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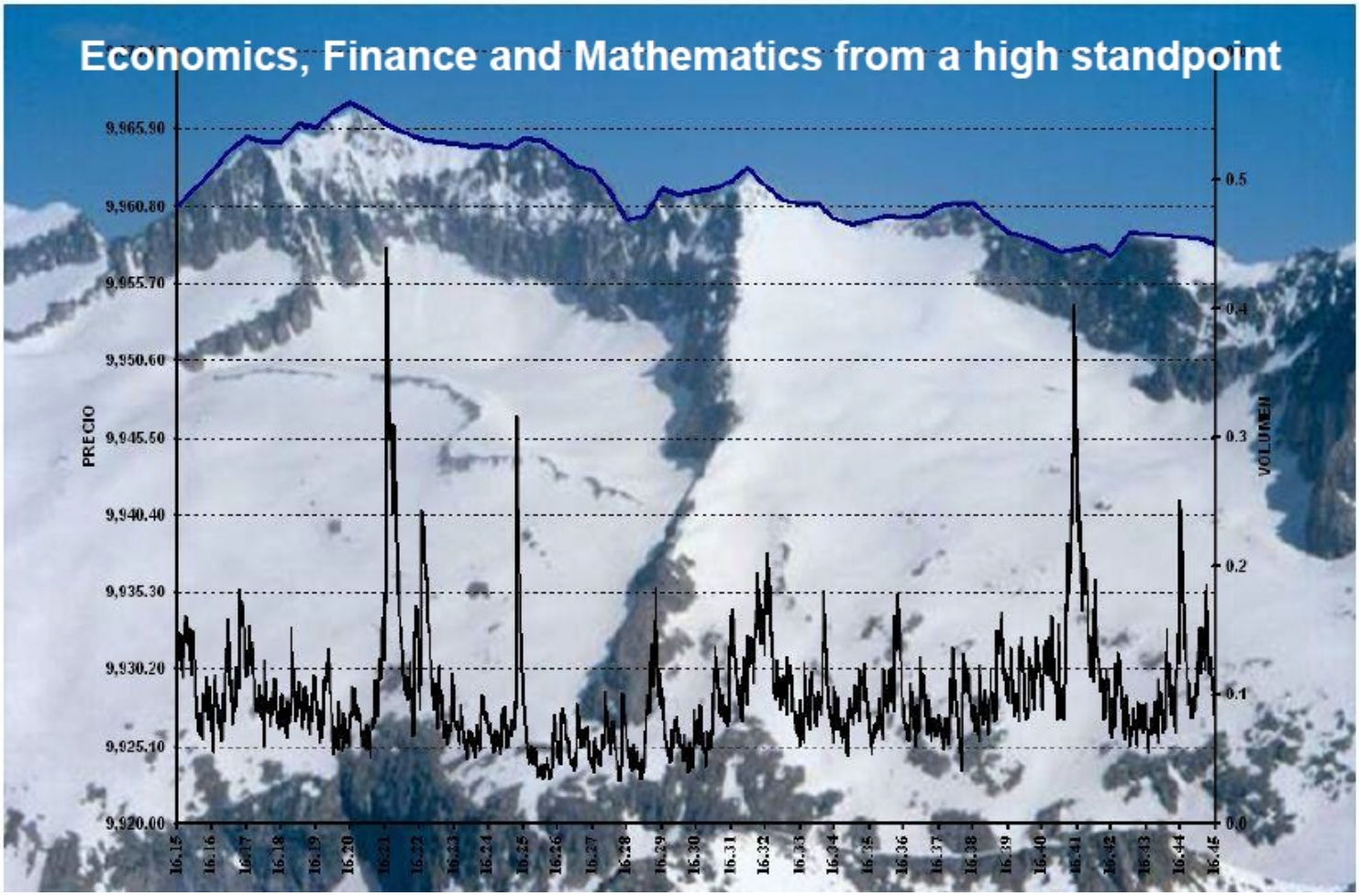

Internal devaluation in the European periphery: the story of a failure

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Internal devaluation in the European periphery: the story of a failure

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Summary:

Spain, Greece and Portugal have undertaken an "internal devaluation" strategy aimed at recovering competitiveness and correcting external deficits. It is also argued that it will trigger an export-led growth recovery. However, although wages and unit labour costs have indeed decreased as a consequence of this kind of policies, real effective exchange rates have improved much less if they are calculated using production prices or export prices. This is explained by the increase in profit margins, the low inflation rate in the monetary union as a whole, and the nominal appreciation of the euro. On the other hand, current account deficits have been corrected, and net exports are now having a positive contribution to growth. In this paper, we show that this is a result of low relative demand and not of the improvement in competitiveness and that this positive contribution is insufficient to handle the recovery of growth and employment.

Key words: Internal devaluation; Competitiveness; European Periphery; Monetary Union; Wages.

JEL codes: E63-E64-E65

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1. Introduction.

Since the launch of the euro to the onset of the crisis, one of the most remarkable features of the functioning of the European Monetary Union (EMU) was the existence of large, persistent and growing current account imbalances across its Member States. One consequence of these imbalances was the build-up of external liabilities and the deterioration of the net international investment position in deficit countries. This situation was hardly sustainable, and once the economic crisis appeared, intra-EMU current account imbalances began to be considered as a major source of macroeconomic instability. At the same time, they were seen almost exclusively as a problem of a lack of competitiveness in deficit countries.

In a monetary union, the only way to rebalance price competitiveness among its members is through different inflation rates in each country. In the case of the Euroarea, on the other hand, it is frequently emphasized that this should be achieved mainly through lower wage increases in countries with external deficits. This policy is called "internal devaluation". It is also important to point out that the European and national authorities have not only considered it as a necessary tool to correct external deficits, but also argue that it will help restore economic growth. This impulse to external demand due to a higher competitiveness should offset the decline in domestic demand, which the internal devaluation policy itself exacerbates.

The aim of this paper is to assess the impact of the implementation of the strategy of internal devaluation on the peripheral economies of the Euroarea and, primarily, whether the theoretical benefits that are expected to flow from it have actually been achieved. Specifically, we investigate two main issues:

1. Has internal devaluation improved price competitiveness in the European periphery? Although wages and unit labour costs (ULC) have decreased as a consequence of this kind of policies, real effective exchange rates have improved much less, mainly due to the increase in profit margins and the nominal appreciation of the euro.
2. Is the elimination of current account deficits in the European periphery the result of improved competitiveness? Is internal devaluation triggering an export-led growth recovery? In our opinion, the answer to both questions is in the negative. The improvement in external balances is mainly explained by the collapse of imports in these countries, and this is a consequence of low relative demand and not of the (weak) improvement in competitiveness.

The analysis will focus on Spain, Portugal and Greece. At the beginning of the crisis, Ireland also registered a high current account deficit (although smaller than the rest of European peripheral countries), and it is also applying an internal devaluation policy. However, Ireland´s case seems different for two reasons. Firstly, unlike the other three countries, Ireland did not continually record high and rising current account deficits (only in 2008 exceeded 5% GDP, while Greece, Spain and Portugal ran current account deficits equal to or higher than 10% of GDP in 2007). Secondly, its external deficit was not due to the balance of goods and services, but to the high income balance deficit that reflects the huge inflows of foreign investment. Actually, net exports made a significant contribution to growth during the decade before the crisis.

The remainder of the article is organized as follows. The second section presents a brief survey of the literature related to the theoretical basis of internal devaluation. Next, we analyze the performance of wages, unit labour costs and profit margins, and in the fourth section, examine whether the immediate goal of this strategy (to improve price competitiveness) has been achieved. In section five, we focus on the change in the contribution of the external sector to growth, and the relationship between this change and relative prices on the one hand and demand factors on the other. The sixth section concludes.

2. A critical review of the theoretical underpinnings of internal devaluations.

Although the "competitive disinflation policy" implemented by France in the mid-eighties (Jean-Paul Fitoussi et al, 1993; Oliver Blanchard and Pierre Muet, 1993) is a precedent of the strategy of internal devaluation, we are interested in its implementation in the context of a monetary union. Thus, it can be said that the Optimun Currency Area Theory is its main theoretical base. According to this approach, wage and price flexibility is needed for a smooth working of a monetary union, because member states have surrendered their ability to use national monetary and exchange rate policies. If an asymmetric shock took place, wage and price adjustment should replace nominal devaluations (Robert Mundell, 1961; Paul De Grauwe, 2012). However, Constantinos Alexiou and Joseph G. Nellis (2013) underline that the efficacy of this “competitiveness channel” to restore equilibrium following an adverse shock is subject to important theoretical limitations. Jörg Bibow (2007) argues that, in the case of EMU, this wage flexibility fostered divergence instead of convergence between Member States during the years before to the crisis.

Regarding the causes of external imbalances in the EMU - for a thorough analysis of them see Philip Arestis and Jesús Paúl (2009) - proponents of internal devaluation policies hold that they are almost exclusively due to economic policy mistakes and "bad behaviour" of the deficit countries: mainly, excessive labour costs and accumulated competitiveness losses. Jorge Uxó, Jesús Paúl and Eladio Febrero (2011) offer an alternative

explanation and suggest different economic policy proposals. According to them, both current account deficits and surpluses are linked to the unbalanced growth model that has taken place within the EMU, with some countries with weak domestic demand following an export-led growth strategy, and others basing their growth on the expansion of the domestic demand funded with bank debt. On the other hand, Engelbert Stockhammer (2011) and Hainer Flassbeck and Costas Lapavitsas (2013) show that a significant part of competitiveness unbalances may be related to too low labour cost increases in the core countries of the EMU (more specifically, in Germany). Thus, the correction of current account imbalances within the EMU cannot only rely on countries with high deficits, but a higher growth of wages and domestic demand in the surplus countries is also needed (a symmetric rebalancing of current accounts).

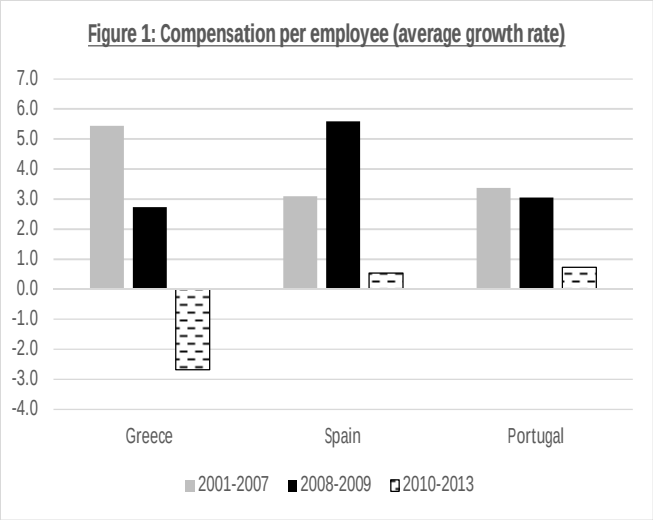
The internal devaluation strategy also assumes that changes in price competitiveness are most frequently caused by excessive unit labour costs, and that a reduction of wage costs in turn translates into lower price increases, improving competitiveness. On the contrary, Jesús Felipe and Utsav Kumar (2011) highlight that competitiveness cannot only be assessed from the perspective of ULC and interpreted solely as a wage issue. The evolution of unit capital costs (UKC, the ratio of returns on capital and its productivity) must also be taken into account, as well as changes in ULC. By the same token, Richard Wood (2014) provides a critical assessment of the use of relative ULC as an indicator of external competitiveness in the context of current internal devaluation policies. This paper confirms these statements, since the internal devaluation strategy is being implemented, ULC have decreased in peripheral economies, but at the same time the increases in UKC have avoided a similar decrease in the real exchange rate when is calculated using production prices or export prices.

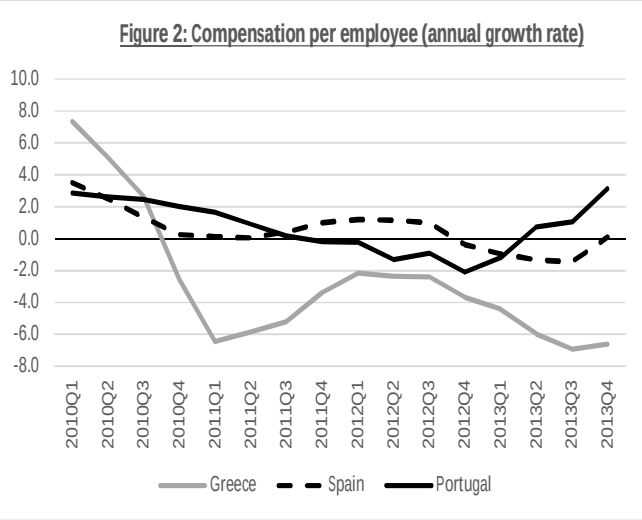
Finally, the internal devaluation strategy rests on the principles of export-led growth. Thomas Palley (2011) highlights, however, that the benefits of the export-led growth model have been overrated, when, in fact, its extension causes stagnation and confrontation among countries. Export-led growth leads to low-quality growth and the strategy of gaining competitiveness by any means is a "race to the bottom" that harms welfare and prosperity. Applying this reasoning to the case of EMU, Uxó, Paúl and Febrero (2012) point out that current proposals to correct external imbalances by the means of wage restraint actually promote a global convergence toward the export-led growth model followed by Germany, and this will actually weaken domestic demand in the whole euro area. And, as Robert Boyer (2012) or Bibow (2013) underline, the surpluses of some countries are the counterparts of the deficits of others, and the export-led growth in some countries requires dynamic domestic demands in others. As a consequence, this growth model could only be generalized to the whole euro area if the monetary union registered a larger surplus vis-à-vis the rest of the world, which in turn would aggravate the problem of global imbalances. On the other hand, the recent literature on wage-led and profit-led regimes (see Marc Lavoie and Stockhammer, 2013) clearly shows that, in most cases, the reduction in the wage share has a contractive effect on aggregate demand, especially if it is generally applied in an integrated economic area as the EMU. Dimitri B. Papadimitriou, Michalis Nikiforos and Gennaro Zezza (2013) and C.J. Polychroniou (2014) show, indeed, that the implementation of internal devaluation in Greece is having strong restrictive effects on the disposable income of households and their spending that is not compensated by a positive contribution of net exports to growth.

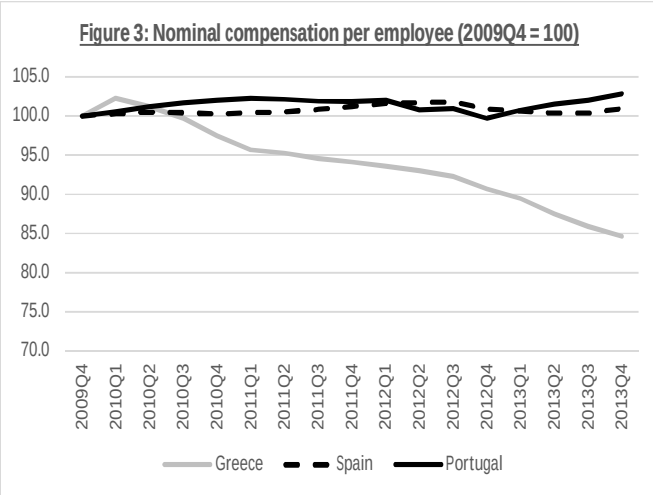
3. Nominal wages, unit labour costs and profit margins.

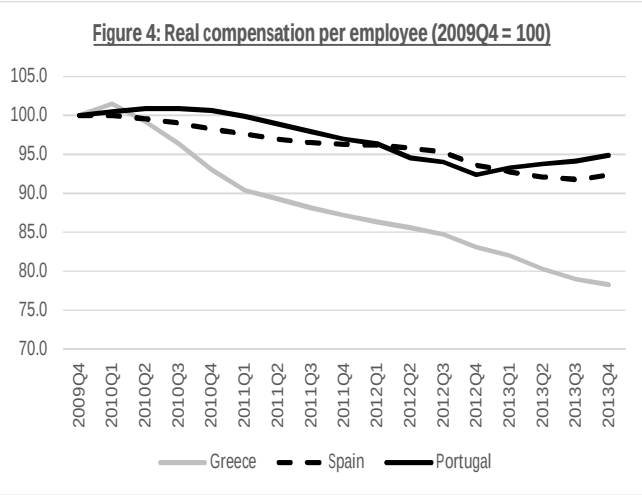
The gain in price competitiveness that is pursued with internal devaluation policies should be achieved through a moderation in incomes, in turn translated into a lower growth in production costs. However, although wages and unit labour costs have decreased, profit margins and unit capital costs have increased. Therefore, we can say that a "wage devaluation" rather than an “internal devaluation” has taken place.

Wage cuts are reflected in the evolution of nominal compensation per employee (Figures 1-4). In Greece, its growth has been negative since the last quarter of 2010, and the same has happened in Spain from the second half of 2012. According to Sergio Puente and Sofía Galán (2014), in Spain wage moderation can be even sharper, because job destruction has been concentrated in lower skilled workers who, on average, receive lower wages. In Portugal, a fall in nominal wages between the fourth quarter of 2011 and the first of 2013 was also recorded. By the end of 2013, Greek workers were receiving a nominal wage that was 15% lower than the last quarter of 2009, Spanish workers virtually the same and the Portuguese only 2% higher. If we consider the real wage (deflated with the consumer price index) the loss of purchasing power is 22% in Greece, 8% in Spain and 6% in Portugal. This evolution of wages is in part the result of the economic crisis itself and the high losses in employment, which weakens the position of workers in collective bargaining. But it is also the result of the deliberate adoption of various policy measures, especially those affecting the salaries of public employees (Benedicta Marzinotto and Alessandro Turrini, 2014), and the labour market reforms (Stefan Clauwaert and Isabelle Schömann, 2012, and Schömann, 2014).





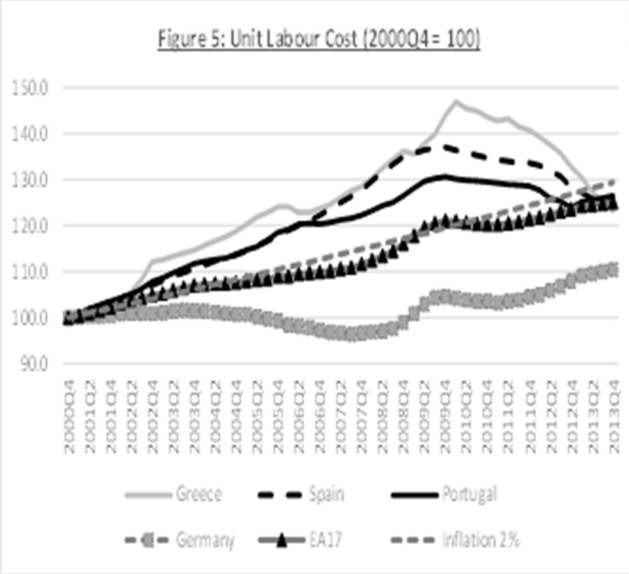




For each quarter the data of the compensation of employees is the sum of the last 12 months, not seasonally adjusted, while the number of employees is the average of the same 12 months.
Source: Authors' calculations based on Eurostat.

However, prices do not depend on labour costs per worker, but on unit labour cost. Using the last quarter of 2000 as the base year, ULC recorded an upward trend until the last quarter of 2009 in the case of Spain (37% cumulative) and Portugal (30.5%), and to the first quarter of 2010 for Greece (46.8%). Since then, there has been a continued reduction of ULC, and at the end of 2013 they were 8% lower than the peak in Spain, 3% lower in Portugal, and 16% in Greece (Figure 5).

This pattern of ULC is the result of both the behaviour of compensation per employee and the evolution of productivity, and the experience of Spain and Portugal has been different from Greece (Table 1). While the evolution of the apparent productivity has had a positive contribution in reducing the ULC in the first two, especially in Spain, Greek labour productivity has declined. In any case, these increases in labour productivity are not explained by production increases but by an even greater decrease in the number of workers employed and by the sectoral composition of job losses. If we focus on the change of trend registered by ULC in the period 2010-2013 compared to what was happening in 2001-2009, wage moderation explains about 55% of this change in Spain and 65% in Portugal. In Greece, this percentage is 115%, because we have seen that labour productivity declined.



Source: Authors' calculations based on Eurostat.

TABLE 1: CHANGES IN NOMINAL UNIT LABOUR COSTS

Unit Labour Costs		Greece	Spain	Portugal
Peak	Date	2010 Q1	2009 Q4	2009 Q4
	Value*	146.8	137.0	130.5
Value, 2013Q4		123.1	125.4	125.7
Change relative to the peak	Compensation per employee	-17.2%	0.9%	2.8%
	Productivity	-1.3%	10.3%	5.7%
	ULC	-16.1%	-8.5%	-3.7%

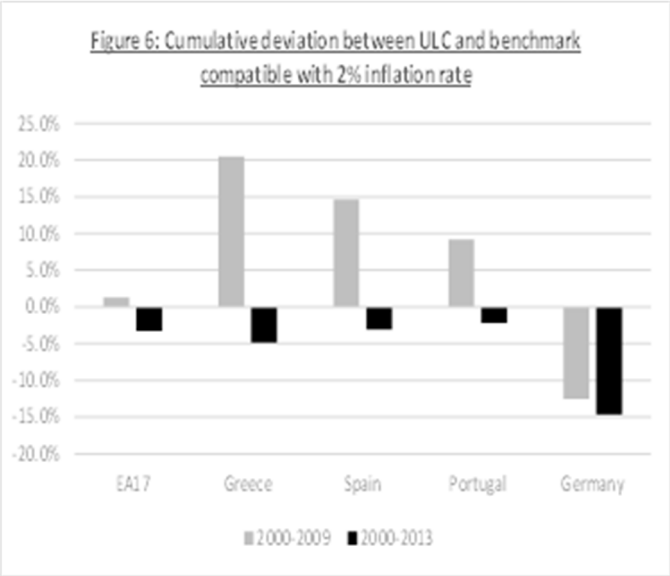
**2000Q4 = 100*

The analysis of ULC requires a benchmark with which to compare their evolution, in order to determine whether it is appropriate or not. According to the official interpretation, those countries where ULC have grown faster than the rest are suffering competitiveness losses and have a "need for adjustment." Therefore, we first compare with the average in the Euroarea, and find that after reaching a maximum deviation of 21% in Greece (first quarter 2010), 16% in Spain (third quarter 2008) and 10% in Portugal (second quarter 2006), the reduction of ULC that has occurred since then has allowed the elimination of this difference in 2013 (Figure 5).

However, this benchmark is not suitable to define the "appropriate level of competitiveness". It is not derived from an evolution of wages in relation to productivity that is considered compatible with other policy goals. On the contrary, it takes as a reference the country in which unit labour costs grow slower. For example, in the Euro Plus Pact it is said that "to assess whether wages are evolving in line with productivity, unit labour costs (ULC) will be monitored over a period of time, *by comparing with developments in other Euro area countries and in the main comparable trading partners*" (European Council, 2011, p. 7; italics added by us). The consequence of this approach is an implicit proposal for governments to put in place a downward wage competition within the euro area, with obvious deflationary effects.

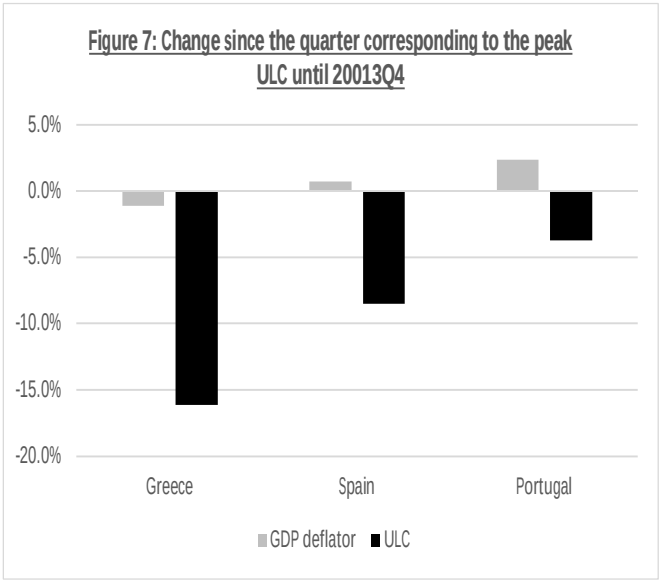
An alternative approach is to define the appropriate behaviour of ULC within a monetary union, and analyse which countries have experienced greater deviations from this reference. For example, assuming that the profit margins remain constant, a growth of nominal ULC of 2% per annum would allow all countries to achieve the common goal of 2% annual inflation. It would also prevent the emergence of cost competitiveness imbalances within the Eurozone and, at the same time, it would guarantee a growth in real wages in line with productivity, ensuring sufficient aggregate demand. Eckhard Hein and Achim Truger (2009) or Flassbeck and Lapavitsas (2013) propose the same benchmark used here, and Jörg Bibow (2014) uses the expression "golden rule" to define it

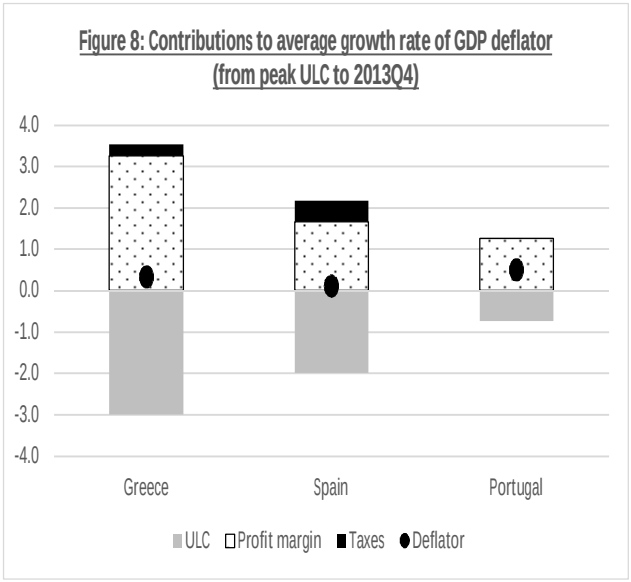
In Figure 6 we have represented the cumulative deviation between the actual growth of ULC and that which would result from this benchmark. This is done for 2009 and 2013, and for the whole monetary union, Greece, Spain, Portugal and Germany. First, we note that although it is true that until the economic crisis this deviation was positive in the European periphery, it was also significantly negative in Germany, where ULC remained virtually stagnant. Second, in 2013 this gap had already been eliminated in peripheral economies -indeed it had turned negative-, but not in Germany, where it had increased slightly to reach -15 %. This is the true anomaly in the behaviour of ULC in EMU. As Germany has only partially corrected the policy of wage restraint applied in the pre-crisis years, deficit countries have to achieve greater reductions in their ULC in order to remove the accumulated differences in previous years. This introduces a clear deflationary bias in European economic policy.



Source: Authors' calculations based on Eurostat.

Our analysis cannot be limited to labour costs, because what internal devaluation actually tries to achieve is a lower relative price inflation. However, we can observe an important difference between the reduction recorded by unit labour costs and the behaviour of price levels as measured by the GDP deflator. While ULC have declined in all three countries, prices have accumulated a 0.7% rise in Spain, and 2.4% in Portugal, and although they have dropped 1.1% in Greece, this figure is 15% lower than the reduction in ULC (Figure 7). Thus, although inflation rates have slowed down, wage devaluation has only very partially been passed on to prices.





Source: Authors' calculations based on Eurostat.

As a matter of fact, the growth rate of GDP price deflator depends not only on ULC, but also on profit margins and indirect taxes. By definition, nominal GDP is equal to the sum of the remuneration of employees (W), the gross operating surplus, including mixed incomes (GOS), and taxes on production and imports (indirect taxes, T). Representing the GDP deflator by P and real output by Y:

$$PY = W + GOS + T$$
$$P = \frac{W}{Y} + \frac{GOS}{Y} + \frac{T}{Y}$$

The first term on the right-hand side of this equation is the ULC, because real output is equal to the product of the number of employees (L) by their average productivity (a):

$$\frac{W}{Y} = \frac{W}{La} = \frac{W/L}{a} = ULC$$

The second term can be written as follows:

$$\frac{GOS}{Y} = \frac{GOS/W}{Y/W} = \frac{GOS}{W} * CLU$$

As the ratio of GOS over total wages is equivalent to a profit margin (*m)* we can also write:

$$\frac{GOS}{Y} = m * UCL$$

Then, we substitute these two expressions in the definition of the GDP deflator, and the price level before indirect taxes is called P^{fc} (prices at factor costs), so we have:

$$P = (1 + m)CLU + \frac{T}{Y} = P^{fc} + \frac{T}{Y}$$

Finally, indirect taxes can be expressed as a percentage t of P^{fc} and we get the following expression of the GDP deflator:

$$\frac{T}{Y} = tP^{fc}$$
$$P = P^{fc}(1 + t) = [(1 + m)CLU](1 + t)$$

And taking growth rates in this expression, the rate of inflation as measured by the GDP deflator is equal to the sum of the contribution of ULC, plus the contribution of the profit margin, plus the contribution of indirect taxes (a point on a variable represents its growth rate):

$$\dot{P} = C\dot{L}U + (1 \dot{+} m) + (1 \dot{+} t)$$

Using data from the GDP deflator and national accounts, we can calculate the contributions of these three components on the rate of inflation, which are shown in Table 2 and Figure 8 (see Elena Angelini, Alistair Dieppe and Beatrice Pierluigi (2023) for a similar decomposition of GDP deflator between wages and price mark-ups, and José M. Montero and Alberto Urtasun (2013) for the evolution of profit margins in Spain).

Our conclusions are similar in the three countries. Although the growth rate of the GDP deflator has been very moderate, it does not reflect the substantial contraction of ULC, due to the significant increase in profit margins registered since the implementation of internal devaluation policies starts. Andreas Breitenfellner, Danca D. Dragu and Peter Pontuch (2014) also find evidence of an incomplete pass-through of labour cost moderation into prices in peripheral countries, particularly in tradable industries. However, they also argue that higher profit margins did not avoid a downturn in return on assets. Furthermore, in Greece and Spain the increase in indirect taxes has also had a positive contribution to making prices rise.

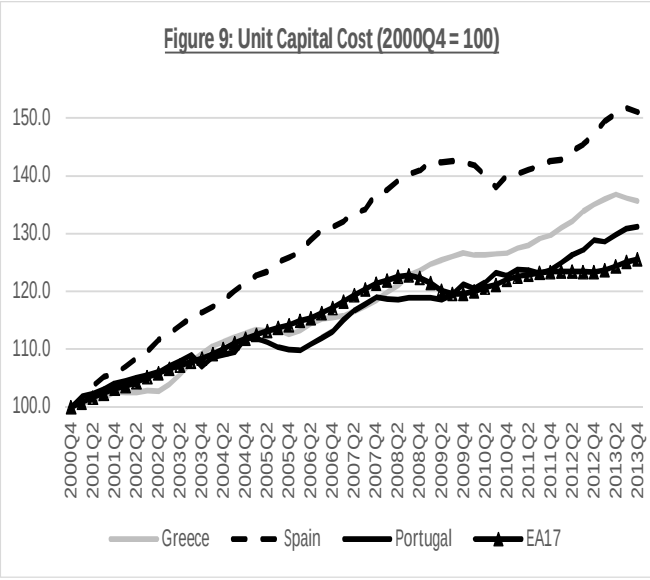
TABLE 2: CONTRIBUTIONS TO THE AVERAGE GROWTH RATE OF THE GDP DEFLATOR

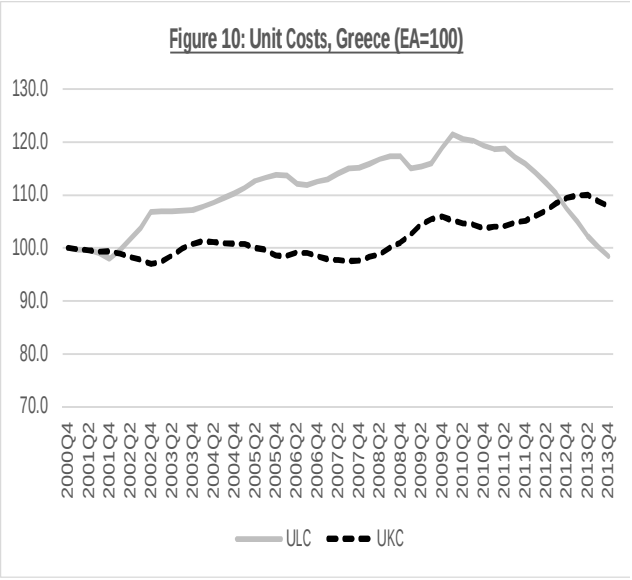
	ULC	Profit margin	Taxes	Deflator
Greece	-3.0	3.3	0.3	0.3
Spain	-2.0	1.7	0.5	0.1
Portugal	-0.7	1.3	0.0	0.5

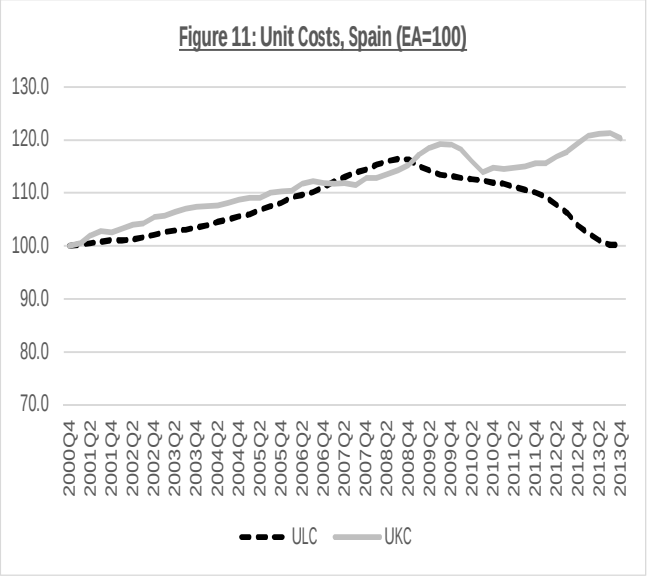
Source: Authors' calculations based on Eurostat.

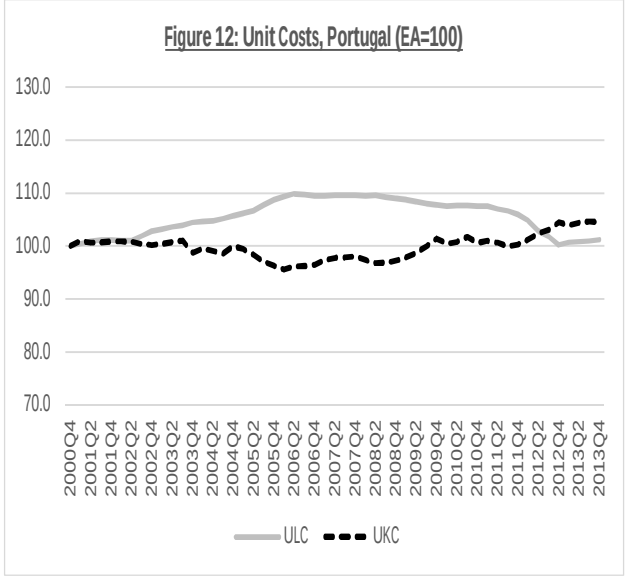
We calculate now the evolution of unit capital costs and their contribution to the growth rate of GDP deflator. In the same way as ULC are obtained by dividing the compensation per employee between labour productivity, the UKC is the ratio of returns on capital (measured by gross operating surplus) and its productivity. And, at factor costs, the sum of ULC and UKC is equal to the GDP deflator. Figures 9-12 collect UKC developments in Spain, Greece, Portugal and the euro area as well as the evolution of ULC and UKC in all three countries compared to the average for the euro area. We have already seen that the policies of wage devaluation have resulted in a reduction of ULC, and that the differences in relation to the average Eurozone growth have been corrected in all three cases.

However, capital costs have continued growing in the periphery, even above average, as a consequence of increasing profit margins. As a result, it has increased its difference with the monetary union, and the gap between national and European UKC currently stands at 20 % in Spain, 8% in Greece and 5% in Portugal.









Source: Authors' calculations based on Eurostat.

Given that, as noted above, the sum of the ULC and UKC explains the evolution of the deflator of GDP at factor cost, we can also calculate their contributions to inflation (Table 3). Until 2009, the inflation differential of peripheral countries from the average of the monetary union was explained by higher growth in both unit labour costs and capital costs (except in Portugal, where the contribution of UKC to inflation was similar to the euro zone). Since then, however, what explains the differences in price competitiveness that still persist, is the increase in profit margins and UKC.

TABLE 3: CONTRIBUTIONS OF LABOUR AND CAPITAL COSTS TO THE GROWTH RATE OF THE GDP DEFLATOR

Country and concept		Contribution to deflator growth rate		Difference with EA17	
		2002-2009	2010-2013	2002-2009	2010-2013
EA17	ULK	1.2	0.6		
	UKC	0.9	0.4		
	Deflator	2.1	1.0		
Greece	ULC	1.6	-0.9	0.5	-1.5
	UKC	1.7	1.2	0.7	0.8
	Deflator	3.3	0.3	1.2	-0.6
Spain	ULC	2.0	-1.1	0.8	-1.6
	UKC	1.9	0.7	0.9	0.3
	Deflactor	3.8	-0.4	1.8	-1.3
Portugal	ULC	1.7	-0.5	0.5	-1.1
	UKC	0.8	0.9	-0.1	0.5
	Deflactor	2.5	0.4	0.4	-0.6

Source: Authors' calculations based on Eurostat.

4. Has price competitiveness improved?

We should not forget that the immediate goal of internal devaluation is to achieve an improvement in price competitiveness, given that nominal devaluation is impossible in a monetary union. However, this requires that the reduction of unit labour costs results in a relatively lower rate of inflation of domestically produced goods and services, compared to those produced in other countries. In relation to countries outside the Euroarea, the nominal exchange rate of the euro is also relevant, as its appreciation could offset the reduction in relative prices.

To assess the behaviour of price-competitiveness we use the real effective exchange rate vis-à-vis 37 major trading partners, including other countries of the monetary union, published by the European Commission. We compare the data of the real effective exchange rate obtained using both unit labour costs (REER-ULC) and the GDP deflator (REER-DEF), or the price deflator of exports (REER-EXP). However, we believe that the latter two are the most appropriate indicators to analyze the evolution of price competitiveness, and especially REER-EXP, since it only includes tradable goods. The difference between the real exchange rates based on the ULC and those obtained using the GDP or exports deflators is explained by the different degree to which changes in labour costs are passed on to prices in a country and its competitors.

Considering 2000 as the base year, the three countries initially registered a real appreciation, which continued to the middle of 2008 in Spain, and until the end of 2009 in Greece and Portugal. Since then, however, there has been a recovery of the previously lost competitiveness, although in a different magnitude depending on the indicator used to measure it. Table 4 collects the changes in the REER-ULC, the REER-DEF and REER-EXP since 2000 (this year is equal to 100) to the quarter in which each reached its highest value, and from then until the fourth quarter of 2013.

TABLE 4: EVOLUTION OF REAL EFFECTIVE EXCHANGE RATE INDICATORS

Indicator		Greece	Spain	Portugal
Peak	TCER-CLU	126.9	128.1	113.9
	TCER.DEF	121.0	127.0	113.7
	TCER-EXP	125.3	118.8	109.5
2013Q4	TCER-CLU	102.9	110.4	107.0
	TCER.DEF	112.1	118.7	109.7
	TCER-EXP	125.4	115.8	107.9
% change from peak	TCER-CLU	-18.9%	-13.9%	-6.1%
	TCER.DEF	-7.4%	-6.6%	-3.5%
	TCER-EXP	0.0%	-2.5%	-1.5%

Source: Authors' calculations based on European Commission, http://ec.europa.eu/economy_finance/db_indicators/competitiveness/index_en.htm. (Accessed September 1, 2014)

Mainly in Spain and Portugal, but also to a large extent in Greece, until the onset of the financial crisis, the behaviour of the REER-ULC and REER-DEF were very similar. In general, differences in the growth of nominal unit labour costs corresponded quite well with the differences in price developments. According to the evolution of the GDP deflator, the largest real appreciation occurred in Spain (27%), followed by Greece (21%) and Portugal

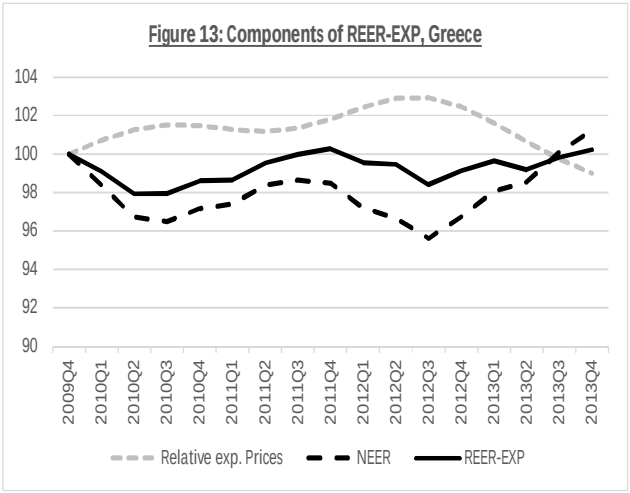
(14%). There were also real appreciations when only export prices are considered, which in Greece increased 25% more than their competitors, 18% in Spain and 9% in Portugal.

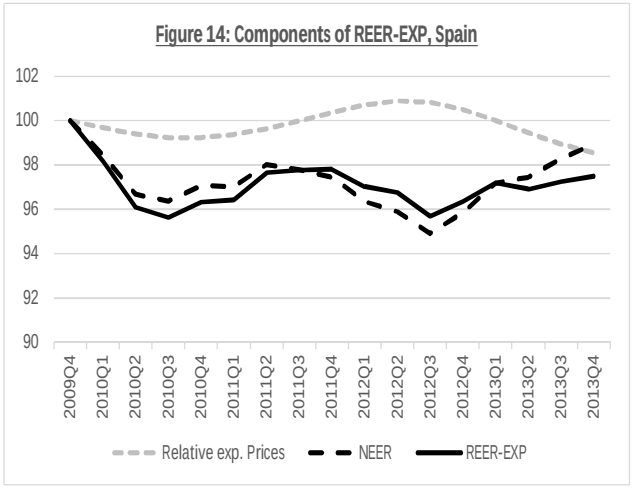
However, in the second period -since the maximum real appreciation to the end of 2013-, although the real appreciation has largely been corrected in terms of unit labour costs, the real depreciation was actually much lower when it is measured in terms of the GDP deflator, and even smaller in terms of export prices.

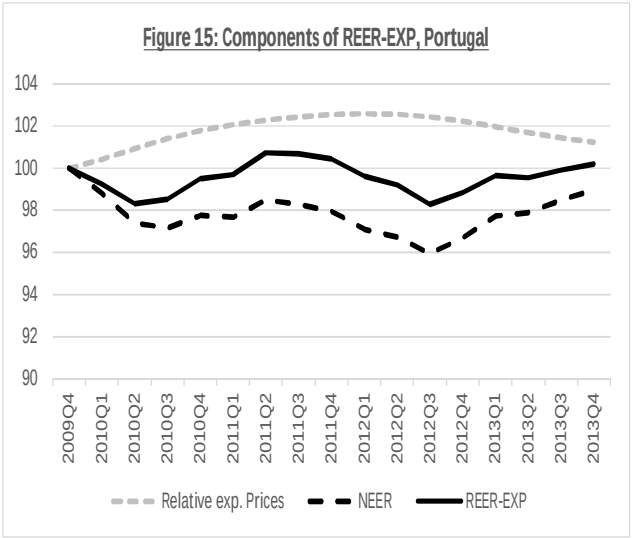
Regarding REER-DEF, the real appreciation from 2000 still stands at 18% in the case of Spain and around 10% in the case of Greece and Portugal. In other words, although the REER-ULC has decreased by 19% in Greece, 14% in Spain and 6% in Portugal (from each maximum), the REER-DEF has only reduced by 7%, 7% and 4%, respectively.

The comparison in terms of the price deflator of exports is even more significant, and it shows very clearly the limitations of the internal devaluation strategy. In 2013, the REER-EXP had only been reduced by 3% in Spain and 2% in Portugal compared to its maximum, and it had remained unchanged in Greece. Currently, despite the strong wage devaluation that has occurred in these three countries, the REER-EXP remains still appreciated 25% in Greece, 16% in Spain and 8% in Portugal (in relation to its value in 2000).

In Figures 13-15 the evolution of REER-EXP has been split up between the cumulative change in the relative prices of exports and the variation in the nominal exchange rate, always in relation to the last quarter of 2009. We can see that while the depreciation of the euro contributed until mid-2012 to reducing the REER of the three countries, its appreciation has more than offset the improvement observed in relative prices since then. Therefore, it has become another factor that, along with rising profit margins, has hampered the internal devaluation strategy. This period of a strong euro is related to the emergence of surpluses in the current account of the whole of the Eurozone, which is the result of the asymmetric adjustment that has occurred at the external positions of its members: the elimination of external deficits in the periphery and the maintenance of surpluses in Germany. The persistence of the export-led growth pattern in this country not only directly hinders the adjustment of the periphery - by maintaining a policy of wage growth below what would be compatible with the common goal of inflation- but also indirectly by this route. It contributes to a nominal appreciation of the euro that has a negative effect on net exports on all members of the Eurozone.







Source: Authors' calculations based on European Commission,.

In short, in 2013, Greece, Spain and Portugal had managed to virtually eliminate differences in ULC growth against the Eurozone that had accumulated since 1999. However, when this comparison is made in terms of production price levels and vis-à-vis the 37 major trading partners a real appreciation of between 10% (Greece and Portugal) and 19% (Spain) still remains. The explanation of these differences comes from the rise in profit margins and the nominal appreciation of the euro that has occurred since mid-2012.

5. Is internal devaluation triggering an export-led growth recovery?

Greece, Spain and Portugal have gone from net borrowing by over 10% in 2008 to net lending in 2013, mainly because the improvement in their balance of goods and services. This change has made the foreign sector go from making a negative contribution to growth before the crisis to a positive contribution since 2010. Apparently, these two facts can be interpreted as a confirmation that the strategy of internal devaluation is finally achieving the desired results and that it should be valued positively. However, this section will argue that:

- The collapse of imports has contributed in a fundamental way to the adjustment of the external deficits and to the present positive contribution of external demand to growth.
- The change in the behaviour of the foreign sector is explained better by the collapse of domestic demand than by changes in relative prices (real depreciation), so it can hardly be attributed to a "successful" internal devaluation.
- It is quite unlikely that the positive contribution of external trade to GDP growth will be sufficient to offset the stagnation (or contraction) of domestic demand and initiate a process of sustainable economic recovery.

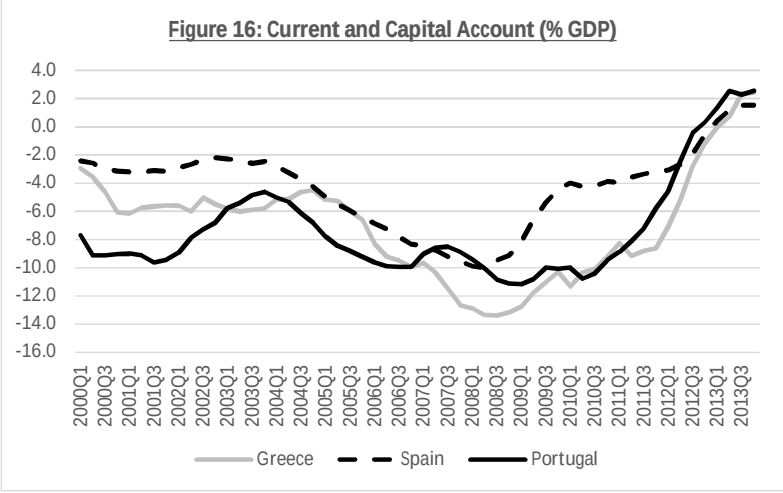
Table 5 and Figure 16 show the magnitude of the external adjustment that has been registered in all three countries. In Spain, this correction was already underway at the beginning of the crisis and occurred in a progressive way. However, in Greece and Portugal a very fast adjustment took place since 2011 (between the third quarter of 2011 and the third quarter of 2012 both countries reduced the external imbalance by more than 6 % of GDP).

In general, although all the balances have contributed to the improvement in the current account, reductions in trade deficits explain around 65-70% of the total. Again, the situation is different between countries: in 2013, the Spanish trade deficit had already been reduced to 1.1% of GDP, but in Portugal it still stood at 4.3%, and at 9.5% in Greece. In this country, the low level of exports of goods is highly remarkable (Gennaro Zezza, 2013, and OECD, 2013), representing only 12.4% of GDP, even though this figure is higher than the one recorded at the end of 2008, 8.6% of GDP.

TABLE 5: CURRENT AND CAPITAL ACCOUNT (% of GDP)

Country	Higher imbalance		2013Q4
	Date	Value	
Greece	2008Q3	-13.5	2.4
Spain	2008Q2	-10.0	1.5
Portugal	2009Q1	-11.2	2.6

Source: Eurostat.



Source: Eurostat.

From the standpoint of this paper, however, our interest is mainly in the evolution of exports and imports in real terms, and their contribution to economic growth. The comparison between the periods 2010-2013 and 2000-2007 is very significant, especially in the case of imports (we do not consider 2008-2009 when world trade collapsed). The average annual growth rate of exports has slightly improved in Spain and Portugal, but has worsened substantially in Greece. However, there has been a much more remarkable change in the behaviour of imports. Specifically, while they were growing in real terms at an annual rate of 4% (Greece and Portugal) and 8% (Spain) before the crisis, negative growth rates have been registered since 2010, especially in Greece (Table 6).

From these figures and the weight of exports and imports on GDP, we can also calculate the contribution to growth of external demand and each of its components. This contribution was negative in the years before the crisis, although this was compensated by a higher positive contribution of domestic demand. Conversely, the external sector has made a positive contribution since 2008 in Greece and Spain, and since 2011 in Portugal. But in this last period, it has not been sufficient to offset the negative contribution of domestic demand (Table 7).

TABLE 6: EXPORTS AND IMPORTS (REAL RATES OF GROWTH)

Country	Exports		Imports	
	2000-2007	2010-2013	2000-2007	2010-2013
Greece	3.2	-0.9	4.1	-9.7
Spain	5.2	5.6	7.9	-0.4
Portugal	5.0	5.2	3.7	-1.4

Source: Eurostat.

TABLE 7: CONTRIBUTION OF DOMESTIC AND EXTERNAL DEMAND TO GDP GROWTH

Concept and period		Greece	Spain	Portugal
Domestic Demand	2000-2007	5.0	4.6	1.5
	2010-2013	-8.6	-2.8	-3.5
External Demand	2000-2007	-0.7	-0.9	0.0
	2010-2013	2.9	1.7	2.2
Exports	2000-2007	0.7	1.3	1.3
	2010-2013	-0.3	1.5	1.6
Imports	2000-2007	-1.4	-2.2	-1.3
	2010-2013	3.2	0.2	0.6

Source: Authors' calculations based on Eurostat.

The decline in imports is also the main factor in explaining how the external sector has come to make a positive contribution to growth, not the increase in exports. Between 2000 and 2007 exports already made a positive contribution to GDP in these three countries, and although this contribution has increased since 2010 in Spain and Portugal, the improvement is only a few decimal points. In Greece, this has even become negative. What really changed the trend was the reduction in imports as a result of the collapse in domestic demand. In Spain, the annual contribution of imports to GDP growth has gone from -2.2 to 0.2 percentage points; in Portugal from -1.3 to 0.6; and in Greece from -1.4 to 3.2. In other words, the contribution of external demand to growth has enhanced 2.5 points in Spain, and 2.3 of this has been due to imports (93%). In Portugal, this change in imports has explained 1.9 points out of the 2.2 improvement for the whole external sector (85%). And Greece's improvement has been fully explained by imports (4.5 points) since the contribution of exports has actually worsened by 0.9 points.

Moreover, this change in net exports responds almost entirely to the sharp contraction in domestic demand, and not to the effects of improved competitiveness. To confirm this hypothesis, we have followed the methodology proposed by Enno Schröder (2011) and we have estimated the following autoregressive distributed lag model (ARDL):

$$XM_t = \alpha + \beta_1 RD_t + \beta_2 RD_{t-1} + \beta_3 REER_t + \beta_4 REER_{t-1} + \beta_5 XM_{t-1} + \epsilon_t$$

XM is the balance of goods and services and is measured by the logarithm of the ratio between exports and imports, both in nominal terms. RD is the relative domestic demand, or the logarithm of demand in the OECD as a

whole divided by the home country's demand (in real terms). An increase in RD means a higher growth of domestic demand in the OECD than at home and is expected to have a positive effect on the balance of goods and services. Finally, REER is the logarithm of the real effective exchange rate. An increase in REER represents a loss of price competitiveness, and is expected to have a negative influence on net exports.

As all variables are logarithms, the above coefficients can be interpreted as short-run elasticities, and we can also calculate the long-run elasticities of relative demand and price competitiveness, which are $\frac{(\beta_1+\beta_2)}{1-\beta_5}$ and $\frac{(\beta_3+\beta_4)}{1-\beta_5}$, respectively.

The source of all series is *OECD Economic Outlook* (Nº 95, May 2014), except in the case of Greek domestic demand, which is obtained from Eurostat. RD and REER are scaled such that the value in the fourth quarter of 2007 equals 100, and then the logarithms are applied. We estimate the coefficients by OLS with data from the first quarter of 1996 to the fourth quarter of 2013 (in Greece, from the fourth quarter of 2000).

Table 8 shows the results of our estimations. The sign of the long-run elasticities are the theoretically expected ones: an increase in OECD relative demand improves net exports, and a rise in the REER (loss of competitiveness) worsens the net exports figure in the long run. Regarding the point estimations of the coefficients, relative demand is clearly significative in all the cases, while the real exchange rate is only significative in the case of Spain.

TABLE 8: TRADE BALANCE EQUATIONS, ESTIMATION RESULTS

Coefficient	Spain	Portugal	Greece
β_1 (RD_t)	2.72 (10.68)	1.58 (8.79)	1.11 (6.99)
β_2 (RD_{t-1})	-2.63 (-10.77)	-1.38 (-7.46)	-1.07 (-6.92)
β_3 ($REER_t$)	0.43 (2.25)	-0.08 (-0.33)	0.01 (0.05)
β_4 ($REER_{t-1}$)	-0.53 (-2.74)	-0.13 (-0.56)	-0.05 (-0.41)
β_5 (XM_{t-1})	0.84 (24.28)	0.81 (13.49)	0.88 (26.12)
Corrected R2	0.99	0.99	0.99
Long-run elasticity RD	0.56	1.05	0.32
Long-run elasticity XP	-0.63	-1.11	-0.32

Source: Authors' calculations.

Using these results, we have tried to measure which part of the improvement in these three countries' trade balance registered since 2007 can be explained by a change in relative demand, and which part by the change in competitiveness. To do this, we have compared, in Figures 17 to 19, the actual values of net exports with two alternative scenarios:

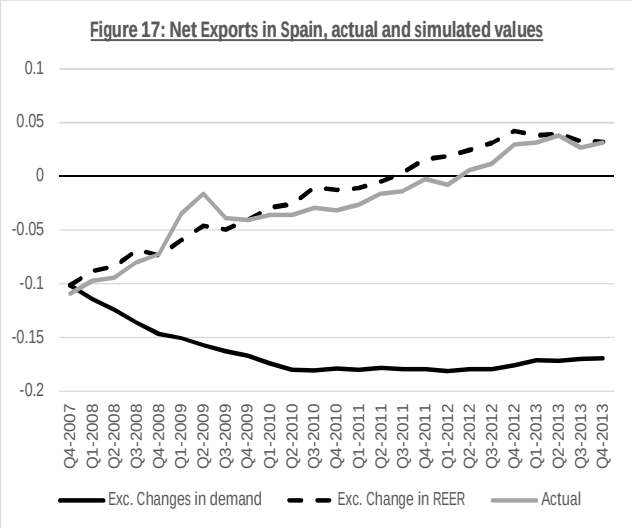
- First, we simulate the hypothetical evolution of net exports assuming that relative demand has maintained its value at the level of the fourth quarter of 2007. That is, we eliminate the effect on the external balance of the different evolutions of domestic demand in each country in relation to the whole OECD, and the value of net exports is given by the following equation (a hat on a variable represents its estimation, and an asterisk its simulated value according to the hypothesis formulated):

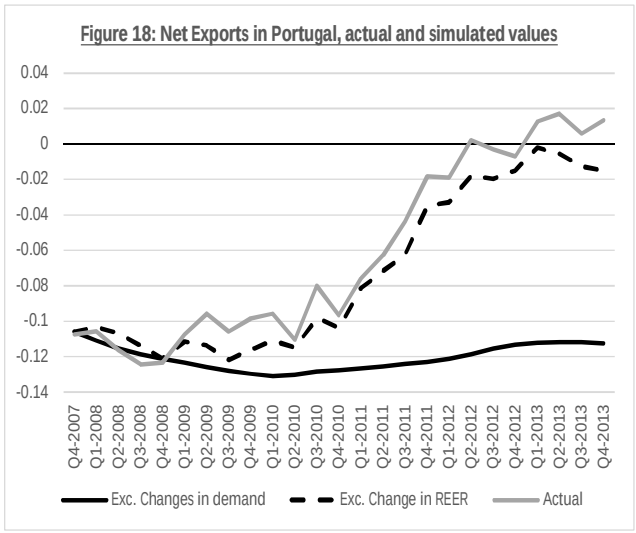
$$XM^*_t = \widehat{\beta_1} RD_{2007q4} + \widehat{\beta_2} RD_{2007q3} + \widehat{\beta_3} REER_t + \widehat{\beta_4} REER_{t-1} + \widehat{\beta_5} XM^*_{t-1}$$

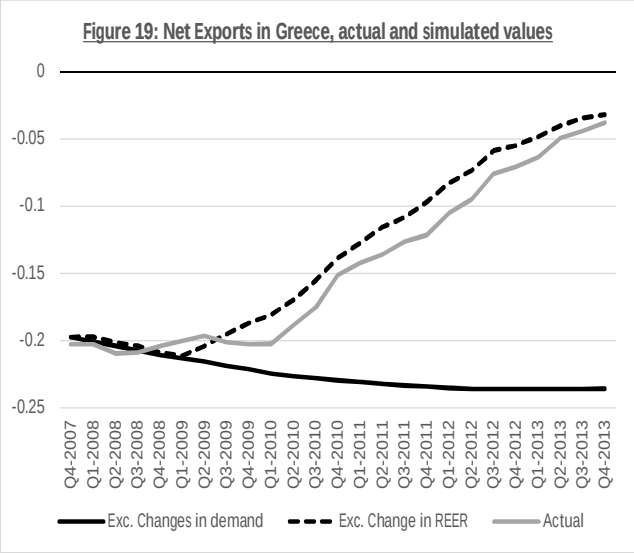
- Second, we suppose that REER have remained constant at the level of the fourth quarter of 2007. So, in this second simulation we remove the effect of variations in competitiveness (which is the ultimate objective of internal devaluation), and only the changes in relative demand are taken into account. In this case the value of net exports is given by:

$$XM^*_t = \widehat{\beta_1} RD_t + \widehat{\beta_2} RD_{t-1} + \widehat{\beta_3} REER_{2007q4} + \widehat{\beta_4} REER_{2007q3} + \widehat{\beta_5} XM^*_{t-1}$$

The results are categorical. If there had been no fall in domestic demand in Greece, Portugal and Spain, the rapid correction of the current account deficit would not have happened. In contrast, even holding the REER constant, the improvement in the external balance would have been practically the same, i.e., changes in aggregate demand alone explain almost all of the adjustment in the external balance.







Source: Authors' calculations and Eurostat.

All this query the idea that internal devaluation may trigger an export-led resumption of growth in the periphery, thanks to the dynamism of its exports. Although the contribution of net exports is positive, it is not sufficient to offset the collapse in domestic demand that this economic policy has helped to generate, due mainly to the restrictive effect on the disposable income of households. In addition, the relationship between the adjustment of the external deficit and falling demand leads us to believe that once domestic demand recovers external imbalances could reappear.

The experience of Spain during the first half of 2014 may be instructive in this regard. Once the Spanish economy has started to register positive growth rates, the current account has begun to show signs of deterioration. A significant part of Spanish industrial production and exports have a high dependence on imported inputs, and this has two implications. First, the multiplier effect of exports on GDP and national employment is reduced; and, second, imports have a high income elasticity. In this period the Spanish economy has already accumulated a current account deficit of nearly 10,000 million of euros, ten times the one registered in the first half of 2013. In cumulative terms over the last twelve months the current account balance is also negative, in contrast with positive figure corresponding with the whole 2013. The current account deficit is almost entirely due to the trade imbalance, and this in turn is the result of both lower export growth and, above all, a strong rebound in the import of goods, in line with internal demand growth.

Conclusions.

National governments in Spain, Greece and Portugal have undertaken, under the inspiration/pressure from European authorities, an economic policy strategy aimed at recovering competitiveness, using the reduction of labour costs as the main instrument. To this end they have adopted important measures in labour markets, mainly weakening collective bargaining, but also in the fiscal area.

These policies assume that the current account imbalances that were observed within the Eurozone before the start of the crisis were mainly due to excessive wage growth in deficit countries, so that the adjustment would correspond mainly to those countries. Furthermore, the authorities argue that the reduction of labour costs will not only lead to the adjustment of the external balances of each country by improving competitiveness, but also to a boost from net exports which will be enough to recover economic growth. This paper shows that those expected results have not materialized.

Between 2010 and 2013 there was indeed a reduction of different magnitudes in nominal and real wages, which also led to a decrease in ULC. In late 2013, the ULC of Greece, Spain and Portugal vis-à-vis the average of the euro area stood at the same level as at the start of the monetary union. In addition, their accumulated growth is fully compatible with an average inflation of 2%.

However, these wage developments have resulted, to a much lesser extent, in a depreciation of the real exchange rate when this is calculated using production prices or export prices, which are more appropriate measures of competitiveness than applying the ULC. Three factors primarily determine the failure of the translation of labour costs to relative prices: the behaviour of profit margins, and, therefore, the unit costs of capital; the low inflation rate which is also recorded in the monetary union as a whole, including surplus countries such as Germany; and the rise in the nominal effective exchange rate.

The GDP deflator and the deflator of exports have slowed down in recent years, but to a much lesser extent than unit labour costs have, because the three countries have undergone a significant growth in profit margins. This has meant that although the ULC of Greece, Spain and Portugal have converged with the European average, the UKC have diverged further. This is the factor that explains current competitiveness differences that still remain between these three countries and the euro area average -compared to its 2000 value.

The second factor that has hindered wage reductions being reflected in greater gains in competitiveness, is that the rest of the Eurozone has also registered inflation rates below 2%, as measured by the GDP deflator. A symmetric adjustment of competitiveness would require the countries with a previous weak wage growth and external surpluses having rates of inflation above 2% for some time. However, we have seen that the cumulative ULC growth in Germany is still too low according to the benchmark we have defined as desirable. The maintenance in the core of the monetary union of a slow wage growth policy requires that the peripheral countries implement bigger wage cuts, causing a deflationary bias in the euro area as a whole.

And the third factor is the appreciation of the euro. To a large extent, this is also a consequence of the asymmetric nature of the rebalancing of current accounts in the euro area. The attempt to generalize a model of export-led growth across countries, and the continuity of surpluses in the core countries, is causing a nominal appreciation of the common currency that is having an adverse effect on the net exports of other members of the monetary union.

It is true that Greece, Spain and Portugal have quickly corrected their current account deficits, and net exports are now having a positive contribution on growth, unlike the years before the crisis. However, this cannot be viewed as the success of the strategy of internal devaluation, but rather as the indirect result of the situation of stagnation or recession that these economies are experiencing –aggravated by the economic policies which are being applied in each of these countries.

The shift from a negative contribution of external demand to GDP growth to a positive one is mainly explained by the collapse of imports from these three countries, and we have offered empirical evidence that also shows that this is a result of low relative demand and not of the (weak) improvement in competitiveness. Finally, this positive contribution is undoubtedly insufficient to handle the recovery of growth and employment. And there is a high risk that a better performance of domestic demand would again cause external deficits, in the absence of other policies to reduce these economies' structural weaknesses and dependence on imported equipment and technology.

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