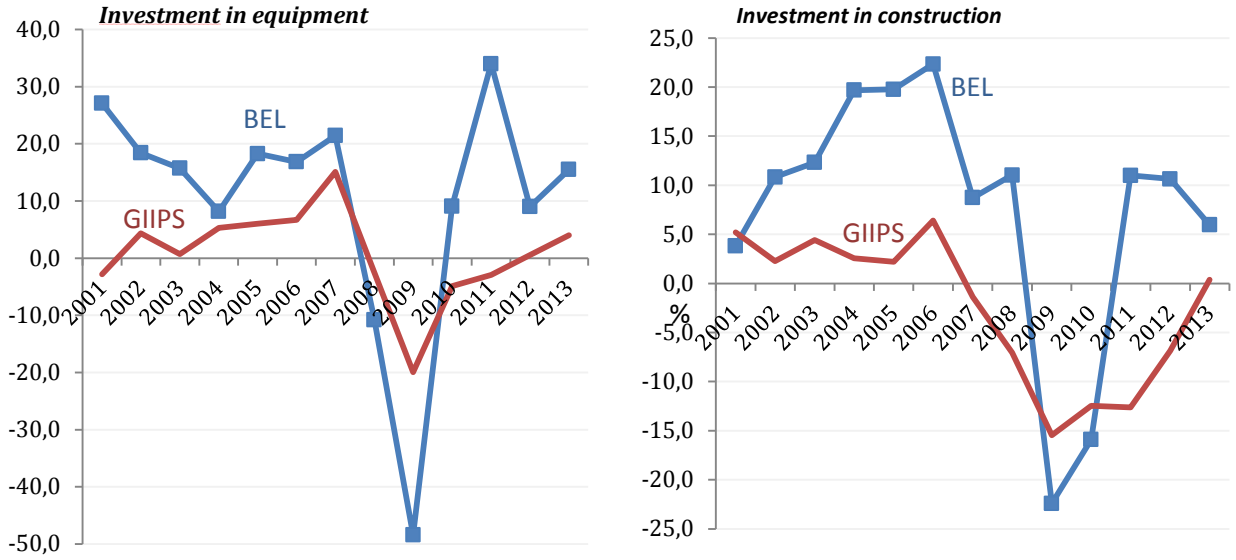
Another factor to be taken into account in understanding the different patterns fallowed by the two groups of countries is the degree of reliance of households on bank funding for consumption. Data suggest that this is high in some of the GIIPS, most notably, Greece, Ireland (where is extremely elevated) and Portugal, whereas it is rather low in the three Baltic States (not so much in Bulgaria).[20] This implies that at the margin a change in the conditions to access credit is likely to have a much larger effect on the first group than on the latter.

The comparison of the time paths for investment highlights a much higher volatility for the BELL than for the GIIPS. Growth rates were much higher before the crisis, they then turned strongly negative after the crisis and stabilised almost immediately. Figure 14 below shows separately the growth rates for investment in equipment and construction given that only two of the GIIPS (Ireland and Spain) had experienced a construction boom. Investment in equipment fell by one-half during the peak of the crisis in the BELL group, but then recovered very quickly. It is also apparent

[20] The ratio of MFIs lending to households for consumption (outstanding amounts) relative to households' expenditure for final demand is on average (with variations over time) of the order of 10% or below in the Baltic States, while it is above 100% in Ireland and well above 10% in the Portugal and around 20% in Greece.

that the main driver of investment seems to have been the global shock to financial markets following the Lehman Bros. bankruptcy in the sense that both groups recorded the trough during the same year (2009). The same holds true for investment in construction, which also recorded its biggest fall in the same year. But in this case, the differences among the GIIPS were of course much larger given that Greece and Italy in particular had not experienced any construction investment boom before the crisis.

Figure 14. Investment in real terms (percentage change)



Note: Here we display BEL instead of BELL because data for Latvia are not available.
Source: European Commission Services, Ameco database.

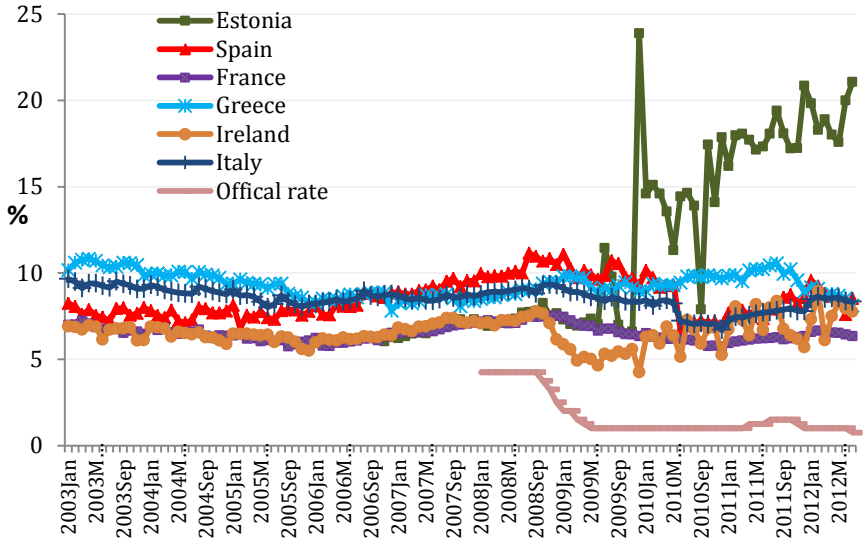
What explains the difference in the behaviour of consumption and credit illustrated above? We argued above that a key difference between membership of the euro area and a (unilaterally) fixed exchange rate is the integrated euro area's payment system and the availability of refinancing via the integrated monetary policy of the Eurosystem. When the supply of private credit from abroad stops suddenly, the availability of credit at home has to stop also and the price has to increase. This seems to have happened much more outside EMU than within. The availability of 'almost' unlimited[21] refinancing from the ECB (for short-term lending even before the LTRO) ensured a continuing flow of funds even to countries subject to a sudden stop and permitted banks in peripheral euro countries to keep their interest rates at rather low levels. This is illustrated in Figure 15 (unfortunately only data for Estonia are available within the BELL group) where the Estonian rate is shown to jump to prohibitive levels.[22] This explains why private demand (both consumption and investment) has adjusted much less inside than outside EMU.

[21] The ECB refinancing is not unlimited, it depends on collateral availability. However since the start of the crisis a sequence of changes in the eligibility criteria of collateral have loosen remarkably the restrictions, in terms of assets accepted faced by banks to access refinancing windows on full allotment basis.
[22] Unfortunately, it is difficult to compare other indicators of credit availability (e.g. loan officer surveys) because this type of indicator is only available for Estonia, and even there for only for a very limited period of time, among the BELL.

These higher interest rates in Estonia appear at first sight as a wrong market signal given that (ex post) the exchange rate remained stable and one could thus argue that the interest rate in the BELL should have been equal to that in the euro area. But higher interest rates might be appropriate also from a pure efficiency point of view when the country is in a systemic crisis given that in such a situation there might be a powerful externality at work: each individual (household or firm) will try to obtain as much credit as possible given his/her own path of income (and inter-temporal preferences). However, foreign creditors look at the country in the aggregate given that they expect that, in a crisis, the government will in the end be responsible for all private debt as well. Moreover, credit supply is not a smoothly increasing function of the interest rates. Beyond a certain point credit rationing sets in, which at the macroeconomic level implies the potential for a systemic crisis. The cost of credit to the entire country (and the danger of a systemic crisis) is thus likely to be related to the amount of external debt of the entire system (meaning mainly government plus banking system). This would suggest that the cost of capital is mispriced in EMU countries subject to (or simply in danger of) a sudden stop. For example, in Greece, the government does not have any access to financial markets. But the lending rates applied by Greek banks to households and firms are still in single figures. A similar situation (the cost of bank credit is less than the cost of capital for government) can also be documented for other countries.

This suggests that policy should not aim at maintaining a flow of credit to the private sector, but that on the contrary it makes sense to increase the price of credit, especially for consumption, to correct for the externality mentioned above. This hypothesis needs further investigation as it suggests the contrary of what is usually taken to be the desirable, namely to maintain the flow of credit as much as possible

Figure 15. Interest rates on loans for consumption



Source: ECB statistical warehouse and MFIs' interest rates on loans for consumption (excluding revolving loans and overdrafts, convenience and extended credit card debt [A21-A2Z]) to households (Total maturity, New business).

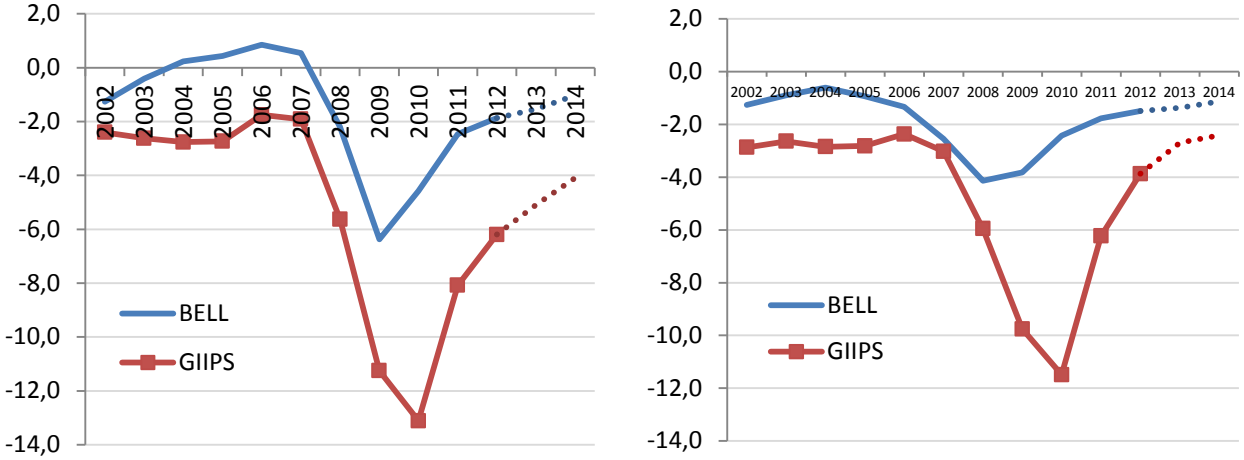
This leads to the question of what is the mechanism through which the adjustment to a 'sudden stop' takes place if the interest rate and credit channels are at least partially neutralised by the availability of refinancing via the Eurosystem. The short answer is that fiscal policy is the only macroeconomic instrument left, but its room for manoeuvre is likely to be severely restricted given the withdrawal of private sector capital inflows.

3.3 Fiscal correction

Another reason why the adjustment in the BELL group has been much shorter and sharper must be the difference in fiscal policy. As shown in Figure 16 (left hand side chart), deficits were contained despite double-digit falls in GDP. There had already been an important difference between the average deficit (as a percentage of GDP) before the crisis erupted between the BELL and the GIIPS, but this difference widened significantly after the start of the crisis, although the (initial) fall in GDP was so much larger among the former. This yielded a marked deterioration of the fiscal balance of the GIIPS (see Figure 16, the left hand side of the chart), which translated into an important accumulation of sovereign debt (see Figure 17).

This pattern is confirmed by looking at cyclically adjusted deficits to take into account the different cyclical positions. The cyclically-adjusted deficit of the BELL group went only to about 4% of GDP, compared to the around 10% of GDP reached by the GIIPS on average in 2009 and 2010. There were of course large differences within the two groups, with Ireland and Latvia doing much worse initially because of their banking crises, but the stylised fact remains that the countries in the euro area let their deficits deteriorate by more and for longer.[23]

Figure 16. Fiscal balances, nominal (LHS) and cyclically adjusted – potential GDP- (RHS)

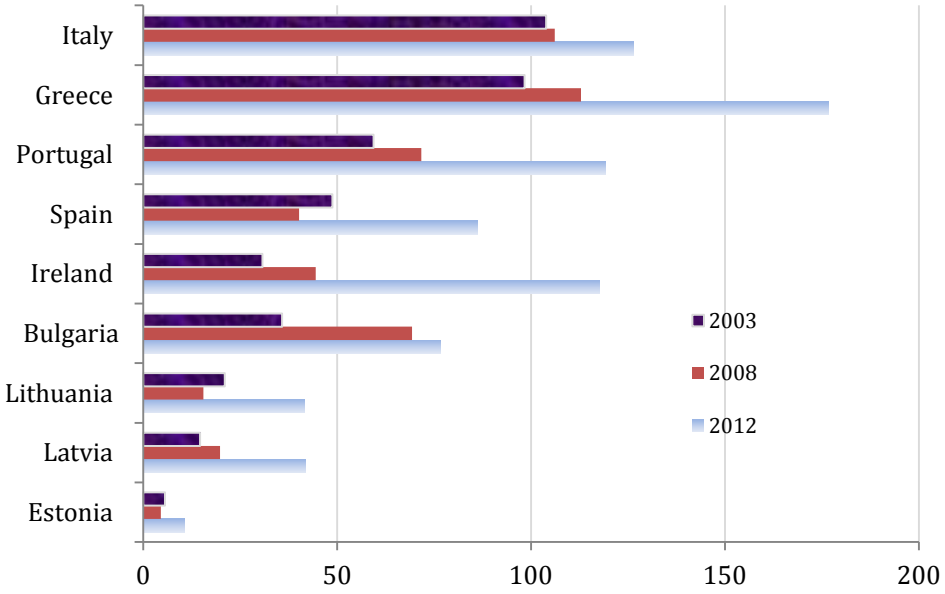


Source: European Commission Services (Ameco).

This holds true even if one considers the debt-to-GDP ratios given that the impact of lower deficits among the BELL was far more important than the greater fall in GDP this group experienced.

[23] While this cannot be directly attributed to expansionary fiscal policies, which remained limited (the European Recovery Plan amounted to €200 billion, i.e. about 1.5 percentage points of the EU GDP over two years, 2009-10), the existence of important welfare support provisions in euro area countries and interventions aimed at the rescue of the banking sector are responsible for the large falls.

Figure 17. Government debt as % of GDP

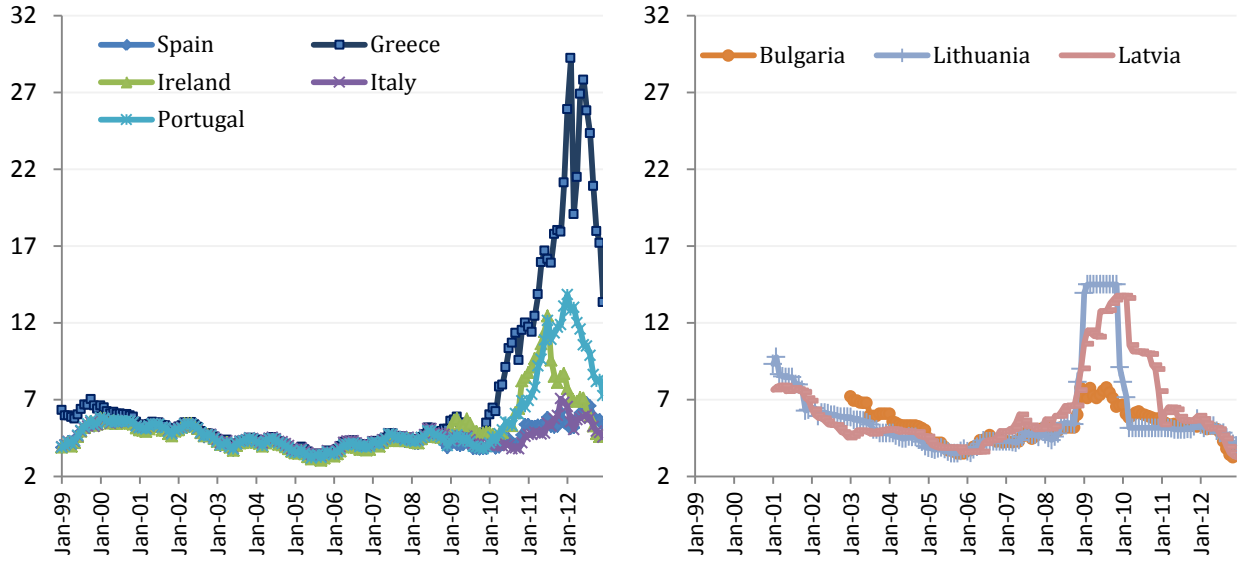


Source: European Commission Services (Ameco).

As shown in Figure 17 the GIIPS exhibited an unfavourable starting point when the crisis broke in relative to the BELL: a much higher level of debt, especially in Italy and Greece. The combination of persistent and rather large deficits with initial high levels of debt delivered a debt-to-GDP ratio above 100% already in 2012 in almost all the GIIPS. By contrast the deterioration in debt-to-GDP seems much smaller in the BELL. In Latvia, which is the countries within the BELL group where the fiscal position deteriorated the most, the debt-to-GDP ratio almost tripled between 2003 and 2012 but still remained well below 50% and on a declining path.

Besides levels, the combination of negative debt dynamics and low growth potential in the GIIPS must explain the fact that risk premia on government debt raised more than in the BELL.

Figure 18. Interest rates on sovereign bonds



Source: ECB statistical warehouse "long-term interest rate statistics for EU member states".

Note: Due to the low level of public debt, there are no Estonian sovereign debt securities that comply with the definition of long-term interest rates for convergence purposes. No suitable proxy indicator has been identifies at official level

Figure 18 shows that risk premia rose in both groups of countries, but in the B(E)LL it started to fall already in 2010 and went back to the pre-crisis level quite quickly. As we write this is not the case in the GIIPS and turbulences are still present in some sovereign bond markets.

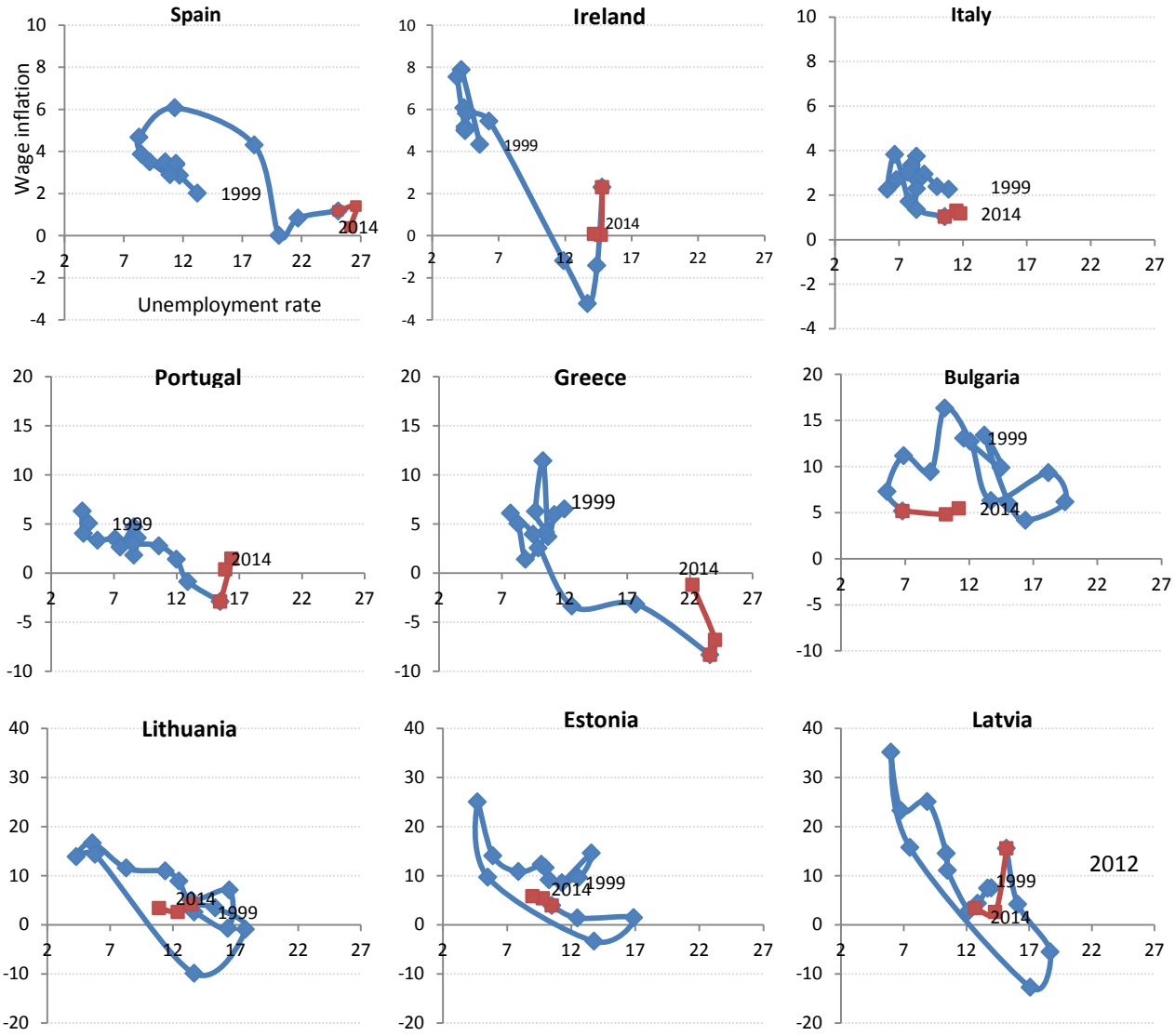
3.4 Labour market adjustment: Prices and quantities

The labour market is a key place were the adjustment takes place in a context of fixed exchange rates, no matter whether in the form of a currency board or a monetary union. Given that under this assumption external (currency) devaluation cannot act as safety valve to regain competitiveness and reduce external imbalances, the economy is forced into internal devaluation. This implies that prices must adjust and wages are a key price. Yet, if this does not take place, for instance due to rigidities in the labour market, the economy contracts and quantities on the labour markets will be forced to adjust; this means that unemployment must rise.

In order to capture differences in the labour market adjustment process across the countries, Figure 19 shows the Phillips curve for each of the countries.[24] According to the theory, the curve is expected to be downward sloping, signalling that a high level of unemployment should be associated with lower (possibly negative) wage inflation. The charts in Figure 19 illustrate a significant variety across countries.

[24] Given the very high degree of heterogeneity, it does not make sense to present the curves for the two country groups.

Figure 19. Labour market adjustment: Prices and quantities.



Note: Wage inflation (based on nominal compensation per employee: total economy) is shown on the vertical axis and unemployment rate on the horizontal axis.

Source: Authors' calculations based on Ameco data

In Italy and Bulgaria, wage inflation and unemployment seem to be rather independent variables, with no clear negative relationship among them. In the case of Portugal, Greece and Ireland, the crisis seems to have led to quite large movements along the curve, with the adjustment being associated with a fall in wages and an increase in unemployment. Conversely, the Baltic States seem to have been the only ones to achieve an inward shift of the curve. While this implies a fall in wages and an increase in unemployment, the impact on unemployment should be smaller. The charts suggest that a drop in the unemployment rate should take place soon. Spain is an exception: the most recent data suggest an outward shift of the curve. This implies a particularly painful adjustment on quantities; indeed while wage inflation has remained positive unemployment is at the highest level in Europe.

The different movements along the Phillips curves reflect the specificities of domestic labour markets: overall where wages are most rigid, unemployment tends to take on most of the burden of the adjustment. While it may be difficult to say what kind of adjustment is most desirable (given rigidities in both prices and quantities), the forecast for 2013 and 2014 suggests that the countries where wages adjusted (fell) the most, unemployment may finally reduce.

3.5 The adjustment capacity

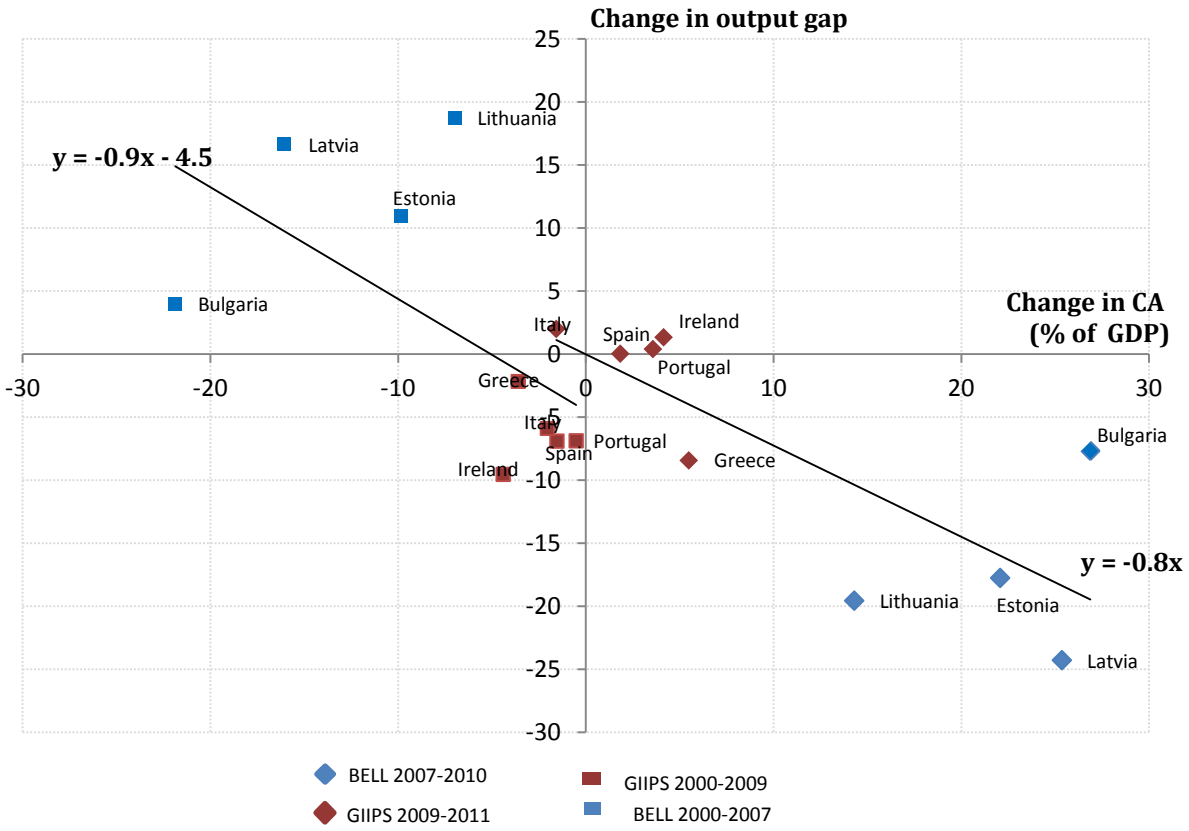
One way to measure the adjustment capacity of a country is to a compare the growth shortfall experienced during the current account reversal in the euro periphery and the non-euro EU members on fixed exchange rates. In order to measure the cost to correct macroeconomic imbalances, we propose to look at 'external sacrifice ratios', which we define as the fall in GDP (relative to potential) associated with a reduction in the current account equivalent to 1% of GDP. This elasticity constitutes a useful indicator of the macroeconomic costs of a 'sudden stop'. Figure 20 plots the change in the output gap on the vertical axis and the change in the current account balance as a % of GDP on the horizontal axis, over two period of time, before the crisis and during the crisis. The squares refer to the period of build-up of imbalances (until 2009 for the GIIPS and until 2007 for the BELL) and the diamonds to the adjustment phase.

It is apparent that there was a strong correlation between the output gap and the change in the current account over each of the two periods. The two trend lines are virtually parallel, indicating that a similar relationship held during both periods. The slops of the two trend lines suggest that an improvement in the current account of 1 percentage point of GDP seems to be associated with a loss of output relative to potential of between 0.8 and 0.9% of GDP.

Interestingly the BELL situate at the extremes of the quadrants signalling much larger swings than the GIIPS, which remain around the axes' origins. Bulgaria appears as an outlier in the chart with huge changes in the current account, above 20% of GDP, against very little increase and shortfall in growth during the boom and the crisis phase, respectively. Also Greece exhibit a rather singular behaviour: during the crisis a relatively modest correction in the current account (as of end of 2011) is associated with very large fall in the growth.[25]

[25] It can be argued that the fact of being a closed and low-competitive economy explains such result, see Alcidi and Gros (2012).

Figure 20. The external sacrifice ratio: change in output gap over the period indicated in the legend for current account adjustment (percentage of GDP) over the same period

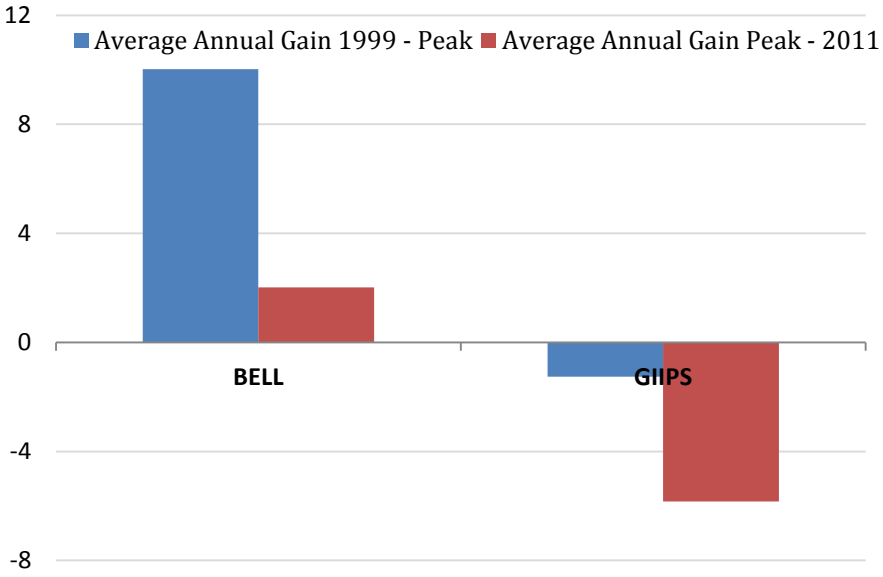


Source: Authors' elaboration on European Commission Services database (Ameco)

In the short run, a fall in domestic demand, and hence GDP, is the main channel through which a country can adjust to a sudden stop. In the medium to longer run, increases in exports should become the main adjustment channel: the country should be able to resort to external demand to avoid or at least reduce a further compression of demand. This should be done by shifting resources towards the tradable sector. In order to assess the pattern followed by the two groups of countries, rather focusing on exports tout court, export market shares are taken into consideration. The reason for doing so is that the adjustment capacity of a country should be judged on the basis of how well its exports are performing relative to the markets to which is actually exporting.

Figure 21 below shows the percentage average annual increase in market shares of both the BELL and GIIPS, both before and after the crisis.

Figure 21. Gains and losses in market shares (annual basis)



Source: Eurostat and authors' elaboration.

Before the crisis, on average, the BELL group was increasing its market shares by about 10% per annum. This is not very surprising given the degree of openness and that their potential growth rates were very high, thus allowing export supply to increase rapidly. The chart shows that with the sudden stop and the ensuing crisis, the pace of their gain in market shares falls considerably. The value remains positive, but is one-fifth of its previous value. The GIIPS group shows a similar deterioration post-crisis, but its absolute performance was already much worse before the crisis. To a certain extent this is related to the difference in the potential growth rate across the two groups. One could also argue that the different effect on market shares may be related to the foreign demand and the adverse economic conditions in the usual export markets induced by the crisis. This maybe the case but it is unlikely to be a dividing factor between the BELL and the GIIPS. For the Baltic States Russia and Sweden represent the main export markets and the fact they were only marginally affected by the crisis, may have contributed to prevent a collapse of the external demand. Yet, a similar argument should be true also for the GIIPS. Indeed for most of them (except Ireland) Germany is either the first or second export market.

So far all one can conclude is thus that after the crisis the BELL group did gain further market shares after the crisis, thus helping them to adjust. However, the post-crisis performance was rather disappointing if compared to the previous boom period. The GIIPS group performs uniformly worse, with little indication of the effect of reforms taking hold in competitiveness after the crisis and a deterioration of an already-weak export performance. This seems to suggest that the adjustment capacity is higher, or rather less bad, among the BELL.

3.6 The role of structural reforms in the adjustment process

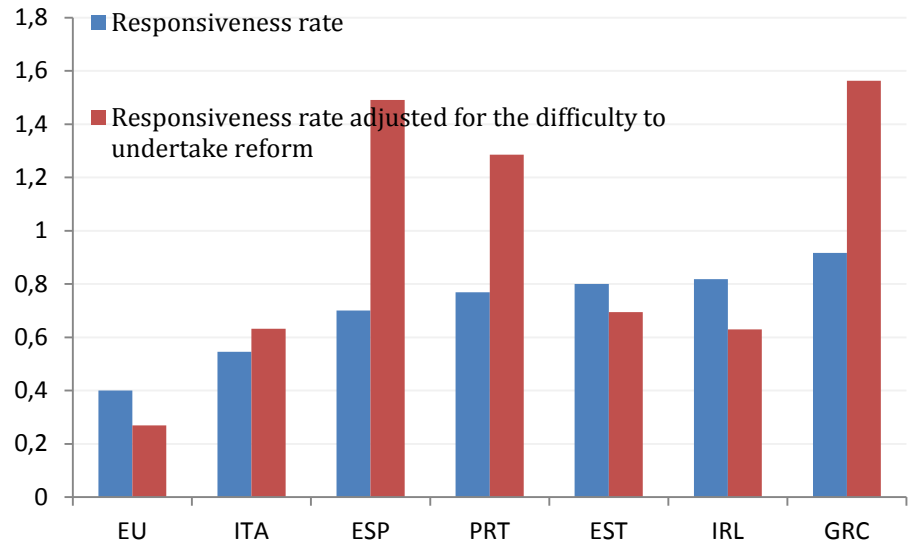
A key question relates to the role of structural reforms in the adjustment process. Two issues need to be looked at: first, did the crisis spur the reform process? And second, among the reforms, which

one can be identified as affecting the adjustment process? An extensive literature exists on a positive relationship between structural reforms and economic performance, especially in the long run.[26] Product and labour market reforms can have positive effects on growth, employment and productivity in the long run.[27] In the short run, however, the impact of the reforms can be small or even negative because of adjustment costs. This is especially true in case of job protection and unemployment benefits reforms undertaken in severely depressed economies.

The latest OECD report on economic and policy reforms highlights that the crisis has created momentum for structural reforms in the countries that have been hit hard by the crisis. In most cases the reforms approved were part of the programme assistance, but also countries without programmes have been acting in this direction, with a focus on increasing labour market flexibility (Italy and Spain for instance) and competition in product market.[28]

Figure 22 reports the OECD indicator summarizing the progress that countries have made in responding to Going for Growth policy recommendations since 2011. The OECD yearly recommendations focus on two large set of policy issues, labelled as labour productivity and labour utilization.

Figure 22. Reform responsiveness to policy recommendations



Source: OECD, Economic Policy Reforms 2013: Going for Growth - http://dx.doi.org/10.1787/growth-2013-en
Note: In the responsiveness rate indicator 1=major action taken while 0=no action taken.

[26] See for instance Schiantarelli (2010) for a comprehensive survey of the literature on the impact of product market regulation on macroeconomic performance.
[27] Among others, see e.g. Bouis & Duval (2011).
[28] A recent paper by the IMF (Barbuk et al., 2012) highlights that while structural reforms can lift growth over the medium and long term, their near-term impact on output and employment is likely to be modest or even negative. Indeed reforms are likely to force reallocation of resources and restructuring which may imply a cost in terms of higher unemployment and for society at large.

There is little doubt that the crisis and the financial market pressure played an important in intensifying the reform process, the comparison in responsiveness of the GIIPS and Estonia (Latvia and Lithuania are not included in the exercise) with the EU average is telling in this respect. The chart suggests that the GIIPS have made a strong reform effort. Greece emerges as the countries where most advancement has taken place, both in absolute terms and accounting for the difficulty induced by the situation within the country. Greece is followed in the rank by the other countries under financial assistance program (Ireland, Portugal and Spain respectively) and Estonia equalling Ireland.

The index is based on the adoption of reforms by national authority; the question is when the impact of such reforms will take place and whether and how it is affecting the adjustment process.

Unfortunately, it is very difficult to measure structural reforms in general, and even more difficult to measure the intensity of those structural reforms that would facilitate an adjustment towards a current account reversal. It is clear that in the long run the key variable to adjust is of course the real exchange rate, which allows the country to reach sustainable current account equilibrium at full employment. In this respect, there is little difference between countries in EMU and those with fixed exchange rates to the euro. A fall in the real exchange rate requires an internal devaluation: a fall in prices and wages. This should occur automatically with high unemployment as long as labour and product markets work properly.

The key policy question here is: What 'structural' reforms can speed up the process of shifting resources to the tradable sector and lower the adjustment costs? A first key element in the adjustment process is the reactivity of wages to the shock. This depends of course on the local labour markets. However, lower wages are not sufficient to allow the supply of exports to expand rapidly. For a sustained rise in exports, the structure of the economy will have to change as new firms will have to be created, and many existing ones in the domestic sector will have to close. Unfortunately, it is very difficult to measure the capacity of an economy to undergo this type of rapid structural change.

This structural change can only be facilitated by government actions, but in the end must take place in the private sector. There exist a number of indicators of 'competitiveness' or 'ease of doing business' which rank countries globally. However, it is not clear whether these indicators have anything to do with the capacity to adjust to the consequences of a sudden stop. These indicators usually try to measure various aspects of the quality of the public sector, which can only facilitate the adjustment that ultimately has to take place in the private sector.

Moreover, it is not clear whether one should look at the level or the change in these indicators. As an example we provide below the ranking of the World Bank of both groups of countries in terms of the 'ease of doing business'. If the level of this indicator matters, one could argue that the Baltic countries and Ireland actually need little reforms in the sense that they are already ranked rather highly. However, this indicator would also imply that the need for reforms in Portugal is also rather low. Moreover, Bulgaria has a low ranking, but it is the one country where the output cost of the current account reversal has been lowest (which *a priori* should indicate a high adjustment capacity).

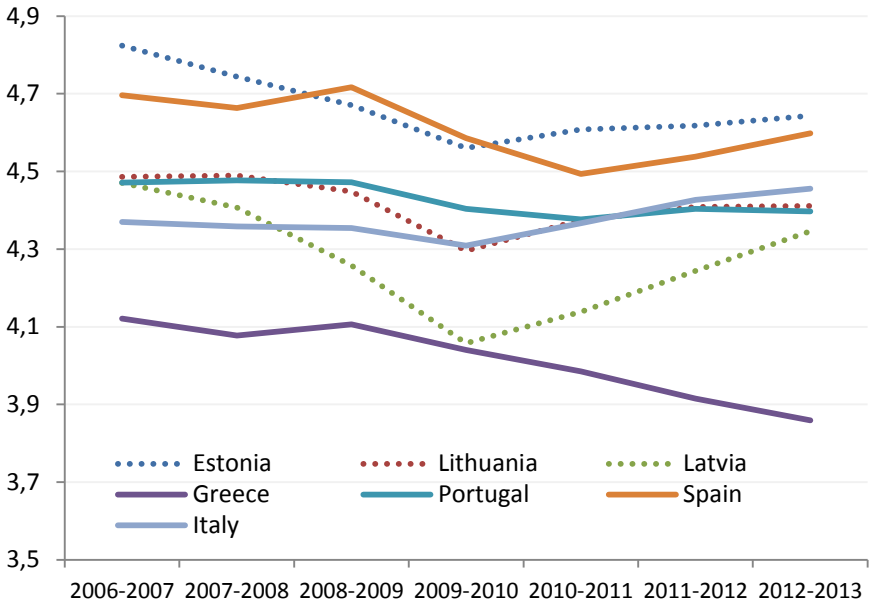
Table 3. An example of structural indicators (2011)

	Greece	Ireland	Italy	Portugal	Spain		Bulgaria	Estonia	Lithuania	Latvia
Ease of doing business	100	10	87	30	44		59	24	27	21

Source: World Bank indicators.

Any indicator of reforms must be based on changes, not levels. Given that the adjustment to a 'sudden stop' will be easier the more competitive a country becomes, we also refer to the Competitiveness Index published annually by the World Economic Forum. The time path of this index is shown in Figure 23.

Figure 23. Global competiveness index



Note: Index ranges between 1 and 7, with 7 being the best performance.
Source: WEF.

There is a wide variety within both the BELL and the GIIPS group, with a slight downwards longer-term trend. Based on this indicator, one would not expect a significant difference in the adjustment capacity between the two groups. A caveat that should be applied to this analysis is that the global competitiveness index is based on performance indicators which are not necessarily related to reforms. In this respect it tells something in terms of the adjustment capacity of a country but little about the role of the structural reforms in this regard.

4 The cost and benefits of different adjustment trajectories

How could one compare the costs and benefits of the different adjustment paths of the two groups of countries?[29] Does slower adjustment increase welfare? This question is as relevant as it is challenging.

In principle, this issue of whether a slower adjustment increases welfare should also be relevant for the many IMF-supported adjustment programmes which have been implemented over the decades. However, there is almost no literature on this topic. The only study we could find is an empirical work made by de Resende (2007). In the paper it is argued that the welfare costs are associated with the adjustment foreseen by the programme through the conditionality, while the benefits would materialise as consumption-smoothing made possible by the ability to borrow both from the IMF as well as from the private sector boosted by the elimination of the default risk. However, the paper reports small overall welfare gains, at least according to the calibration used in the study.

As a complete welfare analysis of adjustment processes goes beyond the scope of this study, in what follows we consider simply the fundamental trade off between the cost of a slower adjustment in the form of a higher accumulation of debt against the benefit which should be visible in terms of lower output losses. The latter we evaluate by looking at the path of key macroeconomic variables so far, but discounting from the start of the adjustment.

The 'price' of a more gradual adjustment to a sudden stop is of course that current account deficits persist for longer, as we document above. In principle, one would thus expect that the delayed adjustment within the euro area led to a lower macroeconomic cost (in terms of output lost or unemployment increases) but a higher increase in foreign debt.

We start with the latter: The increase in foreign debt can be easily measured by cumulating the current account deficits over time. The key question here is whether one should look at the absolute level of the current account deficit along the adjustment path, or the change with respect to the peak reached before the sudden stop. We do not need to take a position on this issue since the difference is clear on both counts. The sharp adjustment in the BELL has led to the result that over the last years they have accumulated less foreign debt than the GIIPS, both in absolute terms and, even more, relative to the pace of debt accumulation before the crisis as shown in Table 4 below. In this table we report in the last column the cumulated current account balances after the start of the sudden stop relative to exports. We prefer to measure external debt accumulation relative to exports, rather than GDP because external debt has ultimately to be serviced in exports, not GDP, but we provide also the results scaled relative to GDP.

Table 4 shows that, on average, both groups still had deficits, but they were equivalent to over 80% of annual exports for the GIIPS group and only 9% of exports for the BELL group.

The first two columns in the table also show that both groups improved their current account balances relative to the pre-crisis values, but the improvement was much larger for the BELL than the GIIPS. The difference between the two groups is very significant in economic terms. Both groups were on unsustainable paths before the crisis, but the turnaround in the external balances

[29] It might be appropriate to speak of trajectories because the BELL countries had little choice but to adjust, given that they did not have access to ECB funding.

of the BELL was about 40 percentage points of GDP larger than that of the BELL. The difference in percentage points is similar if one relates them to exports (or the further increase in exports required repaying the higher debt accumulation experienced by the GIIPS). The much slower current account adjustment in the GIIPS thus left a legacy in terms of a higher foreign debt, which is significant relative to their economic size, whether measured by GDP or exports.

Table 4.Current accounts' improvement

	Cumulated change in current account balances relative to:		**Cumulated current account balances as % of exports**
	Exports	**GDP**	
GIIPS	62 %	24 %	-81 %
BELL	101 %	68 %	- 9 %

Note: The cumulated change in current account is calculated as the sum of current account balances (2009-14) above the baseline (average of 2005-07). Figures are given as a percent of cumulated GDP or cumulated exports (2009-14). All values are given as an average of the GIIPS and the BELL states and represent net present values, i.e. a 5% discount rate has been applied.

Source: Own calculations based on Ameco data.

We now turn to an evaluation of the benefit of a slower adjustment which should be apparent in a better macroeconomic performance over the adjustment path. We focus on three variables that stand for the macroeconomic cost (of the adjustment to a sudden stop): the output gap, the unemployment rate and consumption.

The output gap represents a useful measure of the overall economic losses. In order to measure the overall cost of the adjustment path chosen, it is not sufficient to just look at the loss of output at the height of the crisis; one has to consider the total output loss over several years. Since it is impossible to say when exactly the adjustment has finished, we look at the output losses from 2009 to 2014 (the latest year for which forecasts are already available) relative to a pre-crisis baseline. Given that the central aim of a slower adjustment is to postpone output losses, we provide a measure of the present value of output losses by summing the discounted present values of annual output gaps, discounting later ones with an interest of 5%.[30]

The unemployment rate provides a useful measure of the under-utilisation of labour and thus constitutes another measure of the cost of adjustment. There is little doubt that the unemployment rate is a very imperfect gauge of the welfare loss from a specific crisis as it is determined by a number of structural factors (e.g. demographics, social and labour market regulations, etc.) and it can vary for other reasons (e.g. discouraged workers stopping to look for employment) than the pure adjustment process. But it might be even more salient from a political point of view than the output gap. Our second measure of the economic cost is thus the path of the unemployment rate compared to the pre crisis benchmark. Given the structural differences in the level of the unemployment rate even absent a sudden stop we concentrate on the changes, but provide also the result for the levels (where we cumulate the increases over the baseline set by the pre-crisis level).

[30] The rate of 5 % is set in quite arbitrary way but the ranking it implies robust.

Finally one could also argue that the ultimate aim of economic policy is to generate a high (and smooth) level of consumption. We thus apply the same approach also to consumption: We calculate the present value as of the start of the crisis of the consumption paths at a discount rate of 5 % p.a..

Table 5 below shows the results again for the average of the two groups for the three indicators.

Table 5. The cost of adjustment

	Cumulated unemployment cost, calculated based on:		**Cumulated output gap**	**Cumulated real consumption (index 2000=100)**
	Levels	Increase over baseline	Change over baseline	Change over baseline
GIIPS	78.9	40.6	-21.7	-27
BELL	67.9	31.5	-17.8	-24

Note: The cumulated unemployment rate is calculated as the sum of the unemployment rates between 2009 and 2014. The average unemployment rate, taken over the years of 2005-07, constitutes the baseline of our calculation. The cumulated output gap is derived from the sum of annual output gaps over baseline. The output gap is defined as actual GDP less potential GDP as a percent of potential GDP (output gap directly from Eurostat). The cumulated consumption change in calculated in the same way. All values are given as an average of the GIIPS and the BELL and represent net present values, where a 5% discount rate has been applied.

Source: Own calculations based on Ameco and Eurostat data.

The differences are not large, but all indicators show the same result: the shorter and sharper adjustment outside EMU actually led to lower losses of output or consumption and to lower increases in unemployment.

We are thus not able to detect any benefit for the GIIPS from the slower adjustment afforded to them by EMU membership. It thus seems, somewhat surprisingly, that the path followed by the GIIPS has led to a higher accumulation of foreign debt and a worse macroeconomic performance, at least relative to the BELL and their short and sharp adjustment. Delay seems to increase only the cost.

5 Conclusion

What is the adjustment mechanism to a 'sudden stop' in a monetary union if the interest rate and credit channels are kept at least partially open by the availability of refinancing via the Eurosystem? The main finding of this contribution is that the adjustment has been much sharper and shorter outside EMU than inside. This result seems to be due to three factors: a much reduced availability of credit outside EMU, different choices of fiscal policy and different patterns of bank ownership.

The first element is not surprising: the financing channel available through the Eurosystem protected the banking systems of the countries in the euro area from the immediate effects of a sudden stop in private capital flows. Substantial current account deficits could thus be maintained over a longer period of time.

The second element might be more surprising at first sight, given that in principle one would have expected fiscal discipline in the EMU to be more rigorous and should have led to a stronger fiscal adjustment within the euro area. However, this was not the case. The Baltics went through a unique adjustment experience between 2008 and 2009, with the policy strategy relying strongly on a contractionary fiscal stance. The reaction was very different within the monetary union. At first, countries within the EMU seemed only marginally affected by the global financial crisis. The liquidity problems were taken care of by the ECB and all EMU countries seemed to have the room to avoid a strict fiscal policy, and when their economies contracted the automatic stabilisers were allowed to work in full. As a consequence, very large deficits materialised already before the crisis started in earnest.

The third factor is the structure of the domestic banking industry or rather the role of foreign owned banks. A high degree of foreign ownership of banks is likely to have contributed to a quicker adjustment, but it proved to work as loss absorber in the BELL and has been key to ensure that legacy issues are not a problem of the host country. By contrast the legacy costs of the banking crisis in some of GIIPS is likely to weight for some time on their adjustment.

Only one of the BELL countries, Latvia, was subject to adjustment programme, whereas all the GIIPS had, under various degrees of stringency, to undertake structural reforms. However, there is no evidence yet that the EMU membership and the associated pressure from the economic governance mechanisms will deliver reformed and more competitive economies.

All in all, it appears that the 'softening' of the budget and liquidity constraint within EMU has delayed both fiscal and external adjustment.

In terms of policy prescription going forward, we observe that the 'short and sharp' adjustment in the BELL countries has allowed them to escape the debilitating effects of a long drawn-out crisis. The quicker adjustment was 'enforced' by much higher domestic interest rates and a lower availability of domestic credit (coupled with a tight fiscal policy).

Such tough macroeconomic conditions are considered as excessively costly when they arise, but our rudimentary welfare analysis suggests that a 'short and sharp' adjustment path, like the one followed by the EU Member States outside the euro area actually had two advantages: less debt was accumulated and the macroeconomic performance was better if measured over time.

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