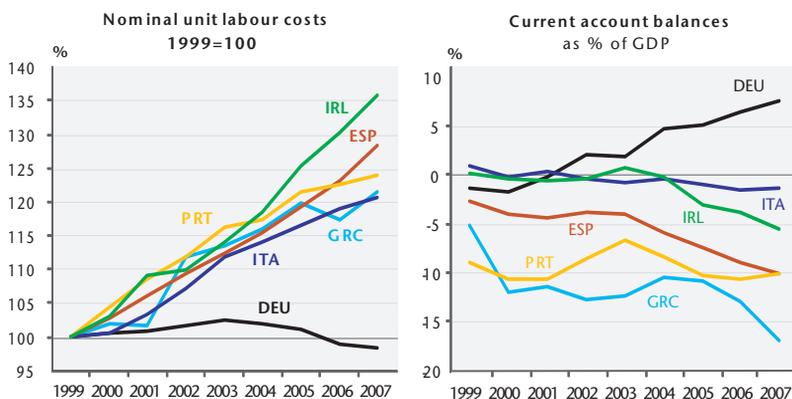


## MACROECONOMIC IMBALANCES AND THE EURO AREA CRISIS

Complex as it is, the euro crisis is, at heart, a balance of payments crisis. During the pre-crisis period macroeconomic imbalances, specifically current account imbalances, of the member states of the euro area steadily increased (Figure 19). These imbalances—which were largely, but not solely, within-area imbalances—implied an accelerating increase in the foreign indebtedness of the deficit counties and a corresponding rise in the net foreign asset position of the surplus countries. The increasing gap was financed by a growing flow of private capital to the current-account deficit economies from the surplus countries and others (notably France). When the crisis hit, sparked by the economic and financial aftermath of the collapse of Lehman Brothers, both the ability and willingness of economic agents in the deficit countries to continue net borrowing and, more importantly, the willingness of private sector agents in the surplus countries to prolong existing credit and hold government bonds of deficit countries quickly dried up (sudden stop). The gap was partly filled by various forms of public lending. Nevertheless a rebalancing of the euro area economy and a narrowing, if not a reversal, of current account imbalances is a necessary condition for a re-emergence of a stable growth model in the euro area.

**Figure 19. Competitiveness and current account**



Source: AMECO.

Current account imbalances arose prior to the crisis due to two mutually reinforcing mechanisms, one relating to price the other to quantity effects. Very briefly, entry into monetary union had very different effects on the countries of the former D-Mark block and those of the southern and western periphery. (France, notably, plays a somewhat intermediate role in this story.) The latter had had high inflation rates, currencies subject to repeated devaluation and high nominal interest rates; real rates had also been elevated because of risk premiums. The D-Mark block countries, on the other hand, were already in a regime that, in several ways, resembled the monetary union.

On entering EMU a uniform interest rate applied to all countries and currency realignments were ruled out. Inflation in the former peripheral countries fell sharply. Real interest rates fell even more as risk premiums disappeared. The resultant economic dynamic led to buoyant economic activity. As a result both prices and nominal wages grew at a faster rate than in the former D-Mark block. This initially had a positive feedback effect by reducing real interest rates in the periphery. In the core, on the other hand, low inflation made for relatively high real interest rates. Especially in Germany, policymakers found themselves unable (or unwilling) to use expansionary fiscal policy to stimulate their sluggish economies (which would have conflicted with the Stability and Growth Pact). Instead salvation was sought in an aggressive policy of wage moderation to regain employment through increased net exports. In the event both the quantity (demand differentials) and price (inflation differentials) effects, symmetrical in 'peripheral' and 'core' countries, had the effect of widening current account imbalances by stimulating imports and/or depressing exports in the former compared to the situation in the latter. This shows up as a clear negative correlation between the development of unit labour costs and current account positions in the years prior to the crisis (Figure 20). The correlation results from the above-mentioned factors simultaneously driving nominal wages and prices, on the one hand, and the current account positions in opposing directions; it should not be read—although this all too frequently occurs—as a simplistic and unidirectional causal relationship from 'wages' to 'competitiveness'.

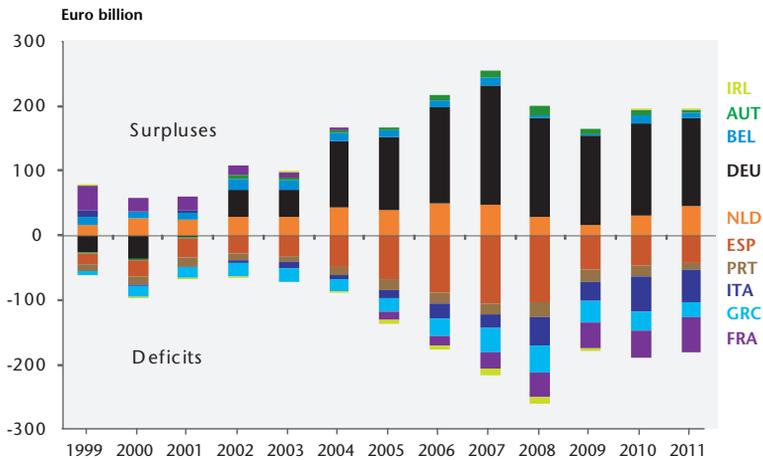
In the pre-crisis period the importance of macroeconomic imbalances was largely ignored or, indeed, denied. Subsequently, and as detailed elsewhere in this report, the crisis was primarily interpreted as a crisis of public finances. Crisis resolution was sought first and foremost *via* across-the-board fiscal austerity. Seen through the angle of current account imbalances, this clearly makes no sense. An argument can be made for fiscal consolidation in countries with high current account deficits. The associated demand shortfall puts downward pressure on nominal wages and prices<sup>18</sup>, restoring competitiveness, and directly curtails

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18. This does not imply that this is the best way to achieve this goal. On the contrary, corporatist measures to reduce price and wage increases without demand deflation are hugely preferable as they permit higher real incomes, employment and better fiscal outcomes. They are, however, institutionally demanding.

imports. Obviously, though, this argument does not apply to surplus countries. On the contrary, reducing current account surpluses requires expansionary macroeconomic policies that accelerate wage and price growth and increase domestic demand relative to supply. Belatedly, a so-called excessive imbalance procedure, modeled on the excessive deficit procedure of the Stability and Growth Pact, was introduced but it has a number of serious weaknesses, notably that of failing to treat deficits and surpluses as symmetrical outcomes requiring equally symmetrical treatment. As is shown in some detail below, the result of this one-sided approach has been that some competitive rebalancing has been achieved, but it is limited, one-sided and, as a result, of questionable sustainability and, above all, has been achieved at high cost.

Figure 20. Current account balances in the euro area

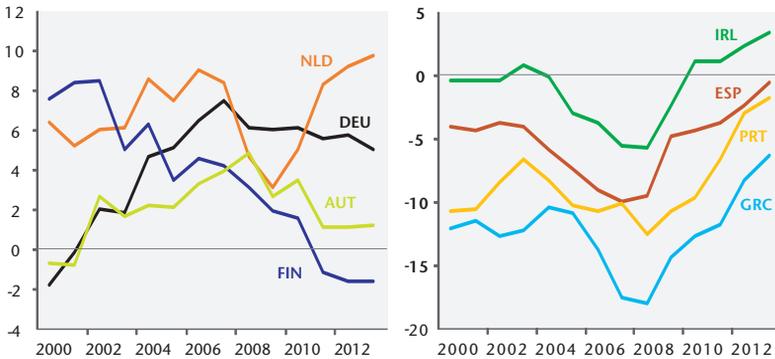


Source: AMECO; OFCE, ECLM, IMK calculations.

## 1. One-sided adjustment of current accounts and trade balances

The good news is that the crisis-hit deficit countries have already made considerable strides in closing their current account deficits, and this is expected to continue (Figure 21). Deficits bottomed out in 2008 (ES: 2007) at 18.0% in Greece, 12.6% in Portugal, 10.0% in Spain and 5.7% in Ireland. Already by 2011—the last year for which we have hard data—these deficits had shrunk sizably to 11.7%, 6.6%, 3.7% and a surplus of 1.1%, respectively. Moreover, according to the latest European Commission forecasts, both Spain and Portugal are expected to have achieved a virtually balanced current account position by 2013, thus implying no additional net foreign borrowing. Ireland is forecast to post a considerable surplus; only Greece will still be recording substantial deficits.

Figure 21. Current account balances as % of GDP, selected euro area countries



Sources: AMECO; 2012 and 2013 European Commission forecast.

Consider, on the other hand, four countries that have been in surplus over most of the period since the creation of the euro. The small Finnish economy has seen a longer-run and steady shift from surplus to deficit. Since the crisis some adjustment has also taken place in Austria: it has decoupled from the German trend, although continued small surpluses are expected for the current and coming year. The same cannot be said of the much larger economies of Germany and the Netherlands, however. Although initially seeming to adjust, the Dutch surpluses have already resumed an upward trajectory, a trend expected to continue. Meanwhile, the German current account has been essentially flat as a share of GDP during and since the crisis at a historically high figure of around 6%; a small decline is predicted for 2013.

As a result of this lop-sided adjustment process, by 2013 no euro area country with the exception of Greece is forecast by the European Commission to have a current account deficit in excess of 2% of GDP and the overall euro area current account position is moving inexorably into surplus: until last year the current account of the area as a whole was broadly balanced, averaging +0.3% for the EA-12 between 2000 and 2011. But in the current year a surplus of 1.1% is expected, rising to 1.5% in 2013. This puts pressure on Europe's trading partners. Given that, unlike within the euro area, these trading partners have a flexible exchange rate to the euro, this poses the question as to how sustainable this increase can be. Within the euro area it confirms what we have seen in other sections of this report: austerity-fits-all has led to some rebalancing but at much lower aggregate levels of income and employment than could have been achieved if adjustment had been more symmetrical.

An even clearer picture emerges if we consider the development of imports and exports for selected countries. A reduction of the former is of equal value as

an increase in the latter for any one country seeking to close a current account deficit. However, given the close trade interlinkages within the euro area, stronger export growth is a vastly more favourable adjustment strategy than cutting back on purchases from abroad; the former stimulates production in other countries, while the latter reduces others' sales opportunities. An ideal development trajectory, following the initial adjustment precipitated by the sharp downturn, would be a balanced recovery of exports and imports in the euro area as a whole (given its starting point of equilibrium), considerably more rapid import than export growth in Germany (given its initial huge surplus) and, in contrast, rapid export growth together with stable or slightly growing imports in the deficit countries. Developments have been rather different, however (Figure 22). After a by and large encouraging start, things went badly wrong in most cases from around the start of 2011.

Until around the second quarter of 2010, developments in the euro area and Germany could be considered to be on track in terms of trade balance adjustment: in real terms euro area imports recovered slightly (in Germany considerably) faster than exports from their somewhat (in Germany considerably) lower initial level. Import growth then slackened, though, and has been generally negative since the third quarter of 2011. German net exports actually widened (until Q2-2012).

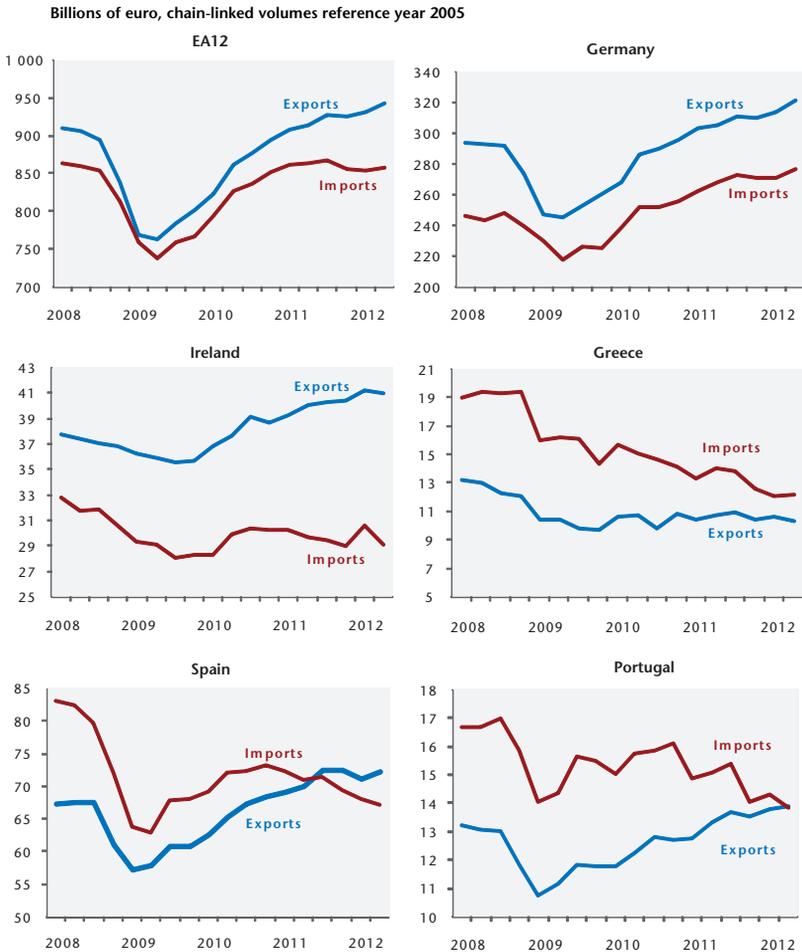
This was reflected in the trade balance developments of the deficit countries. The greatest worry is Greece, where exports merely stabilized after bottoming out in early 2009; they have even declined further since the end of 2011. Consequently the closing trade deficit is due solely to a continuous fall in imports. From the start of 2009 Spain and Portugal initially managed to achieve a favourable adjustment trajectory, combining relatively rapid export with slower import growth. In both cases, however, from late 2010 the pace of export growth slackened. Since late 2011 export growth has come to a standstill in Spain and been very sluggish in Portugal. Meanwhile from late 2010 the import trend shifted, and the closure of the trade balance was due more to sharply falling imports than any export growth. Only Ireland shows a more favourable trajectory<sup>19</sup>.

All in all these trade figures are consistent with the analysis of the high costs of the shift to continent-wide austerity in early 2011. Domestic demand was choked off in the area as a whole, but particularly sharply in the deficit countries. This reduced the scope to maintain demand and employment by increasing export sales to euro area trading partners and knocked countries off what had initially been a favourable adjustment trajectory. The closing of trade deficits was increasingly achieved merely by cutting imports. And to the extent that export growth was maintained it implied rising surpluses against non-EMU trading partners.

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19. Ireland is a special case in that its substantial trade surpluses go hand in hand with, until recently, current account deficits and, more recently, much smaller surpluses. The main explanatory factor is profit repatriation on Ireland's very substantial inward FDI.

**Figure 22. Real imports and exports of goods and services, EA12, Germany, and crisis countries**



Source: Eurostat.

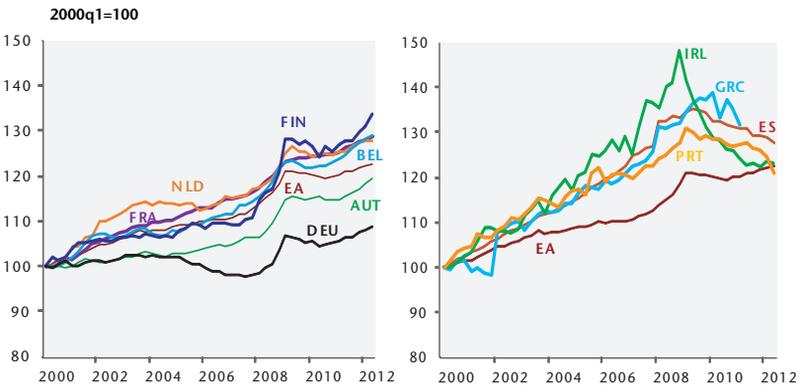
## 2. Unit labour costs, prices, competitiveness and distribution

The public debate on competitiveness frequently boils down to one thing: wages. There is considerable truth in this. Unit labour costs—the trend in nominal wages, more specifically total labour costs, adjusted for changes in labour productivity—generally constitute a good indicator of changes in the competitive position of an economy. In a country with a floating exchange rate, such changes can be

offset by exchange-rate movements. But such adjustment is not available for euro area countries, at least not with respect to intra-area trade, which accounts for the bulk of the international exchange of goods and services for most EMU member countries. Figure 20 above showed the clear correlation between the development of ULC and current account positions prior to the crisis.

The more or less explicit aim of much of the deflationary policies, but also the so-called structural reforms imposed on or otherwise adopted by the crisis countries has been to improve competitiveness by cutting ULC or at least reducing its rate of growth.

**Figure 23. Unit labour costs (whole economy) in the euro area and selected countries**



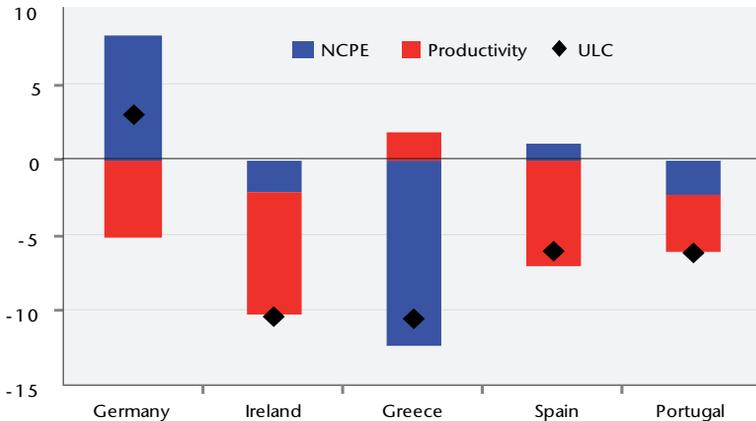
Source: Eurostat; OFCE, ECLM, IMK calculations

Purely in terms of a correction of previously excessive nominal ULC growth, these policies have clearly had a positive effect (Figure 23). In Ireland and Portugal the correction has been so strong as to bring these countries down to the EMU average rate of increase over the entire period since 2000, in other words to undo the accumulated loss of wage competitiveness. Spain and Greece have also made considerable progress in the same direction. As with trade balances, the problem is a lack of symmetrical adjustment on the part of, in particular, Germany. Since the crisis Germany has more or less tracked the EMU average rate of ULC growth. Only very recently has there been a slight closing, from below, of the accumulated competitiveness gap, estimated to be around 17% (Stein *et al.* 2012). A worrying implication of this unbalanced adjustment is that unit labour costs have grown very sluggishly in the currency area as a whole.

Including the Commission forecast for 2012 we see that the changes in ULC since the crisis and their composition vary greatly between countries. The approximately 10% improvement in ULC in both Ireland and Greece between 2009 and 2012 is due overwhelmingly to productivity increases in the former, but to wage

cuts in the latter; partly this reflects the fact that in Ireland wage cuts were imposed already in 2008. Somewhat similarly, productivity growth in Spain is strong, so that an improvement of around 6% in ULC can be achieved with small nominal wage increases, while a similar improvement in wage competitiveness in Portugal requires nominal wage cuts of more than 2%.

**Figure 24. Percentage change in unit labour costs, by component, 2009-2012**



*Note:* NCPE stands for nominal compensation per employee and ULC for Unit labour costs.  
*Source:* AMECO; 2012 European Commission forecast, OFCE, ECLM, IMK calculations.

The idea that ULC are decisive for competitiveness is based on the view that, in the longer run, they determine domestic costs and thus, given an unchanged mark-up, price developments. This domestic cost base is also likely to be an important driver of a country's export prices, although this will also depend on global market conditions and countries' pricing power. If we look at Eurostat export deflators for the pre-crisis period we see some confirmation of this basic premise. Compared with its 2000 level export prices in the euro area as a whole were up just over 8%. The comparable figure for Germany was just 2%. But Portuguese exports grew 11% more expensive over the period, Spanish by almost 19% and Greek foreign sales prices by as much as 27%. This is in line with both the ULC and the current account developments discussed above.

In the adjustment period since the crisis, however, this mechanism appears to have broken down. Rebased on 2008, the export deflator figures for 2011 are surprising given the ULC trends just reported. Germany comes in slightly below the euro area average of around 3%. Spain and Portugal are marginally above average; and Greek export prices have increased rapidly, by around 9%. Particularly in the

case of Greece, this may partly explain why the trade-balance improvement has tended to come more via a dampening of imports<sup>20</sup>.

Another way to look at this issue is to decompose the final demand deflator into its components. The final demand deflator can be considered the broadest and most general measure of the price competitiveness of an economy. It can be decomposed, first, into the contribution from import prices (import deflator) and that of domestic demand (GDP deflator). The latter can then also be split up into the contributions coming from: unit labour costs, entrepreneurial income, indirect taxes and a balancing item that relates largely to the depreciation of capital. In Table 9 the annual contributions to the change in the final demand deflator have been averaged for the periods 2000-2008 (in the case of Greece 2001-2008) and 2009-2011.

**Table 10. Decomposition of the final demand deflator, selected countries, 2000-08 and 2009-11**

	Total change in %	Contribution to the change of the final demand deflator		Contribution to the change of the GDP deflator			
		Import deflator	GDP deflator	Unit labour costs	Entrepreneurial income	Net indirect taxes	Residual
DEU 2000-08	0.91	0.31	0.61	0.03	0.56	0.12	-0.10
DEU 2009-11	0.97	0.28	0.69	0.60	-0.14	0.13	0.10
ESP 2000-08	3.51	0.59	2.92	1.25	0.61	0.18	0.87
ESP 2009-11	0.71	0.33	0.38	-0.28	0.24	0.06	0.35
GRC 2001-08	2.97	0.70	2.26	0.73	0.31	0.18	1.04
GRC 2009-11	1.92	0.81	1.11	0.35	-0.95	0.19	1.51
PRT 2000-08	2.71	0.63	2.08	1.01	-0.15	0.36	0.87
PRT 2009-11	0.82	0.19	0.63	0.09	-0.12	-0.08	0.74
IRL 2000-08	2.20	0.59	1.60	0.92	0.08	0.19	0.42
IRL 2009-11	-0.44	0.83	-1.28	-1.15	-0.57	-0.37	0.81

Source: Eurostat; OFCE, ECLM, IMK calculations.

A number of interesting findings emerge from this analysis. Germany's increase in the final demand deflator is virtually unchanged in the pre and post-crisis periods at just under 1%. Striking is the fact that ULC growth made virtually no contribution to the pre-crisis increase in the overall price deflator. This was driven, apart from by moderately rising import prices, by higher profits. Given a balanced functional income distribution, German wage moderation would have resulted in an even

20. Greece's main goods export commodity by some margin is „Petroleum oils other than crude“. This may partly explain the disjuncture between domestic costs and export prices: see the entry for Greece at <http://comtrade.un.org/pb/CountryPagesNew.aspx?y=2011/>. There are some sharp movements in (nominal) values from year to year which may indicate unreliability of the statistics.

greater increase in price competitiveness, had not German firms pocketed some of the gains in the form of higher mark-ups. The pendulum swung back to a limited extent after the crisis, however, with wages rising as a share of national income.

In the case of the crisis countries the picture is somewhat complex. All four countries have seen a marked deceleration of price pressure since the onset of the crisis<sup>21</sup>. In Greece, however, the 2009-11 average annual increase remains high at almost 2%. In Ireland the post-crisis GDP deflator has been negative. In both Spain and Ireland ULC cuts have exerted downward pressure on prices. In Portugal and, to a lesser extent, Greece, the ULC contribution to inflation as measured by the final demand deflator has substantially weakened. This means that in the crisis countries the fall in ULC has not been passed on in full in lower prices, limiting the improvement in competitiveness as measured by the final demand deflator. The adjustment burden appears to have been borne disproportionately by workers.

The factors explaining this differential vary between the countries, however. Particularly in Spain the offset has come in the form of a clear shift from labour to profit income. In Greece, though, relatively fast import growth and higher indirect taxes have played a role; the contribution of profit income was negative<sup>22</sup>. Surprisingly, higher indirect taxation—a frequent component of austerity packages—does not appear to have played a role in putting upward pressure on prices in the other countries, though.

All in all we see that the considerable, if one-sided, progress in adjusting unit labour costs has made a contribution to current account adjustment. However, the transmission mechanisms between wages and prices are far from straightforward. Particularly in the context of austerity programs it seems that, to varying degrees, the competitive advantages from enforced wage moderation may be eaten away by shifts in national income to profits *via* higher mark-ups. Such distributional impacts of austerity policies have been identified in a number of studies (e.g. Guajardo *et al.* 2011).

### 3. Policy implications

The policy implications of the above analysis are straightforward. The adjustment burden needs to be spread much more evenly between deficit and surplus countries. The latter, most notably Germany and the Netherlands, need to pursue expansionary fiscal policies and take other appropriate steps to increase the pace of nominal wage and price growth. In the case of Germany the introduction of a minimum wage should be considered to underpin workers at the bottom end of

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21. The pre-crisis average for Greece would have been higher if, as for the other countries, the figures for 2000 had been included.

22. The rather high values of the contribution from the residual in some countries, notably Greece, do not facilitate clear interpretation.

the labour market, which have seen a major erosion of their purchasing power. There are tough legal-political constraints on expansionary fiscal policy in Germany, given the debt brake recently enshrined in the country's constitution—and seen as a model for the whole of Europe. Faced with this obstacle, an approach based on the concept of the balanced budget multiplier should be adopted: growth-promoting public investment in areas such as education, infrastructure and childcare should be expanded, funded by higher taxes on items and individuals where the negative impact on demand is lowest (*i.e.* taxes on high incomes and capital).

In most of the deficit countries adjustment has to a considerable extent achieved been already, albeit by high-cost strategies of demand deflation. The opportunity was missed to achieve lower nominal wage and price growth through social concertation. It is not too late, however, to seek to build up the required institutions for future use. More generally, countries of the euro area should be encouraged to develop the necessary tools to manage their competitiveness, and these efforts require coordination at European level to avoid the twin evils of beggar-thy-neighbour strategies and excessive wage-price spirals. The Macroeconomic Dialogue can serve as a forum for such coordination, but it is currently too weakly institutionalised. The excessive imbalance procedure introduced as part of the so-called 'six pack' constitutes a step in the right direction in terms of recognizing the importance of current account imbalances. However the technical details of the procedure are flawed (see the Box 3 below for an analysis of the indicators included in the scoreboard which is used to assess macroeconomic imbalances). Above all reforms are needed to ensure symmetrical treatment of deficit and surplus countries.

### Box 3. The scoreboard for the surveillance of macroeconomic imbalances

The scoreboard (on the following see COM(2012) 68 final) consists of ten indicators, of which five each pertain to "external imbalances and competitiveness" and to "internal imbalances"<sup>23</sup>. Each indicator has critical threshold values (minima and maxima) which are derived from a statistical analysis of past national performance on these indicators. And for each indicator there is a period over which the variable is analysed (averaged).

**Indicator 1:** the current account balance as a share of GDP, measured as a 3-year average with thresholds of +6% (surplus) and -4% (deficit).

Evaluation: The current account, in many ways, is the macroeconomic imbalance. It represents the amount of capital that a country must import from (deficit) or export to the rest of the world (surplus) each year, expressed in rela-

23. In addition there are "some additional indicators to be used in economic reading", *i.e.* interpretation of the findings from the scoreboard; See Table 1, p. 3. Their role is not clear, though, and they are not discussed here.

tion to national output. The three year average seems reasonable (trade-off between too many false alarms and the risk of permitting a build-up of imbalances that become entrenched before a red light is triggered). Problematic are the asymmetric thresholds. Applying the logic of the scoreboard implies that the euro area or EU27 runs persistent surpluses, which recreates the imbalances problem at the global level. The values are rather high, capturing eleven of 27 countries in a phase where, all are agreed, the imbalances problem was dramatic. More specifically, the +6% thresholds only captures Sweden and tiny Luxembourg. Most notably Germany (at 5.9%) is conveniently exempt from a red light on this indicator.

*Recommendation:* Retain the indicator and observation period; replace the threshold with a symmetrical +/-3%.

**Indicator 2:** the net international investment position (NIIP) as a % of GDP, latest year, threshold -35%.

The NIIP is effectively the accumulation of past current account surpluses and deficits and represents the net value of the assets and liabilities that a country has with the rest of the world. It is important because a country has to service foreign debts while drawing income on foreign assets. As with any other debt, this debt service can become unsustainable. The NIIP is rather a slow-moving and lagging indicator. In short it is of fundamental importance although it is of limited usefulness in terms of real-time evaluation. The same concerns about asymmetry apply as with indicator 1. An important objection is that this measure does not allow for different rates of return on assets and liabilities.

*Recommendation:* The indicator should be retained. The observation period is correct; the threshold is reasonable but should be symmetrical +/-35%. It should be supplemented with an analysis of the net return on capital abroad.

**Indicator 3:** the change in the real effective exchange rate relative to 35 industrial countries, averaged over three years and with thresholds of +/- 5% for euro area and +/- 11% of non-EMU countries

The REER measures price competitiveness. This is important for determining current account imbalances. The three year average seems reasonable. The thresholds are symmetrical. The problems with this indicator lie in the mixture of euro area and non-EMU countries and the reference group (35 industrial countries). Within the euro area exchange rates are 'fixed' (actually obsolete). So the REER measures changes in prices relative to those in other EMU countries. Countries must keep their inflation rates close to the euro area average. However, for the euro area countries with respect to the non-EMU countries in the group of 35 industrialised countries (e.g. the USA), and for the non-EMU countries generally, the REER is influenced by changes in the exchange rate. This is not really at the influence of the countries in question—to a limited extent for non-EMU countries and not at all for EMU countries (which lack a central bank). The exchange rate impact on the REER can be sudden and massive and there is a serious risk of policy distortions if, for instance, an unjustified spike in the exchange rate leads to calls for wage moderation.

*Recommendation:* The indicator can be retained in principle with the observation period and symmetrical threshold; however it should be limited to changes in the REER of the EMU countries against each other. Changes involving exchange rates should be clearly separated (for example as one of the "additional indicators").

**Indicator 4:** Changes in export market shares, measured over 5 years, with a threshold of -6% of GDP

The relevance of this indicator is in doubt. It is *net* exports, not exports or export shares that are relevant for macroeconomic imbalances. The export shares of western European economies are in secular decline as “emerging markets” outside Europe and central and east European countries are integrated more fully into the global economy; this is not a worrying trend or one that should be resisted. At the very least there is no basis for the -6% (one-sided) threshold.

*Recommendation:* this indicator is superfluous and possibly misleading and should be dropped.

**Indicator 5:** Changes in nominal unit labour costs measured over 3 years with thresholds of +9% (EMU members) and +12% non-EMU members.

The considerations that apply in the case of this indicator are closely related to those made regarding indicator 3. Unit labour costs and prices are closely related empirically and both raise, in principle, valid concerns about competitiveness. As with indicator 3, nominal unit labour costs are only relevant where differentials cannot be offset by exchange rate movements. Worse, unlike with indicator 3, the thresholds for ULC trends are entirely one sided: the rise in nominal ULCs can apparently only ever be too large. Yet undershooting – in the EMU – average ULC growth persistently and substantially, as Germany has notably done, is equally damaging, if not more so.

*Recommendation:* The indicator can be retained in principle along with the observation period. However it should be limited to changes in the nominal ULC of the EMU. Changes involving exchange rates should be clearly separated (for example as one of the “additional indicators”). In the case of the EMU countries the benchmark should be the target inflation rate of the ECB +/- (say) 1.5%.

**Indicator 6:** Annual change in deflated house prices with a threshold of 6%

Housing booms (and subsequent busts) have been a notable feature of the pre-crisis build-up of imbalances. To some extent the inclusion of this indicator enables a more context-specific evaluation of current account imbalances (e.g. current account deficits are ok if they reflect increased investment in productive capital, but not if they flow excessively into a real-estate bubble) and is thus welcome. It seems odd, though that no period average is used here. An abnormally low (or negative) value for this indicator is also indicative of a problem.

*Recommendation:* This indicator should be retained and used, in particular, to interpret the current account development; it should be assessed over a longer period, though (e.g. three years). A small negative rate (e.g. -2%) should be considered as a minimum threshold.

**Indicator 7:** Private sector credit flow as a % of GDP with a threshold of +15%

Unsustainable private borrowing was in almost all cases a proximate cause of the boom/bust cycle in European countries. This is a vital imbalance indicator that is also forward looking. A period average may avoid spurious “alarms”. The threshold of +15% is hard to judge, but the cut-off of the top quartile of the results of past years would seem plausible. Similarly to the case of housing prices, a strong argument can be made that abnormally weak private credit growth is equally a warning sign.

*Recommendation:* This indicator should be retained and used as an important early warning indicator; it should be assessed over a longer period, though (e.g. three years). Abnormally slow credit growth should be considered as a minimum threshold.

**Indicator 8:** Private sector debt as a % of GDP

This is a stock variable that represents the accumulated history of indicator 7. In principle it can be an indicator of vulnerability to a sudden stop (*cf.* the NIIP indicator). The problem is that it is difficult to determine a reliable threshold value which is likely to vary considerably between countries.

*Recommendation:* In principle this indicator can be retained although it is very slow moving and we lack a reliable basis for a threshold value. One option might be to demote it to a context variable.

**Indicator 9:** Public sector debt as a % of GDP

Similar considerations apply in principle to the previous indicator. The difference here is that public sector debt is already the key focus under the SGP/fiscal compact, where it is subject to strict, indeed draconian, surveillance. It is not evident why public debt should also be considered, as it were a second time, under the EIP.

*Recommendation:* The most satisfactory would be to integrate the fiscal assessment exercise under the EIP, that is to make the SGP/fiscal compact a sub-set of the indicators examined under the EIP. Private and public debt dynamics are important for the macroeconomic imbalances. This is very unlikely to be politically feasible, however. If it does not occur then a second-best solution would be to remove this indicator from the EIP to avoid “double-counting”.

**Indicator 10:** The unemployment rate measured over three years, with a threshold of 10%

Clearly the EU and EMU face an unemployment crisis and it may appear welcome, indeed indispensable, to include the unemployment rate as an indicator. From an economic perspective, its inclusion in a scoreboard of macroeconomic imbalances is actually rather odd, however. It is really not clear what a high or low rate of unemployment tells us about a country's situation in terms of macroeconomic imbalances. If anything an abnormally low rate of unemployment might be justified as an ‘overheating’ indicator, and a high one of “overcooling”. However, to be meaningful this would need to be expressed in relation to the non-inflationary rate of unemployment in the country, the estimation of which is very controversial.

*Recommendation:* Although probably politically very controversial, there is much to be said for removing this indicator, as crucial as it is in more general welfare terms, from the assessment of macroeconomic imbalances. A possible alternative would be a measure in terms of a percentage-point gap with respect to the estimate of the national NAIRU; given the nature of the data this would probably have to be asymmetrical (for instance -1 and +3 pp. below/above the estimated NAIRU). It must be recognised, though, that the NAIRU measure is unobservable and fraught with difficulty.

### IS THERE AN ALTERNATIVE STRATEGY FOR REDUCING PUBLIC DEBT BY 2032?

Like other advanced countries, the euro area is facing a double problem of high unemployment and high debt. Both are interlinked and reduction of one has consequences for the reduction of the other. Europe has prioritised reducing public debt. Financial market pressure, the lack of a “true” central bank, and the lack of trust among member states explain this choice. Yet as this section shows, this choice is not a valid one.

The first reason is that austerity policies are being implemented in euro area economies which are already facing a very degraded economic situation in which fiscal multipliers are high. In such a state attempting to reduce debt by fiscal consolidation brings more debt and more unemployment. Spain is the perfect illustration of this very frustrating dynamics. Consolidation should be postponed until fiscal multipliers are smaller and unemployment lower.

The second reason is that existing treaties and the fiscal compact allow for a more relaxed path for fiscal consolidation. What is considered as valid by the treaties should be the reference for fiscal consolidation. Once again, Spain is a perfect illustration. For Spain to benefit from the OMT program it needs to submit a fiscal plan that is controlled by the European Commission and European Council. Such a plan should be based on a pragmatic view on what is suitable for debt sustainability over the next 20 years.

To judge the interactions between debt and unemployment reduction, we need a model and also to make a number of assumptions regarding the present state of euro area economies and their future. The present output gap, prospect for future growth, value of fiscal multipliers, fiscal plans for the future are needed inputs for a quantified evaluation of the evolution of economies. In order to conduct that evaluation we have designed a specific model, the iAGS model<sup>24</sup>. This model intends first to be sufficiently detailed to explicitly link all macro elements of debt sustainability and unemployment dynamics. Second, as a strong debate still exists about the value of multipliers and about the evaluation of today's output gaps, and also because there is of course irreducible uncertainty about future growth, we have chosen to parameterize the model in such a way that we can conduct a full sensitivity analysis. Third, we had in mind that the model would have

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24. See [www.iags-project.fr](http://www.iags-project.fr) for the appendix describing the iAGS model.