

Nothing learned from the crisis? Some remarks on the Stability Programmes 2011-2014 of the Euro area governments

Gregor Semieniuk, Till van Treeck, Achim Truger

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Abstract

We analyse the newly updated Stability Programmes of the Euro area governments by applying the simple accounting identity by which the financial balances of the government, the private sector and the foreign sector always sum to zero. While the focus of the old Stability and Growth Pact was solely on the government balance, the current euro crisis has shown that this narrow focus was wrong and that macroeconomic stability within the monetary union requires reducing imbalances between all three sectors of individual member states. While the need for overcoming these imbalances is now increasingly recognised by economists and policymakers, we argue that the projections for achieving stability in the current Stability Programmes are very likely too optimistic. We show that, individually, the Stability Programmes rely on optimistic assumptions about GDP growth; collectively, they require an improvement of the Euro area's current account with the rest of the world, the continuation of significant current account imbalances *within* the Euro area, and a steep drop of private balances in some countries. Based on some simple counterfactual simulations, we conclude that a symmetric effort at rebalancing current accounts would most likely require a slowdown of fiscal consolidation (in the current account surplus countries) but would be required to successfully address the euro area's macroeconomic challenges and thereby not only allow for consolidation in the medium term but also lead to the desired stability.

* Macroeconomic Policy Institute (IMK) in the Hans Boeckler Foundation. Corresponding author: Till van Treeck (Till-van-Treeck@boeckler.de).

1. Introduction

The economic crisis in the Euro area continues to galvanise its member states' governments in 2011. In particular, Greece and increasingly other countries in the so-called periphery of the monetary union are facing the threat of defaulting on their debt.

Over and above the pressing default problem, which is exacerbated by the lack of country-level exchange rate flexibility and monetary policy, Euro area governments need to achieve the longer-term macroeconomic stability required for a functioning monetary union. This stability, which includes the reduction of external imbalances, is widely recognised as essential for the Euro area to achieve robust growth. Without growth it is feared that unemployment cannot be reduced, foreboding more social unrest and possibly threatening the very project of European integration.

In striving for stability, Euro area governments therefore face two challenges: the reduction of public deficits, and the reduction of external imbalances. However, while the public deficits are in the limelight ever since the inception of the monetary union, the focus on external imbalances has been meagre. The present crisis has finally alerted some policy makers to the large variations in current accounts of the member countries. In its proposals for reform of the SGP, the European Commission therefore suggests new enforcement measures to correct "excessive macroeconomic imbalances" in the euro area. However, the governments still largely ignore the importance of reducing current account imbalances in a coordinated manner. This is evident in their latest version of national Stability Programmes (SPs) from April 2011.¹ If these SPs roughly reflect both perceptions about economic developments and intended policies in European governments, then their analysis helps evaluating whether the Euro area is on track to stability and, thereby, finding its way out of the crisis.

In this paper, we argue that the projections for achieving stability in the current SPs are very likely too optimistic.² We aver that by ignoring the importance of external rebalancing and assuming an overly buoyant world economy, the SPs either forecast unrealistic growth rates

¹ SPs project macroeconomic developments and government plans for achieving stability over the next four years. The April 2011 version of the SPs, on which this paper focuses, makes forecasts for 2011-2014. They are submitted annually by each member government to the European Commission.

² A similar argument for the stability programmes of the previous reporting period can be found in Brecht et al. (2010). The present contribution is a shortened version of our more comprehensive analysis of this year's SPs (Semieniuk et al. 2011).

or unrealistically successful fiscal consolidation. Towards this, we examine the interrelatedness of public deficit reduction and external imbalances reduction. We derive our argument mainly from evaluating the SPs against the logic of simple accounting identities, which clarify the connections of financial balances and thereby of the two challenges. Thus we intend to transcend the SPs' narrow focus only on the government balance, and shed light instead on the SPs' explicit or implicit projections of the financial balances of all three sectors in the economy (foreign, private and public) and how they are intertwined with the overall macroeconomic development. Merely the final brief sketch of feasible alternative policy recommendations that would address both challenges (sustainability of public deficits and current account positions) in lieu of neglecting one (current account rebalancing) requires a greater sophistication of the economic argument and thus involves more judgment.

The paper is subdivided into eight short Sections. In the next one, we briefly discuss the relevance of the public deficit and external imbalances in the European context. In Section 3, we recall the accounting relationships of the three financial balances, our basic toolkit for the subsequent analysis. Section 4 discusses the related notion of the "sustainability" of government, private and foreign sector financial balances, concluding that a balance can only be called "sustainable", if the other two balances can be described as "sustainable". With this conclusion in mind, Section 5 analyses financial balances in the Euro area from 1999 until 2010. Section 6 extrapolates this analysis into the future by considering the SPs' forecast of macroeconomic development until 2014. We analyse the SPs' assumptions and conclusions based on May 2011 data from the European Commission's Annual Macroeconomic (AMECO) database, which largely correspond to the data used for the SPs, by means of our simple financial balances toolkit. We show that, individually, the SPs rely on optimistic assumptions about GDP growth; collectively, they require an improvement of the Euro area's current account with the rest of the world, the continuation of significant current account imbalances *within* the Euro area, and a steep drop of private balances in some countries. This is followed by a closer look at the German SP: the continuation of the export-led growth model by the largest economy within the euro area clearly hinges upon the persistence of significant current account imbalances within the euro area and beyond. To get a better feel of the dangers involved with failing to address external imbalances in a coordinated way, Section 7 then simulates three scenarios with less optimistic but, in our view, plausible assumptions. In two scenarios, we assume that the current account surplus countries realise the financial balances projected in their SPs by 2014, while we also assume that the Euro area as a whole is unable

to improve its current account with the rest of the world as a percentage of GDP as compared with its 2010 level. In this case, either the “PIGS” countries (Portugal, Ireland, Greece, Spain) would find it impossible to realise their rebalancing plans, or new “pigs”³ countries, such as France or Italy, would bear the current account deficit. Both counterfactuals indicate that projected public deficit reduction in these countries would come at the cost of unsustainable current account and private sector deficits. In the third scenario we simulate symmetric efforts at rebalancing: we conclude that surplus countries would have to acquiesce into increasing their public spending and violate their public deficit goals, since the growth contributions of the private sector are unrealistic to sustain forecasted growth in the surplus countries in the absence of growth in net exports. Section 8 concludes that failure to consider external imbalances is likely to entrench existing instability in the Euro area and portends long-lasting economic stagnation. Further we conclude that a symmetric effort at rebalancing current accounts would slow down fiscal consolidation (in the current account surplus countries) but would address both macroeconomic challenges and thereby not only allow for consolidation in the medium term but also lead to the desired stability. Yet, important open questions remain, above all the challenge of reducing differences in price and non-price competitiveness in the absence of nominal exchange rates. The humble intention of the present analysis is simply to make explicit the dangerous absence of macroeconomic policy coordination within the monetary union that is apparent in the national governments’ SPs.

2. Two possible measures of monetary union stability: fiscal consolidation and external balancing

Functioning monetary unions require a degree of homogeneity within member economies. In the European context, the aim to establish or maintain this homogeneity is usually subsumed under the codeword “stability”. Hitherto, creating stability was associated with reducing public deficits and public debt-to-GDP ratios. This is enshrined in the Stability and Growth Pact (SGP). Recently, however, calls have been heard to also address external imbalances which are manifested in both very positive and negative current account balances.

³ It should be obvious from our analysis that we reject the one-sided blaming of the current account deficit countries as being responsible for the current euro crisis. We use this term here simply to remember that the projected current account surpluses by Germany and the Netherlands (and some other smaller member states) necessitate the existence of a certain number of “pigs” countries, i.e., countries with worryingly large current account deficits.

2.1 Reducing public deficits

The Stability and Growth Pact (SGP) for the Eurozone countries allows for government deficits of no more than 3 per cent of GDP. Failure to comply may result in sanctions. Yet, in 2010 this limit was breached by all member countries save Estonia, Finland and Luxembourg. Greece, Portugal and Spain even reported a public deficit of more than 9 per cent of GDP, France ran a deficit of 7 per cent. Ireland topped the list with a 32 per cent deficit, owing to large bank bail-outs. The Euro area average measured 6.8 per cent of GDP (see Table 2), deteriorating 0.4 percentage points from 2009. The Council of the European Union has stipulated time frames ranging from 2011 for Malta to 2015 for Ireland to return below the 3 per cent threshold.

Furthermore, the SGP demands that the debt-to-GDP ratio should not surpass 60 per cent.⁴ Actual debt levels were never below that mark in Belgium, Greece and Italy and the lowest debt-to-GDP level for the Euro area as a whole has never been below 66 per cent of GDP ever since the inception of the Euro in 1999. Due to large government deficits and guarantees notably for financial institutions at risk of default, debt levels across member countries have surged during the crisis (see Figure 3). In 2010 the Euro area's average public debt level had increased by almost 20 percentage points to 85.4 per cent of GDP. The current solvency crisis has moreover given a boost to demands to make the SGP's threat of sanctions credible and also require countries to keep their government budget close to balance or in surplus over the medium term.

The Euro area rules may be supplemented by national laws: In Germany, the constitution was amended by the "debt brake" law in 2009. It states that the "structural" deficit of the federal government must not exceed 0.35 per cent from 2016 onwards. On the regional plane, governments will even face sanctions if they incur any "structural" deficit in or after 2020.

2.2 Reducing current account imbalances

The global imbalances characterised by large current account deficits and surpluses are widely held to be one of the major macroeconomic distortions that fuelled the global economic crisis starting in 2008. Many economists argue that the reduction in global imbalances is one of the central prerequisites for a sustainable global recovery and for the stabilisation of the

⁴ Given a government deficit of 3 per cent and nominal GDP growth of 5 per cent every year, the public debt-to-GDP ratio converges to 60 per cent in the long run.

world economy more generally (e.g. Blanchard and Milesi-Ferretti 2009; Horn et al. 2009; IMF 2009).

In line with this argument, many sizeable economies had current accounts significantly different from zero in 2007 (see Figure 1): the US deficit stood at 5.2 per cent of GDP, the UK's at 2.6 per cent, Spain ran a 10 per cent current account deficit. Conversely, China, Germany and Japan displayed surpluses of 11, 7.9 and 5.8 per cent of GDP respectively.

Meanwhile, the Euro area as a whole sustained only relatively small current account balances with the rest of the world since its creation in 1999. Yet, within the monetary union, individual countries display both large surpluses and deficits (see Table 1): Germany's 5.8 per cent were topped by the Netherlands' surplus of 8.4 per cent of national GDP by 2007. On the flip-side, Greece, Portugal and Spain ran current account deficits of more than 10 per cent of national GDP by 2007. These imbalances are particularly vicious in a monetary union: while in the early stages, credit was available at attractive interest rates, the resulting foreign indebtedness in combination with the inability to adjust exchange rates is now responsible for much of the speculative attacks against these countries on the financial markets, as evidenced by the increasing credit default swap spreads and long-term bond yields (see Figure 2). Note that Ireland and Spain, two of the countries that have come under speculative attacks on the financial markets during the crisis, had never violated the public deficit and debt criteria of the SGP between 1999 and 2007. Rather, their vulnerability resulted from the explosion of private, and hence, foreign debt.

While the SGP does not address such imbalances, it is now being recognised that a reform of this pact should include also the avoidance of "excessive imbalances" in general, notably divergences in current account positions. This has been argued by the so-called Van Rompuy task force and has been incorporated into the European Commission's proposals for a reform of the SGP (van Rompuy 2010; see Hacker and van Treeck 2010 for a discussion). However, it still remains unclear whether current account surpluses will also be considered an "excessive imbalance", or whether there will be an asymmetric focus on current account deficits. As we show below, the newly updated SPs certainly do not reflect a coordinated, symmetric approach to current account imbalances.

3. Financial balances: a quick reminder

3.1 The three financial balances

Before analysing the SPs with respect to reducing public deficits and external imbalances, we introduce the accounting relationships of public, private and foreign financial balances.⁵ These will inform our analysis.⁶

The following accounting identity holds:

$$(1) \quad \text{Public sector financial balance} + \text{Private sector financial balance} + \text{Financial balance of the foreign sector} \equiv 0.$$

Hence, any particular sector in the economy can only run a surplus, if it is offset by a deficit of equal magnitude in the remaining two sectors of the economy. For the foreign balance, it moreover holds that if one country runs a current account surplus, then at least in one other country the government or the private sector has to sustain a financing deficit.

3.2 GDP and Balances

Given certain assumptions, the (projected) evolution of the financial balances of the three sectors also has implications for the (projected) growth contributions of the different components of GDP (see Appendix for a more detailed discussion). In order to elucidate the link between the composition of GDP and sectoral financial balances, recall that:

$$(2) \quad \text{GDP} \equiv C + I + G + X - M,$$

where

C = Private consumption,

I = Private investment,

G = Government expenditures in final goods,

X = Exports,

⁵ The balances are annual flow variables. The public financial balance is the negative of the government deficit. The foreign financial balance is the negative of the current account. The private financial balance is net savings of households and firms.

⁶ See Godley et al. (2008) and Hatzius (2003) for more detailed expositions of the financial balances approach.

M = Imports,

and that

$$(3) \quad \text{GNI} \equiv \text{GDP} + \text{NIA},$$

where

GNI = Gross national income,

NIA = Net income and current transfers received from abroad.

Gross national income will be used to derive consumption, saving (S) and tax payments to the government net of government transfer payments and subsidies (NT).

$$(4) \quad \text{GNI} \equiv C + S + NT,$$

It follows from (3) and (4) that

$$(5) \quad (NT - G) + (S - I) + [(M - X) - \text{NIA}] \equiv 0,$$

where $(NT - G)$, $(S - I)$, and $[(M - X) - \text{NIA}]$ are the financial balances of the public, private and foreign sectors, respectively. Hence, changes in any of the components of GDP also impinge on the balances.

3.3 Desired and actual balances

The financial balances of the three sectors must sum to zero. Clearly, any particular sector will only be able to adjust its financial balance in the desired way, if the other two sectors *wish* to adjust their joint financial balance by the same amount in the opposite direction. If this is not the case, and the sum of the *desired* balances exceeds, or falls short of, zero, then GDP will adjust to bring the *actual* balances in accordance with each other.

To illustrate, when private demand is weak, the private sector financial balance $(S - I)$ is typically positive and large (or increasing). When desired private saving exceeds desired private investment and foreign demand is equally insufficient, i.e. $(X - M) < (S - I)$ ex ante, there

will be involuntary unemployment as a result of insufficient aggregate demand, in the absence of government intervention. Suppose government desired to keep a balanced budget, then the ex post balances would still have to match. Likely, government would be forced into deficit by automatic stabilisers, whereas private sector savings would fall due to unemployment. Thus, the actual balances would sum to zero but at a lower than the desired output level. This downward spiral is made worse if the government attempts to counteract the automatic stabilisers by a procyclical discretionary fiscal policy in an attempt to achieve its desired balance.

Since the onset of the current crisis in 2008 and unlike in the above example, governments proactively sought to reduce unemployment by means of discretionary measures, thus reducing the public sector financial balance and allowing for the desired surge in the private balance. Yet, over the medium term such a policy may imply that the government deficit and the public debt-to-GDP ratio eventually increase to what many fear (and the SGP posits) to be “unsustainable” levels.

4. When are financial balances “unsustainable”?

While the SGP strictly defines allowed government spending to be maximally 3 per cent of GDP, there is no clear-cut economic definition of “unsustainable”. However, if one subscribes to the notion that public deficits can be too large and moreover recognises that current account balances cannot grow without bound, it automatically follows that there must be an upper limit to the extent to which the private sector can be allowed to run a surplus.

Considering the private balance, one can furthermore conclude that not only private surpluses but also private deficits should be kept moderate: first, a large private deficit would increase the danger of a solvency crisis. Second, should such a solvency crisis set in, as seen in the subprime crisis, the government – through automatic stabilisers and discretionary measures – would subsequently incur large deficits which may then suddenly be deemed “unsustainable” from the point of view of the SGP or the financial markets. This completes the argument: the government financial position cannot be considered “sustainable” by itself, but only when simultaneously the private sector financial position is deemed “sustainable” as well.⁷ Intri-

⁷ As an example, in Ireland the public debt-to-GDP ratio was very low until recently, but it almost quadrupled between 2007 and 2010 as a result of the current crisis. Similarly, over the past two years, the Spanish government had to run very large deficits and substantially increase the public debt relative to GDP, after it had run surpluses for several years before (while the private sector had very high deficits during the real estate boom).

guinely, the SPs do not address this issue of linked balances but focus on the public sector deficit only. Similarly, “the financial markets” seemed to consider the public finances of all Euro area member states “sustainable” between 1999 and 2008/9, but then suddenly changed their minds in view of rapidly rising public deficits and debt. Yet, the current account balance and the foreign debt-to-GDP ratio are much more accurate *ex ante* indicators of the sustainability of national debt, given that the current account position reflects the joint financing situation of the private and public sectors of the country in question.

In conclusion, declaring the financial balance of any particular sector as “unsustainable” necessitates calling the balances of the two other sectors equally “unsustainable” – irrespective of how this term is defined.

5. Financial balances and macroeconomic development in the Euro area, 1999-2010

Section 3.2 spells the connection between financial balances and GDP. The macroeconomic development in the Euro area until 2010 illustrates these connections. First, note that Figure 5 plots the average real growth contributions of the three sectors for selected Euro area countries for 1999-2007. Comparing the diagram to Table 1, it is evident that countries with relatively strong private demand growth on average display lower, partly even negative private financial balances. From the accounting relationships we know that the private balance is $(S - I)$, and high private demand growth, i.e., consumption and investment, would imply that saving (S) is low and investment (I) is high, depressing the balance.

Second, note the evolution of public and private financial balances before and during the crisis. In 2007, government deficits were below 3 per cent in most countries, but the private sector ran large deficits especially in the “PIGS” countries, reflected in large current account deficits (see Table 1). When the private debt bubbles burst and the private sector suddenly increased its net savings in all Euro area countries, government jumps in the breach as a consequence of rising unemployment and solvency problems in the private sector: the public balance falls and public deficits soar (see Table 2).

Moreover, the yields on 10-year government bonds in Figure 2 indicate that financial markets deem public debt-to-GDP ratios to have reached “unsustainable” levels in some countries. At the time of writing (July 2011), speculative pressures are focused on Greece, Ireland, and Portugal. Spain and Italy are increasingly threatened to be classified in this category, too. This

development highlights the interrelatedness of the financial balances: until shortly before the crisis, the public financial balance and the public debt-to-GDP ratio used to be significantly lower in Spain or Ireland than, for instance, in Germany. Those two countries fulfilled the SGP rules for “sound” government policy. Yet, in both countries public indebtedness has drastically increased during the past two years as a result of the sharp upward move in private financial balances.

6. Assumptions and implications of the national Stability Programmes for 2011-2014

6.1 Analysis of the Stability Programmes

The SPs extrapolate these macroeconomic data until 2014 (some until 2015) and based on these assumptions about the macroeconomic development, draw conclusions about GDP growth and the ability of the public sector to reduce its deficit. The projections in the SPs about public financial balances and current account balances as a percentage of GDP for 2011-2014 are depicted in Table 3 (a). Moreover, they allow us to determine the private financial balance as the residual. Because the SPs also provide data on projected GDP growth, we can express the financial balances in euros as well as in per cent of GDP. These projections create a system of equations with $3 * 17 = 51$ variables for each year. It is depicted in Table 4 for the year 2014. Each row sums to zero, and hence implies the private financial balance. Each column total – in the case of absolute numbers – sums to the respective Euro area balance, and immediately provides the financial balance of the Euro area vis-à-vis the rest of the world.

Table 3 (b) shows the projected real growth contributions and Figure 4 plots the projected unemployment rates for 2011-2014 for selected countries. Note that almost all countries expect to reduce or to at least prevent a further increase in unemployment compared to 2010. Inspection of these conclusions for all SPs combined rather than only separately reveals intriguing features.

- 1.) Overall projected GDP growth rates appear quite optimistic, given the degree of fiscal consolidation: by the end of the projection period, private financial balances in the current account deficit countries would have worsened dramatically, in some cases by more than 5 or 6 percentage points (to -1.7 per cent of GDP in France, -2.7 per cent in Greece, -2.8 per cent in Italy, -1.1 per cent in Portugal and -0.3 per cent in Spain). Re-

calling the discussion about desired and actual financial balances, if the private sector does not desire to reduce saving by as much, the adjustment process between a consolidating government and a cautious private sector will cause frictions in the economy and loss of growth. This relationship is frequently not explicitly discussed, but movement in the remaining balances is a necessary consequence of fiscal consolidation. The next two bullet points discuss whether it is likely that the foreign balance could act as a buffer. Meanwhile, the surplus countries forecast private net saving to fall but remain at high levels of 7.1 per cent in Austria, 4.5 per cent in Belgium, 6.5 per cent in Germany, and 11.2 per cent in the Netherlands.

- 2.) Adding up the national current accounts in 2010 and 2014, the Euro area as a whole has to improve its current account position by 1.3 percentage points of GDP from 2010 until 2014. This requires that exporters in the Euro area benefit from strong global demand, while imports grow less. It also runs contrary to efforts at global rebalancing. Hence, if global rebalancing is nonetheless to take place and the large deficit countries, in particular the U.S. and the UK, attempt to reduce their deficits, the SPs projections shift the surplus adjustment burden entirely on the other world's large surplus countries, in particular China and Japan.
- 3.) Despite the Euro area-wide upward trend in current accounts *within* the Euro area, current accounts continue to diverge significantly in 2014. At first look, the improvement in current account of the "PIGS" countries looks promising. Note, however, that part of this improvement in projections rests on the assumption of slow or even negative growth. Notably, the surplus countries Germany and Netherlands would augment their current account surpluses from roughly 5 to 6 and 8 to 10 per cent of GDP in the period 2010 to 2014. Greece, Portugal and Spain would rebalance but still run deficits of more than 2 per cent. The only two countries that fare badly with their balances according to the projections are Italy and France. Italy never reduces its current account deficit below 3 per cent while France's actually steadily deteriorates to 3.6 per cent (Table 3b). This is all the more worrying as this might produce "new pigs", but of an order of magnitude larger than the current ones.

In short, the GDP growth projections and the fiscal consolidation may be jeopardised by non-realisation of the optimistic assumptions about private sector's ability to drive GDP growth and Euro area current account development.

The contemplation of the private financial balance projection necessitates another word of caution: the deterioration of private financial balances in those countries, in which the increase in private indebtedness has been also strong during the years prior to the financial crisis (see Figures 6 and 7), is remarkable. The deterioration would be triggered by renewed private demand booms, implying zero or even negative net private saving. The development of relatively good public balances with negative private balances was last witnessed in Ireland and Spain and flipped with the onset of the crisis. Against this backdrop, the implicit assumption about negative private financial balances for 2014 looks worrying, in particular for France, Greece, Italy and Portugal.

6.2 Analysis of the German Stability Programme separately

In order to detail the analysis of the SPs, it may be useful to also inspect one individually. We look in more depth at the German SP's assumptions and its projections, which may be particularly insightful due to Germany being the largest economy in the Euro area that has moreover contributed most to the current account imbalances. It is remarkable that the German SP plans for continually large and increasing current account surpluses for the largest Euro area economy with about one quarter of its GDP. It is forecasted that exports will grow by 4 per cent by 2013 and that "(t)hanks to its high level of price and non-price competitiveness, the German economy will especially benefit from the upturn in the volume of world trade, such that it will be able to defend its market shares into the medium-term as well" (German SP, p. 8). The German SP does not even entertain the notion that a rebalancing may be in order. Nowhere was the idea to be found that the continued export growth may pose an obstacle to Euro area stability. While the current account balance rises comparatively slowly (from 5.1 per cent in 2010 to roughly 6 per cent in 2014), this is not due to any proactive efforts at correcting imbalances. Rather, strong domestic demand growth contributions of 1.5 percentage points per annum (on which more is said presently) is forecasted to stimulate imports (German Government, 10).

Instead of considering a proactive stance of surplus countries in the current account rebalancing, called symmetric rebalancing, German authorities wish the monetary union's stability to

be maintained solely by measures at the European level, namely a combination of stricter rules for fiscal consolidation and “structural reforms” that are to enhance competitiveness (German SP, pp. 5-6). This is then asymmetric rebalancing, where only the deficit “culprits” have to make an effort to improve their external balance. If structural reforms enabled deficit countries to increase their competitiveness vis-à-vis the surplus countries and thus their exports, this would mitigate the imbalances. However, this would not be an easy task: with more than 40 per cent of Germany’s exports being imported by other Euro area countries and more than 60 per cent by EU member states, Germany’s export growth and indeed overall growth strategy continues to rest on sustained deficits (public or private) in other European countries, and hence on its competitiveness in the Euro area. Hence, German producers have an incentive, too, to stay competitive vis-à-vis the Euro area and asymmetric rebalancing may prove difficult. Moreover, inability to adjust exchange rates vis-à-vis Germany makes other Euro area countries particularly susceptible to imports from Germany. This rejection of responsibility for rebalancing by the biggest surplus country may easily pave the way back to pre-crisis level current account imbalances within the Euro area.

7. Three alternative scenarios for the evolution of the Euro area current accounts

Returning to the assumptions for the Euro area as a whole, we examine the sensitivity of the projections to a deterioration in one assumption. This seems justified by the optimistic nature of the assumptions. Moreover, it underscores our argument of the importance of heeding not only public deficits but also current account imbalances. In particular, we simulate what would have to happen to the financial balances of all Euro area countries in 2014, if the Euro area failed to improve its current account vis-à-vis the rest of the world. The failure of Euro area current account improvement might happen for a number of reasons at the time of writing (see for instance IMF 2011): growth may slow in China among fears of overheating and a housing-bubble, depressing world economic activity as a result; fears of a double-dip recession in the USA are substantiated by dismal economic data from the world’s largest economy and continuing partisan arguments about the speed of fiscal consolidation (deemed to slow by many) and the public debt ceiling (which many argue should be raised no further); volatile food and oil prices may also pose threats especially to emerging markets’ health; and, financial market turbulences in Europe and elsewhere may further increase should current growth projections turn out to be overly optimistic. All of these threats make a strong case for the

Euro area to develop a growth strategy that is not so overly reliant on “the upturn in the volume of world trade” as optimistically projected in the German SP.

We carry out three counterfactual exercises to sketch possible ramifications. In all of them, we assume that in 2014 the Euro area foreign financial balance (the negative of its current account) continues to be at 0.4 per cent of Euro area GDP instead of improving to -0.9 per cent. Further, we continue to take government deficits and GDP growth rates from the SPs’ projections, in order to ensure comparability with the SP baseline and to check whether the adjusted current accounts and growth contributions would let such growth rates and consolidation still appear plausible. In Scenario 1, we assume that surplus countries are able to achieve their SP-projected balances. Deficit countries must bear the downward adjustment as compared with their SPs. The share of the adjustment burden borne by each deficit country is proportional to its share of the 2010 Euro area gross deficit in 2010. In the second Scenario, the same takes place but the burden is distributed according to the projected deficit shares in 2014. This is to take heed of the governments’ belief about the performance of their export industries. In Scenario 3, finally, rebalancing takes place: deficit countries improve the current account to at least -2 per cent and surplus countries share the adjustment burden, which is distributed according to the size of their share of the surplus in 2010 – the larger the share, the larger the adjustment.

The results of the simulations are shown in Tables 5, 6 and 7 for the three scenarios respectively. Obviously, the implications of Scenario 1 for the balances of the burden-bearing deficit countries are devastating: In Greece and Portugal, private sector and current account deficits would once more soar to more than 10 per cent of GDP. Italy and Spain would both run current account deficits of over 5 per cent and incur private deficits of respectively almost 5 and over 3 per cent. Note that France’s current and private accounts do not budge from their SP values: France projects a drastic deterioration of its balances anyhow.

Scenario 2 has the emergence of “new pigs”: France and Italy would incur huge deficits and drastically reduce their private financial balances.

Scenario 3 has Germany and the Netherlands starkly reduce their balances, but overall the figures look not as outrageous. Yet, as Germany bears the lion’s share of the adjustment burden, its growth contribution from net exports are not a driver of GDP growth any more. Table

3 contains the originally projected financial balances and growth contributions of government (note that figures for 2013-15 are rounded to 0.25 percentage points in the German SP), private domestic and foreign sector from 2011 to 2014; Figure 6 shows the ramifications of the rebalancing simulation. In Figure 6, the foreign sector's steady growth contribution stems from our assumption that adjustment takes place in equal steps, i.e. every year one fourth of the entire current account deterioration is credited to Germany's balance. A more detailed explanation of the calculation is furnished in the Appendix.

Clearly, Germany would require even stronger private domestic demand (as government spending is taken over from the SP) than in the baseline in Table 3. For 2011 and 2012, in particular, a veritable demand boom would be necessary. While the sustained private demand growth contribution of 1.3 per cent in the German SP seems large already compared to historic figures (Figure 5), the even larger figures in Scenario 3 for private demand seem absolutely incompatible with reality.

Despite these reservations, Scenario 3 looks more stable than the other two scenarios, which would entirely undermine the project of stability in the Euro area. However, what would likely happen in the surplus economies is that the *ex ante* plans of both the public and foreign sectors to improve their respective financial balances in the surplus countries would harm GDP growth, as Section 3.3 details, unless the private sector *desires* to worsen its balance by an equivalent amount.

The alternative to a collapse in growth rates would be for the government to *willingly accept* higher public deficits over an extended period of time. In such a scenario, it is clear from the analysis above that the German government may well have to accept deficits of significantly more than 3 per cent of GDP for several years, if the officially projected GDP growth rates and current account rebalancing are to be achieved within the Euro area. Although such a policy would currently be considered a breach of the "debt brake" rule, the deficit would still appear quite modest by international standards.

8. Concluding discussion

This paper has evaluated whether the 2011 national Stability Programmes (SPs) of the Euro area countries are instrumental in achieving economic stability in the monetary union. In par-

ticular, we analysed how the SPs tackle the double challenge of public deficits and external imbalances. Our analysis rests, first, on the accounting identities of the public, private and foreign financial balances and, second, on the consideration of all SPs at once rather than separately. We found that conclusions are optimistic regarding GDP growth and fiscal consolidation, while current account rebalancing is neglected. The SPs arrive at these conclusions by assuming strong global export markets, entrenched current account imbalances within the monetary union as well as the deterioration of private financial balances in the current account deficit countries. By means of our simulations we conclude, on the one hand, that the failure of favourable global macroeconomic developments to materialise may lead to the opposite of the desired stability by exacerbating imbalances in the Euro area. On the other hand, given symmetric efforts at rebalancing, the simulation suggests that for surplus countries that reduce their current account, a more expansionary fiscal policy will likely be required to maintain growth rates. For Germany as a case in point we reason that – if fiscal consolidation were to hold sway – forecast GDP growth would presuppose a private sector demand boom unprecedented in recent history. Hence, admitting to the unlikelihood of such a boom, the only alternative way to achieve the GDP growth rates projected in the SPs by means of domestic economic activity would be higher government activity for Germany and the surplus countries in general. In terms of the financial balances this could be achieved by running higher deficits and thus a deterioration in the public sector balance or by taxing away private sector savings and thus a deterioration in the private sector balance.

Our approach to presenting our argument is overwhelmingly simple. Focussing on accounting identities we say little about economic theory that would explain the behaviour causing changes in desired financial balances or the adjustment process that leads to the ex post balance of zero. We do not attempt to explain how macroeconomic policies, unit labour cost differentials, demographic factors, productivity growth differentials or financial market turbulences, and so on, play a role in determining actual financial balances. For instance, we eschew a discussion in how far it is realistic to assume that Euro area countries with current account deficits would benefit from a reduction in the current account surpluses of Germany and other surplus countries as implied by net exports and hence GDP (Scenario 2). While these questions merit closer attention, they would also necessitate more assumptions than we deemed necessary for the purpose of this paper. Also, we admit to different conceptions of “unsustainable” balances. However, given our aim of elucidating the interrelatedness of financial balances in the Euro area context, it was beyond the scope of this article to address

these more nuanced issues. And we could show that by focusing on the accounting identities, it can be revealed that the project of achieving the stability necessary for a functioning of a monetary union is jeopardised.

It should be noted that our counterfactual exercises involve several assumptions, which are appropriate to considering the approximate medium term effects of the change of current account adjustments, but may not appear overly realistic for every single year. This is in line with our aim to provide qualitative conclusions about the direction in which Euro area economies are headed until 2014 rather than with estimating precise annual numbers.

With the qualification inherent in our approach duly noted, our straightforward calculations suggest that Euro area governments should not be surprised to see real macroeconomic developments diverge substantially from their SP projections. In particular, barring higher public deficits on the part of current account surplus and low debt-to-GDP ratio countries, a continued breach of the Euro area stability rules by countries with current account deficits is to be expected. In fact, realisation of the interrelatedness of the financial balances and sustained government deficits and aiming for symmetric rebalancing while accepting higher than 3 per cent public deficits in surplus countries may prove to be the only way to effectively stabilise the European Monetary Union without worsening the growth projections.

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Appendix: Method for calculating growth contributions for Germany (Figure 6)

As before, we define the three financial balances as

$$(A1) \quad \text{PFB} = \text{Private financial balance} = S - I,$$

$$(A2) \quad \text{GFB} = \text{Government financial balance} = T - G - \text{NTR},$$

$$(A3) \quad \text{FFB} = \text{Financial balance of the foreign sector} = M - X - \text{NIA}.$$

where

S = Private saving,

I = Private investment,

T = Tax receipts including social security contributions,

G = Final government expenditures in final goods,

NTR = Net transfers from the government to the private and foreign sectors (interest payments on public debt, social security benefits and subsidies, foreign aid, etc.),

NIA = Net income received from abroad (including government and private transfers).

We want to calculate the growth contributions of $(C + I)$, G , and $(X - M)$ between t and $t + i$.

Because of $\text{GDP} = C + I + G + (X - M)$,

the nominal growth contributions are given by

$$(A4) \quad \begin{aligned} & (\Delta \text{GDP}_{t+i}) / \text{GDP}_t \\ &= (\Delta C_{t+i}) / \text{GDP}_t + (\Delta I_{t+i}) / \text{GDP}_t + \Delta G_{t+i} / \text{GDP}_t + [\Delta(X - M)_{t+i}] / \text{GDP}_t. \end{aligned}$$

We know PFB_t , GFB_t , FFB_t , GDP_t , C_t , I_t , G_t , $(X - M)_t$ (variables observed for $t = 2009$) and we make assumptions about PFB_{t+i} , GFB_{t+i} , FFB_{t+i} , GDP_{t+i} (for $i = 1, 2, 3, 4$), which are either based on the German SP, or implied by our assumptions in Table 7. Of course, we only have to calculate the growth contributions of G and $(X - M)$ from (A2) and (A3), and we will then also know the joint nominal growth contribution of $(C + I)$ via (A4).

From (A3) it follows that

$$(A5) \quad \begin{aligned} & \Delta \text{FFB}_{t+i} / \text{GDP}_t \\ &= \Delta(M - X)_{t+i} / \text{GDP}_t - \Delta \text{NIA}_{t+i} / \text{GDP}_t \end{aligned}$$

It seems reasonable to assume that⁸

$$(A6) \quad \Delta \text{NIA}_{t+i} = 0$$

It would then follow that

$$(A7) \quad \Delta(X - M)_{t+i} / \text{GDP}_t = \Delta \text{FFB}_{t+i} / \text{GDP}_t$$

⁸ Given rebalancing in order to reduce a current account surplus, it seems reasonable to assume that this would occur mostly via changes in net exports and therefore leave transfers (NIA) unchanged.

In Figure 6 of the main text, we assume that the foreign financial balance is reduced in four equal steps from 2010 to 2013.

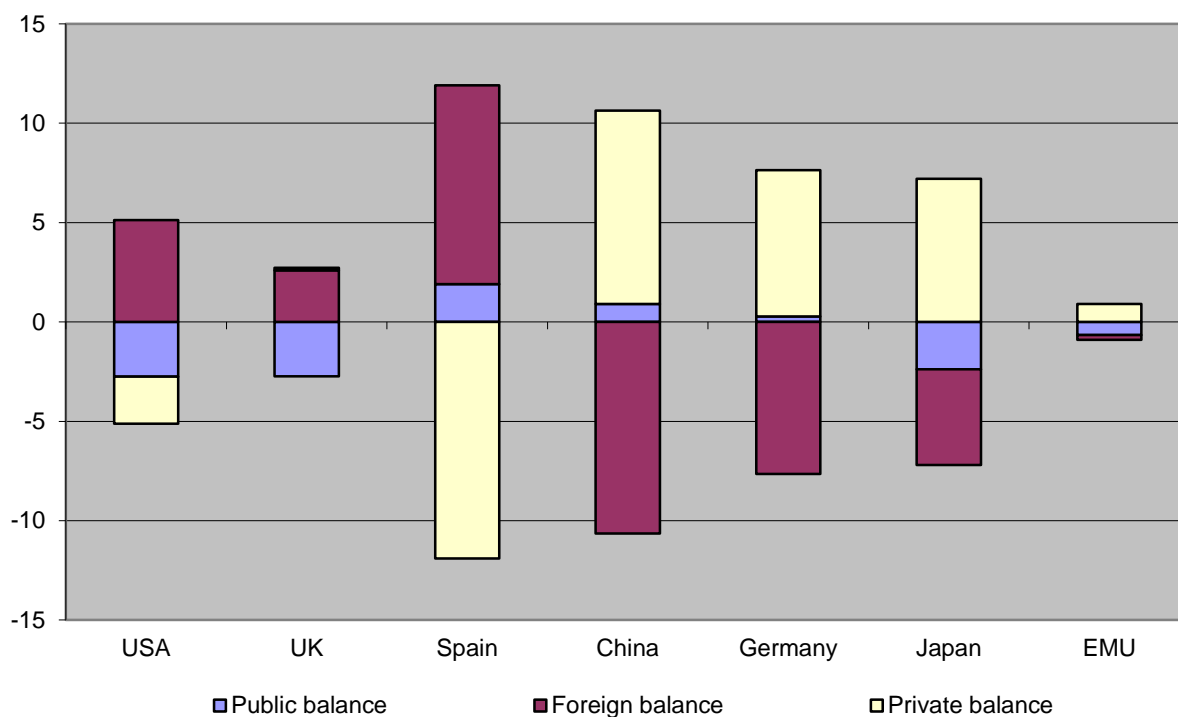
Analogously, from (A2) it follows that

$$(A8) \quad \begin{aligned} \Delta G_{t+i}/GDP_t \\ = \Delta T_{t+i}/GDP_t - \Delta GFB_{t+i}/GDP_t - \Delta NTR_{t+i}/GDP_t. \end{aligned}$$

Based on the German SP's assumption about the growth of G itself, we can directly calculate $\Delta G_{t+i}/GDP_t$.

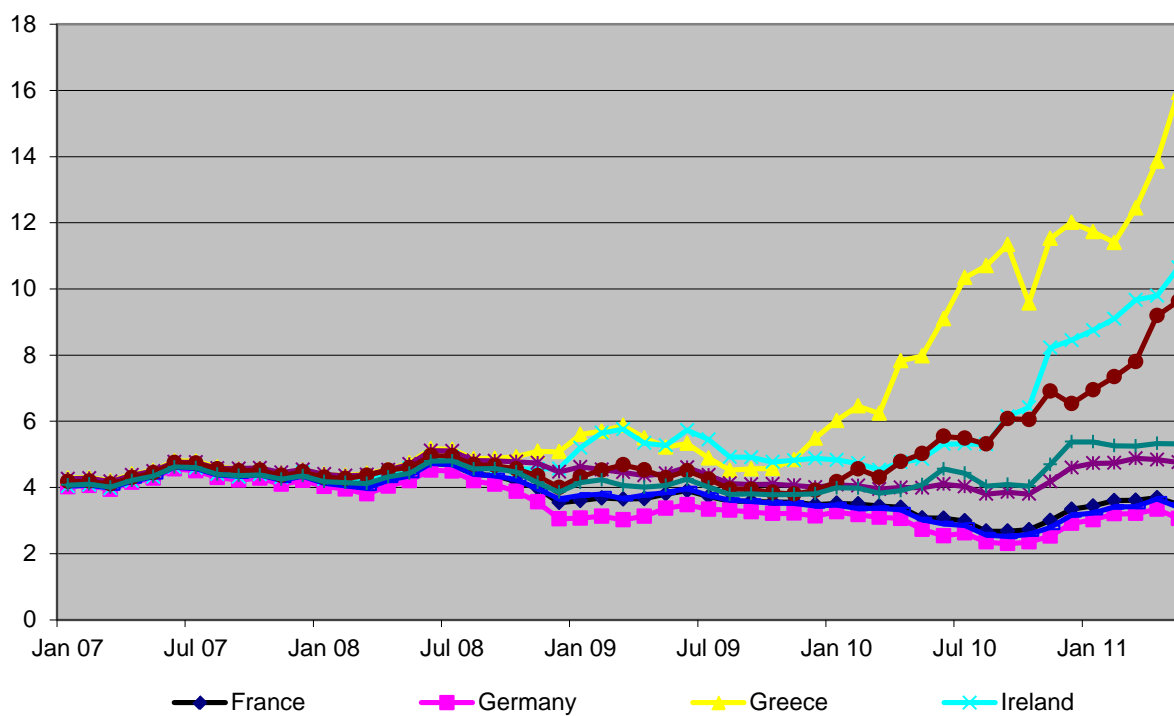
In order to arrive at the real growth contributions for Germany depicted in figure 6, we further assume that the price deflator increases at the same rate for all GDP components.

Figure 1: Financial balances in selected countries, 2007, in per cent of GDP



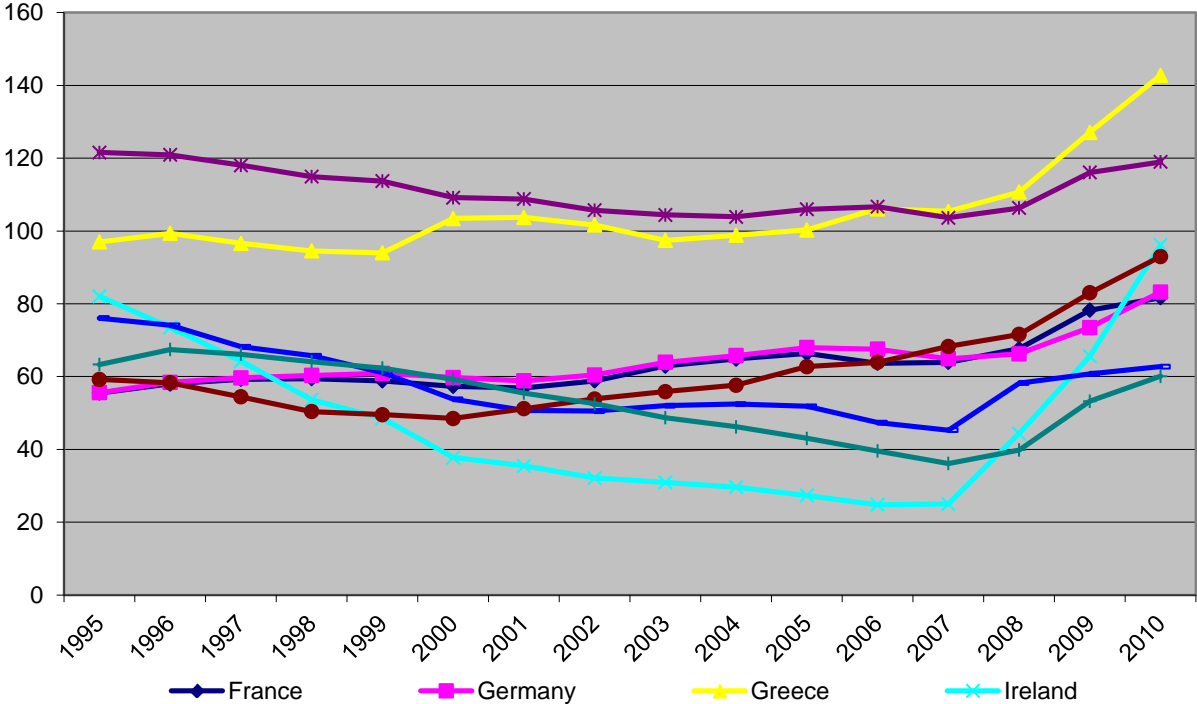
Source: AMECO, IMF, authors' calculations.

Figure 2: 10-year government bond yields, selected countries, January 2007-May 2011



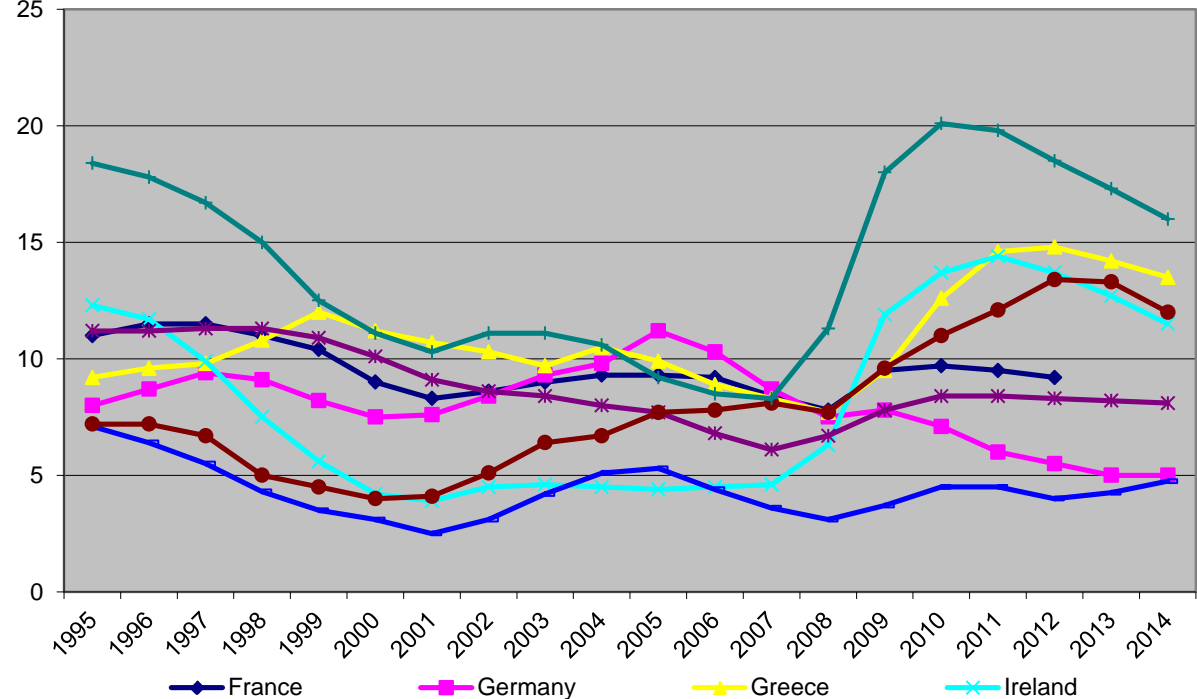
Source: ECB, authors' calculations.

Figure 3: General government consolidated debt relative to GDP, selected countries, 1995-2010, in per cent of GDP



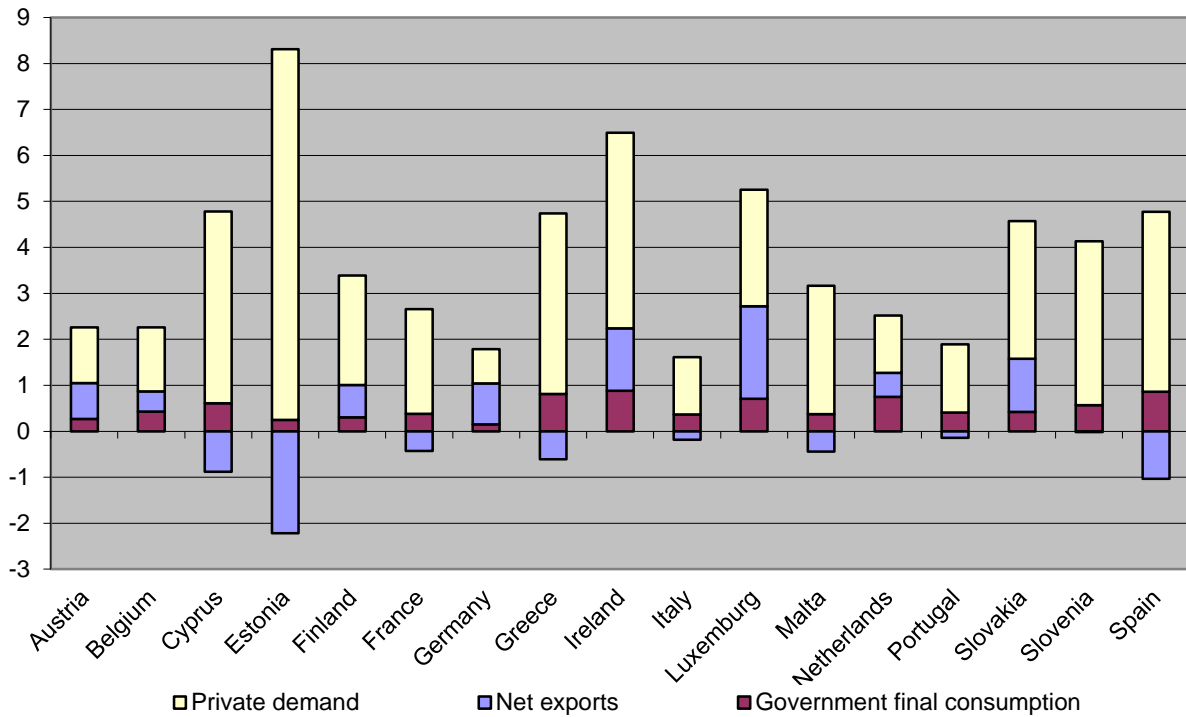
Source: AMECO, authors' calculations.

Figure 4: Unemployment rate, selected countries, 1999-2013



Source: AMECO, Stability Programmes 2011, authors' calculations. Projections based on AMECO for France and on the Stability Programmes for all other countries.

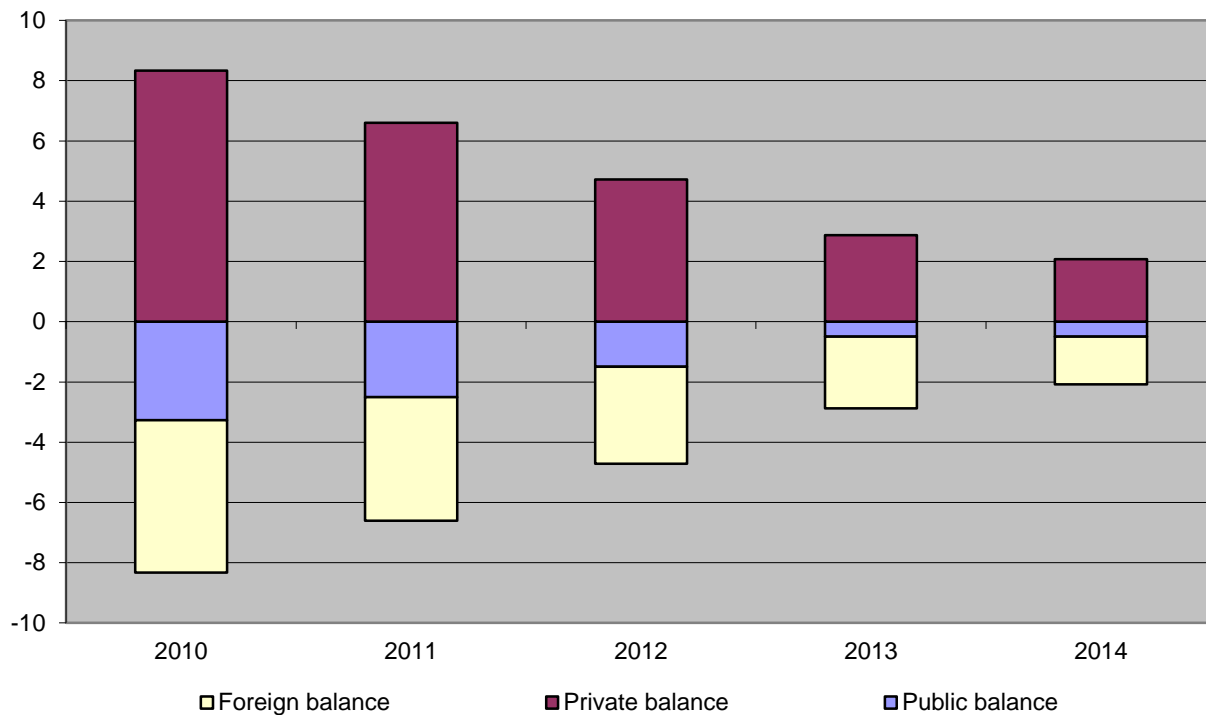
Figure 5: Real growth contributions, Euro area countries, 1999-2007 average, in percentage points



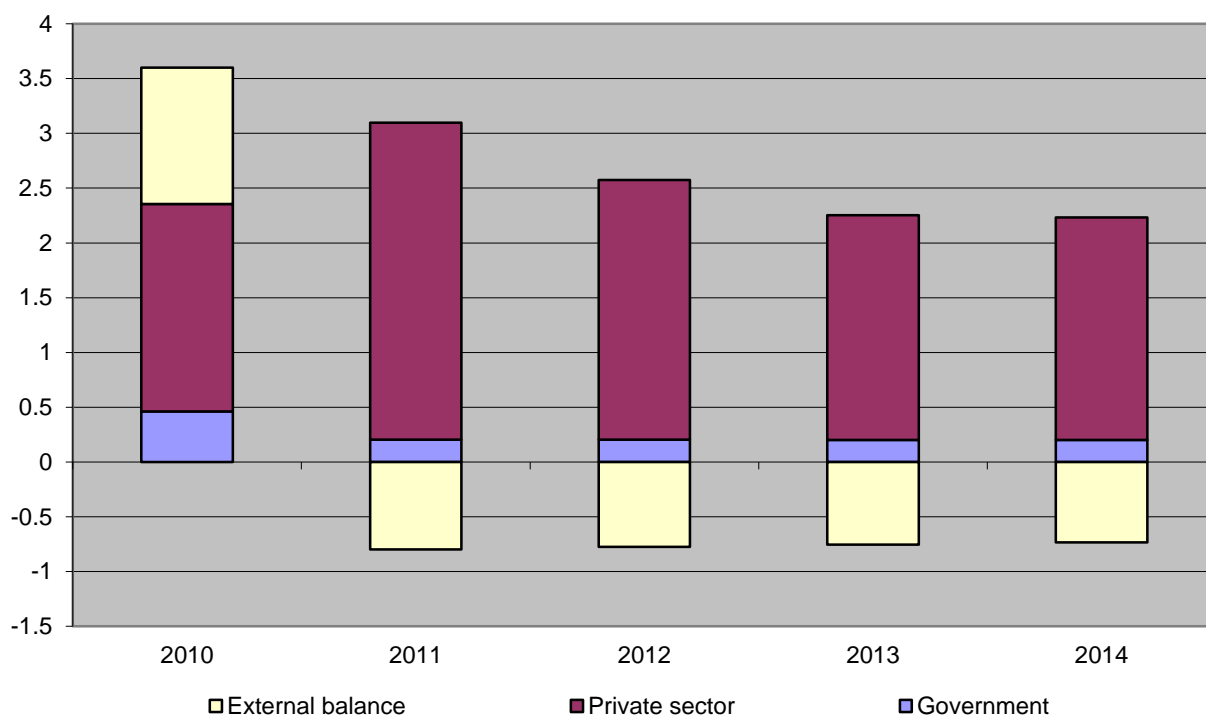
Source: AMECO, authors' calculations.

Figure 6: Simulated pattern of GDP growth in Germany, 2010-2014, given more significant current account rebalancing, keeping the SP's assumptions about public deficits and growth

a) Financial balances, in per cent of GDP



b) Real growth contributions, in percentage points



Source: authors' calculations.

Table 1: Financial balances, Euro area countries, 2007

	Balances as percentage of GDP				Balances in billions of Euro				Balances as percentage of EMU GDP				Nom. GDP
	Public	Foreign	Private	Sum	Public	Foreign	Private	Sum	Public	Foreign	Private	Sum	
Austria	-0.9	-4.0	4.9	0.0	-2.4	-10.9	13.2	0.0	0.0	-0.1	0.1	0.0	272.0
Belgium	-0.3	-3.9	4.2	0.0	-1.0	-13.2	14.2	0.0	0.0	-0.1	0.2	0.0	335.1
Cyprus	3.4	11.6	-15.0	0.0	0.5	1.8	-2.4	0.0	0.0	0.0	0.0	0.0	15.9
Estonia	2.5	17.2	-19.7	0.0	0.4	2.7	-3.1	0.0	0.0	0.0	0.0	0.0	15.8
Finland	5.2	-4.2	-1.0	0.0	9.3	-7.6	-1.8	0.0	0.1	-0.1	0.0	0.0	179.7
France	-2.7	2.2	0.5	0.0	-51.6	42.0	9.6	0.0	-0.6	0.5	0.1	0.0	1895.3
Germany	0.3	-7.6	7.4	0.0	6.6	-185.9	179.4	0.0	0.1	-2.1	2.0	0.0	2432.4
Greece	-6.4	15.6	-9.2	0.0	-14.5	35.3	-20.8	0.0	-0.2	0.4	-0.2	0.0	227.1
Ireland	0.1	5.5	-5.6	0.0	0.1	10.4	-10.6	0.0	0.0	0.1	-0.1	0.0	189.4
Italy	-1.5	1.8	-0.3	0.0	-23.5	28.1	-4.6	0.0	-0.3	0.3	-0.1	0.0	1546.2
Luxemburg	3.7	-10.1	6.4	0.0	1.4	-3.8	2.4	0.0	0.0	0.0	0.0	0.0	37.5
Malta	-2.4	5.6	-3.2	0.0	-0.1	0.3	-0.2	0.0	0.0	0.0	0.0	0.0	5.5
Netherlands	0.2	-8.4	8.2	0.0	1.0	-48.1	47.0	0.0	0.0	-0.5	0.5	0.0	571.8
Portugal	-3.1	10.2	-7.0	0.0	-5.3	17.2	-11.9	0.0	-0.1	0.2	-0.1	0.0	169.3
Slovakia	-1.6	5.6	-4.0	0.0	-1.0	3.5	-2.5	0.0	0.0	0.0	0.0	0.0	61.6
Slovenia	-0.1	4.5	-4.4	0.0	0.0	1.6	-1.5	0.0	0.0	0.0	0.0	0.0	34.6
Spain	1.9	10.0	-11.9	0.0	20.1	105.3	-125.4	0.0	0.2	1.2	-1.4	0.0	1053.5
Average/Sum	-0.1	3.0	-2.9	0.0	-60.1	-21.1	81.2	0.0	-0.7	-0.2	0.9	0.0	9042.5

Note: The three balances may not sum to zero due to rounding.

Source: AMECO, authors' calculations.

Table 2: Financial balances, Euro area countries, 2010

	Balances as percentage of GDP				Balances in billions of Euro				Balances as percentage of EMU GDP				Nom. GDP
	Public	Foreign	Private	Sum	Public	Foreign	Private	Sum	Public	Foreign	Private	Sum	
Austria	-4.6	-3.2	7.8	0.0	-13.2	-9.0	22.2	0.0	-0.1	-0.1	0.2	0.0	284.0
Belgium	-4.1	-2.7	6.8	0.0	-14.4	-9.5	23.8	0.0	-0.2	-0.1	0.3	0.0	352.3
Cyprus	-5.3	9.3	-4.0	0.0	-0.9	1.6	-0.7	0.0	0.0	0.0	0.0	0.0	17.5
Estonia	0.1	-2.8	2.7	0.0	0.0	-0.4	0.4	0.0	0.0	0.0	0.0	0.0	14.5
Finland	-2.5	-2.8	5.2	0.0	-4.4	-5.0	9.4	0.0	0.0	-0.1	0.1	0.0	180.3
France	-7.0	3.5	3.6	0.0	-136.5	67.3	69.2	0.0	-1.5	0.7	0.8	0.0	1947.6
Germany	-3.3	-5.1	8.3	0.0	-81.6	-126.6	208.2	0.0	-0.9	-1.4	2.3	0.0	2498.8
Greece	-10.5	11.8	-1.3	0.0	-24.2	27.1	-2.9	0.0	-0.3	0.3	0.0	0.0	230.2
Ireland	-32.4	0.7	31.7	0.0	-49.9	1.1	48.8	0.0	-0.5	0.0	0.5	0.0	153.9
Italy	-4.6	4.2	0.4	0.0	-71.2	65.0	6.2	0.0	-0.8	0.7	0.1	0.0	1548.8
Luxemburg	-1.7	-7.8	9.5	0.0	-0.7	-3.3	4.0	0.0	0.0	0.0	0.0	0.0	41.6
Malta	-3.6	4.1	-0.5	0.0	-0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	6.2
Netherlands	-5.4	-6.7	12.2	0.0	-32.0	-39.9	71.9	0.0	-0.3	-0.4	0.8	0.0	591.5
Portugal	-9.1	9.8	-0.7	0.0	-15.8	16.9	-1.1	0.0	-0.2	0.2	0.0	0.0	172.5
Slovakia	-7.9	2.9	5.0	0.0	-5.2	1.9	3.3	0.0	-0.1	0.0	0.0	0.0	65.9
Slovenia	-5.6	0.9	4.7	0.0	-2.0	0.3	1.7	0.0	0.0	0.0	0.0	0.0	36.1
Spain	-9.2	4.5	4.7	0.0	-98.2	48.0	50.2	0.0	-1.1	0.5	0.5	0.0	1062.6
Average/Sum	-6.9	1.2	5.7	0.0	-550.5	36.0	514.4	0.0	-6.0	0.4	5.6	0.0	9204.3

Note: The three balances may not sum to zero due to rounding.

Source: AMECO, authors' calculations.

Table 3: Projections of the Stability Programmes, 2011-2014

a) Projected public and foreign financial balances, in per cent of GDP

	Public financial balance				Foreign financial balance			
	2011	2012	2013	2014	2011	2012	2013	2014
Austria	-3.9	-3.3	-2.9	-2.4	-3.7	-4.3	-4.4	-4.7
Belgium	-3.6	-2.8	-1.8	-0.8	-1.5	-2.3	-3.0	-3.7
Cyprus	-4.0	-2.6	-2.0	-1.6	7.3	6.8	6.0	5.2
Estonia	-0.4	-2.1	0.1	0.5	2.5	1.3	-0.1	-1.7
Finland	-1.8	-1.0	-1.0	-1.0	-2.2	-2.2	-2.0	-2.0
France	-5.7	-4.6	-3.0	-2.0	3.7	3.8	3.7	3.7
Germany	-2.5	-1.5	-0.5	-0.5	-4.7	-4.8	-6.0	-6.0
Greece	-7.6	-6.5	-4.8	-2.6	8.5	6.8	5.8	5.3
Ireland	-10.0	-8.6	-7.2	-4.7	-1.2	-2.1	-3.0	-3.7
Italy	-3.9	-2.7	-1.5	-0.2	3.5	3.4	3.1	3.0
Luxemburg	-1.0	-1.5	-1.2	-0.8	-7.9	-7.8	-7.5	-7.3
Malta	-2.8	-2.1	-1.6	-1.0	4.1	2.8	1.4	0.5
Netherlands	-3.7	-2.2	-1.8	-1.4	-8.8	-9.5	-9.8	-9.8
Portugal	-5.9	-4.5	-3.0	-2.3	9.0	6.7	4.1	3.4
Slovakia	-4.9	-3.8	-2.9	-2.8	2.0	1.6	0.6	0.4
Slovenia	-5.5	-3.9	-2.9	-2.0	2.1	2.2	1.1	0.6
Spain	-6.0	-4.4	-3.0	-2.1	3.9	3.2	2.7	2.4

b) Projected GDP growth, 2011-2014, in percentage points*

	Real GDP growth				Domestic Demand Growth Contribution				External Demand Growth Contribution				Nominal GDP growth			
	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014	2011	2012	2013	2014
Austria	2.5	2.0	2.1	2.2	1.5	1.4	1.6	1.7	1.0	0.6	0.5	0.5	4.5	4.1	3.8	4.0
Belgium	2.0	2.3	2.1	2.3	1.5	2.1	1.7	1.9	0.5	0.2	0.4	0.4	3.9	4.2	3.9	4.2
Cyprus	1.5	2.5	2.7	3.0	0.1	1.9	2.0	2.1	0.2	0.5	0.7	0.8	5.2	4.6	5.1	5.6
Estonia	4.0	4.0	3.6	3.6	2.6	4.0	4.0	4.3	0.9	0.0	-0.3	-0.5	7.8	7.0	6.7	6.4
Finland	3.6	2.7	2.4	2.1	2.7	2.0	2.0	1.8	0.6	0.5	0.3	0.6	6.3	5.1	4.5	4.2
France	2.0	2.3	2.5	2.5	1.8	2.3	2.4	2.4	-0.1	-0.1	-0.1	-0.1	3.5	4.1	4.3	4.3
Germany	2.3	1.8	1.5	1.5	1.9	1.8	1.5	1.5	0.4	0.1	0.0	0.0	3.3	2.8	2.8	2.8
Greece	-3.0	1.1	2.1	2.1	-6.2	-1.0	0.8	1.0	3.1	1.8	1.4	1.1	-1.5	1.5	2.8	3.2
Ireland	0.8	2.5	3.0	3.0	-2.8	-0.3	0.6	0.8	3.0	2.6	2.3	2.1	1.4	3.0	4.0	4.3
Italy	1.1	1.3	1.5	1.6	1.0	1.2	1.5	1.7	0.0	0.0	0.0	0.0	2.9	3.1	3.3	3.4
Luxemburg	3.2	3.5	3.7	4.0	3.0	43.1	2.7	2.2	0.2	0.4	1.0	1.8	5.0	5.5	6.3	6.4
Malta	2.4	2.3	2.6	2.8	2.1	0.6	1.3	1.2	0.3	1.7	1.3	1.6	4.7	4.4	4.8	4.7
Netherlands	1.8	1.5	1.3	1.3	1.0	1.0	1.0	1.0	0.8	0.5	0.3	0.3	3.3	3.8	3.0	3.0
Portugal	-2.2	-1.8	1.2	2.5	-6.3	-5.0	-0.4	1.4	4.1	3.2	1.6	1.1	-1.1	-0.5	2.5	3.8
Slovakia	3.4	4.8	4.8	4.8	NA	NA	NA	NA	NA	NA	NA	NA	6.2	7.2	7.6	7.7
Slovenia	1.8	2.2	2.3	2.8	0.3	1.5	1.3	1.8	1.5	0.7	1.0	1.0	1.9	4.8	4.6	5.0
Spain	1.3	2.3	2.4	2.6	0.0	1.3	1.7	2.0	1.3	1.0	0.7	0.6	2.5	3.8	4.1	4.4

*Real GDP growth is the sum of the growth contributions of the domestic demand and the external sector balance. Some figures rounded.

Source: Stability Programmes 2011.

Table 4: Financial balances, Euro area countries, 2014, according to the Stability Programmes

	Balances as percentage of GDP					Balances in billions of Euro					Balances as percentage of EMU GDP				nom GDP
	Public	Foreign	Private	Sum		Public	Foreign	Private	Sum		Public	Foreign	Private	Sum	
Austria	-2.4	-4.7	7.1	0.0	Austria	-8.0	-15.7	23.7	0.0	Austria	-0.1	-0.1	0.2	0.0	334.1
Belgium	-0.8	-3.7	4.5	0.0	Belgium	-3.3	-15.3	18.6	0.0	Belgium	0.0	-0.1	0.2	0.0	414.3
Cyprus	-1.6	5.2	-3.6	0.0	Cyprus	-0.3	1.1	-0.8	0.0	Cyprus	0.0	0.0	0.0	0.0	21.4
Estonia	0.5	1.7	-2.2	0.0	Estonia	0.1	0.3	-0.4	0.0	Estonia	0.0	0.0	0.0	0.0	19.1
Finland	-1.0	-2.0	3.0	0.0	Finland	-2.2	-4.4	6.6	0.0	Finland	0.0	0.0	0.1	0.0	219.9
France	-2.0	3.7	-1.7	0.0	France	-45.7	84.5	-38.8	0.0	France	-0.4	0.8	-0.4	0.0	2283.0
Germany	-0.5	-6.0	6.5	0.0	Germany	-14.0	-168.2	182.2	0.0	Germany	-0.1	-1.6	1.7	0.0	2803.6
Greece	-2.6	5.3	-2.7	0.0	Greece	-6.3	12.9	-6.6	0.0	Greece	-0.1	0.1	-0.1	0.0	244.1
Ireland	-4.7	-3.7	8.4	0.0	Ireland	-8.2	-6.5	14.7	0.0	Ireland	-0.1	-0.1	0.1	0.0	174.5
Italy	-0.2	3.0	-2.8	0.0	Italy	-3.5	52.7	-49.2	0.0	Italy	0.0	0.5	-0.5	0.0	1756.8
Luxemburg	-0.8	-7.3	8.1	0.0	Luxemburg	-0.4	-3.8	4.2	0.0	Luxemburg	0.0	0.0	0.0	0.0	52.3
Malta	-1.0	0.5	0.5	0.0	Malta	-0.1	0.0	0.0	0.0	Malta	0.0	0.0	0.0	0.0	7.5
Netherlands	-1.4	-9.8	11.2	0.0	Netherlands	-9.4	-65.9	75.4	0.0	Netherlands	-0.1	-0.6	0.7	0.0	672.9
Portugal	-2.3	3.4	-1.1	0.0	Portugal	-4.2	6.1	-2.0	0.0	Portugal	0.0	0.1	0.0	0.0	180.7
Slovakia	-2.8	0.4	2.4	0.0	Slovakia	-2.4	0.3	2.1	0.0	Slovakia	0.0	0.0	0.0	0.0	87.3
Slovenia	-2.0	0.6	1.4	0.0	Slovenia	-0.8	0.3	0.6	0.0	Slovenia	0.0	0.0	0.0	0.0	42.4
Spain	-2.1	2.4	-0.3	0.0	Spain	-25.8	29.5	-3.7	0.0	Spain	-0.2	0.3	0.0	0.0	1230.3
Average	-1.6	-0.6	2.3	0.0	Sum	-134.7	-92.0	226.7	0.0	Sum	-1.3	-0.9	2.2	0.0	10544.0

Note 1: We use an extrapolation of the AMECO forecast as Luxembourg's foreign balance.

Note 2: The three balances may not sum to zero due to rounding

Source: Stability Programmes, authors' calculations.

Table 5: Simulated financial balances of scenario 1: Euro area countries, 2014, given surplus countries realise their plans, but Euro area as a whole fails to improve its current account – adjustment cost borne by deficit countries according to 2010 deficit shares.

	Balances as percentage of GDP					Balances in billions of Euro					Balances as percentage of EMU GDP				nom GDP
	Public	Foreign	Private	Sum		Public	Foreign	Private	Sum		Public	Foreign	Private	Sum	
Austria	-2.4	-4.7	7.1	0.0	Austria	-8.0	-15.7	23.7	0.0	Austria	-0.1	-0.1	0.2	0.0	334.1
Belgium	-0.8	-3.7	4.5	0.0	Belgium	-3.3	-15.3	18.6	0.0	Belgium	0.0	-0.1	0.2	0.0	414.3
Cyprus	-1.6	10.5	-8.9	0.0	Cyprus	-0.3	2.2	-1.9	0.0	Cyprus	0.0	0.0	0.0	0.0	21.4
Estonia	0.5	-3.0	2.5	0.0	Estonia	0.1	-0.6	0.5	0.0	Estonia	0.0	0.0	0.0	0.0	19.1
Finland	-1.0	-2.0	3.0	0.0	Finland	-2.2	-4.4	6.6	0.0	Finland	0.0	0.0	0.1	0.0	219.9
France	-2.0	4.0	-2.0	0.0	France	-45.7	92.4	-46.8	0.0	France	-0.4	0.9	-0.4	0.0	2283.0
Germany	-0.5	-6.0	6.5	0.0	Germany	-14.0	-168.2	182.2	0.0	Germany	-0.1	-1.6	1.7	0.0	2803.6
Greece	-2.6	15.3	-12.7	0.0	Greece	-6.3	37.2	-30.9	0.0	Greece	-0.1	0.4	-0.3	0.0	244.1
Ireland	-4.7	0.9	3.8	0.0	Ireland	-8.2	1.5	6.7	0.0	Ireland	-0.1	0.0	0.1	0.0	174.5
Italy	-0.2	5.1	-4.9	0.0	Italy	-3.5	89.3	-85.8	0.0	Italy	0.0	0.8	-0.8	0.0	1756.8
Luxemburg	-0.8	-7.3	8.1	0.0	Luxemburg	-0.4	-3.8	4.2	0.0	Luxemburg	0.0	0.0	0.0	0.0	52.3
Malta	-1.0	4.7	-3.7	0.0	Malta	-0.1	0.4	-0.3	0.0	Malta	0.0	0.0	0.0	0.0	7.5
Netherlands	-1.4	-9.8	11.2	0.0	Netherlands	-9.4	-65.9	75.4	0.0	Netherlands	-0.1	-0.6	0.7	0.0	672.9
Portugal	-2.3	12.9	-10.6	0.0	Portugal	-4.2	23.2	-19.1	0.0	Portugal	0.0	0.2	-0.2	0.0	180.7
Slovakia	-2.8	3.0	-0.2	0.0	Slovakia	-2.4	2.6	-0.2	0.0	Slovakia	0.0	0.0	0.0	0.0	87.3
Slovenia	-2.0	1.0	1.0	0.0	Slovenia	-0.8	0.4	0.4	0.0	Slovenia	0.0	0.0	0.0	0.0	42.4
Spain	-2.1	5.4	-3.3	0.0	Spain	-25.8	65.9	-40.1	0.0	Spain	-0.2	0.6	-0.4	0.0	1230.3
Average	-1.6	1.5	0.1	0.0	Sum	-134.7	41.3	93.4	0.0	Sum	-1.3	0.4	0.9	0.0	10544.0

Note: The three balances may not sum to zero due to rounding.

Table 6: Simulated financial balances of scenario 2: Euro area countries, 2014, given surplus countries realise their plans, but Euro area as a whole fails to improve its current account – adjustment is borne by deficit countries according to 2014 deficit shares projected by the stability programmes.

	Balances as percentage of GDP					Balances in billions of Euro					Balances as percentage of EMU GDP				nom GDP
	Public	Foreign	Private	Sum		Public	Foreign	Private	Sum		Public	Foreign	Private	Sum	
Austria	-2.4	-4.7	7.1	0.0	Austria	-8.0	-15.7	23.7	0.0	Austria	-0.1	-0.1	0.2	0.0	334.1
Belgium	-0.8	-3.7	4.5	0.0	Belgium	-3.3	-15.3	18.6	0.0	Belgium	0.0	-0.1	0.2	0.0	414.3
Cyprus	-1.6	8.9	-7.3	0.0	Cyprus	-0.3	1.9	-1.6	0.0	Cyprus	0.0	0.0	0.0	0.0	21.4
Estonia	0.5	2.9	-3.4	0.0	Estonia	0.1	0.6	-0.6	0.0	Estonia	0.0	0.0	0.0	0.0	19.1
Finland	-1.0	-2.0	3.0	0.0	Finland	-2.2	-4.4	6.6	0.0	Finland	0.0	0.0	0.1	0.0	219.9
France	-2.0	6.3	-4.3	0.0	France	-45.7	144.4	-98.7	0.0	France	-0.4	1.4	-0.9	0.0	2283.0
Germany	-0.5	-6.0	6.5	0.0	Germany	-14.0	-168.2	182.2	0.0	Germany	-0.1	-1.6	1.7	0.0	2803.6
Greece	-2.6	9.1	-6.5	0.0	Greece	-6.3	22.1	-15.8	0.0	Greece	-0.1	0.2	-0.1	0.0	244.1
Ireland	-4.7	-3.7	8.4	0.0	Ireland	-8.2	-6.5	14.7	0.0	Ireland	-0.1	-0.1	0.1	0.0	174.5
Italy	-0.2	5.1	-4.9	0.0	Italy	-3.5	90.1	-86.6	0.0	Italy	0.0	0.9	-0.8	0.0	1756.8
Luxemburg	-0.8	-7.3	8.1	0.0	Luxemburg	-0.4	-3.8	4.2	0.0	Luxemburg	0.0	0.0	0.0	0.0	52.3
Malta	-1.0	0.9	0.1	0.0	Malta	-0.1	0.1	0.0	0.0	Malta	0.0	0.0	0.0	0.0	7.5
Netherlands	-1.4	-9.8	11.2	0.0	Netherlands	-9.4	-65.9	75.4	0.0	Netherlands	-0.1	-0.6	0.7	0.0	672.9
Portugal	-2.3	5.8	-3.5	0.0	Portugal	-4.2	10.5	-6.3	0.0	Portugal	0.0	0.1	-0.1	0.0	180.7
Slovakia	-2.8	0.7	2.1	0.0	Slovakia	-2.4	0.6	1.8	0.0	Slovakia	0.0	0.0	0.0	0.0	87.3
Slovenia	-2.0	1.0	1.0	0.0	Slovenia	-0.8	0.4	0.4	0.0	Slovenia	0.0	0.0	0.0	0.0	42.4
Spain	-2.1	4.1	-2.0	0.0	Spain	-25.8	50.5	-24.6	0.0	Spain	-0.2	0.5	-0.2	0.0	1230.3
Average	-1.6	0.4	1.2	0.0	Sum	-134.7	41.3	93.4	0.0	Sum	-1.3	0.4	0.9	0.0	10544.0

Note: The three balances may not sum to zero due to rounding.

Table 7: Simulated Financial balances of scenario 3: Euro area countries, 2014, given rebalancing (maximal 2 per cent of GDP current account deficits), but Euro area as a whole fails to improve its current account

	Balances as percentage of GDP					Balances in billions of Euro					Balances as percentage of EMU GDP				nom GDP
	Public	Foreign	Private	Sum		Public	Foreign	Private	Sum		Public	Foreign	Private	Sum	
Austria	-2.4	-0.9	3.3	0.0	Austria	-8.0	-3.1	11.2	0.0	Austria	-0.1	0.0	0.1	0.0	334.1
Belgium	-0.8	-0.8	1.6	0.0	Belgium	-3.3	-3.3	6.6	0.0	Belgium	0.0	0.0	0.1	0.0	414.3
Cyprus	-1.6	2.0	-0.4	0.0	Cyprus	-0.3	0.4	-0.1	0.0	Cyprus	0.0	0.0	0.0	0.0	21.4
Estonia	0.5	1.7	-2.2	0.0	Estonia	0.1	0.3	-0.4	0.0	Estonia	0.0	0.0	0.0	0.0	19.1
Finland	-1.0	-0.8	1.8	0.0	Finland	-2.2	-1.7	3.9	0.0	Finland	0.0	0.0	0.0	0.0	219.9
France	-2.0	2.0	0.0	0.0	France	-45.7	45.7	0.0	0.0	France	-0.4	0.4	0.0	0.0	2283.0
Germany	-0.5	-1.6	2.1	0.0	Germany	-14.0	-44.3	58.3	0.0	Germany	-0.1	-0.4	0.6	0.0	2803.6
Greece	-2.6	2.0	0.6	0.0	Greece	-6.3	4.9	1.5	0.0	Greece	-0.1	0.0	0.0	0.0	244.1
Ireland	-4.7	-3.7	8.4	0.0	Ireland	-8.2	-6.5	14.7	0.0	Ireland	-0.1	-0.1	0.1	0.0	174.5
Italy	-0.2	2.0	-1.8	0.0	Italy	-3.5	35.1	-31.6	0.0	Italy	0.0	0.3	-0.3	0.0	1756.8
Luxemburg	-0.8	-2.2	3.0	0.0	Luxemburg	-0.4	-1.1	1.6	0.0	Luxemburg	0.0	0.0	0.0	0.0	52.3
Malta	-1.0	0.5	0.5	0.0	Malta	-0.1	0.0	0.0	0.0	Malta	0.0	0.0	0.0	0.0	7.5
Netherlands	-1.4	-2.1	3.5	0.0	Netherlands	-9.4	-14.0	23.4	0.0	Netherlands	-0.1	-0.1	0.2	0.0	672.9
Portugal	-2.3	2.0	0.3	0.0	Portugal	-4.2	3.6	0.5	0.0	Portugal	0.0	0.0	0.0	0.0	180.7
Slovakia	-2.8	0.4	2.4	0.0	Slovakia	-2.4	0.3	2.1	0.0	Slovakia	0.0	0.0	0.0	0.0	87.3
Slovenia	-2.0	0.6	1.4	0.0	Slovenia	-0.8	0.3	0.6	0.0	Slovenia	0.0	0.0	0.0	0.0	42.4
Spain	-2.1	2.0	0.1	0.0	Spain	-25.8	24.6	1.2	0.0	Spain	-0.2	0.2	0.0	0.0	1230.3
Average	-1.6	0.2	1.4	0.0	Sum	-134.7	41.3	93.4	0.0	Sum	-1.3	0.4	0.9	0.0	10544.0

Note: The three balances may not sum to zero due to rounding.

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Phone: +49-211-7778-331, IMK@boeckler.de, <http://www.imk-boeckler.de>

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