FAILED AUSTERITY IN EUROPE
THE WAY OUT

independent Annual Growth Survey

First Report

FAILED AUSTERITY IN EUROPE
THE WAY OUT
2013

ofce

ECLM
ECONOMIC COUNCIL OF THE LABOUR MOVEMENT

IMK
Institut für Makroökonomie
und Konjunkturforschung
Macroeconomic Policy Institute

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FAILED AUSTERITY IN EUROPE: THE WAY OUT

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Executive summary

Four years after the start of the Great Recession, the euro area remains in crisis. GDP and GDP per head are below their pre-crisis level. The unemployment rate has reached a historical record level of 11.6% of the labour force in September 2012, the most dramatic reflection of the long lasting social despair that the Great Recession produced. The sustainability of public debt is a major concern for national governments, the European Commission and financial markets, but successive and unprecedented consolidation programmes have proven unsuccessful in tackling this issue. Up to now, asserting that austerity was the only possible strategy to get out of this dead end has been the cornerstone of policymakers' message to European citizens. But this assertion is based on a fallacious diagnosis according to which the crisis stems from the fiscal profligacy of member states. For the euro area as a whole, fiscal policy is not the origin of the problem. Higher deficits and debts were a necessary reaction by governments facing the worst recession since WWII. The fiscal response was successful in two respects: it stopped the recession process and dampened the financial crisis. As a consequence, it led to a sharp rise in the public debt of all euro area countries.

During normal times, sustainability of public debt is a long-term issue, whereas unemployment and growth are short-term ones. Yet, fearing an alleged imminent surge in interest rates and constrained by the Stability and Growth Pact, and although transition towards more normal times had not been completed, member states and the European Commission reversed priorities. This choice partly reflects well-known pitfalls in the institutional framework of EMU. But it is equally reflecting a dogmatic view in which fiscal policy is incapable of demand management and the scope of public administrations has to be fettered and limited. This ideology has led member states to implement massive fiscal austerity during bad times.

It is clear now that this strategy is deeply flawed. Euro aera countries and especially Southern European countries have undertaken ill-designed and precipitous consolidation. The austerity measures have reached a dimension never before observed in the history of fiscal policy. The cumulative change in the fiscal stance for Greece from 2010 to 2012 amounts to 18 points of GDP. For Portugal, Spain and Italy, it has reached respectively 7.5, 6.5 and 4.8 points of GDP. The consolidation has rapidly become synchronised, leading to negative spillovers over the whole euro

area, amplifying its first-round effects. The reduction in economic growth in turn makes sustainability of public debt ever less likely (Table 1). Thus austerity has been clearly self-defeating as the path of reduction of public deficits has been highly disappointing regarding the initial targets defined by member states and the Commission.

Table 1.Forecast fiscal stance and GDP growth rate in euro area

	Fiscal stance in % of GDP		GDP growth in %	
	2012	2013	2012	2013
DEU	-0.5	0.0	0.8	0.6
FRA	-1.6	-1.8	0.1	0.1
ITA	-3.2	-2.1	-2.1	-1.5
ESP	-3.4	-2.4	-1.3	-1.3
NLD	-1.0	-1.2	-0.9	-0.4
BEL	-1.1	-0.8	-0.2	-0.2
PRT	-3.7	-1.8	-2.8	-2.2
IRL	-2.4	-1.8	-0.4	-0.4
GRC	-5.0	-3.9	-6.2	-3.7
FIN	-0.4	-1.3	0.4	0.4
AUT	-0.1	-0.9	0.5	0.1
EA	-1.7	-1.4	-0.4	-0.3

Source: OFCE, ECLM, IMK.

Since spring 2011 unemployment within the EU-27 and the euro area has begun to increase rapidly and in the past year alone unemployment has increased by 2 million people. Youth unemployment has increased particularly dramatically during the crisis. In the second quarter of 2012, 9.2 million young people aged 15-29 years were unemployed, which corresponds to 17.7 percent of the 15-29 year-olds in the workforce and accounts for 36.7 percent of all unemployed in the EU-27. The same tendencies are seen for low skilled workers. The hysteresis of the labour market will lead to the persistence of a high level of unemployment in the years to come. The first symptoms that unemployment will remain high in the coming years are already visible. In the second quarter of 2012 almost 11 million people in EU had been unemployed for a year or longer. Within the last year long term unemployment has increased by 1.4 million people in the EU-27 and by 1.2 million people within the euro area.

Long term unemployment results in the reduction of the workforce due to a flexion effect. This will make it more difficult to generate growth and healthy public finances within the EU in the medium term. Besides the effect of long term unemployment on potential growth and public finances, long term unemployment may cause increased poverty when unemployment benefits stop because sooner than

expected. Given our forecast for unemployment in the EU and the euro area, we estimate that long term unemployment can reach 12 million in the EU and 9 million in the euro area at the end of 2013.

What is striking is that the consequences of ill-designed consolidation could and should have been expected. Instead, they have been largely underestimated. Growing theoretical and empirical evidence according to which the size of fiscal multipliers is magnified in a fragile economic situation has been seemingly willfully overlooked. Concretely, whereas in normal times, that is when the output gap is close to zero, a reduction of one point of GDP of the structural budget deficit reduces activity by a range of 0.5 to 1% (this is the fiscal multiplier), this effect exceeds 1.5% in bad times and may even reach 2% when the economy is severely depressed. All the features (recession, monetary policy at the zero bound, no offsetting devaluation, austerity amongst key trading partners) known to generate higher-than-normal multipliers were in place in the euro area.

The recovery that had been observed from the end of 2009 was brought to a halt. The euro area entered a new recession in the third quarter of 2011 and the situation is not expected to improve: GDP is forecast to decrease by 0.4 % in 2012 and again by 0.3 % in 2013. Italy, Spain, Portugal and Greece seem to sink in an endless depression. Unemployment has soared to a record level in the euro area and especially in Spain, Greece, Portugal and Ireland. Confidence of households, non financial companies and financial markets has collapsed again. Despite some recent improvements resulting from belated policy initiatives, interest rates remain elevated and governments of Southern countries still face unsustainable risk premium on their interest rates, while Germany, Austria or France benefit from historically low interest rates.

Rather than focus on public deficits the underlying cause of the crisis needs to be addressed. The euro area suffered primarily from a balance of payments crisis due to the build-up of current account imbalances between its members. When the financial flows needed to finance these imbalances dried up the crisis took hold in the form of a liquidity crisis. Attempts should have been made to adjust nominal wages and prices in a balanced way, with minimal harm to demand, output and employment. Instead salvation was sought in across-the-board austerity, forcing down demand, wages and prices by driving up unemployment.

Even if some fiscal consolidation was almost certainly a necessary part of a rebalancing strategy to curb past excesses in some countries, it was vital that those countries with large surpluses, especially Germany, took symmetrical action to stimulate demand and ensure faster growth of nominal wages and prices. Instead the adjustment burden was thrust on the deficit countries. Some progress has been made in addressing competitive imbalances, but the cost has been huge. Failure to ensure a balanced response from surplus countries is also increasing the overall

trade surplus of the euro area. This is unlikely to be a sustainable solution as it shifts the adjustment on to non-euro countries and will provoke counteractions.

There is a pressing need for a public debate on such vital issues. Policymakers have largely ignored dissenting voices, even as they have grown louder. The decisions on the present macroeconomic strategy for the euro area need also to recognise that the new EU fiscal framework leaves euro area countries some leeway. Firstly, countries may invoke exceptional circumstances as they face "*an unusual event outside the control of the (MS) which has a major impact on the financial position of the general government or periods of severe economic downturn as set out in the revised SGP (…)"*. Secondly, *the fiscal framework requires "a minimum annual improvement of at least 0.5 % of GDP as a benchmark, in its cyclically adjusted balance net of one-off and temporary measures, in order to ensure the correction of the excessive deficit within the deadline set in the recommendation"*. This is of course a minimum, but it would also be seen as a sufficient condition to bring back the deficit to GDP ratio towards 3 % and the debt ratio towards 60%. And it is far less severe than the massive austerity imposed on member states. Simulations by the iAGS consortium show how big a difference a softened austerity program, one that still respects treaty obligations, could make in terms of output and employment.

A four-fold alternative strategy is thus necessary:

First, delaying and spreading the fiscal consolidation in due respect of current EU fiscal rules. Instead of austerity measures of nearly 130 billion euros for the whole euro area, a more balanced fiscal consolidation of 0.5 point of GDP, in accordance with treaties and fiscal compact, would in 2013 alone ease the austerity squeeze by more than 85 billion euros. By delaying and capping the path of consolidation, GDP would in average 3.7% higher 2013 and 2017 (Figure 1) resulting in substantially lower unemployment.

Second, the ECB must fully act as a lender of last resort for the Euro area countries in order to relieve MS from the panic stemming from financial markets. For panic to cease, the EU must have a credible plan made clear to its creditors.

Third, significantly increasing lending by the European Investment Bank as well as other measures (notably the use of structural funds and project bonds), so as to meaningfully advance the European Union growth agenda beyond the vague and unbudgeted promises made at the June and October European Councils. These promises need to be transformed into concrete investments.

Fourth, a close coordination of economic policies should aim at reducing current accounts imbalances in a balanced way. The adjustment should not only rely on deficit countries. Germany and the Netherlands should also take measures to reduce their surpluses by expanding domestic demand and encouraging faster wage and price growth.

Figure 1.Debt and GDP in baseline and alternative scenarios
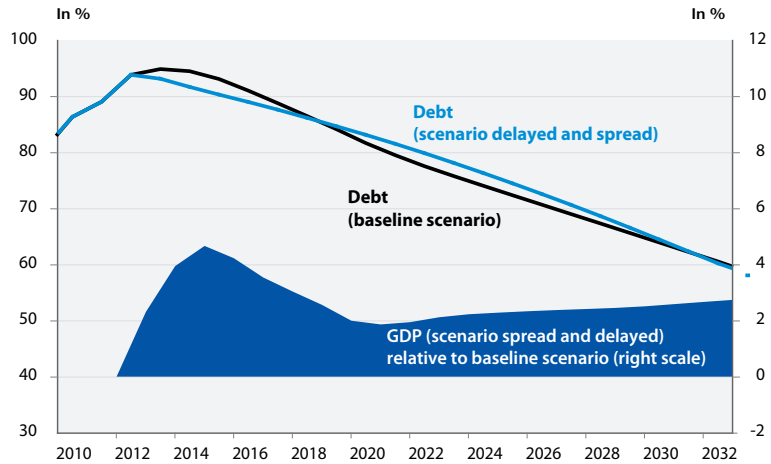
Source: iAGS model.

THE SDA (SELF-DEFEATING AUSTERITY) SYNDROME:
ECONOMIC PERSPECTIVES FOR THE EURO AREA
AND EURO AREA COUNTRIES IN 2012 AND 2013

1. The euro area is still in crisis

Four years after the start of the Great Recession, the GDP in the euro area is still below its pre-crisis level. The recovery has been short-lived. It started towards the end of 2009 following the implementation of expansionary fiscal policies, which first managed to dampen the economic consequences of the financial crisis and then contributed to the renewed growth. But, preoccupied by a rising public debt, worried by the risk of a surge in interest rates and constrained by the Stability and Growth Pact rule according to which the public deficits should be brought back to 3% of GDP, some governments engaged in austerity early, starting in 2010, believing that exceptional circumstances could not be invoked anymore. Thus, although the issue of public debt sustainability should have been seen as a long run issue whereas unemployment and growth are the main concern in the short run, the institutional and the financial contexts as well as dogmatic views have led national governments and the European Commission to reverse the priorities. While at that time exceptional circumstances had vanished, paradoxically, they came back under the pressure of tough negative fiscal stances that went in many cases far beyond the requirements of EU fiscal rules (see Part 4 of this report for an interpretation of the EU fiscal framework).

Since 2011, austerity has been generalised to all euro area members, though with variable intensity, and it was reinforced in 2012. Despite the multiplication of consolidation plans, the sovereign debt crisis did not fade away as persistent risk premiums on interest rates illustrate[1]. As a consequence, economic activity rapidly weakened, and, according to the CEPR Business Cycle Dating Committee[2], the euro area entered a new recession in the third quarter of 2011. In the second quarter of 2012, GDP per capita in the euro area was 3.6% lower than at the beginning of 2008. Divergence is important across countries, however, with a fall of 17.4% in

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1. For Ireland, Portugal and Greece market rates are not indicative of governments' cost of financing since these countries benefit from EFSF. But it remains that the market interest rates show clearly that the crisis and the tensions are still acute.
2. See http://www.cepr.org/press/20121115-Euro_Area_in_Recession_since_third_quarter_2011. htm.

Greece or 7.3% in Spain, whereas GDP per capita has increased by 2.3% in Germany (Table 2).

Besides, since the beginning of the crisis, labour market conditions have seriously worsened in the euro area, despite a modest improvement in 2010. In the second quarter of 2012, the number of unemployed was 6.5 million higher than at the end of 2007 (see Part 2 of this report for a more detailed analysis of the social consequences of the crisis). The unemployment rate reached a record level of 11.6% in September 2012. Spain is the country where the adjustment has been the largest, with the unemployment rate reaching 25% of labour force, while in Germany the number of unemployed has decreased steadily since 2009 and the unemployment rate is below 6%.

Table 2. Gains (+) or losses (-) of production and changes in unemployment rate

Percentage change

2008q1 / 2012q3	DEU	FRA	ITA	ESP	PRT	GRC	IRL	Euro area
GDP	+2.0	-0.7	-6.8	-5.7	-6.4	-16.7	-6.9	-2.4
Per capita GDP	+2.5	-2.7	-8.6	-7.5	-5.9	-17.4	-10.5	-3.7
Increase in unemployment (*in %-points*)	-2.5	+3.1	+4.1	+16.4	+7.9	+17.5	+9.7	+4.2

* Except for Portugal, Ireland and Greece where GDP was not available for 2012Q3.
Sources: Eurostat.

Based on the fallacious diagnosis that fiscal profligacy was the original sin, the European Commission recommended and national governments applied the wrong medicine: generalised austerity for fragile economies. The current economic outlook of the euro area clearly shows that the cure is a failure. On a quarterly basis, GDP in the euro area contracted by 0.2% q-o-q in the second quarter of 2012 and still by 0.1% in the third quarter according to the Eurostat's first estimate. We now expect a fall in GDP of 0.4 % in 2012 as a whole. The bulk of this new recession comes from internal demand contributing -1.1 percentage point to GDP growth (Table 3), whereas the contribution of net exports is +1.3. Households' consumption and investment suffer from fiscal consolidation plans and are decreasing. Although this strategy of fiscal consolidation will lead to deficit close to the 3 % threshold for the euro area as a whole in 2012, the path of reduction will be disappointing given the negative fiscal stance estimated at 1.7 point of GDP.

Thus, from 2007 onwards, the euro area has remained in a protracted state of crisis. The economic and social situation has deteriorated to a point which is now worrying. Divergences are widening. Germany will be the country with the highest growth rate in 2012 (with a mere 0.8%) whereas the economic slump will worsen in Southern Europe with GDP decreasing by 6.2% in Greece, 2.8% in Portugal, 2.1% in Italy and 1.3% in Spain (Table 3). In the long run, this situation will inevitably question the ability of EMU to promote growth and social cohesion.

Table 3. Growth outlook in the euro area

Annual percentage change

%	2010	2011	2012	2013
GDP	2.0	1.5	-0.4	-0.3
Private consumption	1.0	0.1	-1.0	-0.7
Investment	-0.3	1.6	-3.2	-1.5
Public consumption	0.8	-0.1	0.0	-0.1
Exports	10.9	6.3	2.5	2.4
Imports	9.3	4.1	-0.5	1.6
Contribution to growth				
Internal demand	0.7	0.3	-1.1	-0.7
External trade	0.7	1.0	1.3	0.4
Inventories	0.6	0.1	-0.6	0.0
Unemployment rate (%)	10.1	10.2	11.3	12.1
Inflation	1.6	2.7	2.5	1.9
Public deficit (% GDP)	-6.2	-4.1	-3.1	-2.6
Fiscal impulse (% GDP)	-0.3	-1.3	-1.7	-1.4

Sources: Eurostat, OFCE, ECLM, IMK forecasts.

Table 4. GDP growth rate in the euro area

Annual percentage change

	2011	2012	2013
DEU	3.1	0.8	0.6
FRA	1.7	0.1	0.1
ITA	0.6	-2.1	-1.5
ESP	0.4	-1.3	-1.3
NLD	1.1	-0.9	-0.4
BEL	1.8	-0.2	-0.2
PRT	-1.7	-2.8	-2.2
IRL	1.4	-0.4	-0.4
GRC	-6.2	-6.2	-3.7
FIN	2.7	0.4	0.4
AUT	2.7	0.5	0.1
EA	1.5	-0.4	-0.3

Sources: Eurostat, OFCE, ECLM, IMK forecasts.

The deterioration of the labour market situation, in conjunction with austerity policies, has led to a slowdown in households' incomes. Compensation of employees in the private sector contracted due to both a volume effect (employment decline) and a price effect: high unemployment reduced the scope for wage increases through the Phillips-curve. Moreover, civil servants' purchasing power has been hampered by the freeze or even the decrease of their wages (Greece, Spain,

Italy and Portugal) and bonuses (Spain). The increases in direct and indirect taxes (Italy, Spain, Portugal and France) as well as decreases in social benefits (Spain, Portugal) have also contributed to the deterioration of households' incomes. It has therefore adversely affected private consumption, which has been contracting by 0.9% since the last quarter of 2011. These developments have been amplified by the fact that consumer confidence went down leading to an increase in households' precautionary savings.

Net exports have been the single engine of growth over the latest quarters, due to the external demand from countries outside the euro area. Right from the beginning of the upturn in world trade in 2010, imports were less dynamic in the euro area than in the rest of the world. Besides, since the third quarter of 2011, the external demand among Member States has slowed down strongly, contrasting with a still buoyant external demand from other countries (Figure 2). Due to generalised fiscal consolidation, the expected positive effects of internal adjustment of competitiveness in many countries, such as Spain, Ireland, Portugal or Greece, are delayed. On the one hand, the decreases in wages contribute to a slackening internal demand. On the other hand, the external demand is restrained by the synchronised consolidation in the euro area. Consequently, the ongoing improvement in current accounts deficits in many countries of the euro area is mostly due to the contraction of imports and not much to exports. The Irish current account is nearly balanced and deficits of Spain and Portugal have fallen sharply, contributing to a reduction of macroeconomic imbalances, but one that has been one-sided; the surplus countries have adjusted far too little (see Part 3 of this report for a more detailed analysis).

Figure 2. External demand for euro area countries
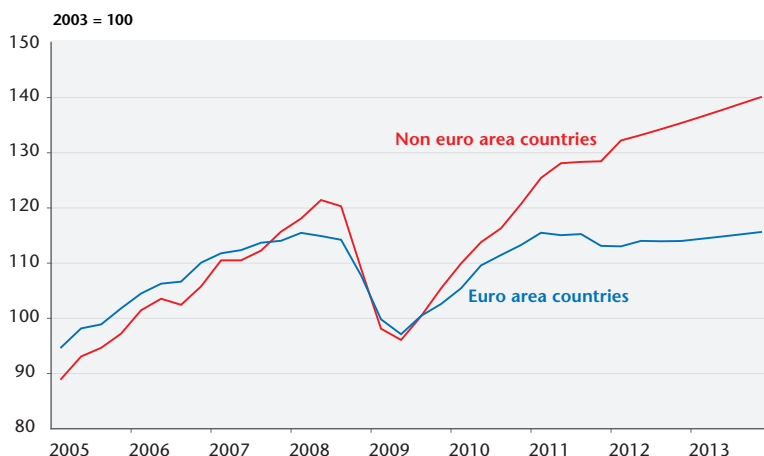
Sources: IMF, National Accounts, OFCE, ECLM, IMK calculations.

Besides, it must also be taken into account that non financial firms have not completely recovered from the financial shock that hit euro area countries in 2008-2009. Their productivity has been reduced in reaction to the slump of economic activity. The new slow-down that started by late 2011 will postpone the adjustment of productivity so that profits remain at historically low levels. Similarly, the recovery of the rates of capacity utilization from the trough observed in the first semester of 2009 has receded as firms faced lower demand. After a temporary rebound in 2010-2011, the rate of capacity utilisation in the euro area has strongly declined, from 81.3% in the second quarter of 2011 to 77.8% in the third quarter of 2012. During the autumn of 2012, it has come close to its lowest level of the 1993 recession. This induced backlog of production will still drive labour and capital productivity away from their initial pre-crisis paths. Consequently, the investment rate is still largely below its level of 2008 and has been declining again since the end of 2011. Productive investment has decreased in Germany during the first half of year 2012. The situation is similar in Italy, with a fall of 7% over the last year. Finally, in Spain, housing investment and productive investment have adjusted, with a total drop of 8% since the last quarter of 2011. Comparatively, the adjustment of total investment in France is weaker.

2. Why such a long-lasting crisis?

In 2008-2009, the euro area countries experienced the worst recession since the Great Depression. Consequently, the output gaps widened and public deficits increased sharply. This increase was a consequence both of the automatic stabilisers, as the recession decreased tax revenues and pushed up social and public expenditures, and of stimulating fiscal policies implemented in 2008 and 2009 in order to dampen the economic consequences of the crisis. Thirdly, public debt has also increased due to the measures taken to support the financial sector. Undoubtedly, the fiscal response has been successful as regards its objectives, which were to stop the recession process, to allow for a return to growth and to contain the financial crisis. However it also led, quite inevitably, to a sharp rise of public debt in all euro area countries except Estonia, Finland and Luxembourg (Figure 3). In the euro area, the public deficit has been above the 3% threshold since 2009.

This surge in public deficits and debts was rapidly seen as the most pressing issue in the euro area, although the output gap was still negative for all euro area countries[3]. Unfortunately, though unsurprisingly, the recovery has not been strong enough to lower the cyclical component of public deficits, i.e. the deficit which is due to the gap between actual and potential GDP, in most of European countries.

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3. According to the EC estimates, the output gaps were negative for all countries in 2010. In 2011, the output gaps turned positive in Germany, Estonia and Malta.

Figure 3. Public debt
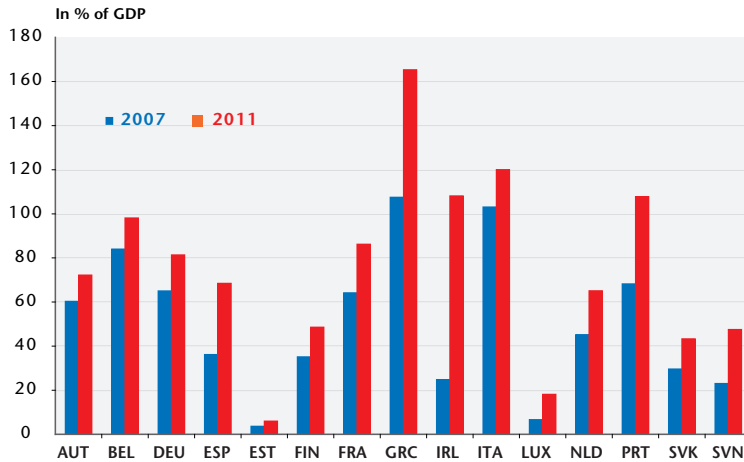
Sources: OECD.

Then, despite this fragile situation, countries started to tighten fiscal policies in 2010 or in 2011 (Table 5). While countries are facing substantial financing needs, financial markets can play a central role by urging governments to pursue fiscal virtue. Investors look for the most secure investment which is, to their eyes German public bonds. Hence, long run interest rates on German public bonds fall. On the opposite, other countries are threatened by a shortage of financing unless long run interest rates rise; then, this rise worsens their fiscal situation and their economic outlook, implying self-fulfilling expectations. To change expectations and reassure lenders, governments felt obliged to shift their strategy and prove their ability to lower deficits. It is possible to commit to longer-term consolidation without imme-diate cuts in deficits, but it is not easy. This line of reasoning sheds light on why austerity has been strengthened in the euro area in 2011 and 2012. Nonetheless, the consequence of this intensified fiscal adjustment has been to choke activity once again after the 2008-2009 shock. The return in recession in late 2011 in the euro area is clearly visible (Figure 4).

The perverse effect of fiscal restrictions implemented in the current cyclical trough is that, by stifling a spontaneous recovery, they postpone the reduction of public deficits because of the action of automatic stabilisers. Tax shortfalls and social expenditures widen the cyclical component of the public deficit and, in the case where multipliers are high and/or automatic stabilizers are highly sensitive to activity, they may even completely offset the initial budget cut. The outcome of fiscal restrictions during a cyclical trough is to foster recession, drive the level of unemployment upwards, and, in the best case, have a marginal effect on budget balance. As a consequence, the distrust from financial markets participants does not

dissipate and governments tighten policy further. New measures strengthen reces-
sion, delaying even further the prospect for an improvement in public finance ratio.
A vicious circle is under way.

Table 5. Fiscal stance

In % of GDP

	2009	2010	2011	2012	2013
DEU	0.7	1.5	-0.9	-0.5	0.0
FRA	2.3	-0.5	-2.0	-1.6	-1.8
ITA	0.8	-0.4	-1.2	-3.2	-2.1
ESP	3.8	-2.5	-1.1	-3.4	-2.4
NLD	4.0	-1.1	-0.2	-1.0	-1.2
BEL	1.9	-0.3	-0.1	-1.1	-0.8
PRT	5.0	-1.7	-3.7	-3.7	-1.8
IRL	2.2	-4.4	-1.5	-2.4	-1.8
GRC	3.2	-8.0	-5.3	-5.0	-3.9
FIN	0.4	1.5	-1.6	-0.4	-1.3
AUT	0.4	0.6	-1.6	-0.1	-0.9
EA	1.8	-0.3	-1.3	-1.7	-1.4

Sources: Eurostat, OFCE, ECLM, IMK calculations.

Figure 4. Fiscal stance and output gap in the euro area countries
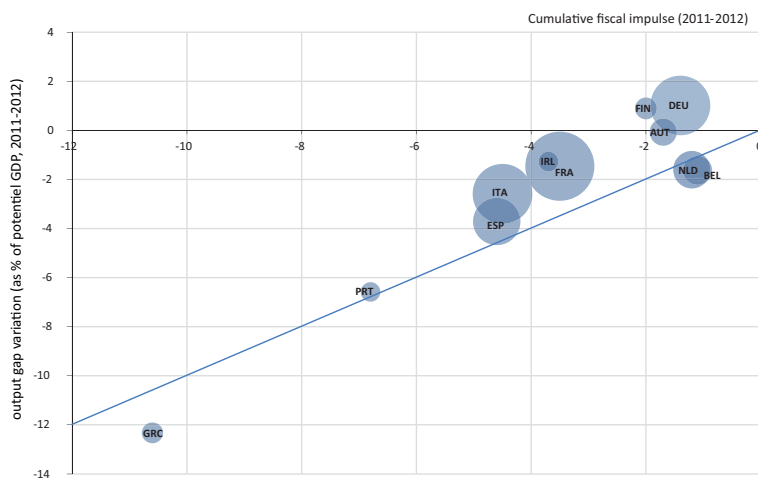
Sources: Eurostat, OFCE, ECLM, IMK   calculations.

The failure of this strategy for reducing public imbalances by fiscal consolidation is due to a misconception about the functioning of economies, especially the underestimation of the multiplier effect. It is a fact, not a conjecture, that governments and European institutions have neglected the negative impact on activity of fiscal tightening and thought that they could reduce deficits quickly with only marginal effects on growth.

One mistake has been to conduct simultaneous consolidation in all euro area countries, thus increasing the size of the fiscal multiplier in the euro zone considered as a whole. The fiscal tightening conducted in one country is passed on to its foreign trade partners: the slump in its internal demand results in a contraction of its imports which lowers its partners' exports. As a consequence, in addition to its own restriction, each country suffers from the consequences of the fiscal tightening conducted outside. The overall multiplier of the euro area is then much higher than the average of national multipliers simply because the euro area as a whole is a much more closed economy than the countries composing it. Moreover, the argument according to which the fiscal multiplier of synchronised consolidations would be reduced d by a cut in short-run interest rates was untenable in the euro area context of a liquidity trap: before consolidation began, the short-run interest rate set by the ECB had already reached its floor.

The second reason for the underestimation of the size of fiscal multipliers comes from a failure to take on board recent empirical evidence, which is consistent with theoretical intuition, that the fiscal multiplier is sensitive to cyclical conditions, *i.e.* it may be higher during economic slumps than during good times (see Box 1 for a discussion of recent literature that point to a consensus on this question).

Synchronised fiscal consolidations have been implemented during bad times, hence at the very moment when the negative impact of contractionary fiscal policy on activity is at its maximum. The increase in taxes and the reduction in social spending reduce disposable income and consumption. Moreover, due to the persistence of a high level of unemployment, a large number of households face a situation where their unemployment benefits are reduced or even cut completely. Consequently, they face higher constraints on their disposable income, which makes fiscal consolidation more detrimental to the activity level. This further effect is unlikely to be dampened by a decrease in the savings rate, which is probably already low or nil for long-term unemployed. Therefore, liquidity-constrained households cannot escape cutting consumption further to respond to the negative income shock. And for those who are still employed and may not face a direct liquidity constraint, the fear of being unemployed leads them to increase precautionary saving.

Similarly, the impact of consolidations is further amplified by the situation of firms. In bad times, there are more and more firms facing overcapacities. They have then no incentives to invest. And even for others, the investment may be limited by constraints on external financing, which are magnified through balance-sheet

effects. As uncertainty rises with the fragile situation of the economy, credit institutions are reluctant to engage in risky and less liquid investment projects. Similarly, market financing may be restrained as investors are afraid of poor performances of the stock exchange.

The situation of banks also helps understand the reasons for a higher sensitivity of activity to fiscal consolidation in recessions. Banks have been severely hit by the series of financial shocks over the last five years, *i.e.* subprime and then sovereign debt crisis. In a context where fiscal tightening worsens the financial situation of private agents, banks will be more reluctant to grant new credits; it thus magnifies the impact of austerity.

Box 1. A review of recent literature on fiscal multipliers: size matters!

Are the short-term fiscal multipliers being underestimated? Is there any justification for the belief that fiscal restraint can be used in an attempt to drastically reduce deficits without undermining business prospects or even while improving the medium-term situation? This is this question that the IMF tries to answer in the Spring 2012 World Economic Outlook. The Fund devotes a box to the underestimation of fiscal multipliers during the 2008 crisis. While until 2009 the IMF had estimated that in the developed countries they averaged about 0.5, it now calculates that they have ranged from 0.9 to 1.7 since the Great Recession

This reassessment of the value of the multiplier, which is discussed on the basis of a "corrected apparent" multiplier (see in Box 2), builds on the numerous studies carried out by IMF researchers on the issue and especially that of Batini, Callegari and Melina (2012). In this article, the authors draw three lessons about the size of the fiscal multipliers in the euro zone, the U.S. and Japan:

The first is that gradual and smooth fiscal consolidation is preferable to a strategy of reducing public imbalances too rapidly and abruptly.

The second lesson is that the economic impact of fiscal consolidation will be more violent when the economy is in recession: depending on the countries surveyed, the difference is at least 0.5 and may be more than 2 pp. This observation was also made in another study by the IMF (Corsetti, Meier and Müller, 2012) and is explained by the fact that in "times of crisis" more and more economic agents (households, firms) are subject to very short-term liquidity constraints, thus maintaining the recessionary spiral and preventing monetary policy from functioning.

Finally, the multipliers associated with public expenditure are much higher than those observed for taxes: in a recessionary situation, at 1 year they range from 1.6 to 2.6 in the case of a shock to public spending but between 0.2 and 0.4 in the case of a shock on taxes. For the euro zone, for example, the multiplier at 1 year was 2.6 if government spending was used as an instrument of fiscal consolidation and 0.4 if the instrument was taxation.

As the economic crisis continues, the IMF researchers are not the only ones raising questions about the merits of the fiscal consolidation strategy. In an *NBER working paper* in 2012, two researchers from Berkeley, Alan J. Auerbach and Yuriy Gorodnichenko, corroborate the idea that the multipliers are higher in recessions than in periods of expansion. In a second study, published in the *American*

Economic Journal, these same authors argue that the impact of a shock on public expenditure would be 4 times greater when implemented during an economic downturn (2.5) than in an upturn (0.6). This result has been confirmed for the US data by three researchers from the University of Washington in St. Louis (Fazzari *et al.*, 2011) and by two economists at the University of Munich (Mittnik and Semmler, 2012). This asymmetry was also found for the data on Germany in a study by a Cambridge University academic and a Deutsche Bundesbank researcher, Baum and Koester (2011).

In other work, a researcher at Stanford, Hall (2009), affirms that the size of the multiplier doubles and is around 1.7 when the real interest rate is close to zero, which is characteristic of an economy in a downturn, as is the case today in many developed countries. This view is shared by a number of other researchers, including two at Berkeley and Harvard, DeLong and Summers (2012), two from the Federal Reserve, Erceg and Lindé (2012), those of the OECD (2009), those of the European Commission (2012) and in some recent theoretical work (Christiano, Eichenbaum and Rebelo, 2011; Woodford, 2010). When nominal interest rates are blocked by the zero lower bound, anticipated real interest rates rise. Monetary policy can no longer offset budgetary restrictions and can even become restrictive, especially when price expectations are anchored on deflation.

As already noted by J. Creel[4] (2012) with respect to the instrument to be used, *i.e.* public spending or taxation, other IMF economists together with colleagues from the European Central Bank (ECB) the US Federal Reserve (FED), the Bank of Canada, the European Commission (EC) and the Organization for Economic Cooperation and Development (OECD) compared their assessments in an article published in January 2012 in the *American Economic Journal: Macroeconomics* (Coenen G. *et al.*, 2012). According to these 17 economists, on the basis of eight different macroeconometric models (mainly DSGE models) for the United States, and four models for the euro zone, the size of many multipliers is large, particularly for public expenditure and targeted transfers. The multiplier effects exceed unity if the strategy focuses on public consumption or transfers targeted to specific agents and are larger than 1.5 for public investment. For the other instruments, the effects are still positive but range from 0.2 for corporation tax to 0.7 for consumer taxes. This finding is also shared by the European Commission (2012), which indicates that the fiscal multiplier is larger if the fiscal consolidation is based on public expenditure, and in particular on public investment. These results confirm those published three years ago by the OECD (2009) as well as those of economists from the Bank of Spain for the euro zone (Burriel *et al.*, 2010) and from the Deutsche Bundesbank using data for Germany (Baum and Koester, 2011). Without invalidating this result, a study by Fazzari *et al.* (2011) nevertheless introduced a nuance: according to their work, the multiplier associated with public spending is much higher than that observed for taxes but only when the economy is at the bottom of the cycle. This result would be reversed in a more favourable situation of growth.

Furthermore, in their assessment of the US economy, researchers at the London School of Economics (LSE) and the University of Maryland, Ilzetzki, Mendoza and Vegh (2009), highlight a high value for the fiscal multiplier for public investment (1.7), *i.e.* higher than that found for public consumption. This is similar to the results of other IMF researchers (Freedman, Kumhof, Laxton and Lee, 2009).

In the recent literature, only the work of Alesina, a Harvard economist, seems to contradict this last point: after examining 107 fiscal consolidation plans,

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conducted in 21 OECD countries over the period 1970-2007, Alesina and his co-authors (Ardagna in 2009 and Favero and Giavazzi in 2012) conclude first that the multipliers can be negative and second that fiscal consolidations based on expenditure are associated with minor, short-lived recessions, while consolidations based on taxation are associated with deeper, more protracted recessions. In addition to the emphasis on the particular experiences of fiscal restraint (Scandinavian countries, Canada), which are not found when including all experiences with fiscal restriction (or expansion), the empirical work of Alesina *et al.* suffers from an endogeneity problem in the measurement of fiscal restraint.

For example, in the case of a real estate bubble (and more generally in cases of large capital gains), the additional tax revenues from the real estate transactions results in a reduction in the structural deficit, as these revenues are not cyclically based (the elasticity of revenues to GDP becomes much higher than 1). So these are associated with an expansionary phase (in conjunction with the housing bubble) and a reduction in the structural deficit, which artificially strengthens the argument that reducing the public deficit may lead to an increase in activity, whereas the causality is actually the reverse.

With the exception of the work of Alesina, a broad consensus emerges from the recent theoretical and empirical work in the existing economic literature: a policy of fiscal consolidation is preferable in periods of an upturn in activity, but is ineffective and even pernicious when the economy is at a standstill; if such a policy is to be enacted in a downturn, then tax increases would be less harmful to the activity than cuts in public spending... all recommendations contained in Creel, Heyer and Plane (2011).

Drawing on facts, empirical evidence and theoretical insights (see Eggertson, 2011, Parker, 2011, and Michaillat, 2012), it has to be stated that the size of fiscal multipliers has been underestimated until recently. In its last report on world economic outlook (october 2012), the International Monetary Fund (IMF) revised upward the estimation of the size of fiscal multipliers from 0.5 on average in developed countries to a range between 0.9 and 1.7 until 2009.

The revision of forecasts conducted by major international institutions also emphasize the underestimation of multipliers. The mean forecast for 2012 released in April 2011 by the OECD, the IMF and the EC was 1.9 percent with a mean fiscal impulse equal to -0.7 percent of GDP (Figure 5). According to the Autumn 2012 forecasts, the average forecast regarding 2012 amounts to -0.3 percent while the fiscal impulse has been revised downward to -1.5 percent of GDP. It can be seen that the growth forecast revision, -2.2 percentage points, exceeds the revision of the fiscal impulse, -0.8 percentage point, which suggests that everything else equal, the size of the implicit fiscal multipliers has been revised strongly upward in one year and a half.

Figure 5. Economic forecasts
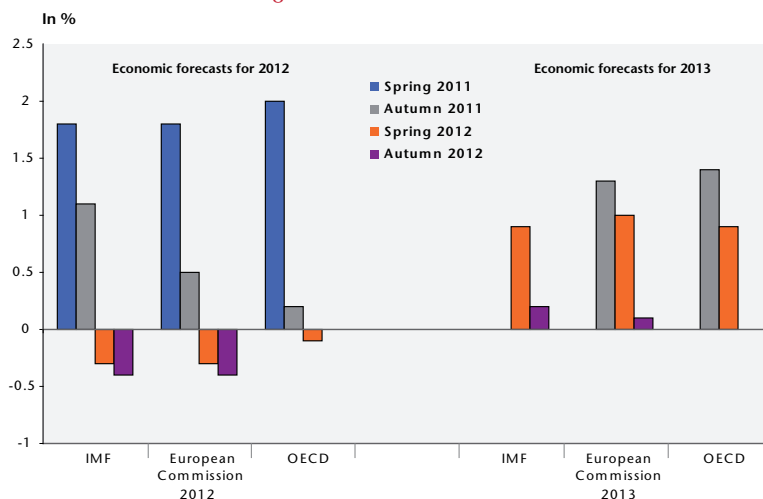
Sources: IMF, European Commission.

3. The impossible recovery

Despite a growing consensus on the negative impact of a generalised consolidation in time of crisis, the European strategy has been maintained. There is consequently no reason to believe in a recovery of the euro area from the end of 2012 to 2013. The same causes will indeed produce the same consequences. Firstly, the infernal race to reach as soon as possible the 3 % threshold for governments' deficits will continue. Then, bad macroeconomic performances for the euro area countries in 2012 have led to further deteriorations in their output gaps. Consequently, the fiscal multipliers will remain at high values (see Box 2) so that the consolidation will continue to severely hamper GDP growth.

Box 2. What is the value of fiscal multiplier today?

Econometric estimates (based on past experience of "times of crisis") suggest a fiscal multiplier of around 1.5 (for an average mix of spending and compulsory levies).

Taking together 2011 and 2012, years in which a very strong fiscal impulse was carried out, confirms this econometric evaluation. By comparing on the one hand changes in the output gap from end 2010 to 2012 and on the other hand the cumulative fiscal impulse for 2011 and 2012, we obtain the short-term impact of

the fiscal consolidation. Figure 6 depicts this relationship, showing a close link between fiscal restraint and economic slowdown.

Figure 6. Change in the output gap and the impulse 2011-2012
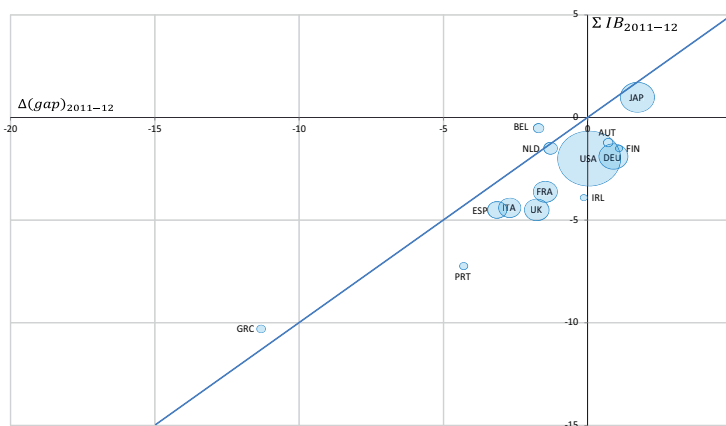
Source: OECD, Economic Outlook no. 91, June 2012. The year 2012 is a projection (OFCE forecast October 2012). The area of the bubbles is proportional to real GDP in 2011 ($ PPP).

For most countries, the "apparent" multiplier is less than 1 (the lines connecting each of the bubbles are below the bisector, the "apparent" multiplier is the inverse of the slope of these lines). Figure 7 refines the evaluation. The changes in the output gap are in effect corrected for the "autonomous" dynamic of the closing of the output gap (if there had been no impulse, there would have been a closing of the output gap, which is estimated as taking place at the same rate as in the past) and for the impact of each country's budget cutbacks on the others through the channel of foreign trade. The bubbles in orange therefore replace the blue bubbles, integrating these two opposing effects, which are evaluated here in a conservative way. In particular, because the output gaps have never been so large, it is possible that the gaps would autonomously close faster than what has been observed in the last 30 or 40 years, which would justify a more dynamic counterfactual and therefore higher fiscal multipliers.

Austria and Germany are exceptions. As these two countries enjoy a more favourable economic situation (lower unemployment, better business conditions), it is not surprising that the multiplier is lower there. Despite this, the "corrected apparent" multiplier is negative. This follows either from the paradoxical effects of the incentives, or more likely from the fact that monetary policy is more effective and that these two countries may have escaped the liquidity trap. But the correction provided here does not take into account any stimulus from monetary policy.

In the United States, the "2011-2012 corrected apparent" multiplier comes to 1. This "corrected apparent" multiplier is very high in Greece (~ 2), Spain (~ 1.3) and Portugal (~ 1.2), which is consistent with the hierarchy set out in point 1. This also suggests that if the economic situation deteriorates further, the value of the multipliers may increase, exacerbating the vicious circle of austerity.

For the euro zone as a whole, the "corrected apparent" multiplier results from the aggregation of "small open economies". It is thus higher than the multiplier in each country, because it relates the impact of the fiscal policy in each country to the whole zone and no longer just to the country concerned. The aggregate multiplier for the euro zone also depends on the composition of the austerity package, but especially to the place where the measures are being implemented. However, the biggest fiscal impulses are being executed where the multipliers are highest or in the countries in the deepest crisis. The result is that the aggregate multiplier for the euro zone is estimated to be 1.3, significantly higher than that derived from the US experience.

A comparison of the fiscal plans for 2011 and 2012 with the economic cycle in those years yields a high estimate for the fiscal multipliers. This confirms the dependence of the multiplier on the cycle and constitutes a serious argument against the austerity approach, which is to be continued in 2013. Everything indicates that we are in a situation where austerity is leading to disaster.

Figure 7. Changes in the output gap and the impulse 2011-2012

Source: OECD, Economic Outlook no. 91, June 2012. The year 2012 is a projection (OFCE forecast October 2012). The area of the bubbles is proportional to real GDP in 2011 ($ PPP).

The austerity plans decided for 2012 will continue to drag down the economic performance of all euro area countries. For 2013, budgets have already been voted and new austerity measures are to be implemented. They will add to previous measures, whose effect will persist in 2013. For example, in France, the global consolidation will amount to 36 billions of Euros (1.8% of GDP) in 2013. Of this 8 billions is on the expenditure, and 28 billions of Euros on the revenue side, of which a little more than 20 billions correspond to measures voted in the budget for 2013. In Italy, further reductions on expenditures are also expected for 2013 but the bulk of the consolidation stems from previous consolidation plans adopted in 2011.

Greece will still be the country implementing the most severe austerity; new voted measures will lead for example to a further reduction in pensions and to a reduction in wages in the public sector. In Portugal and Spain, the consolidation is forecast to be close to -2.9 and -2.5 points of GDP, respectively in 2013, slightly lower than what has been implemented in 2012. Germany would then stand as the main exception in this landscape of austerity. The fiscal position is already nearly balanced so that domestic fiscal policy would not drag down the economic activity. It may even be slightly expansionary if some legislative changes, which are currently being discussed, are implemented. For the whole euro area, the negative fiscal stance is expected to reach 1.4 % of GDP. This will maintain the euro area in recession. On a quarterly basis, GDP is not expected to grow at a substantially positive rate before the end of 2013. It is forecast to decrease by 0.3 % on the whole year after a recession of 0.4% in 2012.

Drawing on our analysis of fiscal consolidation viewed as a vicious circle, we forecast consumption to decrease by 0.7% in 2013, a marginal improvement from -1.0% in 2012. This lack of demand will add to the overcapacities of non-financial corporations and limit private investment. A new fall of investment is then expected for 2013 (-1.5%).

This domestic effect will then be amplified through European trade integration as the fall in domestic demand will trigger a slow-down of imports in all the euro area countries, which will have a negative feedback effect on exports. For Germany, it will be the main cause of the moderate growth in 2013 (Table 6). This will also be the case for the Netherlands, Belgium, Finland, Austria and Ireland. The external negative impact of the fiscal consolidation does not only stem from the austerity measures taken by the members of the euro area. We also expect a negative fiscal stance in the United Kingdom, though to a lower extent than the consolidation implemented for 2012, and in the United States. This would notably strongly contribute to the negative external impact in Ireland since the UK and the US account for more than 40% of Irish exports. For the other countries, the bulk of the negative impact of fiscal consolidation would stem from their own fiscal consolidation. These negative impacts will be particularly strong for the countries of Southern Europe which have already suffered from a substantial fall of GDP. Their situation will deteriorate further in 2013 with recessions going from -1.4% in Spain to -3.7% for Greece. The countries which expected to avoid a recession are Germany, Austria, Finland and France. But it must be stressed that the GDP growth rates in these countries will be below the potential growth rate, meaning that unemployment will increase further.

Besides, euro area will not manage to find substantial external sources of growth. Firstly, the euro area is much more a closed economy than are the small open economies composing it. Then, as has been stressed, the UK and the US will also strive to reduce their deficit. The so called "fiscal cliff" in the US will reduce the margin for manoeuvre of the second Obama's administration. Even in case of a

rapid agreement with Congress, the US won't avoid a stronger tightening of fiscal policy in 2013. Due to specific conditions, Japan and other Asian countries have a different fiscal stance but, given their present share in European countries' exports, it would not change the outlook for Europe. Moreover, the euro exchange rate is expected to stabilize at 1.25 dollar in 2013 and will then offer no stimulus to exports. The contribution of external trade to the GDP growth would however be positive (+0.5 point) but this would be mainly due to the slow growth rate of imports (+1.2%) compared to exports (+2.2%).

Table 6. Impact of consolidations in 2013 through…

In points

	Fiscal stance	… domestic demand	… external demand
DEU	0.0	0.0	-1.7
FRA	-1.8	-1.8	-1.2
ITA	-2.1	-2.1	-1.2
ESP	-2.5	-3.3	-1.3
NLD	-1.2	-0.9	-1.5
BEL	-0.8	-0.8	-1.2
PRT	-2.9	-4.4	-1.6
IRL	-1.8	-1.4	-2.1
GRC	-3.9	-7.7	-1.1
FIN	-1.3	-0.7	-1.0
AUT	-1.0	-0.5	-1.0

Source: National accounts, Eurostat, OFCE, ECLM, IMK calculations.

This negative outlook might be mitigated if there were a significant return of confidence, as posited by the European Commission in its autumn forecasts. Ratification of the TSCG (Treaty on Stability, Coordination and Governance) might help to restore the belief that fiscal sustainability will be improved and that the coercive arm of the Stability and Growth Pact has been reinforced. Were this new Treaty credible, it would trigger a reduction of interest rates. Thus, the expectations of financial markets are crucial. But this conclusion rests on the hypothesis that interest rates have increased mainly because of fear of insolvency of some euro area countries. The fiscal strategy implemented presently is consistent with this view according to which the only way to exit the crisis is to restore the confidence of financial markets through the consolidation of public finances. However, this view completely overlooks the liquidity dimension of the crisis and the self-fulfilling prophecies which have driven interest rates upward. As P. de Grauwe (2011) stated, *the financial crisis has made clear that financial markets are driven by extreme sentiments of either euphoria or panic.* They may then easily switch from one equilibrium to another and there is no guarantee that the consolidation and the new developments in the euro area governance will have the desired effect on interest rates.

There is an alternative view to the fiscal profligacy hypothesis. Public interest rates have increased because of a misconception of EMU since it has made possible a situation where each national government becomes indebted in what amounts to a foreign currency and where investors may, without taking any exchange rate risk, switch from a security issued by a euro area government to a security issued by another euro area government. Consequently, when a government is considered as riskier for any reason, it may face difficulties in raising funds. This can quickly degenerate into a liquidity crisis and a brutal surge in interest rates. Starting from the situation of Greece in 2010, financial markets realized that the national governments of the euro area could be forced to default, which triggered a global loss of confidence and a rise of contagion effects. In such a situation, generalized austerity is not the right answer especially if fiscal multipliers are high. And, despite the SMP (Securities Market Programme), the ECB was until recently unable to lower interest rate premiums significantly. Financial markets were consequently not convinced that default was unlikely and perceived that governments would not be able to guarantee the sustainability of public debt as long as growth would remain sluggish or even negative.

In this respect, the announcement of the launch of the OMT by the ECB in September was an important step. The central bank signaled that it would stand ready to intervene on the secondary market for Treasury bills and bonds to lower public interest rates. These interventions would be conditional to the application of an adjustment or a precautionary programme supervised by the European Financial Stability Fund or the European Stability Mechanism. Even if the aim is to lower risk premiums, the success of the OMT is not guaranteed however. It first depends on a signaling effect, as illustrated by the sharp decline in the Spanish and Italian interest rates that followed the announcement made by the ECB in July and in September 2012. Then, the effectiveness of the operation depends on the effective purchases realized by the ECB. It can be stressed that the signaling effect would be magnified if the first operations carried out by the ECB are substantial. It is then essential for the ECB to fully play a role of lender of last resort. This is indeed a necessary condition for risk premiums on interest rates to recede. But this role can be fulfilled if, and only if, the ECB and the EU institutions have ruled out a break-up of the euro area and default on public debt. This is the idea behind the imposed EFSF/ESM conditionality. However the nature of such programmes is such that the ECB interventions are being made subject to the application of a consolidation programme, which will not allow euro area countries to get out of the trap where austerity, subdued growth, loss of confidence and a liquidity squeeze are mutually reinforcing.

The confidence of financial markets is necessary but not sufficient to balance the negative impact of fiscal consolidation. Recession might be mitigated, but it would not be avoided, notably in Spain, Italy, Portugal and Greece. When the multiplier (in the short term) is greater than approximately 2 (actually $1/\alpha$, α being the sensitivity of the public deficit to the economic cycle and valued at about 0.5 in

the developed countries), then fiscal cutbacks produce such a decrease in activity that the short-term deficit increases with the cuts. When the multiplier is greater than approximately 0.7 (in fact, $1/(\alpha+d)$, d being the ratio of debt to GDP), then fiscal restraint increases the ratio of debt to GDP in the short term. In the longer term, things get complicated, and only a detailed modelling can help to understand in what circumstances fiscal restraint would lead to a sustained reduction in the debt-to-GDP ratio. As long as a fully consistent strategy is not implemented, most European countries will not regain a sufficient pace of growth and they will miss the targets for public deficits. In 2013, we forecast indeed that Germany, Austria and Finland would be the only countries to meet their objectives (Table 7). For the other countries, the fear of a default will re-emerge, especially if interventions by the ECB remain modest. As long as the European Commission and national governments do not realise that austerity is self-defeating, they will still follow the second-worst strategy; that is, better only than a disorderly break-up of the euro area.

Table 7. Net governments lending in 2013

In %

	Forecasts	Target
DEU	-0.3	-0.5
FRA	-3.6	-3.0
ITA	-1.3	-0.5
ESP	-6.6	-4.5
NLD	-4.0	-3.0
BEL	-3.5	-2.2
PRT	-5.0	-4.5
IRL	-8.6	-7.5
GRC	-4.8	-4.6
FIN	-0.6	-0.5
AUT	-2.1	-2.1

Source: National accounts, Eurostat, European Commission, OFCE, ECLM, IMK calculations.

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Appendix A.

Germany: the chickens come home to roost

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From 2009Q3, the German economy rebounded quickly and strongly from the global economic crisis. It benefited from strong emerging market demand for investment goods and from the competitive advantage built up within the euro area during the pre-crisis period. The use of short-time working schemes and annualised working time accounts encouraged labour hoarding during the crisis and maintained domestic demand. Last but not least, as the euro crisis deepened the country benefited from its safe haven status, driving down interest rates and easing the burden on public budgets. In 2011 the German economy grew at an annual average rate of 3.0%. This above-trend growth sufficed to-again on annual averages-raise employment by 1.4% and cut unemployment by more than a quarter of a million.

These seemingly positive developments came in spite of a restrictive fiscal stance in Germany-a discretionary fiscal impulse of around -0.5% of GDP, largely because of the termination of previous stimulus measures-and the increasing turn to fiscal austerity across the whole of Europe. They quickly proved illusionary, however. The positive annual averages largely reflected the very strong first quarter (1.2% q-o-q) and the carry-over from 2010. Growth rates came down in subsequent quarters and actually went negative in the fourth quarter of 2011. Particularly striking was the decline in investment towards the end of the year: in the face of declining confidence about the outcome of the euro crisis and as the prospect of widespread and lasting austerity led to downward revisions of sales expectations, firms increasingly shelved planned investment projects.

In 2012 real GDP growth during the first three quarters totaled a meagre 0.8%. Even this was due to a positive contribution from net exports that compensated for weak domestic demand (especially declining investment). A range of indicators clearly suggest that the slowdown will initially accelerate: a decline in GDP is expected for the fourth quarter. Capacity utilisation in German industry declined in the third quarter of 2012 for the fourth consecutive quarter. Industrial output and sales as well as incoming orders are declining. The positive labour market development has come to a halt. The IMK's recession indicator has been rising steadily this year: in November it put the chances of Germany entering a recession-defined as a substantial fall in industrial output-in the coming months at close to 60%.

In short, the period during which the German economy has managed to stay aloof from the crisis in much of the remainder of the euro area has come to an end. An annual average growth rate of 0.8% is expected for the current year and with a declining quarterly trend. A slow and uncertain recovery is expected for 2013. GDP is expected to increase by 0.6% on annual averages, slightly more strongly (1%) over the course of the year. Even this forecast is conditional on an easing of the euro

area crisis, and specifically on the ECB following up on its recent decision to purchase unlimited amounts of government bonds to the extent required to ensure that the monetary transmission mechanism in crisis-hit countries is restored. Even if this is achieved, euro area developments will continue to be weighed down with excessive fiscal austerity, not least as a condition for the provision of ECB support.

Factors conducive to the forecast slow recovery in the course of next year include an improvement in monetary conditions: the lagged effect of the depreciation of the euro in the current year and an expected further slight decline expected in 2013, together with slightly lower short and long-term interest rates. Even if capacity utilisation will remain low, after an extended period of negative investment in machinery and equipment, some recovery of fixed capital formation, at least for replacement purposes, is expected in the course of the year. German fiscal policy is expected to be neutral in 2013 following this year's restrictive stance: consolidation measures will continue but will be offset by some stimulatory measures recently decided by the German government, in part with a view to federal elections late next year. The most important measure is a reduction of the pension contribution rate from 19.6% to 19%.

Real private consumption growth is expected to continue to expand at a moderate pace (2012: 1%, 2013: 0.9%). Support next year comes from the fall in the inflation rate and the reduction in pension contributions. On the other hand nominal gross wage and salary growth is expected to be considerably lower next year (2.1%) than in the current year (3.6%). Lower inflation and nominal wage growth is undesirable from the point of view of redressing current account imbalances. Despite talk of a housing boom in Germany in the light of low interest rates and a desire by investors for higher returns in supposedly safe "German concrete", overall construction activity declined marginally (0.4%) in the course of the current year and will do no more than make good this loss in 2013: while private-household construction activity is indeed robust it is offset by the decline in public and commercial construction in 2012, with only a stabilisation expected next year.

This year the German labour market has been characterised by a seemingly paradoxical increase in both employment and unemployment. Apart from a declining intensity of labour market policy measures, the explanation lies in increased inward migration, notably from eastern Europe and increasingly also from the crisis-hit euro area countries. Already the deteriorating economic situation is making its effect felt on the labour market. Employment is set to decline once more, although only marginally (-20 000 persons). The unemployment rate (ILO definition) will rise slightly from 5.3% to 5.4%. Labour market developments will depend importantly on the extent to which German companies resort to external flexibility or, as in the wake of the 2008 crisis, internal flexibility measures. Already there is evidence of declining overtime and accumulated working hours in time banks. The stocks of the latter are considerably lower than they were prior to the Great Recession, however, so that the scope for internal flexibility appears limited.

Regarding economic policy, from a European perspective the cut in the pension contribution rate is a double-edged sword. The positive effect on other countries via German domestic demand will be partly offset by the further increase in German competitiveness implied by the lower labour costs. This runs counter to the need to correct current account imbalances within the euro area. Clearly, given the country's trade surpluses and the need to stimulate the European economy, expansionary fiscal measures would be in order. There are tough legal-political constraints, however, given the debt brake recently enshrined in the German constitution—and seen as a model for the whole of Europe. Given these constraints 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).

A key policy need is to bolster German companies' ability to react to the downturn with internal rather than external flexibility measures. Specifically the conditions under the short-time working scheme (*Kurzarbeit*) should once again be made as attractive to companies and workers as they were in the recent recession.

Table A. OFCE, ECLM, IMK macroeconomic forecasts
Germany

%	2010	2011	2012	2013
GDP	4.2	3.0	0.8	0.6
Private consumption	0.9	1.7	1.0	0.9
Investment	5.9	6.2	-2.0	0.9
Public consumption	1.7	1.0	1.1	0.9
Exports	13.7	7.8	3.6	3.1
Imports	11.1	7.4	2.5	4.5
Contribution to growth				
Internal demand	2.5	2.4	-0.1	0.9
External trade	1.7	0.6	0.7	-0.4
Inventories	0.6	0.2	-0.3	0.2
Unemployment rate	6.8	5.7	5.3	5.4
Inflation	1.1	2.3	1.9	1.5
Public deficit	-4.1	-0.8	-0.2	-0.3
Fiscal impulse	1.5	-0.9	-0.5	0.0
Public debt % GDP	82.5	80.5	82.7	81.6
Current account % GDP	6.1	5.7	6.0	5.2
Unit labour costs	-1.5	1.2	2.7	1.4

Source: National accounts, OFCE, ECLM, IMK.

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Appendix B.

France: will the battle of the 3% take place?

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As in the case of its European partners, economic developments in France since mid-2011 have been marked by austerity. Faced with the emergence of sovereign risk, as illustrated by the Greek default and the growing concern about the creditworthiness of major euro zone countries such as Spain and Italy, the member countries have implemented fiscal consolidation policies. France is no exception, and while its fiscal impulses are less negative than those of other countries, the policy established by the Fillon and then the Ayrault government is no less restrictive. The impact of austerity is all the more marked as it is being implemented simultaneously in all the countries of the euro zone, which means that the internal domestic restrictive effect is being compounded by a recessionary effect resulting from the slowdown in external demand. As 60% of France's exports are to the European Union, the external stimulus has virtually disappeared in 2012. French exports thus suffered a sharp deceleration in the first half of 2012, slowing from average growth of 1.4% in the second half of 2011 to a near standstill. This listlessness should continue up to the end of 2013, with the annual pace of export growth below 1%.

The actual trajectory of the French economy can be gauged by the yardstick of the French and European austerity programmes in comparison with what was possible without the austerity policies. Based on its past experiences with recovery, the French economy, which has been underperforming for the last four years, has a significant rebound potential, *i.e.* 2.1% in 2012 and 3.1% in 2013. One factor pushing it off this reference path is the programme of budget cuts implemented by the French government since 2011, which will reduce annual growth to 1.2% in 2012 and 1.8% in 2013. As France's trading partners have similar policies, any residue of growth that might survive the negative domestic fiscal impulse will disappear completely because of the policies of the other European countries. French GDP will thus stagnate in 2012 and 2013.

By setting a pace that is far from its potential, the expected growth will increase the output gap accumulated since 2008 and will lead to a further deterioration on the labour market. Moreover, the reduction of the budget deficit expected by the government due to the implementation of its consolidation strategy—the target for the general government deficit is 3% of GDP in 2013—will be partially undermined by the shortfall in tax revenue due to weak growth. The government deficit will come to 3.5% in 2013, after 4.4% in 2012, bringing the public debt to 90.6% of GDP in 2012 and to 93.1% in 2013, compared with 86% in 2011. If the government wants at all costs to achieve its goal of a deficit of 3% of GDP in 2013, a new wave of austerity will be necessary, which would then push the French economy over into an outright recession.

The series of shocks suffered by companies has led to a chronic underutilization of production capacity in the last four years. While the utilization rate of production capacity has recovered some of the ground it lost following the recession of 2008-09, after being down to levels not seen since the 1970's, it fell again in mid-2011. As for the workforce, labour productivity has been unable to regain its trend level and is in a similar situation of underutilization of resources, as companies are constantly overstaffed.

This situation pushes labour costs up considerably and hurts business margins, which are once again at their low point of the early 1980s. This is expected to result in new net job losses, as it no longer seems possible to absorb the negative impact of the austerity measures on employment through the productivity cycle, except by extending the collapse in margins into 2013. The low level of margins is also holding back investment, in addition to the existence of this excess capacity fuelled by the austerity policies. And, since this policy is itself forcing business to contribute through higher taxes and contributions, it is also directly contributing to drying up self-financing margins.

As companies are generating fewer internal resources, they are more dependent on external financing. But the instability on the financial markets and the banking credit crunch are rendering access to credit more difficult. Business investment, which rebounded by 6.4% and 5.3% respectively in 2010 and 2011, is likely to once again taper off, with stagnation in 2012 and a slight decline in 2013 of -1.4%.

The rising tax burden will reduce household income in 2012 and 2013. Consumers have already been hit in 2011 by the fiscal consolidation plans decided by the Fillon government. For this year and next, a greater effort will be required from households, as the new majority falls in line with the previous one. In total in 2012 and 2013, the bite out of households should be approximately 1 point of gross disposable income in each year.

In a context where uncertainty prevails, particularly the risk of unemployment, households perceive savings as a refuge, and nothing is likely to convince them to change their view in 2012 and 2013. By 2013, the savings rate will thus return to the level of 2011. Coupled with the decline in real gross disposable income, the loss of jobs and the increased government levies on households, this stability in savings will lead to a decline in consumption this year and next.

After the recession of 2008/2009, employment enjoyed a relative upswing that slowed the restoration of productivity. The turnaround in activity in the second half of 2011 has increased the delay. Employment is thus expected to be more sensitive than usual to fluctuations in activity, unless this atypical trajectory of productivity is to be continued. The cessation of growth should therefore result in a new wave of net job losses in the market sectors (-0.2 % and -0.8 % in 2012 and 2013, respectively). Active labour market policies, including subsidized jobs in the non-profit sector, will buffer the deteriorating situation in the labour market between now and

2013, but it will not prevent a further rise in unemployment. As the unemployment rate hits 11% of the workforce at end 2013, it will exceed the previous record of 10.8% set in the first half of 1997.

Table B. OFCE, ECLM, IMK macroeconomic forecasts
France

%	2010	2011	2012	2013
GDP	1.6	1.7	0.1	0.1
Private consumption	1.5	0.3	-0.1	-0.6
Investment	1.0	3.5	0.6	0.3
Public consumption	1.7	0.2	1.3	1.0
Exports	9.2	5.5	2.6	2.1
Imports	8.4	5.2	0.2	0.8
Contribution to growth				
Internal demand	1.5	0.9	0.4	-0.1
External trade	0.0	0.0	0.7	0.4
Inventories	0.1	0.9	-1.0	-0.2
Unemployment rate	9.8	9.6	10.2	10.9
Inflation	1.7	2.3	2.4	1.7
Public deficit	-7.1	-5.2	-4.4	-3.5
Fiscal impulse	-0.6	-2.1	-1.6	-1.8
Public debt % GDP	82.4	86.0	90.0	93.1
Current account % GDP	-1.6	-2.0	-2.5	-2.5
Unit labour costs	0.5	1.7	1.8	1.5

Source: National accounts, OFCE, ECLM, IMK.

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Appendix C.

Italy: austerity at any cost?

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After four consecutive quarters of recession, Italy has well and truly sunk back into crisis. In 2011, the positive contribution of foreign trade had helped to offset falling domestic demand and inventory reductions. Since the last quarter of 2011, however, the decline in imports was insufficient to offset a reduction in investment and in private consumption. This situation, which is mainly due to the ongoing fiscal consolidation, is not about to change. In fact, Prime Minister Monti intends to stay the course of austerity, which should allow the country to drop below the threshold of a 3 % budget deficit in 2012. This recovery will become more difficult in late 2012 and 2013, however, as the prospects for external demand are being undermined in a euro zone that is everywhere subject to austerity. Fiscal discipline will not permit the country's return to growth in the coming months, making it all the more difficult to reduce the deficit. Despite a highly negative fiscal impulse (-3.2 points and -2.1 points in 2012 and 2013 respectively), the government deficit will shrink by only 2.5 points in two years, to 1.3 % in 2013. The only source of hope for the country is the decision of the European Central Bank to launch the Outright Monetary Transactions (OMT). This programme should lead to lower long-term bond rates, thus lightening the burden of interest on the public debt and allowing the country to ease its consolidation.

With regard to households, private consumption declined in the first half of 2012 under the combined impact of a rise in precautionary savings, a sharp decline in gross disposable income and a tightening of credit conditions. The annual decline in real gross disposable income, which has lasted since 2007, is due to several factors: a steep rise in unemployment, combined with a freeze on public sector salaries until 2013, together with losses in the value of financial assets, and finally an increase in taxes and charges associated with deficit reduction measures. For instance, the reintroduction of the property tax (IMU) in 2012 and hikes in elec-tricity, natural gas and fuel prices will squeeze incomes. In addition, the 2 point increase in VAT, originally scheduled for October 2012, was postponed to July 2013 and will hit consumption. Inflation is still rising (3.6% in the second quarter of 2012 yoy), with a sharp increase in transport fares and housing prices in the first half of 2012. Up to the end of 2011, the savings rate had acted as a shock absorber, as it fell from 16.5% of gross disposable income (GDI) in 2004 to 12% in 2011, thus helping to sustain household consumption. However, in the last quarter of 2011, the savings rate increased and since then has stayed at 12.3% of GDI, which is leading to a drop in consumption. Credit conditions continue to be poor: in the first half of 2012, growth in bank loans continued to slow for households (+0.1% in July 2012 yoy), and companies were facing a credit crunch (-2.1%).

On the employment front, the expansion of the labour force since mid-2011 due to pension reform (+3% yoy in the second quarter of 2012), combined with a sluggish job market, has contributed to a sharp increase in unemployment, with 700,000 more unemployed in the space of a year, a rise that was particularly marked among young people. We anticipate continued growth in the labour force in the second half of 2012 and 2013, due to pension reform and a return to the labour market of inactive people whose disposable income has eroded. As a result, the unemployment rate will continue to mount, reaching 11.7% in late 2013.

As for business, Italy is still currently shedding its excess capacity in less competitive sectors, as is shown by the rising number of bankruptcies. The decline in total employment has not led to higher productivity due to a larger fall in added value. The rate of profit of Italian companies reached a low point in the first quarter of 2012, and the investment rate has returned to its 2009 level. The industrial production index has continued to fall. The construction sector has been hit hardest: the production index in this sector is back to its 1999 level. Furthermore, business margins worsened for companies across all sectors. Our forecast anticipates a further deterioration in productivity and in the level of productive investment, under the constraints of weak domestic demand and sluggish external demand. Adjustments will thus continue, with gross fixed capital formation (GFCF) declining significantly in 2012 and 2013.

The contribution of foreign trade remains the only positive component of growth. This dynamism stems more from a collapse in imports since early 2011 due to the collapse of domestic demand than it does from the dynamism of exports, although the latter did grow in the second quarter of 2012. In late 2012 and in 2013, imports will continue to shrink, with net exports thus attenuating the recession to some extent. It is essentially the emerging countries that are contributing to growth (14% of Italian exports), as the euro zone countries (56% of Italian exports) are also being hit by the slowdown in domestic demand and by budget constraints.

The ongoing fiscal adjustment is deepening the gloom for Italy. With a debt of 1,905 billion euros in 2011 (120% of GDP), the country must pay a high amount of interest (5.3% of GDP projected in 2012), which makes it difficult to reduce the deficit even in the presence of a structural primary surplus. After the three austerity plans of July, August and December 2011 to save 145 billion euros over four years, the Law of 4 August 2012 (DL 52/2012) is aimed at compensating for the deterioration in the country's growth prospects through greater austerity, with 26 billion euros of additional savings from 2012 to 2014. This is to be accomplished solely by cutting public spending (civil service, health, public administration and higher education) and by selling off some public property assets.

The government's goal of achieving a deficit of 1.7% of GDP in 2012 and 0.5% in 2013 will not be met in the absence of additional austerity measures, given the expected magnitude of the recession in comparison with government projections.

A strongly negative national fiscal impulse (-3.2 points in 2012 and -2.1 points in 2013) will exacerbate the recession, thus adding to the external impetus, which is also very negative for 2012 and 2013 (-1.3 points in 2012 and -1.2 points in 2013). As a result, despite the current budgetary efforts and in the absence of additional measures, the Italian deficit will still come to 2.5% of GDP in 2012 and 1.3% of GDP in 2013. If the government wants to fulfil its commitment despite all this, it would need to pass a new austerity plan of 9.5 billion euros in 2012 and 10 billion in 2013.

Table C. OFCE, ECLM, IMK macroeconomic forecasts
Italy

%	2010	2011	2012	2013
GDP	1.8	0.5	-2.1	-1.5
Private consumption	1.2	0.2	-3.4	-2.6
Investment	1.7	-1.2	-8.4	-5.2
Public consumption	-0.6	-0.9	-0.7	-0.3
Exports	11.4	6.3	0.8	1.8
Imports	12.4	1.0	-7.7	-1.5
Contribution to growth				
Internal demand	0.9	-0.3	-3.8	-2.5
External trade	-0.4	1.5	2.6	1.0
Inventories	1.3	-0.7	-0.8	0.1
Unemployment rate	8.4	8.4	10.7	11.6
Inflation	1.6	2.9	3.5	2.1
Public deficit % GDP	-4.6	-3.9	-2.5	-1.3
Fiscal impulse % GDP	-0.4	-1.2	-3.2	-2.1
Public debt % GDP	118.7	120.0	126.5	125.6
Current account % GDP	-3.5	-3.5	-2.4	-1.7
Unit labour costs	-0.8	1.2	2.7	1.1

Source: National accounts, Eurostat, OFCE, ECLM, IMK.

Spain: Fighting a losing battle?

Is Spain fighting a losing battle? Despite all the steps taken by Mariano Rajoy's government to cut government spending and impose structural reforms, there has been no easing up on the risk premium on Spanish bonds, with rates of near 6% for 10-year government bonds since the summer. The ECB's announcement on 6 September of the OMT programme, has certainly helped to relieve the pressure: interest rates on Spanish bonds fell from 6.52% to 5.57% in the span of a day. But the programme will proceed only if the Spanish government makes an official request for aid from the European Financial Stability Facility (EFSF), a matter on which it remains undecided.

After having negotiated an agreement with the European Commission to defer its target for achieving a 3% budget deficit to 2014, rather than 2013, and to relax the 2012 deficit target to 6.3% (this was initially set at 4.5% and subsequently relaxed to 5.3% in March 2012), Prime Minister Rajoy presented a drastic austerity plan on 3 August for 102 billion euros in savings over a three-year period. The primary component of the plan is an increase in VAT of three percentage points effective 1st September 2012. Selected products and services have also seen their VAT rise from a reduced rate of 8% to 21%, while VAT on school supplies jumped from 4% to 21%. This will raise an additional 10 billion euros in fiscal revenue over the next year, equivalent to 1% of GDP. But budget austerity is weighing on growth, and government revenues have been lower than expected, while spending on unemployment insurance has risen sharply. Given the additional uncertainty posed by deficits in the autonomous regions, it is unlikely that Spain will meet its deficit target for 2012. This race against the clock seems futile, both because any moves towards fiscal consolidation are being offset by the evaporation of business activity coupled with tax evasion, and because the fiscal multipliers are greater than when unemployment is very high. The Spanish economy will suffer from the continued austerity measures, and GDP will contract by 1.3% in 2012 and 2013.

The economic situation in Spain deteriorated significantly during the first half of 2012. Spain posted its fourth successive drop in GDP. Moreover, the future looks gloomy. With the unemployment rate rising to 25% of the active population, wages are not keeping pace with inflation and purchasing power is eroding. Household incomes have been straining under the burden of the government's austerity policies of the past three years. Three different fiscal consolidation plans have been adopted over the course of 2012. In February, labour market reforms gave employers the option of cutting wages and work hours in the event of lower turnover, and also reduced redundancy pay; the second austerity plan, adopted in April 2012, imposed hikes on tobacco taxes and the price of electricity (which has risen 28% in two and a half years). The third austerity package, passed on 11 July,

eliminated the end-of-year bonus for civil servants and reduced their number of days off, while unemployment benefits were cut and reimbursement rates for medicines were reduced. Finally, on 4 August 2012, the third austerity plan was supplemented by a tax on hydrocarbons, and the freeze on civil service hiring was extended until 2014.

After initially rising in 2008, the savings rate has fallen from 19.8% in the second quarter of 2009 to 8.7% in the first quarter of 2012; this trend has cushioned the drop in incomes, but households now have little leeway remaining. In addition, the climate of uncertainty could spur precautionary saving, and the process of household debt reduction is pushing the savings rate upwards. Consumption is expected to fall by 2.0% in 2012 and 2.7% in 2013, in light of a sharp contraction in purchasing power among workers. Job losses are likely to continue, with a drop in total employment of 3.9% in 2012 and 1.6% in 2013, which will push the unemployment rate to 26% of the active population by the end of 2013.

On the property market, the purge has not yet come to an end. Construction starts continue to plunge. With new home construction at a standstill, property investment is being kept aloft purely by renovations of tourist accommodations. Housing prices have fallen 24% from their 2008 peaks, but a more substantial correction will be needed to absorb the supply of vacant housing, now estimated at two million units. Construction investment will continue to decline through the end of 2013. Productive investment will suffer as a result of the dismal economic climate generated in part by uncertainty over how the sovereign debt crisis will be resolved, and in part by the significantly tougher lending conditions associated with the fragility of the banking system. The productive investment rate will still gradually diminish.

The return to recession is weighing heavily on the Spanish banking system. The loan default rate is soaring to levels never seen before: 27.4% for loans to property developers and 23.9% in the construction sector, bringing the default rate for all productive activities to 15% in the second quarter of 2012. Households are managing somewhat better: only 3.2% of home mortgage loans are considered at risk. The total amount of bad debt in the Spanish banking system stands at 168 billion euros—16% of GDP.

The risks threatening the financial sector require government intervention in order to prevent systemic failure. In 2009, the Zapatero government created a special bank support fund (the FROB) and forced a consolidation among Spain's saving banks, whose number fell from 45 to 17 in the months that followed. Mariano Rajoy has continued this restructuring process by demanding in February 2012 that banks boost their provisions against toxic assets by 52 billion euros, and by nationalising four banks. The most recent case involves Bankia. The cost of its bailout was estimated at 25 billion euros. The decision by Fitch Ratings in June to

downgrade Spain's credit rating by three notches prompted the government to request aid from the EFSF in order to recapitalise its banking system; on 9 July 2012 it was awarded a package of 100 billion euros, subject to certain conditions.

Given the country's level of domestic demand, exports will be the only factor driving growth over the coming two years. The drop in real wages and the substantial increase in productivity have made Spain more competitive by comparison with its European partners. The country's trade deficit has been substantially reduced, in part because of rising exports but more significantly as a result of a decline in imports. Its global market share has risen substantially over the past three years (up 10%) and should continue to improve in 2013. The Spanish economy is also reaping the benefit of record numbers of tourists in 2012. Despite the marked slowdown in the European economy, Spain will continue to benefit from the very positive impact of foreign trade (2.4 percentage points in 2012 and 2.1 points in 2013).

Table D. OFCE, ECLM, IMK macroeconomic forecasts
Spain

%	2010	2011	2012	2013
GDP	-0.3	0.4	-1.3	-1.3
Private consumption	0.7	-1.0	-2.0	-2.7
Investment	-6.2	-5.3	-8.9	-4.7
Public consumption	1.5	-0.5	-3.9	-4.7
Exports	11.3	7.6	4.0	5.4
Imports	9.2	-0.9	-4.5	-1.9
Contribution to growth				
Internal demand	-0.8	-1.9	-3.9	-3.5
External trade	0.1	2.7	3.0	2.6
Inventories	0.3	-0.4	-0.3	-0.4
Unemployment rate	20.1	21.7	24.6	25.6
Inflation	2.0	3.1	2.6	2.5
Public deficit % GDP	-9.3	-8.9	-7.4	-6.6
Fiscal impulse % GDP	-2.2	-0.9	-3.4	-2.5
Public debt % GDP	61.2	69.2	86.1	92.7
Current account % GDP	-4.5	-3.5	-1.4	0.0
Unit labour costs	-2.5	-1.7	-2.0	0.0

Source: National accounts, OFCE, ECLM, IMK.

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Appendix E.

Portugal: bogged down in recession

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In the second quarter of 2012, Portugal experienced its third consecutive quarterly decline in GDP. Since the start of 2008, the country's GDP has fallen 6.4%, battered by the effects of the 2008 crisis coupled with the fiscal tightening imposed on the country beginning in mid-2010. Employment has fallen by 9% over the same period, with the unemployment rate standing at 15.5% of the active population during the second quarter of 2012. Exports alone are driving growth. But Portuguese exports have not been sufficient to counteract the recessionary impact of an extremely negative fiscal impulse (-3.5% and -2.9% of GDP in 2012 and 2013 respectively), and the recession is expected to persist until at least the start of 2013. GDP will fall by 2.8% in 2012 and by another 2.2% in 2013 (see Table E). Portugal will not be able to report a budget deficit of less than 3% of GDP anytime before 2014. The European Commission confirmed in early September 2012 that the 2013 deficit target of 3% was not feasible given current economic conditions, and gave the country an additional year to meet its target.

The decline in GDP encompasses every aspect of domestic demand. Private consumption has dropped 9.2% in four years. Employment has been falling since 2009. Moreover, nominal wage growth per worker was gradually slowing before finally turning negative in 2011 (-0.9%). Accordingly, real per capita wages fell by 4.4% in 2011. The extremely sharp increase in the unemployment rate (from 8.4% to 15.5% in four years) has decisively weakened workers' bargaining power , particularly given that public-sector wages have been cut by an average of 5%. At the same time, household debt levels have stabilised at about 140% of disposable income. For businesses, the dislocation has been even more acute: investment has fallen 35% since 2008, affecting construction and the rest of the productive sector in equal proportions. The rate of investment is down 7 points over the period.

Given the fall-off in domestic demand (with a contribution to GDP of -6.7 points in 2011), the significant positive impact of foreign trade (up 5.1 points) has helped to mitigate the downturn in GDP. This improvement is attributable to both the fall in imports and the buoyancy of exports. There has been only moderate improvement in price competitiveness, but Portuguese companies have gained market share since the start of 2011. Accordingly, the deficit in the balance of goods and services has fallen by 10 percentage points, from 10% of GDP in 2008 to 0.2% as of mid-2012.

Meanwhile, the country's total debt mounted significantly between 2009 and 2011: whereas private debt fell by 6 points, to 181% of GDP, public debt grew by more than 24 points (of which 11.8 points is attributable to capital transactions) to 107.8% of GDP.

Contrary to what the "positive" budget results of 2011 might suggest (with a deficit equivalent to 4.2% of GDP, compared to 9.8% of GDP in 2010), the situa-

tion remains extremely difficult. This deficit reduction was only achieved at the price of one-off measures amounting to 3.5% of GDP[5], notwithstanding a very negative fiscal impulse (-3.4 points).

In spite of substantial fiscal tightening[6], results for the first seven months of 2012 have been disappointing, with a deficit equivalent to 6.3% of GDP. Spending was down more than projected (by 0.5 point), but unexpectedly low tax revenue and social security contributions (2.1%) have ruled out meeting the public deficit target of 4.5% of GDP in 2012[7].

In early September 2012, during its fifth review mission since the adoption of the aid package in May 2011, the troika (the European Commission, the ECB and the IMF) acknowledged that the deficit forecasts were untenable given the economic climate. The deficit target has been revised not only for 2012 (from 4.5% to 5% of GDP[8]) but for 2013 as well (from 3% to 4.5%). In the Commission's view, Portugal will not fall back below the 3% threshold until 2014 (with a target of 2.5%), and the public debt-to-GDP ratio (expected to peak at 124%) will not see a turnaround until 2015. In addition, disbursement of 4.3 billion euros in aid has been agreed for October[9], with the next review mission scheduled for November.

To reduce the deficit in 2013, the government is once again relying on reductions in public-sector employment and in investment (0.5% of GDP) and cuts in spending on healthcare (lower reimbursement for medicines in particular) and social services (1% of GDP). With regard to revenue, the government plans to raise income tax, *via* an exceptional general tax of 4% and 2.5% on the top income bracket, and revise the tax schedule to reduce the number of brackets from eight to five. Higher taxes on capital and assets will be imposed, along with a tax on financial transactions. In all, these measures will provide the government with additional revenue equivalent to 1.3% of GDP.

Despite the mixed fiscal results in recent months, Portugal still hopes to make a gradual return to the financial markets. Although the long-term maturities remain guaranteed by the EU institutions and the IMF at a rate of 3.5%, Portugal's Debt Management Agency has been extending the maturity of its short-term debt issues since the start of 2012 (to 18 months as of last April). The most recent issues carry

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5.   This involved the transfer of pension funds held by banks to social security. In return, the government must now assume responsibility for the pensions paid out to the fund beneficiaries.
6.   This was applied to both spending (job losses and reduced public investment, cuts in social services) and revenue (an increase in the number of goods subject to standard VAT; taxes on energy, tobacco, alcohol and automobiles; taxation of capital income and reductions in various tax exemptions).
7.   The government will, however, be able to count on one-off measures equivalent to 1% of GDP, including the concession for operating Portugal's airports (ANA), accounting for 0.7%.
8.   Even though the 2012 target has been revised, new austerity measures will be needed in order to reach it. We have assumed that, despite these measures, the deficit will climb to 5.5% of GDP, *i.e.* 0.5 point higher than the European Commission's forecast.
9.   Of the projected 78 billion euros in the aid package, 61.4 billion—about 80% of the total—has already been paid.

lower rates than in the past, a sign of renewed investor confidence: the six-month issues in September 2012 had a yield of 1.7% (compared to 2.3% in July), while the yield for 18-month issues was 3% (compared to 4.5% in April)[10]. These rates remain high, as do those on the secondary market: 10-year bond rates stood at about 8.9% at the end of September (a drop of nearly 6 points from January 2012 levels), compared to 5.1% in Ireland and 6% in Spain. However, Portugal has successfully swapped its debt maturing in September 2013 for debt maturing in October 2015, in order to limit the amount of issues needed in late 2013 for the country's projected return to the markets.

Given the climate of fiscal tightening, GDP will fall in both 2012 and 2013 (by 2.8% and 1.2% respectively). The decline in investment and consumption is likely to continue. Portugal cannot really count on support from exports. The negative impact of widespread belt-tightening in the major developed countries will amount to 1.9% of GDP in 2012 and 1.7% in 2013. Demand for Portuguese goods and services will grow by an average 0.1% per quarter in the second half of 2012 and by 0.4% per quarter in 2013. Exports will rise at a somewhat faster pace, with Portuguese firms continuing to gain export market share between now and end 2013. Imports are likely to show a downturn as a result of the country's economic recession, while foreign trade will have a positive impact on growth, but to a lesser degree than in the past.

Table E. OFCE, ECLM, IMK macroeconomic forecasts
Portugal

%	2010	2011	2012	2013
GDP	1.4	-1.7	-2.8	-2.2
Private consumption	2.1	-4.0	-5.6	-2.4
Investment	-4.1	-11.3	-15.2	-12.1
Public consumption	0.9	-3.8	-2.3	-1.3
Exports	8.8	7.5	4.3	1.6
Imports	5.4	-5.3	-6.6	-2.5
Contribution to growth				
Internal demand	0.7	-5.8	-7.0	-3.8
External trade	0.6	5.1	4.6	1.7
Inventories	0.1	-0.9	-0.4	-0.1
Unemployment rate	12.1	12.9	15.4	16.0
Inflation	1.4	3.6	2.9	1.4
Public deficit % GDP	-9.8	-4.2	-5.5	-5.0
Fiscal impulse % GDP	-0.6	-3.4	-3.5	-2.9
Public debt % GDP	93.3	107.2	119.1	128.0
Current account % GDP	—	—	—	—
Unit labour costs	—	—	-0.9	-1.0

Source: National accounts, Eurostat, OFCE, ECLM, IMK.

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10. By way of comparison, France and Germany recently issued six-month securities at negative rates (-0.01% and -0.02% respectively) and 12-month securities at rates close to zero (0.02% and -0.02%). Germany is issuing two-year securities at a rate of 0.06%.

Ireland: the Celtic tiger retracts its claws

Although Ireland returned to growth in 2011, its recovery has been fragile and inadequate: at the end of 2011, real GDP was still significantly lower-by 8.8%-than its pre-crisis level. Unemployment has continued to rise and stood at 14.7% of the active population by June 2012. Moreover, ever since the first quarter of 2010, Irish growth has alternated between periods of recovery and decline. The first quarter of 2012 offered a reminder of the precariousness of the recovery, with GDP falling by 0.7%. The government's steps towards fiscal consolidation, coupled with the after-effects of the banking crisis, are still weighing heavily on households and, by exten-sion, on domestic demand. As a result, growth depends critically on the external component. But this is being endangered by the macroeconomic situation of Ireland's European partners. Although Ireland is less exposed to the euro zone than Europe's other small countries[11], it is highly dependent on global macroeconomic conditions. The relapse into recession of the euro zone and the United Kingdom in 2012, along with slower growth in US GDP, will thus remove the last available tool for powering Irish growth. GDP is expected to fall by 0.4% in 2012 and another 0.1% in 2013.

In fact, notwithstanding the numerous measures already taken since 2010, fiscal consolidation has continued in 2012. The standard VAT rate was raised two percen-tage points as of 1st January 2012, and child benefit was also reduced starting from the third child. In all, the government's cost-cutting measures over the course of 2012 amount to 3.8 billion euros (2.4% of GDP). For the period 2013-2015, Ireland expects to achieve additional savings of 8.6 billion euros, for a negative annual fiscal stimulus equivalent to 1.8% of GDP. As the government is maintaining its strategy of preserving the competitiveness of Irish firms, the new measures will primarily affect households, which have already seen a reduction in the minimum wage and cuts in civil service employment and wages, along with reduced spending on social services and healthcare. Accordingly, the decline in household purchasing power that began in 2009 is likely to continue in 2012 and 2013. At the same time, the desire to reduce household debt levels[12] and the fear of unemployment will be pushing the savings rate upwards. By year's end 2013, the savings rate is expected to reach 12.4%, compared to 11.6% at the end of 2011 and just 4.4% at the close of 2007. Consequently, we anticipate a continued drop in household consump-tion—by 2.9% in 2012 and 2.1% in 2013—and in housing investment.

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11. With the exception of Finland: Ireland and Finland conduct an identical share of their trade with other countries in the zone (35%). The figures for Austria and Belgium are 60%, and for Portugal the share exceeds 65%. Nearly 40% of Greece's trade is with other euro zone nations.

12. The level of household debt has already fallen 20 points since the close of 2009. But it still stands at 214% of gross disposable income—one of the highest levels in the OECD.

Ireland's growth can only come from beyond its borders. In that regard, the country's competitiveness has improved substantially since 2007. Two factors are contributing to this trend. First, the manufacturing base has benefitted from lower wages, the result of measures taken by the government to reduce labour costs and the high unemployment rate, which is eroding employee bargaining power. Moreover, after falling sharply through the end of 2008, the productivity cycle has gradually closed again. Thus, since the start of 2009, Ireland's competitiveness with respect to its European partners has increased by nearly 17%. However, the effectiveness of this strategy of internal devaluation has been dampened by weak foreign demand[13]. The increasing number of consolidation measures, notably within the euro zone, is reducing demand among Ireland's trade partners. In 2013, budgetary constraints will be less severe in the euro zone but more significant in the United States, which accounts for almost 20% of Ireland's trade, while the euro zone countries represent about 35%. As a result, despite their renewed competitiveness, Irish firms will have difficulty finding markets for their goods, which will in turn affect their ability to invest via a multiplier effect. Investment will slide once again in 2012 and 2013. Even though this drop is resulting primarily from continued adjustment in the property market, the lending terms available to businesses will also weigh heavily on their ability to invest. A recent study by the Central Bank of Ireland[14] showed that the terms of credit—the need for loan guarantees, interest rates, quantitative rationing—are among the most stringent in the euro zone, whereas demand for credit among Irish SMEs ranks about average. Ireland's banking system is still on life support, following the creation of the National Asset Management Agency in December 2009. The major nationalized banking institutions announced new losses during the first half of 2012, attributed to macroeconomic conditions and continued adjustment in the property market.

Ireland, then, is among the countries that have seen only a short-lived emergence from the recession, and this in turn is hampering the government's ability to fulfil its commitment to reduce the budget deficit. With regard to the public finances, the government will meet its objectives in 2012, insofar as the deficit will be below the target of 8.3% defined in the stability programme. But in 2013, with the deficit rising from 8% to 8.4% versus the target of 7.5%, the government will likely not be able to meet its commitments unless new cost-cutting measures are adopted, measures that in this case would deepen Ireland's recession. It should be noted, however, that the rise in the deficit will result primarily from an anticipated rise in interest payments to service the debt in 2013[15]. Government debt will continue to climb and could reach nearly 100% of GDP in 2013, exceeding 2007

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13. Ireland's level of economic openness exceeds 90% of GDP, compared to less than 40% in Portugal and 29.5% in Italy.
14. See http://www.centralbank.ie/publications/Documents/Economic%20letter%20no.%208,2012.pdf.
15. For more information, see page 24 of the 2012 stability programme (http://ec.europa.eu/economy_finance/economic_governance/sgp/pdf/20_scps/2012/01_programme/ie_2012-04-27_sp_en.pdf).

levels. Nonetheless, we should emphasize that cumulative debt among households, non-financial firms, the government and monetary and financial institutions continued to fall in early 2012. As a result, the rise in public debt is simply offsetting a reduction in debt among households and monetary and financial institutions.

Table F. OFCE, ECLM, IMK macroeconomic forecasts
Ireland

%	2010	2011	2012	2013
GDP	-0.8	1.4	-0.4	-0.4
Private consumption	0.5	-2.3	-2.4	-1.6
Investment	-22.7	-12.7	-11.6	-19.3
Public consumption	-4.6	-4.4	-4.4	-2.4
Exports	6.2	5.0	2.8	1.1
Imports	3.6	-0.3	-0.6	-1.3
Contribution to growth				
Internal demand	-4.3	-3.5	-3.1	-3.0
External trade	3.4	5.9	3.7	2.4
Inventories	0.1	-1.0	-1.0	0.2
Unemployment rate	13.7	14.4	14.9	15.5
Inflation	-1.6	1.2	1.9	1.8
Public deficit % GDP	-31.2	-13.1	-8.0	-8.6
Fiscal impulse % GDP	-4.4	-1.5	-2.4	-1.8
Public debt % GDP	92.5	108.2	117.6	123.3
Current account % GDP	—	—	—	—
Unit labour costs	—	—	-4.0	-4.7

Source: National accounts, Eurostat, OFCE, ECLM, IMK.

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Appendix G.

Greece: The Greek tragedy continues

</div>

The situation of Greece in 2012 seems insoluble. Bogged down in a recessionary spiral and chafing under successive austerity plans, the country has not found a top-down means of emerging from the crisis: after a 6.2% drop in GDP in 2011, we anticipate a comparable recession in 2012, with an especially dismal first half of the year (GDP was down an annualized 6.4% in the first six months of 2012). Against this backdrop, fiscal austerity is proving ineffective: the recession has resulted in falling tax revenues, making it difficult to eliminate the deficit by spending cuts alone. The economic crisis is now coupled with a social and political crisis (with a rise in extremist parties).

Domestic demand is continuing to collapse (by a projected 9% in 2012). Only foreign trade is having a positive impact on growth, as import levels fall. The ongoing decline in imported goods and services (down 14% in the first half of the year, following a 14% drop in 2011) is helping to improve the current account deficit, which nonetheless remains quite poor (we anticipate it will reach 7.3% of GDP in 2012). The jobless rate is climbing to worrisome levels: 23.5% of the population in the second quarter of 2012—double the 2010 figure.

Inflation has slowed, with negative core inflation since May 2012 (on a year-on-year basis), as a result of falling food prices and severe wage restraints that became more pronounced in the wake of the February 2012 plan (a 22% cut in the minimum wage, to 586 euros per month; a freeze on public-sector wages; cuts in certain pension benefits). The energy component of inflation, by contrast, is vigorous and likely to remain so through the end of 2012 owing to a year-end hike in the fuel tax. We are projecting year-on-year inflation of about 1.4% for 2012 and 2013. Nonetheless, the economy will remain implicitly deflationary, insofar as core inflation is expected to stay consistently negative (-0.2%).

Continued austerity policies in 2012 and 2013 at a time of cutbacks across Europe are not likely to resolve the situation: Greek GDP is expected to contract by a further 3.2% in 2013 as a result of the cost-cutting measures passed in February 2012 and the austerity budget adopted for 2013 (which contains budget cuts totalling 7.5 billion euros).

With regard to the budget, in February 2012 Greece passed new austerity measures representing 1.5% of GDP, which exclusively target public spending. These measures include cuts in healthcare spending (0.5% of GDP), an average 12% wage reduction for workers in sectors with special pension schemes, the replacement of only one out of 10 departing civil servants, new cuts in retirement pensions (pensions in excess of 1,300 euros per month have seen a 12% to 20% reduction in the amount over 1,300) and reduced military spending. Concurrent with these measures, the timetable for privatization is likely to be accelerated since,

as the IMF has emphasized, Greece is far behind its implementation schedule. On the other hand, the budget deficit for the first eight months of 2012 has come in below target levels (12.5 billion euros instead of 15.2 billion), primarily as a result of more drastic government spending cuts than anticipated (by 5 billion euros). Collection of tax revenue, by contrast, has been less impressive than was hoped. Consequently, it is not clear whether Greece will meet its end-of-year budget deficit commitments: the recession is likely to prove deeper than expected (a 6.2% decline in our forecast for 2012, compared to a 4.7% drop envisioned by the Commission).

If the government hopes to meet its deficit objective in 2013 (-4.6% of GDP), savings totalling 8.4 billion euros will be needed. With that in mind, the Greek government is on the verge of adopting a new cost-reduction plan for 2013-2014 totalling 13.5 billion euros, which relies primarily on reduced spending (by 11.5 billion) plus a projected 7.8 billion in budget cuts in 2013 (*i.e.* a fiscal stimulus of -3.9% in 2013). Specifically, the plan calls for the elimination of 15,000 additional civil service jobs by 2014 and new cuts in government salaries, certain pensions and social services. In return, Greece expects to receive a new round of loans worth 31.5 billion euros.

In addition, the country hopes to obtain a two-year extension (from 2014 to 2016) on its goal of achieving a balanced budget[16]. Under these conditions, Greece would need to find an additional 13-15 billion euros in funding over and above the projected 178.7 billion. The first option will be to obtain a new aid package from the IMF and/or its European partners; the second would involve a rescheduling, or rollover, of Greek debt held by the ECB, a move the Bank currently opposes.

Table G. OFCE, ECLM, IMK macroeconomic forecasts
Greece

%	2010	2011	2012	2013
GDP	-4.4	-6.2	-6.2	-3.7
Private consumption	-4.6	-4.7	-7.7	-2.7
Investment	-8.7	-26.9	-17.2	-1.3
Public consumption	-8.3	-5.3	-4.7	-10.4
Exports	3.8	1.2	-3.3	-1.0
Imports	-4.8	-14.9	-10.8	-0.3
Contribution to growth				
Internal demand	-6.7	-9.1	-9.0	-4.2
External trade	2.3	5.0	2.3	-0.2
Inventories	0.0	-2.1	0.5	0.6
Unemployment rate	12.6	17.7	23.8	26.3
Inflation	4.7	3.1	1.4	1.4
Public deficit % GDP	-10.3	-9.1	-6.7	-4.8
Fiscal impulse % GDP	-8.0	-5.3	-5.0	-3.9
Public debt % GDP	141.0	170.6	176.7	187.6
Current account % GDP	—	—	—	—
Unit labour costs	—	—	-8.6	-4.7

Source: National accounts, Eurostat, OFCE, ECLM, IMK.

16. The stability and growth programme for 2012 calls for a primary surplus of 4.5% in 2014.

THE SOCIAL IMPACT OF THE CRISIS

During the crisis, unemployment in the EU-27 has increased by more than 8 million people so that today more than 25 million Europeans are without work. This corresponds to an unemployment rate of 10.6% of the labor force in the EU-27 and 11.6% within the euro area. This is shown in Figure 8.

Figure 12 also shows unemployment is expected to reach more than 11% for the EU-27 and 12% for the euro area by the end of 2013.

Unemployment actually began to stabilize in the spring 2010 but since spring 2011 unemployment within the EU-27 and the euro area has begun to increase rapidly and in the past year alone unemployment has increased by 2 million people..

Figure 8. Unemployment rate in Europe
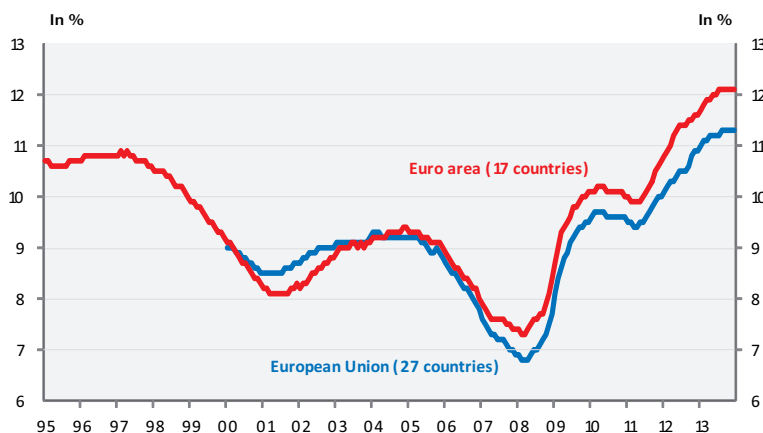
Note: The dashed line marks the beginning of the forecast.
Source: OFCE, ECLM, IMK on basis of Eurostat.

While the overall unemployment rate in the EU-27 is about 10.5%, the troubled countries in southern Europe and Ireland experience unemployment rates way beyond 10.5%. In both Greece and Spain for instance more than 20% of the work force are unemployed whereas in Luxembourg, Austria, the Netherlands and in Germany "only" about 4-6% are unemployed. This can be seen from Figure 9, which shows the unemployment level in the individual EU countries.

Figure 9. Unemployment levels in Europe
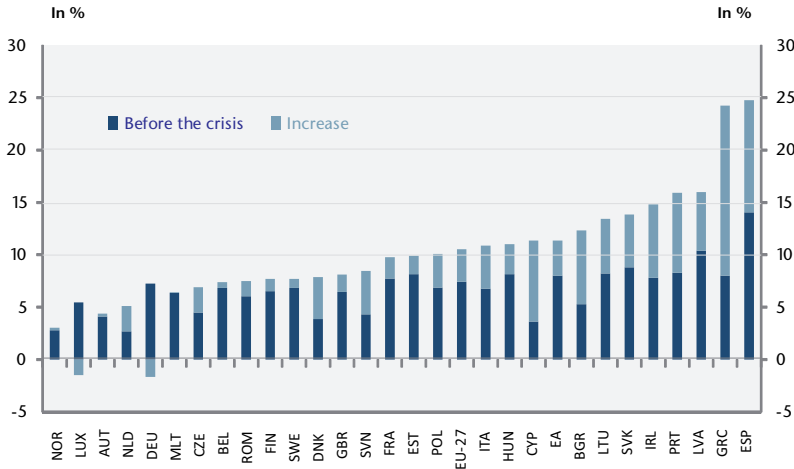

Source: OFCE, ECLM, IMK on basis of Eurostat.

Youth unemployment has also increased dramatically during the crisis. In the second quarter of 2012, 9.2 million young people aged between 15 and 29 year olds were unemployed, which corresponds to 17.7% of 15-29 year olds in the workforce and accounts for 36.7% of all unemployed in the EU-27. If one compares the increase in youth unemployment with the increase in overall unemployment one can see that the increase in youth unemployment has been almost 6 percentage points while the increase in overall unemployment has been "just" 3.7 percentage points. Unfortunately this is not uncommon during a crisis. This is illustrated in Figure 10 which shows the increase in youth unemployment compared with the increase in the overall unemployment rate.

1. Why are young workers so hurt by recessions?

One obvious reason is that youths often have very limited working experience which of course makes it harder for them to get a job. Especially because the crisis has been particularly hard on the low-skilled workers without education. In Figure 11 the unemployment level of the 15-29 year olds are shown. Greece and Spain suffer from the highest levels in youth unemployment where 40% or more of 15-29 year olds are unemployed whereas the lowest unemployment rates for 15-29 year olds are observed in Germany, the Netherlands and in Austria where the comparable figure is about 7.0-7.5% unemployed.

Spain and Greece have also experienced the largest increase in youth unemployed while both Germany and Austria are the only countries to have experienced a decrease in youth unemployment.

Figure 10. Increase in youth unemployment vs. overall unemployment during other recessions

Pourcentage points
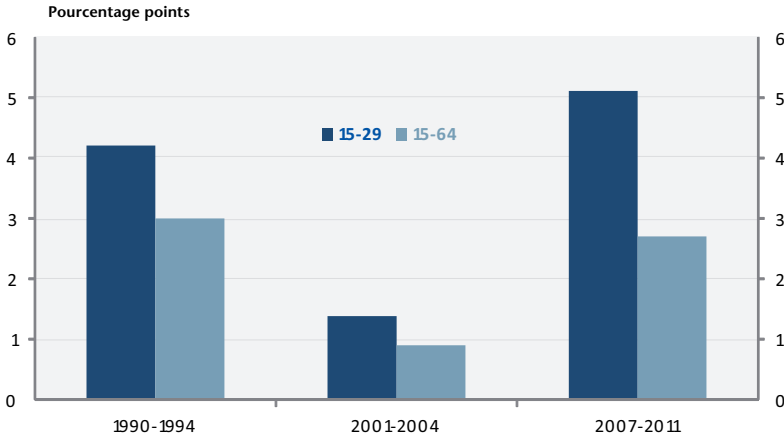
Note: We are looking at age groups 15-29 vs. the 15-64. In the figure we look at the EU-12 (the European Community) since data for the EU-12 allows for a longer time period going back to 1987 while data for EU-27 is available for a much shorter time period.
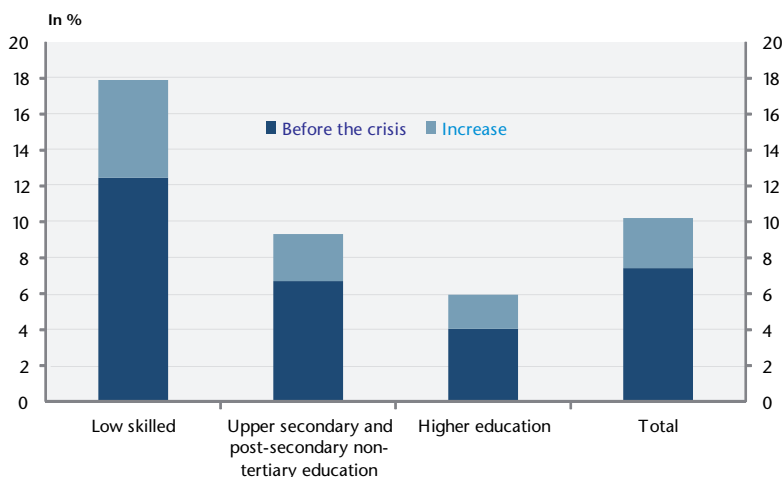*Source:* OFCE, IMK, ECLM on basis of Eurostat.

Figure 11. Unemployment rates for 15-29 year olds

In %   **In %**

Source: OFCE, ECLM, IMK on basis of Eurostat.

9.5 million unemployed are low-skilled workers

Of the 25 million unemployed in the EU-27, 9.5 million are low-skilled workers that have not yet completed any further education beyond pre-primary, primary and lower secondary education (levels 0-2). In other words low-skilled workers account for 37% of all unemployment in the EU-27. If one looks at the unemployment rate of the different educational levels (Figure 12) it is clear that the workers with the lowest educational level in the EU have been most affected by the crisis. Before the crisis the unemployment rate of the low-skilled workers was about 12% but is almost 18% today. In comparison with workers with a higher education—first and second stage of tertiary education (levels 5 and 6)—workers with a higher education "only" have an unemployment rate of 6 percent.

Figure 12. Unemployment rates for different educational levels

Source: OFCE, ECLM, IMK on basis of Eurostat.

If we look at the unemployment rates of the low-skilled workers in the individual countries (Figure 13) one can see that in Slovakia and Spain 46.4% and 32.4% of the low-skilled workers are unemployed. But unemployment among the low-skilled workers is also high in the troubled countries like Ireland and Greece where unemployment among the low-skilled workers is above 25 percent. The mentioned countries are also among the countries that have experienced the largest increase in the unemployment rate for the low-skilled workers.

The unemployment rate for low-skilled workers is the lowest in the Netherlands and Austria where 7.8% and 8.6% respectively of the low-skilled workers are unemployed.

**Figure 13. Unemployment rates for low-skilled workers in Europe**
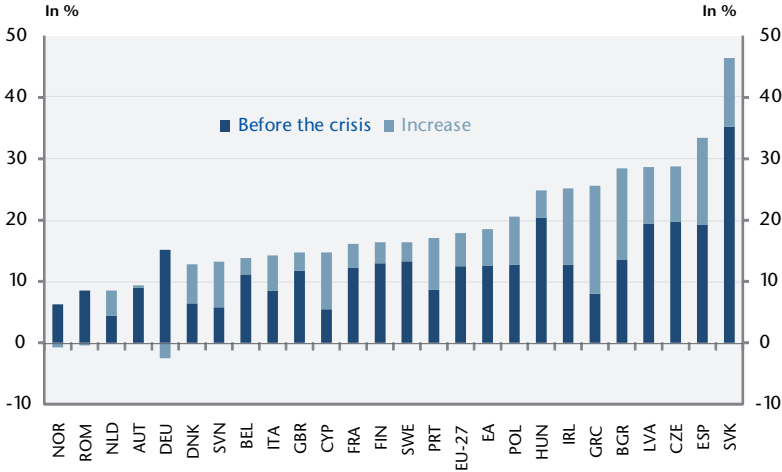
Source: OFCE, ECLM, IMK on basis of Eurostat.

2. Unemployment may remain high in the coming years

From past experience it is well known that once unemployment has risen to a high level it has a tendency to remain high the years after. This is known as persistence or hysterisis. Along with the rise in unemployment the first symptoms that unemployment will remain high in the coming years are already visible. This is clear by looking at the development in long-term unemployment. In the second quarter of 2012 almost 11 million people had been unemployed for a year or longer (Figure 14).

Although long-term unemployment had also begun to stabilize but within the last year long-term unemployment has increased with 1.4 million people in the EU-27 and with 1.2 million people within the euro area. If one compares unemployment with long-term unemployment one can see that more than four out of ten unemployed today are long-term unemployed in the EU-27. The large share of long-term unemployment is very concerning because of the risk that unemployment can remain high the coming years. This is due to the fact that the longer one is unemployed the more difficult it is to get a job. One loses skills as time goes by and firms do not find long-term unemployed workers as attractive as workers who have avoided unemployment or at least long-term unemployment. This may of course also lead to discouragement among the long-term unemployed so that the job search intensity at some stage may become lower. As a result of long-term unemployment the effective size of the workforce is diminished which in the end can lead to a higher structural level of unemployment.

**Figure 14. Long term unemployment in Europe**
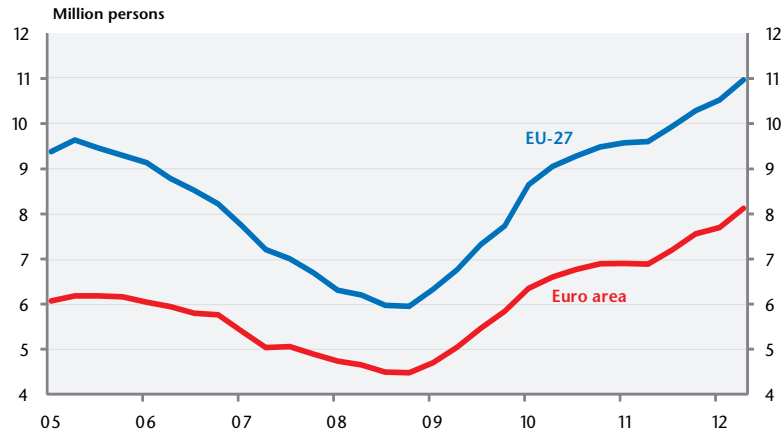
Source: OFCE, ECLM, IMK on basis of Eurostat.

If the increase in long-term unemployment increases structural unemployment it will become even more difficult to generate growth and healthy public finances within the EU in the medium term. Besides the effect of long-term unemployment on potential growth and public finances, one should also add that long-term unemployment may cause increased poverty as unemployment benefits are cut or even stopped altogether as unemployment duration increases. Thus long-term unemployment may also become a deep social issue for the European society.

Figure 15 shows the share of long-term unemployed in the individual EU countries. Looking at the incidence of long-term unemployment one can see that Slovakia and Ireland suffer from the highest share of long-term unemployed workers. More than 60% of the unemployed are long-term unemployed in Ireland and Slovakia. In Greece more than 50% of the unemployed have been unemployed for a year or longer. In countries like Spain, Portugal and Italy the share of long-term unemployment will probably also increase the coming years due to the serious situation in these countries.

Long-term unemployment can reach 12 million in 2013

Since unemployment began to rise again in the spring 2011 so has long-term unemployment begun to increase again. When one looks at the unemployment rate and the long-term unemployment rate (both as a share of the total labor force) there seems to be a quite linear relationship between unemployment and long-term unemployment. This is illustrated in Figure 16 where the long-term unemployment rate for the EU countries is plotted against the unemployment rate. This rather simple relationship explains 86.2% of the observed variation in the data.

Figure 15. Share of long-term unemployed in the European countries

In %   In %
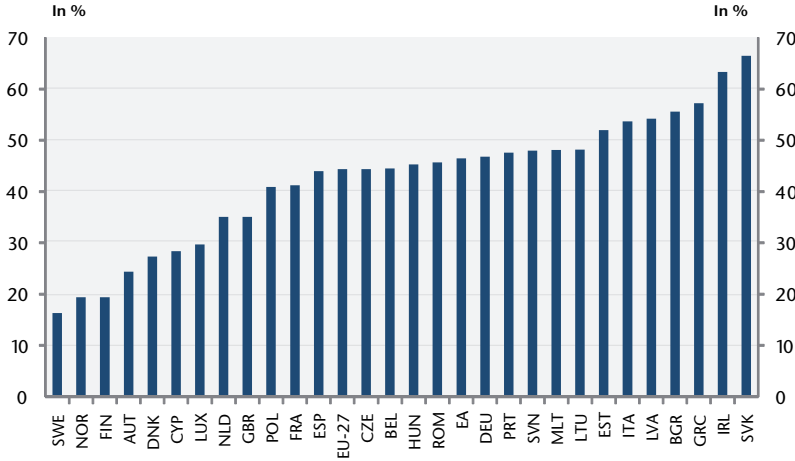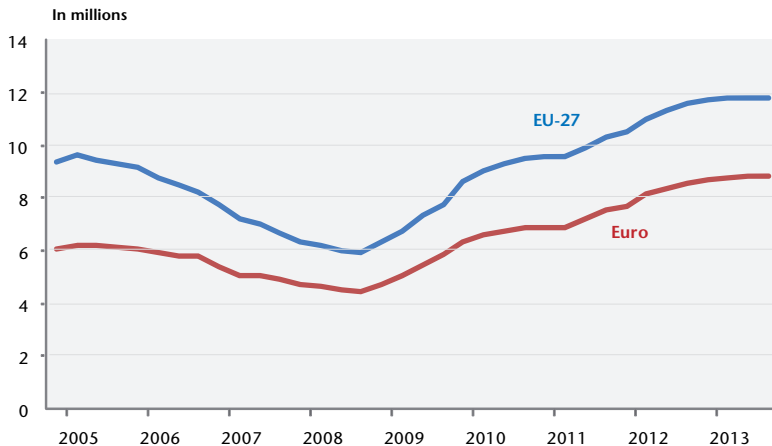

Source: OFCE, ECLM, IMK on basis of Eurostat.

The implication of the relationship is that around 60% of the increase in the unemployment rate in time will turn into long-term unemployment (the slope of the estimated line is 0.592). This nicely matches the observed movements in unemployment and long-term unemployment during this crisis.

Figure 16. Relationship between unemployment and long-term unemployment

Long term unemployment rate

$y = 0,592 \, x \, -1,4234$

$R^2 = 0,8624$
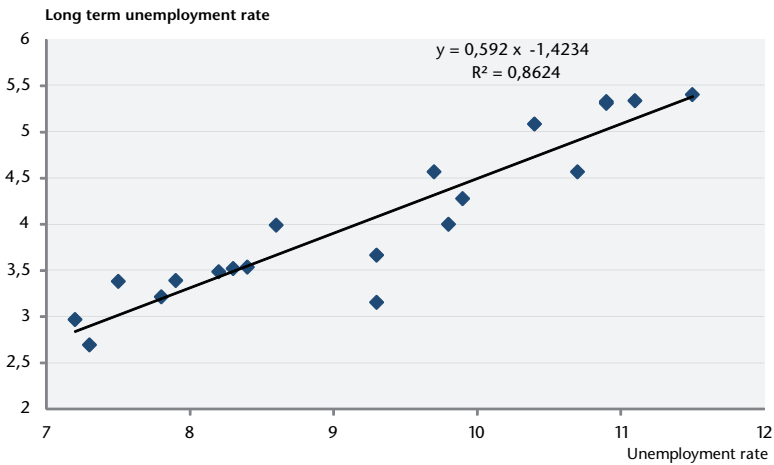
Unemployment rate

Source: OFCE, ECLM, IMK on basis of Eurostat.

With the latest forecast for the unemployment rate in EU-27, which is expected to increase from 9.7% in 2011 to 11.4% in 2013, one can thus expect the long-term unemployment rate to increase by another 1 percentage point. Given today's labor force this translates into an additional increase in the long-term unemployment of approximately 2 million persons over the period of 2011-2013 so that in 2013 one can expect around 12 million unemployed persons who have been unemployed for a year or more. Using the same argument one would expect long-term unemployment to increase to approximately 9 million people in the euro area. However it should be stressed that there are uncertainties of the forecast for the long-term unemployment because it takes time before newly unemployed turn long-term unemployed and even if unemployment should begin to decrease long-term unemployment could still rise because of delayed effects. Finally if the crisis gets worse than expected long-term unemployment may increase even further.

Figure 17. Forecast for long-term unemployment within EU-27 and the euro area

Note: The number of long-term unemployed is defined as the number of unemployed who have been unemployed for a year or more. The dashed line represents the beginning of the forecast.
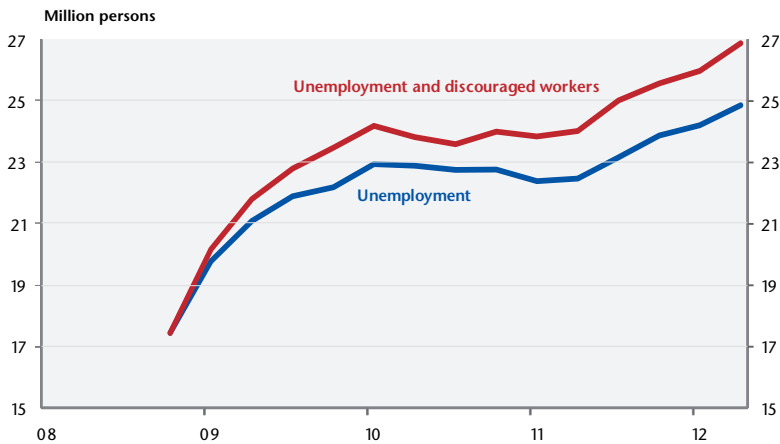*Source:* OFCE, ECLM, IMK on basis of Eurostat.

Long-term unemployment can discourage workers

Besides the danger of becoming long-term unemployed making it harder getting a job, unemployed workers might also become discouraged as they continue to be unemployed. If one looks at the inactive part of the population who are not actively seeking a job but indeed would like to have a job this group has, according to Eurostat, increased by more than 2 million people since the outbreak of the crisis. This increase is very likely to be a result of an increase in discouraged workers who do want a job but have lost faith and stopped searching actively. As a consequence these workers are no longer a part of the labor force although they do want a job.

If this increase in the number of discouraged workers continues it might have a large negative impact on the growth potential in Europe. The increase in unemployment of 8 million people during this crisis is therefore in some respect understated and instead of just looking at unemployment one should also add the increase of discouraged workers who have left the labor force. So instead of 25 million unemployed persons in the EU-27, adding the increase in the number of discouraged workers gives 27 million unemployed in the EU-27. This is shown in Figure 18.The increase in unemployment of 8 million people since the beginning of the crisis and the increase in the number of discouraged workers of 2 million people during the crisis approximately equals 420 billion euro[17] in lost welfare for the EU-27.

Figure 18. Development in unemployment with and without discouraged workers

Million persons

Source: OFCE, ECLM, IMK on basis of Eurostat.

How bad can things go? Case study: Denmark

To get an idea of the social consequences of the crisis we take a look at a case study from Denmark. Denmark like many other European countries suffered from high unemployment in the mid 90'ties. Like today, one of the major concerns was youth unemployment which in 1993 reached 14.5% for the 15-29 year oldS. After 1993 youth unemployment began to drop slowly but was in 1996 still around 9.5 percent. On the basis of Register data from Statistics Denmark and the DREAM database from the Ministry of Employment it is possible to keep track of the "1994 generation" (those aged between 15 and 29 in that year) and see how they have

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17. The calculation is based on GDP per employed in 2008 times the increase in unemployment and in the number of discouraged workers.

managed up until today. The latest available data is for 2009 and earliest reliable data is for 1994.

First, the 1994 generation is divided into those who were unemployed for at least 80% of the year 1994 and those who were not. The 80% criteria corresponds to the Danish criteria of being long-term unemployed. So in fact we are looking at those under 30 years who back in 1994 were long-term unemployed and those who were not. We then look at the labor market status after 5 years, in 1999, after 10 years, in 2004 and after 15 years, in 2009. The results are shown in Table 8.

One can see that even after 15 years employment for those who were long-term unemployed back in 1994 is today significantly lower than for those who avoided long-term unemployment. Only 68.3% of the long-term unemployed in 1994 are employed today while 75.2% of the young people who avoided long-term unemployment are employed today. Also those who were long-term unemployed in 1994 have a higher risk of being outside the labor force or may even have gone into early retirement, and these differences apply even 15 years later.

Table 8. Labor market status for the 1994-generation

	Youth's that were unemployed			Youth's that were not unemployed			Comparison		
	5 years after	10 years after	15 years after	5 years after	10 years after	15 years after	5 years after	10 years after	15 years after
	1999	2004	2009	1999	2004	2009	1999	2004	2009
		Percent			Percent			Difference in percentage points	
Employed	66.1	68.2	68.3	71.4	75.2	75.2	-5.3	-7.0	-6.9
Unemployed	10.7	9.2	5.3	4.2	4.2	3.0	6.5	5.0	2.3
Outside the labor force	11.1	14.6	19,4	9.8	10,4	13,2	1.3	4.2	6.2
Students	10.3	5.0	2.8	11.1	5.2	2.7	-0.8	-0.2	0.1
Unknown	1.8	3.0	4.2	3.5	5.0	5.9	-1.7	-2.0	-1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	—	—	—

Note: The table shows the labor market status in 1999, 2004 and 2009 of youth's under 30 years depending on whether they were unemployed at least 80 percent of the year 1994.
Source: OFCE, ECLM, IMK on basis of Statistics Denmark and the Ministry of Employment, the DREAM-register.

Long-term youth unemployment also had severe consequences for future income. This is illustrated in Table 9 which shows the average yearly income from work for those of the 1994 generation who were long-term unemployed at the time and for those who were not unemployed.

As can be seen from Table 9 the yearly average gross income is significantly lower for those who were long-term unemployed in 1994 compared with those who avoided long-term unemployment. This goes for the low-skilled workers as well

as for the skilled/high skilled workers. For the unskilled workers the difference after 15 years is about 6.600 euros while the difference for skilled/high skilled labor is about 7.500 euros.

The reason for the lower average income is probably that the young people got unemployed at a very critical stage of their working life where they did not have much experience yet. Lesser experience makes it harder to obtain well paid jobs and perhaps the young unemployed at some stage accepted less well paid jobs. If people get trapped in long-term unemployment and through their working life earn less money it also has a negative impact on the wealth of the society and on tax revenue from income taxes. The consequences for the long-term unemployed youth in the mid 90'ties in Denmark were severe even though the overall labour market improved after 1994. Also notice that an unemployment rate of 10-14% for the 15-29 year olds that Denmark suffered from in the mid 90's was lower than the overall youth unemployment in Europe today. The severe consequences experienced by the youths in Denmark in the mid 90's may therefore be a serious warning of what might happen this time if things do not improve soon.

Table 9. Yearly gross income of 1994 generation

	5 years after 1999	10 years after 2004	15 years after 2009
Low skilled workers			
Unemployed, Euro	27.400	34.200	42.100
Not unemployed, Euro	32.600	40.200	48.700
Difference, Euro	-5.000	-6.000	-6.600
Difference, percent	-15.8	-15.0	-13.6
Skilled or high skilled workers			
Unemployed, Euro	31.000	39.300	48.700
Not unemployed, Euro	36.700	46.000	56.200
Difference, Euro	-5.700	-6.700	-7.500
Difference, percent	-15.4	-14.7	-13.4

Note: The table shows the average yearly income from work for those that were employed in 1999, 2004 and 2009 depending on wheter they were long-term unemployed in 1994 or not. The study looks at young people between 15-29 years. Furthermore the young people are divided in to low-skilled workers and skilled/high skilled workers. Students are excluded from the analysis.
Source: OFCE, ECLM, IMK on basis of Statistics Denmark and the DREAM register from the Ministry of Employment.

The social consequences of the crisis in Europe has already been severe and may soon impose serious risks for the European economy and society. In fighting these social risks, it is vital that more is done in the short run to stimulate growth and job creation to prevent persistence of high unemployment. Persistence of high unemployment might in the medium term result in a lower growth potential of the European economy—making it even harder to create growth, jobs and better public finances. Second the skills of the work force need to be upgraded. If they are not, low-skilled workers will have difficulties escaping unemployment and may risk becoming marginalized. The same concerns apply for the youth. The target of the Europe 2020-strategy is that no more than 10% of the 18-24 year olds should be early school leavers, but in 2011 13.5% of the 18-24 year olds left school early. If this target is not fulfilled large numbers of youths may only get a marginal attachment to the labor market.

Third active labor market policies are an important tool in order to prevent long-term unemployment. Active labor market policies should aim at upgrading the skills of the unemployed and active labor market programs ought to be initiated very early when one becomes unemployed. Finally one could consider introducing schemes that allow employees to go back to school while the job in the meantime is looked after by an unemployed person. In this way the unemployed person gets some valuable experience and at the same time the skills of the unemployed are kept a jour. Such a scheme could also increase productivity in the economy. Schemes like these might also serve as an important tool in fighting youth unemployment.

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. Competiveness and current account
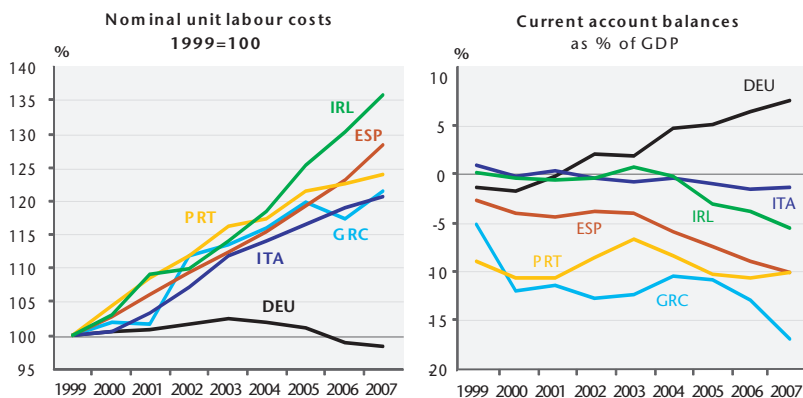
Source: AMECO.

Current account imbalances arose prior to the crisis due to two mutually rein-forcing 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 coun-tries, 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 direc-tions; 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 resolu-tion 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[18], 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
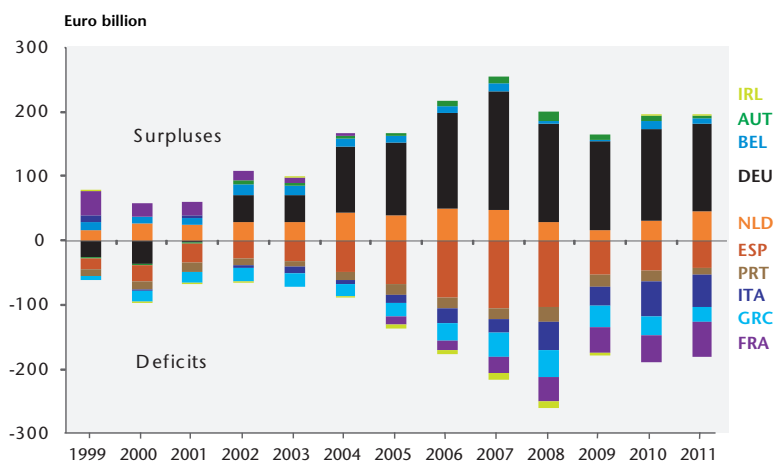
Source: AMECO; OFCE, ECLM, IMK calculations.

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
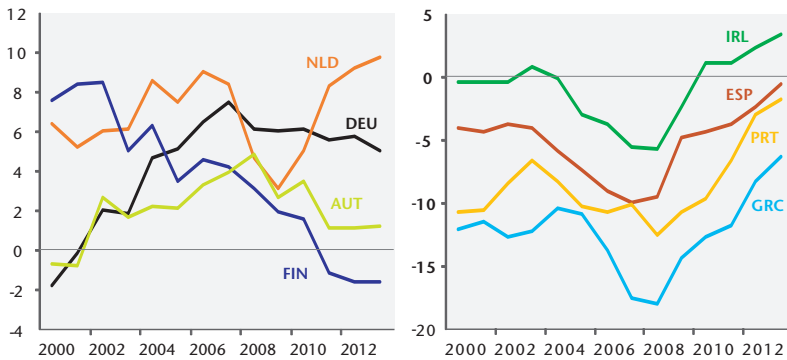
Sources: AMECO; 2012 and 2013 European Commission forecast.

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[19].

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

Billions of euro, chain-linked volumes reference year 2005
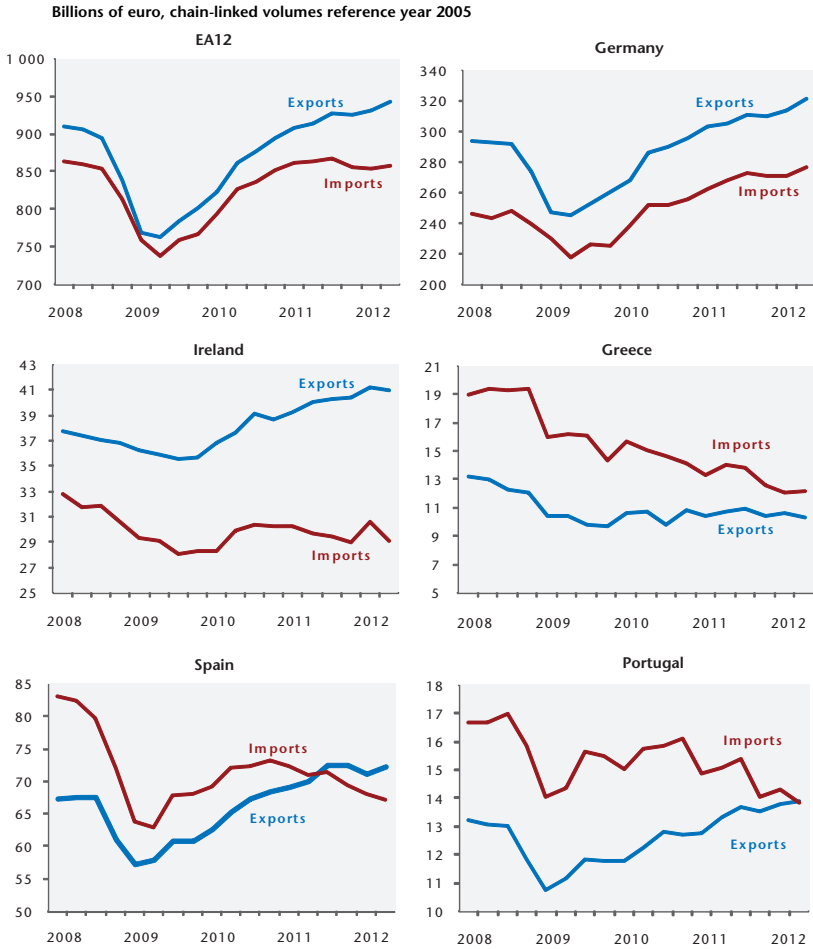

Source: Eurostat.

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

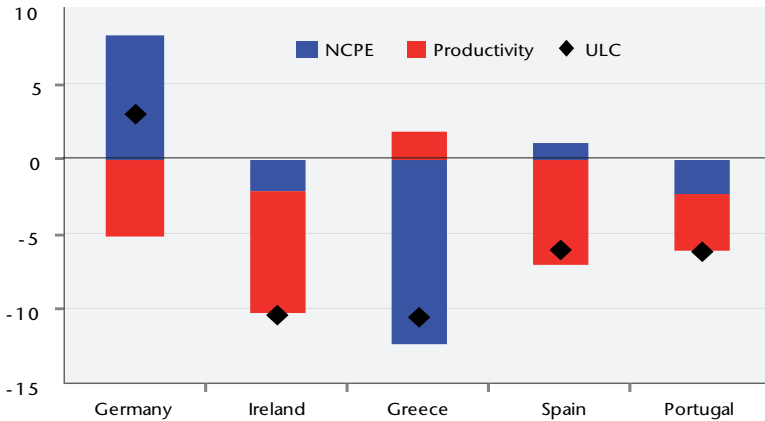*Source:* Eurostat; OFCE, ECLM, IMK calculations
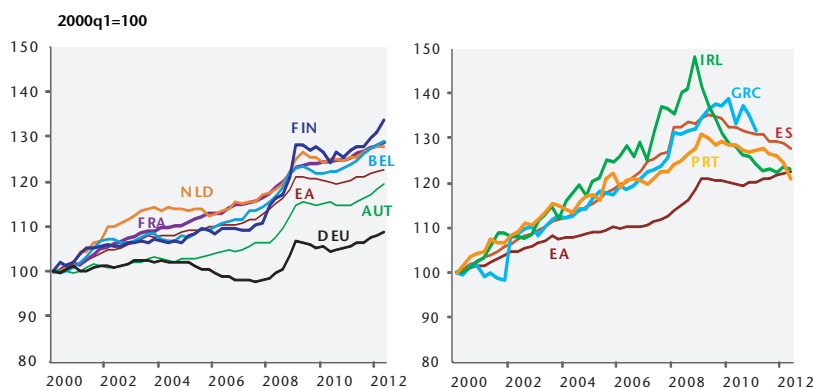
Purely in terms of a correction of previously excessive nominal ULC growth, these policies have clearly had a positive effect (Figure 23). In Ireland and Portugal the correction has been so strong as to bring these countries down to the EMU average rate of increase over the entire period since 2000, 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. Rebasing 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 and 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[20].

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

		Contribution to the change of the final demand deflator		Contribution to the change of the GDP deflator			
	Total change in %	Import deflator	GDP deflator	Unit labour costs	Entrepeneu-rial 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

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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[21]. 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[22]. 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"[23]. 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 threshholds 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-

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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 threshholds. 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 coun-tries). Within the euro area exchange rates are 'fixed' (actually obsolete). So the REER measures changes in prices relative to those in other EMU countries. Coun-tries 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 observa-tion 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 indictor 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 indictor 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[24]. 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 for the appendix describing the iAGS model.

to address the search for the optimal fiscal stance, defined as a better fiscal consolidation under some strong constraints.

The iAGS model is a reduced-form representation of eleven countries of the euro area (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal and Spain). It allows us to compute alternative paths for critical variables of countries' public finances—public debt, fiscal balance, structural primary balance—taking into account the fiscal stance.

Beforehand, we draw on the EU fiscal framework to assess the stringency of EU fiscal rules and explore the scope for an alternative strategy to ensure fiscal sustainability in due respect of EU regulations and treaties.

1. Margins for manoeuvre within the actual EU fiscal framework

There are currently five fiscal rules which must be fulfilled by EU Member States. Except for one fiscal rule exclusively related to the Fiscal Compact—the new medium—term fiscal objective, see fifth fiscal rule below-all EU fiscal rules have been in force since at least November 2011.

First, the cornerstone of European fiscal rules remains the public deficit to GDP limit at 3%. Deficits above this threshold can be labelled "excessive deficits", setting in train an excessive deficit procedure

Second, the public-debt-to-GDP ratio must be limited to 60% of GDP or it must be decreasing towards this level.

The first and second fiscal rules are embedded in the Stability and Growth Pact originally introduced in 2005[25]. They were confirmed by the revised Stability and Growth Pact adopted in November 2011 under Council Regulations 1173/2011, 1175/2011 and 1177/2011.

Third, if the public-debt ratio is above the threshold limit, the ratio will be considered to diminish at a sufficient pace if the difference between actual debt and the 60%-of-GDP limit has been decreasing during the three preceding years at an average yearly rate of 1/20th of the difference, as a benchmark. This 1/20th debt rule is incorporated in the revised Stability and Growth Pact adopted in November 2011 under Council Regulation 1177/2011, article 2, par. 1bis. It has also been included in the Fiscal Compact, article 4, of the Treaty on Stability, Coordination and Governance in the EMU of March 2012.

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25. The first rule has been the cornerstone of European fiscal rules since 1997 and the first version of the Stability and Growth Pact, whereas the second rule was only a convergence criterion between 1997 and 2005, before it was introduced in the first reformed version of the SGP. Legally speaking, the debt-rule was not a binding constraint on Euro area members states between 1999 (creation of the euro) and 2005.

Fourth, if a Member State is under an excessive deficit procedure, Council Regulation 1177/2011, article 3, states that: *"in its recommendation, the Council shall request that the Member State achieve annual budgetary targets which, on the basis of the forecast underpinning the recommendation, are consistent with a minimum annual improvement of at least 0.5 % of GDP as a benchmark, in its cyclically adjusted balance net of one-off and temporary measures, in order to ensure the correction of the excessive deficit within the deadline set in the recommendation".* In its article 5, Regulation 1175/2011 restates the same benchmark of a yearly improvement of 0.5% of GDP of the cyclically-adjusted deficit to reach the medium-term fiscal objective of a balanced-budget expressed in structural terms.

Fifth, the medium-term fiscal objective was made more precise in the Fiscal Compact, article 3. It states that general government budgets shall be balanced or in surplus, a criterion that "*shall be deemed to be respected if the annual structural balance of the general government is at its country-specific medium-term objective, as defined in the revised Stability and Growth Pact, with a lower limit of a structural deficit of 0.5 % of the gross domestic product at market prices*".

Some of the above-mentioned rules are conditional on exceptional circumstances. Such has always been the case for the first rule. However the strictness of exceptional circumstances has largely changed over the years. Between 1999 and 2005, exceptional circumstances meant a recession: a yearly real GDP growth rate of at least -2% permitted automatically delayed austerity to converge towards the 3%-of-GDP limit for the public deficit and balanced budget in the mid-run. A yearly real GDP growth rate of at least -0.75% permitted delayed austerity provided a majority of MS approved these exceptional circumstances. In 2005, the scope of exceptional circumstances was widened to encompass the implementation of structural reforms that were elaborated to cope with the Lisbon agenda strategy, and the implementation of public investment. Moreover, an unexpected economic slowdown could be considered as exceptional circumstances.

The 2011 body of legislation—the 6-pack—recalls the reform of the 1997 version of the SGP. It opens up a scope to use pension reforms as authorizing a public finances' gap vis-à-vis the convergence path towards the medium-run deficit objective (article 5, regulation 1175/2011). The fiscal compact introduced the following (complementary) definition of exceptional circumstances: "an unusual event outside the control of the (MS) which has a major impact on the financial position of the general government or periods of severe economic downturn as set out in the revised SGP, provided that the temporary deviation (…) does not endanger fiscal sustainability in the medium-term" (article 3, (b)). The definition of an "unusual event" remains unclear.

Finally, the first and fifth EU fiscal rules are conditional on exceptional circumstances.

Drawing on these circumstances and on the fourth rule of a yearly improvement of 0.5% of GDP of the cyclically-adjusted deficit, it is possible to show that EU fiscal rules give fiscal leeway under current economic circumstances.

Table 10 below reports the sequence of public deficits and GDP growth rate for France between 2011 and 2013. It is based on two issues of EC forecasts: the latest one (autumn 2012) and the former one (spring 2012). The data show that according to spring 2012 forecasts, the cyclically-adjusted deficit was supposed to decrease by 1.2% of GDP between 2011 and 2013, hence an average yearly improvement which would be consistent with the fourth EU fiscal rule. It remains that the forecast improvement between 2011 and 2012 (resp. 2012 and 2013) was above (resp. below) the requested amount of 0.5% of GDP. According to the latest forecasts though, the decrease in the cyclically-adjusted deficit would now be 2.5% of GDP. On a yearly basis, it means that the improvement in the French fiscal position would be more than two times higher than what current EU fiscal rule requests from a MS under an excessive deficit position, with -1.1% of GDP between 2011 and 2012 and -1.4% of GDP between 2012 and 2013. Moreover, for 2013, the EC now forecasts a GDP growth rate of +0.4%, rather than +1.3% in its spring forecast. This change in the forecast certainly constitutes an "unusual event" and a severe unexpected economic downturn. For both reasons—higher improvement and lower expected economic growth—, the current French fiscal stance is tougher than what the EU fiscal rules require. As a consequence, and consistently with EU fiscal rules and EC forecasts, France has fiscal room for manoeuvre that should permit it to delay austerity measures. Last, the requirement to reduce public debt to GDP ratio is assessed on a period of three years and it does not contradict the postponement of austerity. Leaving France margins for manoeuvre to reduce the pace of deficit reduction would certainly improve GDP growth and, meanwhile, it would facilitate the fulfilment of the third EU fiscal rule[26].

Table 11. EC forecasts for the French economy

		2011	2012	2013
Public deficit	Spring 2012	5.2	4.5	4.2
	Autumn 2012	5.2	4.5	3.5
Cyclically-adjusted deficit	Spring 2012	4.1	3.2	2.9
	Autumn 2012	4.5	3.4	2.0
GDP growth rate	Spring 2012	1.7	0.5	1.3
	Autumn 2012	1.7	0.2	0.4

Source: EC forecasts

26. Box 1 in the first part of this Report reviews the literature on the value of the fiscal multiplier during bad times. It shows that a consensus has emerged about its positive and quite substantial value.

Do the same margins for manoeuvre exist for countries like Spain and Portugal, for which the initial public finance position is more unbalanced than France's? Tables 12 and 13 show that between 2011 and 2013, the initial forecast yearly improvements in the cyclically-adjusted deficit of Spain and Portugal were on average respectively equal to 1.2 and 2.5% of GDP according to Spring forecasts. According to the Autumn forecasts, average yearly improvements are supposed to be 1.75 and 2.7% of GDP, hence substantially higher than requirements of the fourth EU fiscal rule.

Table 12. EC forecasts for the Spanish economy

		2011	2012	2013
Public deficit	Spring 2012	8.5	6.4	6.3
	Autumn 2012	9.4	8.0	6.0
Cyclically-adjusted deficit	Spring 2012	7.3	4.8	4.8
	Autumn 2012	7.5	6.3	4.0
GDP growth rate	Spring 2012	0.7	-1.8	-0.3
	Autumn 2012	0.4	-1.4	-1.4

Source: EC forecasts.

Table 13. EC forecasts for the Portuguese economy

		2011	2012	2013
Public deficit	Spring 2012	4.2	4.7	3.1
	Autumn 2012	4.4	5.0	4.5
Cyclically-adjusted deficit	Spring 2012	6.2	3.0	1.3
	Autumn 2012	6.2	2.5	0.9
GDP growth rate	Spring 2012	-1.6	-3.3	0.3
	Autumn 2012	-1.7	-3.0	-1.0

Source: EC forecasts

As a conclusion, the implementation of structural reforms should not be viewed as the only justification for softening the stance on fiscal austerity: severe economic downturn is also included as an exceptional circumstance to postpone fiscal efforts, and achievements of cyclically-adjusted annual improvements of public finances above a threshold of 0.5% of GDP are not legally required.

The EU does not have to change its position in order to soften the fiscal stances of Euro area countries facing excessive deficits. Notwithstanding a possible change in this position in the future, there are already ample margins for manoeuvre in the short run to escape "self-defeating austerity" under the present legislation.

The following modelling exercise shows just how important it is that these margins for manoeuvre are fully exploited by EU Member States.

2. The actual consolidation path is ill-designed

To analyse the sustainability of public finances as well as the output losses of the current strategy, we develop a model describing the main euro area countries[27]. The aim of the new model is to provide a tractable and simplified toolkit (a small-scale dynamic model) based on sound theoretical foundations. This reduced-form model has to be flexible enough to analyse various policy mix scenarios with different sets of possible hypothesis. The first and principal use of the model is to assess the path of the policy-mix in euro area, taking into account trade interdependencies between European countries, and with the rest of the world.

The main features of iAGS model are that:

— The size of multipliers can vary according to the business cycle: fiscal impulses have a greater impact on GDP in bad times (when unemployment rate is very high compared to the equilibrium unemployment rate);

— Fiscal policy can have long run impact on potential GDP through hysteresis effects (austerity can alter potential GDP if investment is lowered for example);

— Euro area economies are interconnected through external trade. A recession in one country lowers demand in its partners, as its imports and their exports fall, so that GDP growth slows down in partner countries.

— The model includes a Taylor rule describing monetary policy where the zero lower bound on interest rate is added. Monetary policy then feeds back on economic activity and government interest expenditures through its effects on long term interest rates. The model then produces higher fiscal multipliers when monetary policy is at the lower bound, which is currently the case for the ECB.

The properties and characteristics of the model include assumptions about the variable size of fiscal multipliers, the long-lasting effects of a real crisis on the output gap, and the incidence of risk premia on interest rates, three features of strong relevance in the current and future euro zone context.

Table 14 sums up results of the baseline simulation (see Box 4 for a description of the main underlying hypotheses). In the baseline, we simulate the path of public debt levels (expressed in percentage points of GDP) until 2032, which is the horizon of the 1/20th debt rule incorporated in the revised SGP and in the Fiscal Compact. The simulated path of public debt levels depends on the fiscal impulses which have been forecast in the euro area from 2013 to 2015. By assumption at this stage, we assume zero fiscal impulses beyond 2016.

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27. The model is not described in the present report but a complete presentation is available from the OFCE.

The first six columns report the public debt and the structural balance respectively in 2012, 2017 (5-year horizon) and 2032 (20-year horizon). The cumulated fiscal impulse for 2013-2015 sums up the short term fiscal stance in the euro area as it cumulates forecast variations in structural primary government spending and taxes[28]. We report the average annual growth rate of real GDP for 2013-2017 and 2018-2032, and the sovereign rate spread over Germany for 2013-2015.

Table 14 reports how tough austerity will be all over the euro area: between 2013 and 2015, all MS except Germany and Finland will achieve cyclically-adjusted primary improvements in their public deficit equal to or above 2% of GDP. Spain, Portugal, Ireland and Greece will make even stronger efforts. This highly contractionary fiscal stance will make it ever harder to achieve an output gap at or above zero in our simulation: all MS will have to wait until 2019 (Austria, Finland), 2020 (Germany, France, Italy, Spain, Portugal) or 2021 to close the output gap. Meanwhile, the aggregate euro area GDP will plummet to a maximum negative output gap of almost -5%. Hence, the cumulated fiscal impulse, starting already from negative output gaps for which fiscal multiplier effects are strong, will lead to gloomy prospects for the entire euro area. Germany and Austria will be exceptions, since they will face almost no further real cost with their forecast fiscal strategy thanks to milder consolidation plans.

Table 14. Baseline scenario

	Public debt (% of GDP)			Structural balance (% of GDP)			Cumulated fiscal impulse (% of GDP)	Average annual growth		Maximum negative output gap reached	Sove-reign rate spread to Germany
	2012	2017	2032	2012	2017	2032	2013-2015	2013-2017	2018-2032	2013-2032	2013-2015
DEU	82	67	26	0.3	0.9	1.8	-0.3	1.4	1.3	-0.7	0.0
FRA	90	91	52	-1.4	-0,2	0,2	-2.9	1,9	2.2	-6.8	0.0
ITA	127	109	18	0.3	2.4	5.5	-2.1	1.6	1.4	-6.5	0.7
ESP	86	101	83	-3.7	-2.1	-2.2	-4.3	1.7	2.3	-9.7	0.8
NLD	69	68	48	-2.9	-0.8	-0.8	-2.9	2.0	2.1	-2.8	0.0
BEL	100	91	38	-0.9	0.6	1.8	-2.2	2.1	2.1	-4.3	0.2
PRT	119	133	79	-2.8	-0.8	0.7	-4.7	0.9	1.8	-10.1	1.2
IRL	118	140	105	-5.0	-2.4	-2.3	-5.7	1.0	2.6	-10.9	1.0
GRC	177	199	93	-0.6	1.3	3.0	-7.5	0.2	2.5	-17.1	1.1
FIN	53	45	8	0.2	0.1	1.9	-1.3	2.4	2.2	-1.9	0.0
AUT	75	68	40	-2.5	-0.3	0.3	-1.9	1.7	1.6	-0.9	0.0
EA	94	88	43	-1.0	0.3	1.2	-2.2	1.6	1.8	-4.8	0.3

Sources : Eurostat, iAGS model.

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28. Government spending is net of interest charges, and spending and taxes are adjusted for cyclical variations.

Real divergence across euro area member states under this scenario will thus widen: Greece will hit the floor with a massive output gap of -17%. Ireland, Spain and Portugal will face substantial losses with output gaps reaching abnormal levels around -10%, and France and Italy will be quite harshly hit, touching the ground at -7% after austerity measures are implemented.

This multi-speed euro area in terms of output losses will also be reflected in structural balances and public debt ratios. In 2017, despite substantial fiscal efforts, Spain, the Netherlands, Portugal and Ireland will not be able to bring their cyclically-adjusted deficit under 0.5% of GDP. Spain, Portugal and Ireland will also not be able to reach the public-debt-to-GDP threshold of 60% of GDP by 2032. The case of Greece is interesting, in this respect: it would not achieve this threshold either, despite an extraordinary structural surplus of 3% of GDP and an outstanding negative fiscal impulse of 7.5% of GDP between 2013 and 2015. Fiscal efforts by this country will not be sufficient to achieve the debt target, due to a deflation between 2014 and 2018 which increases real interest rates.

Another striking result with our simulations is the degree of excess austerity implemented by most countries reaching lower debt ratio at the 5-year horizon. Though European rules require only a maximum deficit of 0.5% of GDP, Germany, Italy, Belgium, Greece and Finland achieve structural surpluses. This clearly indicates that there is leeway to perform less restrictive fiscal policies without breaching EU fiscal rules, as for these countries the debt-to-GDP ratio is below 60% of GDP in 2032.

Finally, this baseline scenario questions the issue of public debt sustainability in the euro area. Consistently with the new fiscal framework, it seems relevant to fix a 20-year horizon for assessing dent sustainability. The simulations are then carried over this horizon.

It must be acknowledged that this issue of public debt sustainability is theoretically and empirically unsettled, between promoters of investigating the statistical properties of public finances' variables on the one hand, and, on the other hand, promoters of a "return to economic thinking" (Bohn, 2007). Stated briefly, sustainability refers to the ability of the general government to pay back the domestic public debt. This ability depends on the future available scope for spending cuts and tax hikes, but also on future economic growth.

In our simulations, the public debt sustainability is assessed regarding the ability of countries to meet the objective of bringing back the debt ratio to 60 % of GDP by 2032. Though some countries in our baseline simulations do not reach this 60% threshold, it is noticeable that they achieve substantial reductions in public debt-to-GDP ratios. For instance, Greece would halve its ratio and Ireland's debt would decrease by 35 percentage points of GDP between 2017 and 2032. This downward trend in public debt implies enhanced debt sustainability *stricto sensu*. However the social costs as well as the cost in terms of fiscal balance could make this adjustment

unrealistic. For Greece, Italy, Portugal and Belgium, it would indeed require structural primary surpluses above 3% of GDP for many years, which have rarely been achieved in history of fiscal consolidation. Debt sustainability is a relative concept and may only be assessed regarding the cost of achieving it.

However, our simulations also show that the long-run debt-to-GDP ratio in many euro area MS is astonishingly low: 26% in Germany, 18% in Italy, even 8% in Finland. It questions the relevance of fiscal austerity in these countries, because public bonds are highly demanded on financial markets, especially "risk-free" bonds like German Bunds. For this reason, it is highly probable that this baseline scenario goes too far in terms of fiscal sustainability in most euro area countries. To sum up, this scenario considers fiscal restrictions that go beyond the requirements of fiscal sustainability, beyond the requirements of EU fiscal rules and beyond the social resilience of European citizens.

The first variant that we introduce in the baseline scenario refers to "fiscal sustainability" stemming from EU treaties and regulations. Sustainability refers here to the ability of EU MS to converge towards a debt target of 60% of GDP. Therefore, we compute simulations that aim at gauging if all countries can attain the public debt target in 2032. We calculate a sequence of fiscal impulses over 2015-2032 that achieve the target, assuming that fiscal impulses for the years 2013 to 2015 are left unchanged. For simplicity, we set fiscal impulses at -0.5 or +0.5 depending on the gap *vis-à-vis* the target: the fiscal impulse is positive (resp. negative) if actual debt is above (resp. below) the target. The cumulated fiscal impulse is larger than in the baseline scenario for countries which cannot achieve 60% in this scenario, whereas it is lower for the other countries. For the last group of countries, we gather some pieces of information as regards the margins for manoeuvre for future fiscal policy. Structural balance and average annual growth also indicate what would be the costs or gains in terms of fiscal adjustment and impact on economic activity of sticking to the debt target at 20-year horizon.

The question of fiscal sustainability is crucial for Greece, Ireland, Portugal and Spain since they do not attain this targeted level of debt in the baseline scenario, whereas the question of the costs of fiscal retrenchment is crucial for countries that go beyond the requirements of EU fiscal legislation in the baseline scenario.

Table 15 sums up the simulation results where we add further consolidation of 0.5 point of GDP per year from 2016 in order to assess whether the 60 % debt ratio would be meet. Striking results are threefold. First, two countries—Ireland and Greece—are still unable to achieve the debt-to-GDP target. It does not preclude fiscal sustainability per se, but it entails further social unsustainability of public finances: the fiscal stance over the period 2013-2032 produces a cumulative fiscal impulse which is highly negative and twice as high (in absolute values) as in the baseline scenario. Such a fiscal stance is entirely unrealistic and inefficient: economic growth in the medium-run would be lowered substantially, and the

maximum negative output gap would be even larger. This outcome ensues from the high value of the fiscal multiplier when the output gap is strongly negative, from inertial processes in economic growth once hysteresis is introduced, and from the relatively insufficient decrease in real interest rates, since these two countries suffer from low or negative inflation rates until 2020.

Second, Spain and Portugal achieve the debt target in 2032, but under substantially more restrictive fiscal stances. Fiscal adjustment under such conditions seems unrealistic and unreasonable: between 2013 and 2017, both countries would experience slower economic growth than in the baseline, hence postponing until 2025 (Portugal) and 2027 (Spain) the return to a zero output gap.

Third, countries with public debt levels below the debt target in 2032 have fiscal leeway: indeed, the cumulated fiscal impulse improves by 2.7 percentage points in Germany, 1 in France, 4.2 in Italy, 5.7 in Finland and 1.4 in Austria in this scenario compared to the baseline. Despite fiscal leeway and relatively high fiscal multipliers in the short run, the net gain in terms of economic growth is very small, however. The reason lies in the trade interactions within the euro zone: the enlarged margins for manoeuvre for some countries are compensated by the larger real difficulties incurred by the implementation of a more restrictive fiscal stance in Southern countries and Ireland.

Table 15. Is it possible to reach the target of 60% in 2032 and what is the cost incurred in terms of growth?

	Public debt (% of GDP)			Structural balance (% of GDP)			Cumulated fiscal impulse (% of GDP)	Average annual growth		Maximum negative output gap reached
	2012	2017	2032	2012	2017	2032	2013-2032	2013-2017	2018-2032	2013-2032
DEU	82	68	60	0.3	-0.1	-1.8	2.4	1.5	1.3	-0.7
FRA	90	89	60	-1.4	-1.1	-0.8	-1.9	2.3	2.1	-6.8
ITA	127	109	60	0.3	1.4	0.4	2.1	1.8	1.4	-6.5
ESP	86	104	60	-3.7	-1.3	1.3	-8.2	1.3	2.2	-9.8
NLD	69	68	60	-2.9	-1.6	-1.9	-2.0	2.1	2.0	-2.8
BEL	100	91	60	-0.9	-0.3	-0.6	-0.3	2.3	2.1	-4.3
PRT	119	137	60	-2.8	-0.1	3.7	-8.2	0.4	1.8	-10.2
IRL	118	144	71	-5.0	-1.7	5.2	-13.7	0.5	2.5	-11.0
GRC	177	206	84	-0.6	1.9	8.9	-15.5	-0.4	2.3	-17.3
FIN	53	46	60	0.2	0.1	-4.3	3.4	2.5	2.2	-1.9
AUT	75	69	60	-2.5	-1.2	-1.7	-0.5	1.8	1.6	-0.9
EA	94	89	61	-1.0	-0.3	-0.5	-1.0	1.7	1.8	-4.9

Sources : Eurostat, iAGS model.

Box 4. Main hypotheses for the Baseline simulations

Simulations begin in 2013. To do so, we need to set some starting point values in 2012 for a set of determinant variables. Output gaps for 2012 come from OFCE, ECLM, IMK forecasts. Potential growth for the baseline potential GDP is based on Johansson *et al.* (2012) projections (see Table 16). Concerning fiscal policy and budget variables, the main hypotheses follow:

— The public debt in 2012 comes from the European Commission's autumn 2012 forecast;

— We use the OFCE, ECLM, IMK forecasts for fiscal balance in 2012;

— We use the European Commission's autumn 2012 forecast of interest expenditures for 2012; combined with OFCE, ECLM, IMK forecasts of output gaps in 2012, and model estimates of the cyclical part of the fiscal balance, it gives the structural primary balance for 2012;

— Fiscal impulses come from OFCE, ECLM, IMK forecasts for 2013 (see Table 17). For 2014-2015, we use fiscal impulses implied by the Stability and Growth Pact reported in the "Assessment of the 2012 national reform programme and stability programme" for each country.

— Sovereign spreads come from OFCE, ECLM, IMK forecasts for 2013-2015 (see Table 18). We made the hypothesis that the ECB program of unlimited debt buying on the secondary market (Outright Monetary Transactions) is effective and achieves its goal to bring down interest rates for Italy and Spain. Regarding countries relying on the ESM for debt financing, we assume that Ireland will get direct access to financial markets as of 2014, Portugal as of 2015 and Greece as of 2016.

Table 16. Main hypotheses for 2012

in %

Source	Public debt	Fiscal balance	Structural primary balance	Interest expenditures	output gap	potential growth
	European Commission	OFCE, ECLM, IMK	OFCE, ECLM, IMK	European Commission	OFCE, ECLM, IMK	OFCE, ECLM, IMK
DEU	81.7	-0.2	2.7	2.4	-1.0	1.3
FRA	90.0	-4.4	1.2	2.6	-6.2	2.0
ITA	126.5	-2.5	5.8	5.5	-5.5	1.3
ESP	86.1	-7.4	-0.7	3.0	-8.5	2.0
NLD	68.8	-4.4	-0.9	2.0	-2.8	2.0
BEL	99.9	-3.5	2.6	3.5	-4.8	2.0
PRT	119.1	-5.5	1.7	4.5	-6.1	1.5
IRL	117.6	-8.0	-1.0	4.0	-7.4	2.2
GRC	176.7	-6.7	4.8	5.4	-14.1	1.9
FIN	53.1	-0.9	1.3	1.1	-2.1	2.2
AUT	74.6	-3.0	0.1	2.6	-1.1	1.6

Sources: European Commission, OFCE, ECLM, IMK forecasts.

Table 17. Fiscal impulse

in % of GDP

	2013	2014	2015
DEU	0.0	-0.3	0.0
FRA	-1.8	-0.6	-0.5
ITA	-2.1	0.0	0.0
ESP	-2.5	-1.2	-0.6
NLD	-1.2	-1.2	-0.5
BEL	-0.8	-0.6	-0.8
PRT	-2.9	-0.6	-0.2
IRL	-1.8	-2.1	-1.8
GRC	-3.9	-2.7	-0.9
FIN	-1.3	0.0	0.0
AUT	-0.9	-0.3	-0.6

Sources: OFCE, ECLM, IMK forecasts.

Table 18. Sovereign spreads relative to German interest rate on public debt

in %

	2013	2014	2015
DEU	0.0	0.0	0.0
FRA	0.1	0.0	0.0
ITA	1.3	0.8	0.0
ESP	1.5	0.8	0.0
NLD	0.1	0.0	0.0
BEL	0.5	0.1	0.0
PRT	1.4	1.2	1.0
IRL	1.4	1.5	0.0
GRC	1.4	1.2	0.9
FIN	0.0	0.0	0.0
AUT	0.0	0.0	0.0

Sources: OFCE, ECLM, IMK forecasts.

3. Searching for a less costly alternative strategy

In this section, we address the issue of the opportunity to soften (or spread) and to delay the consolidation. The scope of alternative scenarios is inevitably infinite and any scenario reducing the strength of fiscal consolidation would improve growth but it may also undermine the sustainability of public debt[29]. The identification of any alternative strategy is then fundamentally based on a trade-off between

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29. The model does not integrate any mechanism through which debt would have a negative effect on activity per se.

growth and debt. The stronger is the consolidation, the costlier it is in terms of output losses and the more debt is reduced unless the size of the fiscal multiplier exceeds 2 (see Part 1 of this report). Conversely, a more cautious path of consolidation may delay the reduction of debt but it would improve growth. The aim of this study is then to identify an efficient strategy, that is a strategy reducing the output losses of consolidation while keeping constant the objective for public debt. In theory, it resumes to an optimal control problem which may be solved using the appropriate algorithm. But there is no guarantee that the optimal solution may one that can be implemented in practice. This is why we are seeking a solution compatible with the spirit of the various fiscal rules governing EMU member states. Taking into account the objective of the TSCG, we maintain the objective for public debt at 60% of GDP in 2032. We also claim that the current rules leave leeway for an alternative strategy. Firstly, the minimum annual improvement of the cyclically-adjusted balance (net of one-off measures) of 0.5% of GDP is held to be consistent with the needed correction of the excessive deficit. In addition most EMU countries have scope to invoke the exceptional circumstances escape clause as they face a "*an unusual event*" (see section 1 of this Part 4 of the Report).

i) Starting from this, we first consider the case where the consolidation is spread out from 2013 onwards. We implement a yearly consolidation of 0.5 point of GDP consistent with the objective of 60 % of debt in 2032 as identified in the previous section. The main difference with the scenario described in Table 15 is that we replace the scheduled consolidation path from 2013 until 2015 (see Table 17 in Box 4) by a consolidation, which does not exceed 0.5% of GDP from 2013 until 2032. For those countries (Greece and Ireland) where the 60% debt ratio was not reached in 2032, we implement the same spread consolidation strategy from 2013 to 2032. The aim here is simply to check whether a milder consolidation would reduce the output losses while maintaining the objective of bringing the debt ratio back towards 60% in twenty years. In such a case, it must be noted that the strategy is not differentiated as the yearly fiscal stance will be the same for each country. The only difference is that the consolidation is stopped as soon as the 60% debt ratio is reached. In each case, we assess whether this alternative strategy leads to a reduction in the output losses. For Greece and Ireland, we may also compare the level of public debt in 2032.

ii) In a second step, we proceed the same way except that consolidation is also delayed. The start of the consolidation is chosen according to the date where it is the most efficient (see Box 5 for detailed explanations on the way this optimal date is chosen).

Is it more appropriate to spread the consolidation?

The efficiency of such a strategy, where austerity is softened but not delayed, should first be assessed regarding the average growth over the period. From this, it appears clearly that on the 2013-2017 period, the average growth for the euro area as a whole is 0.6 point higher (Table 19) than in a scenario where the consolidation is not spread over time and corresponds to what has been announced by the national governments in their convergence plans (in these plans, consolidation occurs when it hurts more, that is when the size of the fiscal multiplier is the highest). Consolidation would be spread meaning that a larger share of the consolidation would be implemented when the output gap has recovered. The negative impact on growth would then be reduced.

The main reason for this result is that there would be less consolidation since consolidation is more efficient (in terms of debt reducing) when the output gap is closed. The most striking difference is identified for Greece where the average growth between 2013 and 2017 is 3.6 points higher than if the current expected consolidation path is implemented. Besides, this strategy would enable Greece to reduce debt in 2032 more significantly even though the cumulated fiscal stance would be loosened, amounting to -3.3 points of GDP in the spread consolidation scenario against -15.5 points otherwise. It must however be noticed that from 2018 until 2032, growth would be slightly reduced in the scenario where consolidation is softened since it also involves that it is spread over a longer period of time. The situation of Greece is the most symptomatic of this ill-designed consolidation. Actually, the Greek public deficit results mainly from cyclical effects and interest payments. The structural deficit amounts to -0.6 % of GDP for 2012 which is already near the so-called "golden rule" enacted in the fiscal compact. Then it is urgent for Greece to reduce the path of consolidation. This is the only condition for growth to resume, which may contribute to the reduction of the cyclical-deficit. Such a strategy would also avoid a deflation episode in Greece. The real interest rate between 2013 and 2017 would be indeed 2 points less than in the scenario where the fiscal stance is what is currently scheduled in the convergence programme. Finally, spreading the consolidation would lead to structural surplus of 0.8% for Greece in 2017 instead of 1.9 % for the scenario where consolidation is not spread. By 2032, the structural balance would reach 3.5% of GDP, which is still quite high relative to historical standards but it is nevertheless significantly less than in the baseline scenario(8.9% of GDP).

If we turn to the other countries, results are in the same vein even if the contrast is less striking. Thus, the average growth for the 2013-2017 period would be higher for all euro area countries except Austria, where there would no changes in growth. For the other countries, the benefit would range from 0.1 point in Germany to 2.2 points in Ireland. Portugal, Spain and Italy would be the countries benefiting the most from such a strategy.

Table 19. Is it more appropriate to spread fiscal impulses over time?

	Public debt (% of GDP)			Structural balance (% of GDP)			Cumulated fiscal impulse (% of GDP)	Average annual growth		Maximum negative output gap reached
	2012	2017	2032	2012	2017	2032	2013-2032	2013-2017	2018-2032	2013-2032
DEU	82	72	60	0.3	-1.1	-1.3	1.8	1.6	1.3	-0.5
FRA	90	86	60	-1.4	-1.0	-0.9	-1.3	2.6	2.1	-4,7
ITA	127	104	60	0.3	-0.6	0.9	2.4	2.6	1.2	-2.7
ESP	86	96	60	-3.7	-2.6	0.8	-6.0	2.5	2.1	-6.3
NLD	69	69	60	-2.9	-1.5	-1.9	-1.9	2.2	2.0	-2.3
BEL	100	89	60	-0.9	-1.0	-0.7	0.4	2.7	2.0	-2.9
PRT	119	119	60	-2.8	-0.9	1.9	-3.9	1.9	1.6	-4.2
IRL	118	125	67	-5.0	-3.7	3.9	-9.5	2.7	2.3	-5.6
GRC	177	150	60	-0.6	0.8	3.5	-3.3	3.2	2.0	-8.0
FIN	53	54	60	0.2	-2.1	-3.0	2.0	2.7	2.1	-1.1
AUT	75	71	60	-2.5	-1.5	-1.5	-0.7	1.8	1.6	-0.8
EA	94	90	62	-1.0	-1.3	-0.4	-0.4	2.3	1.8	-3.1

Sources : Eurostat, iAGS model.

Box 5. An algorithm for a "well balanced austerity"

Simulating a (small, negative) fiscal impulse on a certain year (and no fiscal impulse for any other year) and then running the model enables to determine the level of debt in 2032. We may then compare the path of debt reduction with the alternative path of neutral budgetary policy (Figure 25). It is inducing a debt reduction (as compared to the reference path) if multipliers are not too large and sufficient time is left for debt reduction to occur. As the fiscal impulse is small this is an approximation of the first derivative of debt to GDP ratio 20 years from now relative to impulse in any year from now. If the model is linear (no hysteresis and fixed fiscal multiplier), then, the graph is independent of initial conditions and derivatives are independent of the size of the impulse. If not, then the graph is a linearization of the problem on a current state of the economy (described by initial conditions or state variable at a given period) and for a small shock.

Things get a bit more complicated when one considers that the underlying dynamic for Figure 25 is more realistic and allows for some non linearity (hysteresis and time-varying fiscal multiplier). Figure 26 is based on a cycle (output gap) dependent multiplier and includes negative output gaps described above as initial conditions to the system. In such a model and initial conditions, multipliers are higher than a given critical value for which it is equivalent to engage fiscal restriction now or one year later, for a given amount of debt reduction. Thus postponing the negative fiscal impulse by one year or more is more efficient for debt reduction.

Figure 25. Debt reduction in 2032 for a 1.0 fiscal impulse on a given year
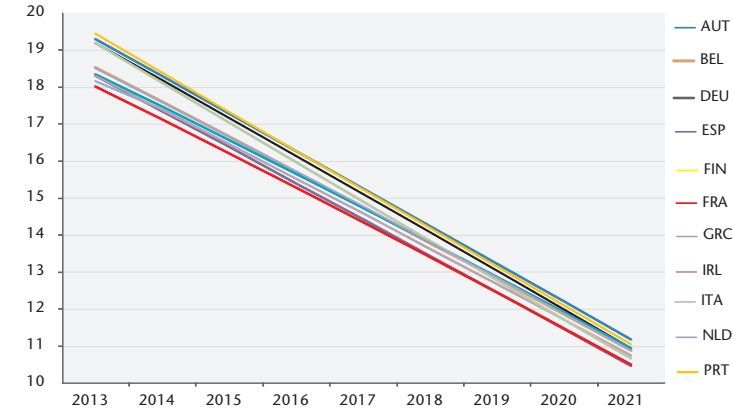
Fixed multiplier, no hysteresis

Figure 26. Debt reduction in 2032 for a 1.0 fiscal impulse on a given year, non linear model
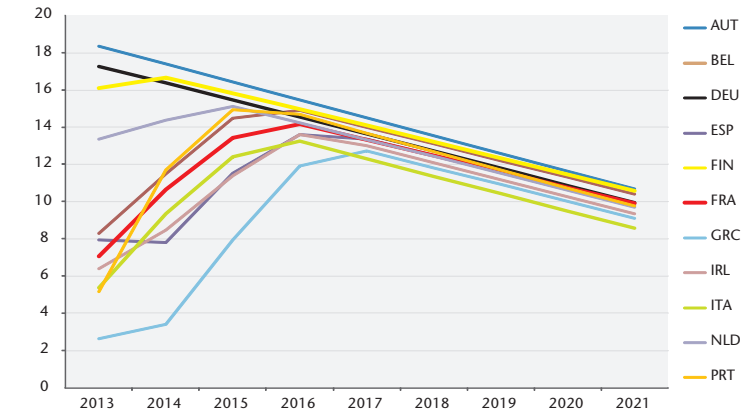
Cycle dependant multiplier and hysteresis

The algorithm is then simple: given an initial debt to GDP ratio, given a time-frame for reducing debt to 60% (20 years), given a maximum fiscal impulse of $I_{max}=\pm0.5$, Figure 25 is used to select the timing of the first fiscal impulse based on the maximum efficiency of fiscal impulse. Figure 25 suggest that austerity is more efficient (in terms of debt reduction) when the negative fiscal impulse is done in the first period, and thus suggest a pattern of fiscal impulses of I_{max} for the first years until it is sufficient to bring down debt to target level. Such an algorithm selects the more parsimonious sequence of fiscal impulses to reduce debt.

Following dynamics represented by Figure 26, the afore-mentioned algorithm states that fiscal impulses should not start in 2013 in most countries. The necessary sequence for debt reduction would thus follow a pattern of no impulse

before the inflexion date and I_{max} for some time from the inflexion date, as long as necessary to reduced debt to 60% in 2032. The Table 14 indicates the date where it is optimal to start the consolidation according to these calculations.

It may happen—as we describe it below—that debt target is not achievable through this process. This means that given I_{max} and the underlying dynamic of the economy, debt target is not sustainable. This is a probably more satisfying definition of sustainability than usually used as it is forward looking in the long term. Then, it may be computed for instance what I_{max} would allows for the 60% debt-to-GDP ratio to be reachable.

Following the algorithm described above, we calculate the best timing to engage in fiscal restriction. We show that in case of a large negative output gap, waiting is more efficient for debt reduction, due to the higher current value of the fiscal multiplier. Accordingly, we find that there are 6 countries for which it would be optimal to delay the start of the consolidation (Table 20). The model emphasizes that the wider is the output gap, the more it is optimal to postpone consolidation. The efficiency of the consolidation would be increased in so far as time would be given for growth to recover. Such a strategy implicitly boils down to a 2-step approach. It stresses that it is first needed to let the cyclically-adjusted deficit be reduced in line with the closing of the output gap. Then, once the output gap is closed, it becomes more efficient to undertake the fiscal consolidation per se, that is the needed reduction of the structural deficit. Thus, for Greece, it would be more efficient to start the consolidation from 2017. For France, Spain and Ireland, it would be better to implement a neutral fiscal policy until 2016. Finally, for Netherlands and Portugal, the reduction of debt would be optimized if consolidation started in 2015.

Comparing Table 20 to Table 15, we show that delaying the fiscal consolidation leads to a higher average growth in 2013-2017 in concerned countries, and for the euro zone as a whole (2.4% for the 2013-2017 period, against 1.7% without delaying the adjustment). Greece is again the country which would benefit most from delaying its fiscal consolidation. Yearly average growth would be 4.5 points higher between 2013 and 2017. Then, as the output gap would close more rapidly, the average growth would be slightly inferior from 2018 to 2032. It must also be noticed that postponing consolidation would achieve the same target for debt, relatively to the situation where consolidation is only spread over time, with a cumulated fiscal impulse that would be only half as large. This is largely explained by the cycle-dependent multiplier, which makes austerity less painful since it is postponed until the multiplier reaches a lower value. Similarly, Portugal, Spain, and Ireland combine a gain of 0.5 to 0.6 point of growth on average over the same period when they delay fiscal consolidation and implement a greater reduction in their structural deficit.. For France, the average growth would be 0.2 point higher compared to the situation where the consolidation is only spread. This improve-

ment would stem from the better prospects of trade partners within the euro area. It remains to be said that this mild improvement would give a net gain of 0.5 point in comparison with the baseline situation where the French government sticks to its current fiscal commitments.

For Austria and Germany, the alternative strategy would not entail a significant lower consolidation. Then, on the one side, those countries would benefit from a stronger growth in the rest of the euro area. But, on the other side, interest rates would be higher as a result of a relative tightening of monetary policy, through the Taylor rule. For Germany, real interest rates would on average amount to 1.7% when consolidation is delayed in all other euro area countries against 1% in the scenario where the current commitments are respected.

Table 20. Is it more appropriate to postpone the start of fiscal adjustment?

	Public debt (% of GDP)			Structural balance (% of GDP)			Cumulated fiscal impulse (% of GDP)	Average annual growth		Maximum negative output gap reached	Starting date of fiscal impulses (sign of FI)
	2012	2017	2032	2012	2017	2032	2013-2032	2013-2017	2018-2032	2013-2032	
DEU	82	74	60	0.3	-1.3	-1.1	1.6	1.6	1.3	-0.7	2013 (+)
FRA	90	86	60	-1.4	-1.2	-0.8	-1.1	2.8	2.1	-4,0	2016 (-)
ITA	127	107	60	0.3	-0.7	1.3	1.9	2.4	1.3	-3.0	2013 (+)
ESP	86	95	60	-3.7	-4.0	2.4	-7.3	3.1	1.9	-5.7	2016 (-)
NLD	69	72	60	-2.9	-2.1	-1.6	-2.1	2.3	2.0	-2.1	2015 (-)
BEL	100	90	60	-0.9	-1.3	-0.5	0.1	2.7	2.0	-3.2	2013 (+)
PRT	119	116	60	-2.8	-1.7	1.9	-3.3	2.4	1.6	-3.3	2015 (-)
IRL	118	123	78	-5.0	-5.1	2.7	-8.0	3.2	2.2	-4.7	2016 (-)
GRC	177	141	60	-0.6	-0.3	2.8	-1.5	4.1	1.9	-7.1	2017 (-)
FIN	53	56	60	0.2	-2.3	-2.8	1.8	2.6	2.2	-1.3	2013 (+)
AUT	75	72	60	-2.5	-1.6	-1.4	-0.9	1.7	1.6	-0.9	2013 (-)
EA	94	88	60	-1.0	-1.6	-0.1	-0.7	2.4	1.7	-2.9	

Sources : Eurostat, iAGS model.

4. "Well-balanced austerity" and sensitivity to baseline hypotheses

As we have seen before, the path of fiscal consolidation determines the sustainability of public debt, and a "well-balanced" austerity helps achieving the target of 60% in 2032 without huge losses in term of growth. However, such simulations hinge on the assumption that negative output gaps are large in most countries of the euro area (see Table 16 in Box 4). Results strongly depend on this assumption

since it implies high fiscal multipliers, and postponing the fiscal adjustment is a way to reduce them. The other strong assumption concerns yield spreads. In the baseline scenario, we assumed that the OMT program of ECB would succeed in diminishing Italian and Spanish sovereign interest rates, helping these countries to achieve sustainability of their public debt. In this part, we discuss these two assumptions.

Closed output gaps in 2012

The implications of a low output gap in our model are twofold: on the one hand, spontaneous growth is strengthened in order to close the output gap, and on the other hand, fiscal multipliers are higher, hampering growth when fiscal impulses are negative. The final outcome in term of growth is therefore ambiguous, and depends on the level of the output gap and on the size of the fiscal adjustment performed. If, in contrast, we assume that we are in a situation of "new normal", characterised by a closed output gap in 2012, average growth during the period 2013-2017 is lower in all countries except Portugal, Ireland and Greece compared to the baseline scenario, which benefit from low fiscal multipliers while making their strong fiscal adjustment (Table 21).

Table 21. What if the output gap were zero in 2012 (New normal)?

	Public debt (% of GDP)			Structural balance (% of GDP)			Cumulated fiscal impulse (% of GDP)	Average annual growth		Maximum negative output gap reached
	2012	2017	2032	2012	2017	2032	2013-2032	2013-2017	2018-2032	2013-2032
DEU	82	72	39	0.3	0.0	0.8	-0.3	1.3	1.3	-0.3
FRA	90	89	75	-4.4	-2.1	-2.1	-2.9	1.7	2.0	-1.2
ITA	127	113	51	-2.5	0.0	2.6	-2.1	1.1	1.3	-1.3
ESP	86	97	105	-7.4	-4.1	-4.6	-4.3	1.6	2.1	-2.0
NLD	69	70	64	-4.4	-2.0	-2.2	-2.9	1.8	2.0	-0.8
BEL	100	93	62	-3.5	-1.4	-0.5	-2.2	1.9	2.0	-0.7
PRT	119	111	64	-5.5	-0.8	0.9	-4.7	1.4	1.6	-1.1
IRL	118	118	92	-8.0	-2.9	2.2	-5.7	1.9	2.3	-1.5
GRC	177	140	42	-6.7	1.6	4.5	-7.5	1.8	1.9	-0.6
FIN	53	49	25	-0.9	-0.1	0.4	-1.3	2.1	2.2	-1.5
AUT	75	72	53	-3.0	-1.1	-0.7	-1.9	1.5	1.6	-0.4
EA	94	88	61	-3.2	-1.2	-0.5	-4.7	1.5	1.7	-0.9

Sources : Eurostat, iAGS model.

The most striking case is Greece, where GDP growth is on average 1.6 point higher, implying positive inflation rates and much lower real interest rates on average over the period 2013-2017 (1.7% compared to 4.4% in the baseline scenario). Higher growth and lower interest rates lead to a much stronger debt reduction over 20 years: the debt to GDP ratio is back to 42% instead of 93% in the baseline scenario, for the same cumulated fiscal impulse (-7.5%). Portugal and Ireland also end up with lower debt ratios, even if the difference with the baseline scenario is less striking.

This change in the assumption regarding current output gaps makes it clear that the plea for strong and immediate fiscal retrenchment is based upon the existence of a so-called "new normal" path of economic growth. Drawing on such an assumption, the iAGS model reports simulation results which are at odds with the current Greek state of the economy, for instance. The "new normal" assumption is pretty much normative, but it lacks empirical validity.

Higher spreads over the German sovereign bond yield

To assess the sensitivity of results to this hypothesis, we simulate the path of public debts under the alternative hypothesis that sovereign spreads above the German rate observed in 2012 persist until 2015 (see Table 22). These high spreads, especially for Greece, Portugal and Ireland, imply that these three countries would almost surely stay in the ESM (European Stability Mechanism) until 2015 to fund their debt and deficit.

In this alternative scenario, the average spread over the German rate would be higher for each country except for countries in the ESM. Specifically, we assume that the average spread would be 250 basis points higher for Italy and Spain, 150 basis points higher for Belgium and 80 basis points higher for France and Austria.

First, higher yield spreads occur in the beginning of the simulation, when public debt is high. It lasts only three years, but as a result the average public debt in the euro area would be 4 points higher (in % of GDP) in 2017 and 7 points in 2032.

Second, the most stricken countries would be Italy and Spain, with debt ratios 22 points higher than in the baseline scenario. In these two countries, the minimum output gap reached would be respectively 0.9 point and 1.3 point below the one reached in the baseline. As a consequence, the structural balance would be 1.4 point lower for Spain, due to higher government interest charges. Respecting the structural balance rule would then imply more negative fiscal impulse for this country.

Third, we also computed optimal strategies consisting in delaying and postponing the fiscal adjustment. With higher yield spreads, the main results are:

— Spain would not reach the 60% debt level in 2032;

— Italy would attain the 60% debt level in 2032, but it is conditioned by further fiscal consolidation.

Table 22. What if sovereign spreads to German rate were higher? (2012 spreads persist until 2015)

	Public debt (% of GDP)			Structural balance (% of GDP)			Cumulated fiscal impulse (% of GDP)	Average annual growth		Maximum negative output gap reached	Sovereign rate spread to Germany
	2012	2017	2032	2012	2017	2032	2013-2015	2013-2017	2018-2032	2013-2032	2013-2015
DEU	82	67	26	0.3	1.0	1.8	-0.3	1.4	1.3	-0.7	0.0
FRA	90	91	56	-1.4	-0,5	0.0	-2.9	1,9	2.2	-6.9	0.9
ITA	127	121	40	0.3	0.6	4.2	-2.1	1.4	1.4	-7.4	3.8
ESP	86	112	105	-3.7	-3.8	-3.6	-4.3	1.4	2.3	-11.0	4.0
NLD	69	68	50	-2.9	-0.9	-0.9	-2.9	1.9	2.1	-2.9	0.4
BEL	100	94	44	-0.9	0.1	1.4	-2.2	2.0	2.1	-4.5	1.5
PRT	119	133	78	-2.8	-0.7	0.7	-4.7	0.9	1.8	-10.1	1.2
IRL	118	140	106	-5.0	-2.5	-2.4	-5.7	1.0	2.6	-11.1	12
GRC	177	199	92	-0.6	1.4	3.1	-7.5	0.2	2.5	-17.1	1.2
FIN	53	45	8	0.2	1.0	1.8	-1.3	2.4	2.2	-2.0	0.3
AUT	75	69	42	-2.5	-0.4	0.2	-1.9	1.7	1.6	-1.0	0.8
EA	94	92	50	-1.0	-0.2	0,8	-4.7	1.6	1.8	-5.1	1.4

Sources : Eurostat, iAGS model.

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Index

Country abbreviation list

EA	Euro area
AUT	Austria
BEL	Belgium
BGR	Bulgaria
CYP	Chyprus
CZE	Czech Republic
DEU	Germany
DNK	Denmark
ESP	Spain
EST	Estonia
FIN	Finland
FRA	France
GBR	United Kingdom
GRC	Greece
HUN	Hungary
IRL	Ireland
ITA	Italy
LTU	Lithuania
LVA	Latvia
LUX	Luxembourg
MLT	Malta
NLD	Netherlands
NOR	Norway
POL	Poland
PRT	Portugal
ROU	Roumania
SVK	Slovakia
SVN	Slovenia
SWE	Sueden