DEFLATION IS COMING:
ECONOMIC PERSPECTIVES FOR THE EURO AREA AND EURO AREA COUNTRIES IN 2014, 2015 AND 2016

Six years after the start of the Great Recession, the economic and social situation in the euro area is still depressed and fragile as shown by key macroeconomic indicators. Growth will not exceed 0.8% in 2014 after two consecutive years of recession. The risk of deflation is increasing as inflation has now been below 0.5% since May 2014. Employment has improved moderately but unemployment remains at an unacceptably high level. Consequently, inequality and the risk of poverty are increasing significantly.[1] In short the euro area still suffers the aftermath of the crisis and has not yet engaged in a buoyant recovery.

Recovery had been expected for 2014 as fiscal consolidation was weakening. It has yet not materialized (Table 1). Fears of a new recession even resurfaced during the autumn. Christine Lagarde, Head of the IMF, estimated in October 2014 that the probability of a recession in the euro area at the end of 2014 ranged between 35 and 40%. Recession has been avoided thus far but GDP growth reached only 0.2% in the third quarter of 2014 after 0.1 in the previous quarter. The risk of a sustained period of low growth has been reinforced. The threat of deflation is becoming more prevalent. With high unemployment, high public and private debt and banks' fragility, the decline in inflation could precipitate some countries, then the rest of the euro area, into a vicious circle of rising public and private real debt leading to a new recession. At best, the euro area will be bogged down in a low growth and low inflation trap if no additional measures to stimulate growth are taken. The downward revision of growth expectations for 2014 reflects the premise of this situation. Even Germany has shown signs of cooling down. GDP growth has come to a halt during the last two quarters.

It remains the case that taking the year as a whole, Germany will remain the main driver of the euro area, with GDP increasing by 1.5% in 2014. With a 0.4% growth expected in 2014 as in 2013, France remains in virtual stagnation. Italy is still mired in recession, it has recorded 13 consecutive quarters of decline of the GDP. On a yearly basis, the recession will amount to -0.2% in 2014 after -1.8% the previous year. Italy will be the only euro area country alongside Finland to be in recession. On the other hand, growth has gained momentum in Ireland and Spain. Irish GDP grew by 2.8 and 1.5% in the first two quarters of 2014. After a sharp reduction in economic activity in 2011 and 2012, Spanish GDP has grown for five quarters and is forecast to end up the year 2014 with 1.3% growth (Table 2). The economic outlook is gradually improving in the Netherlands and Portugal. Both countries have reported positive growth in 2014 after recessions in 2013. Greece will also grow by 0.4% in 2014, after a 6-year slump where the fall in activity exceeded 25%. Finally, Austria has been characterized by slow growth for the first three quarters of 2014, which is mainly due to weak activity in the rest of Europe. Over the full year, growth is expected to reach 0.7%.

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1. See Chapter 2 of this report for more details on rising inequalities in the EU.

Table 1. EC and iAGS forecasts errors

In %

	EC Autumn forecast in year n-1	iAGS Autumn forecast in year n-1	GDP growth
2011	1.5	1.7	1.8
2012	0.5	0.9	-0.7
2013	0.1	-0.3	-0.4
2014	1.1	1.0	0.8

Sources: Eurostat, European Commission, iAGS forecasts (for 2011 and 2012).

Although fiscal impulses remained negative, they have been decreasing, raising hopes for an acceleration of growth, as the negative impact of austerity would have been mitigated. Recent evidence has thwarted these expectations, however. Austerity and other factors have slowed down economic activity. Disinflation has pushed upward real financing conditions. In some countries, it has completely offset the observed reduction in official interest rates. Furthermore, the euro also appreciated between July 2012 and the end of 2013, reinforcing disinflation, although there has been a correction more recently. The ECB is also concerned with the appreciation of the euro observed in 2013 and the heightened risk of deflation. It has announced new monetary policy measures targeting notably credit distribution to non-financial corporations. While essential, these measures may have limited impacts on credit growth.

Within the euro area, exchange rate adjustments cannot be used, forcing countries to resort to internal devaluations to fight against unemployment. Such strategies are also supported by the new macroeconomic governance of the euro area and emphasized by the European Commission in yearly in-depth reviews. Gains in competitiveness are obtained, not by currency devaluation, but by downward adjustment in production costs. The aim is to reduce current account imbalances and boost growth by stimulating exports. But efforts of first-movers are quickly thwarted by those engaged in the same beggar-my-neighbour strategy. There is here a powerful mechanism that pushes the entire euro zone to deflation. In iAGS 2014 report, we stressed the need to implement wage coordination mechanisms to avoid the shortcomings related to this race to competitiveness.[2] This idea is more than ever relevant.

Finally, financial constraints still weigh on households, enterprises and governments, and reduction in the inflation rate makes deleveraging more difficult. Besides, non-performing loans are not yet fully cleared in many European banking systems. Household or non-financial corporates' debt remains high. In the euro area, deleveraging of private agents has been rather slow so the process is set to continue. That would then weigh down investment, consumption and employment perspectives, risking leading the euro area in a vicious circle similar to Japan's Lost Decade during the 1990's. Debt reduction efforts will still be significant for some governments. Constraints for reducing public debt have now been enshrined in the new institutional set-up. Countries will have to make efforts to reduce structural deficits in order to converge towards a ratio of debt-to-GDP ratio

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2.   Competitiveness issues are analysed in depth in chapter 5 of this report.

of 60% in 20 years (see Box 1 for more details on current fiscal rules). Austerity is far from over, which could make it difficult to support initiatives for public investment. Under these conditions, the risk of weakening growth goes largely beyond short-term perspectives. The Europe 2020 targets for smart, sustainable and inclusive growth, already distant, would become entirely unattainable.

Table 2. GDP growth rate forecasts

In %

	2013	2014	2015	2016
DEU	0.2	1.5	1.4	1.7
FRA	0.4	0.4	1.1	1.7
ITA	-1.8	-0.2	0.5	0.7
ESP	-1.2	1.3	2.1	2.3
NLD	-0.7	0.6	1.4	1.9
BEL	0.2	1.0	1.2	1.6
PRT	-1.4	0.8	1.4	2.0
IRL	0.2	4.0	2.8	2.6
GRC	-3.3	0.4	1.9	1.9
FIN	-1.3	-0.1	1.3	1.2
AUT	0.3	0.7	1.3	1.6
EUZ	-0.4	0.8	1.3	1.6
GRB	1.7	3.0	2.1	1.8
UE-28	0.1	1.3	1.5	1.7

Sources: Eurostat, iAGS forecasts.

Box 1. Short description of current fiscal rules

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.[3] They were confirmed by the revised

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3. 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.

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. 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, (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.

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". The limit is set at 1% for countries with debt below 60%.

Some of the above-mentioned rules make provision for 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 contraction 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 decline of at least -0.75% permitted delayed austerity provided a majority of member states 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.

1. A fragile economic outlook

Austerity in the euro area: Slow but steady …

Since 2010, European countries have implemented restrictive fiscal policies to reduce budget deficits (Table 3), with highly negative fiscal impulses[4] (-4.3 points of GDP in the euro area). These policies have put an end to the emerging recovery. In the euro area, the institutional crisis triggered a sharp increase in interest rates in Greece, Ireland, Portugal, Spain and Italy, after a decade of convergence within euro area countries, which followed the adoption of the euro. The revision of the Greek fiscal deficit in late 2009 brought to light the risks of public finance unsustainability in Greece and highlighted the institutional weaknesses of the monetary union, shortcomings that were already identified at the start of EMU.[5]

Government bond rates rocketed, thus accelerating fiscal consolidation policies which were in any case necessary to comply with the Stability and Growth Pact. Facing market pressures, governments have sought to gain credibility and rapidly endeavoured to cut down budget deficits. This strategy was first implemented by governments for which access to market financing was restricted or denied (Greece, Ireland and Portugal). In these countries, accumulated negative fiscal impulses reached unprecedented levels, exceeding 19 points of annual GDP in Greece, 13 points in Ireland, 11 points in Portugal and 9 points in Spain. In Italy, despite difficulties similar to those faced by Spain, the cumulated negative fiscal impulse was lower. However, as fiscal stance was less expansionary in Italy in 2008 and 2009, the cumulated fiscal stance over 2008-2013 has been significantly negative and on average more restrictive than in France. In other European countries, austerity policies were carried out in the Netherlands, in Belgium, in Austria and to a lesser extent in Germany. Fiscal policy was nearly neutral over the period only in Finland.

These policies, however, have moved again the euro area into recession[6] and failed to restore credibility in crisis countries, notably those countries which benefited from financial assistance and were under the surveillance of the Troïka. Despite fiscal consolidation, CDS premiums continued to increase in 2010 and 2011 and have receded only after Mario Draghi pronounced the "Whatever it takes…" in July 2012 (Figure 1). Countries have then gradually regained access to financial markets (see Pisani-Ferry, Sapir and Wolff, 2014). The restrictive fiscal policy stance will lessen considerably in the euro area in 2014 and 2015. Beyond this, stability programs forecast further consolidation, but at a moderate pace because most countries won't be concerned anymore by the excessive deficit procedure. Fiscal consolidation will then depend on medium-term fiscal objectives and the ability of countries to converge towards the threshold for the debt-to-GDP ratio of 60% (see Part III of this chapter).

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4. Fiscal impulse measures the fiscal stance (generally measured by a change in structural fiscal balance). A negative fiscal impulse is a restrictive fiscal policy.
5. See Bordo & Jonung (2003) and more recently de Grauwe (2012).
6. The macroeconomic and social impacts of these strategies have been widely discussed in the two previous reports of IAGS (see OFCE-ECLM-IMK, 2012 and 2013).

Table 3. Fiscal impulses

In % of GDP

	2008-2009	2010-2013	2014	2015	2016-2018
DEU	0.5	-0.7	0.2	0.1	0.2
FRA*	2.9	-4.6	-0.3	-0.3	-1.0
ITA	1.0	-4.0	0.2	0.0	-0.6
ESP	4.3	-9.1	-1.0	-0.4	-1.3
NLD*	4.1	-5.9	-0.9	-0.5	-0.1
BEL	2.5	-2.6	-0.5	-0.7	-1.6
IRL	8.3	-13.1	-1.8	-1.1	-0.8
GRC	6.0	-19.3	-1.7	-1.9	n.a
POR	5.6	-11.4	-1.0	-0.5	-0.9
AUT	-0.2	-3.4	-0.4	0.0	-0.5
FIN	1.7	0.2	0.1	-0.4	-0.6
EUZ	2.2	-4.3	-0.2	-0.1	-0.4
GBR	2.9	-5.4	-0.7	-0.7	n.a
USA	6.3	-6.8	-1 .1	-0.6	n.a

* Data available until 2017 in the P-stab.
Source : iAGS forecasts, National Stability Programmes.

Figure 1. Credibility of fiscal adjustment plans or credibility of the ECB

In pts
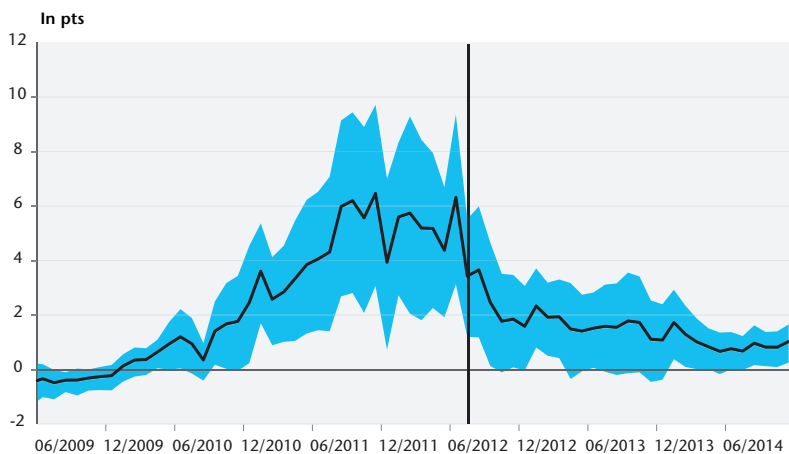
Note: The solid line represents the montly estimate of a 1-point increase of public debt on CDS premia (simple linear regression with a constant term). Regressions are run for 11 euro area countries (excluding Greece).The grey areas represent the range with +/- 2 standard-type errors.
*Source:* iAGS forecasts.

The impact of fiscal policy depends on the level of fiscal impulse but also on the size of fiscal multipliers, which varies with the macroeconomic outlook,[7] financial and monetary conditions. Composition of the adjustment also matters—whether it is an expenditure-based or fiscal revenue-based adjustment. Thus, the fiscal multiplier increases when unemployment—or the output gap—is high, when credit conditions are more restrictive, or when the financial situation of agents is worsening. Non-financial agents are more sensitive to a decrease of income because they cannot offset it by credit access as a result of liquidity/solvency constraints. Moreover, while the effects of fiscal policy are normally mitigated by monetary policy, this is not the case when the interest rate hits the zero lower bound. Finally, at the low (respectively high) point of the cycle, the multiplier effect is higher (resp. weaker) for expenditures than for revenues.

In the euro area, the arguments previously highlighted suggest that the size of the multipliers is still high. The unemployment rate remains close to an all-time record level. It has just stabilized in France and is still rising in Italy. The assumption of a weaker multiplier—around 0,5—applies above all for Germany, the only country close to full employment and with an output gap close to zero. Moreover, banks' situation in the euro area is not totally cleaned as non-performing loans continue to rise (notably in Italy, Portugal and Spain) and as balance sheets of non-financial private agents are still deteriorated because of a deleveraging process barely started. Finally, in some countries, particularly in France, fiscal consolidation is now realized by expenditures' cuts in a context of high unemployment. Consequently, the fiscal impulse, even though it is much smaller than in recent years, will still negatively affect the growth in most countries of the euro area, including Germany, where the negative impacts will stem from the fiscal impulse of the other countries. These differences between fiscal impulses affect the growth of the euro area countries and explain to a considerable extent the heterogeneity of growth paces between countries (Figure 2).

In this context, the direct effects of austerity will still be significant in 2015, particularly in France, Spain, Netherlands, Belgium, Ireland, Greece, Portugal and Finland. In the other countries, such as Germany, Italy or Austria, where fiscal impulse are neutral or slightly negative, growth will be slowed down because of the indirect effects of fiscal policy conducted abroad. Some measures will have more persistent effects and cut the growth beyond the year of implementation. Moreover, while growth dynamics in 2012 and 2013 was deeply affected by restrictive fiscal policies, other factors have hampered growth in 2014 (real interest rates, exchange rate appreciation and private deleveraging). Among these factors, some will still play in 2015 (notably private deleveraging) while other dragging factors will progressively fade away (a euro's depreciation is expected) explaining growth's acceleration.

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7. For a more detailed discussion, see Blot, Cochard, Creel, Ducoudré, Schweisguth and Timbeau (2014) or Creel, Heyer and Plane (2011) or Gechert and Rannenberg (2014).

Figure 2. Per capita GDP in the main euro area countries

Constant price $2005, ppp 2005

Source: iAGS forecasts.
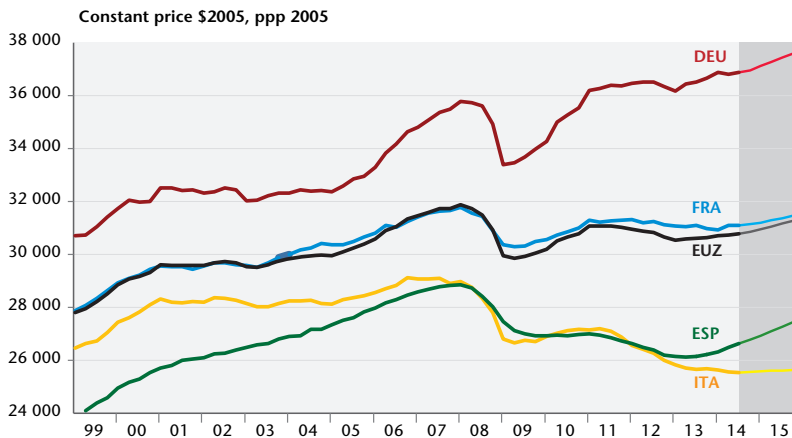
Increasing real interest rates

Between January and September 2014, the yield on 10-year benchmark government bonds decreased from 3% to 1.8% in the euro area. Even though some spreads remain with the German rate, the yield on Italian and Spanish bonds has decreased below 2.5% since the summer of 2014 (Figure 3). Ireland and Portugal have succeeded in issuing bonds on the financial markets and were able to get long-term funding at 1.7% and 3.2% respectively in October 2014. In spite of the decrease of the sovereign-debt interest rates, the pass-through to the

Figure 3. 10-year sovereign bonds yield

In %

Source: Datastream.
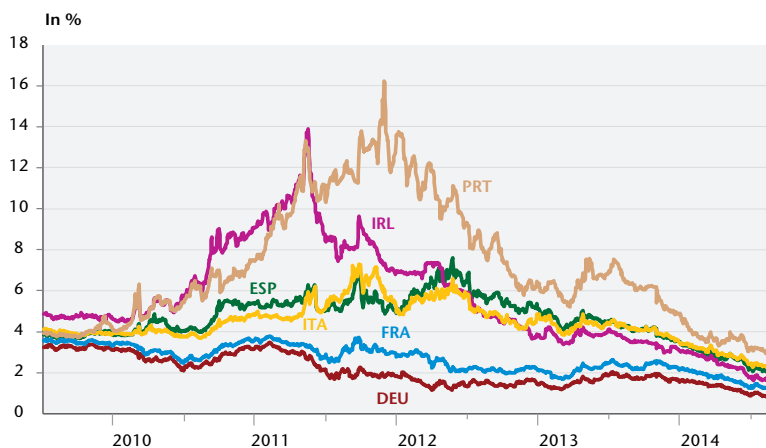
private retail bank interest rates is slow and partial. These heterogeneities are explained by the characteristics of mortgaged credits, banking systems, and by the health of the banking system. Differences have widened because of the fragmentation of the banking systems (see chapter 3 for more details). So, despite the drop of the public bond rates, retail bank interest rates on new business have not declined as much as market rates. Moreover, the drop in the inflation rates observed in every country has increased real interest rates (Figure 4). Consequently, in real terms, the cost of credit for the non-financial sector has increased since the beginning of 2013.

Figure 4. Real retail bank interest rates to non-financial corporations
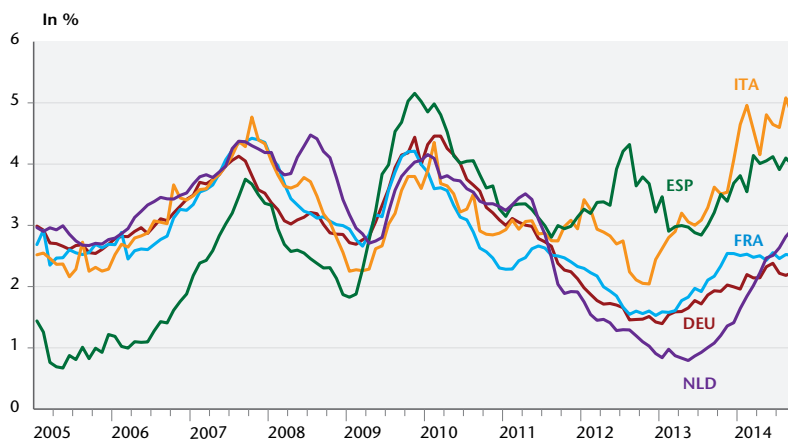
Note: Nominal bank interest rates are deflated with the 1-year average headline inflation.
Source: ECB, Eurostat.

Exchange rate appreciation

Exchange rate developments may also explain the lag between the recovery in the euro area and with respect to other advanced economies, especially the United States. Between mid-2012 and June 2014, the euro has appreciated against the US dollar by 10% and by more than 40% against the Yen. The joint movements of these bilateral exchange rates have contributed to a real appreciation of the euro of 9 %, which has negatively weighed on exports.

To a large extent the appreciation of the euro can be explained by monetary and financial events. First, the perceived risk of default of sovereigns or of withdrawal from EMU of one or more countries decreased substantially during second semester of 2012. This trend started after the well-known speech of the President of the ECB, M.Draghi, of July 2012 announcing that "the ECB is ready to do whatever it takes to preserve the euro". Afterwards, in September 2012 the launch of the OMT program (*Outright monetary transaction*) confirmed the credibility of the former speech and restored confidence in the common currency which appreciated strongly despite successive cuts on interest rates. Meanwhile, the balance sheet of the ECB has decreased by more than 10 points of GDP (Figure 5) while the Fed continued to expand its balance sheet by a further 8 points. The fall in the

ECB balance sheet does not reflect a conscious withdrawal of unconventional monetary policy, but is explained by a lower demand for liquidity from banks. The joint impact of higher real interest rates and more limited liquidity signals tighter monetary conditions in euro area which also contribute to a relative appreciation.

Another pressure on the euro exchange rate was the significant improvement in the current account balance (from a balanced position in 2011 to a surplus of more than 3% of GDP in 2014, see Figure 6). This improvement reflects the asymmetric correction of country-level imbalances. While deficit countries, like Spain, Ireland or Greece, have improved their position, surplus countries (mainly Germany and the Netherlands) have maintained theirs.

Figure 5. Size of central banks' balance sheet

Sources: ECB, BoE, BoJ, Federal Reserve, National accounts.
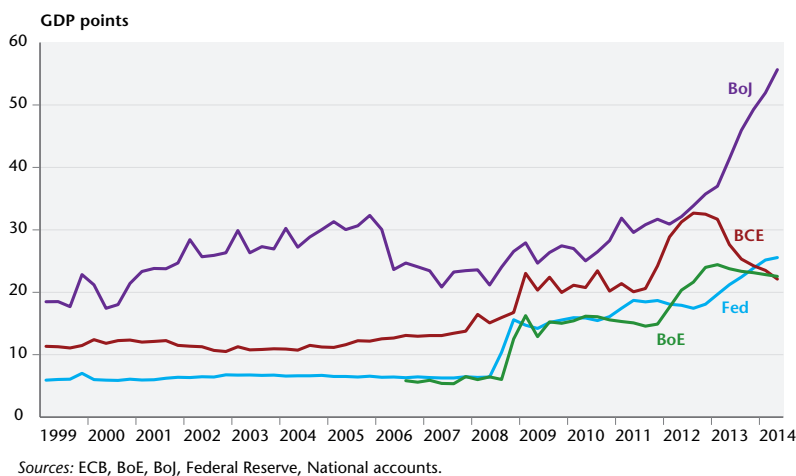
All other things held constant, the appreciation of the euro weighs on activity through its impact on net exports. However, this effect has been offset by adjustment of labour costs in some countries. In this regard, Spanish cost-competitiveness has improved significantly since the start of the crisis and despite the evolution of the euro (Figure 7). French cost-competitiveness has worsened since the start of the crisis despite its improvement between 2009 and 2012. If German competitiveness has improved since 2010, from its already high level, this trend has been interrupted lately, in line with the joint effect of euro appreciation and a faster wage growth than most of its Eurozone partners. Finally, among the biggest Euro Area countries, the Italian situation is the more worrisome as its cost-competitiveness has continued its deterioration.

The link between export-competitiveness and GDP growth depends on the weight of exports in total demand and on the elasticity of exports to prices. Germany may seem to be the large country most dependent on international trade according to the share of exports in total GDP (45 %, while this figure is 34 % in Spain, 29 % in Italy and 28 % in France), but external demand for German goods is less sensitive to price developments. According to recent

estimates,[8] the price-elasticity of exports is equal to 0.4 in Germany, 0.6 in France and Italy and 0.95 in Spain. All in all the euro's appreciation has influenced growth at the end of 2013 and at the beginning of 2014, largely explaining the slowdown of economic activity in the euro area. However, in countries that   realized a severe wage adjustment international trade may have supported growth in 2013, like in Spain (contribution of 1.6 point to GDP growth) where exports rose by 4.9 % while imports decreased slightly (-0.4 %).

Figure 6. Current account balance in the euro area

In %
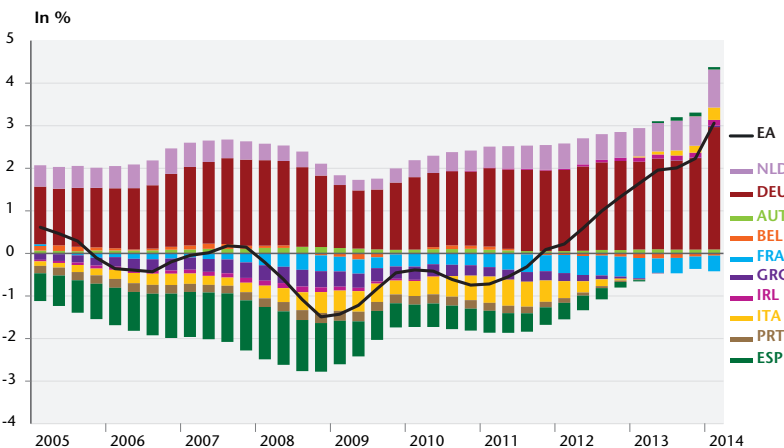
Source: Eurostat.

Figure 7. Real effective exchange rates (ULC based)

2007 = 100
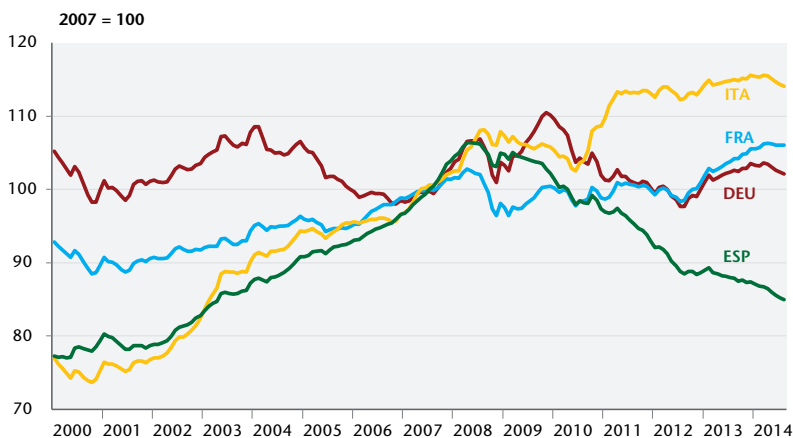
Source: IMF.

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8.   See OFCE (2014).

The appreciation of the euro was reversed starting in mid-2014 and we expect the trend to continue, in line with the divergence of monetary policy between ECB and the Fed. First, the measures announced by the ECB in order to fight against deflation should weight on the euro exchange rate. Second, the fast decrease of US unemployment has already led to the cessation of asset purchases by the Fed and should push the Fed to tighten its monetary policy in 2015 as its forward guidance policy suggests. Currency depreciation will serve to counter somewhat the disinflationary forces in the euro area.

Among Eurozone countries, wage moderation will persist in Spain as the high level of unemployment will continue to undermine the bargaining power of employees. Effort has also been made to cut down labour costs through reductions in public sector wages or freezing of minimum wages (see Box 2). Besides, labour market reforms have also been promoted to increase flexibility. In France, the strategy of competitive disinflation will be accentuated with the progressive implementation of the CICE[9] and of the *Pacte de responsabilité*, which will lead to cuts in labour costs. In Germany, the recent wage acceleration should persist. The higher growth, the decrease of unemployment and the introduction of a minimum wage should favor wage dynamics. Nevertheless, German firms have a comfortable profitability and low debt and they could absorb the anticipated growth of wages and limit the impact on price-competitiveness. Hence, German market shares are expected to decrease, but only modestly, during the next years.

Box 2. Labour markets' reforms: Case-studies

Spain

Since 2010, some key reforms have been undertaken on the Spanish labor market. The most important was the reform adopted in 2012 with the Royal Decree Law 3/2012 on urgent measures to reform the labor market. On 28 February 2014, a new plan on urgent measures to promote employment creation and indefinite hiring was adopted. All these packages aim at increasing the internal and external flexibility, reducing the labor market duality (due to the over use of temporary employment) and enhancing the workers 'employability through liberalization of regulation. They involve measures on:

Job protection legislation

From 2012, firm-level collective agreements prevail over other levels in a wide range of issues, including working conditions, wages, paid overtime, working time and other elements decided upon by higher level agreements. The prevalence of firm level agreement was already foreseen if not otherwise established by higher level agreements. With this new legislation, the employer may decide, *via* an agreement with workers representatives, not to apply for economic, technical or organisational reasons (i.e. the same reasons considered for a substantial change in working conditions) the terms of a collective contract. The economic reasons that warrant these changes occur when revenues or sales falls for at least 2 consecutive quarters. Job categories have been

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9.   *Crédit d'impôt, pour la compétitivité et l'emploi* (Tax rebate for competitiveness and employment).

more broadly defined, making job duties more fluid and giving firms the means to adapt to changing conditions. Firms are also allowed to make substantial changes to individual or collective contracts. In case of changes to the individual contract, the notice period has been reduced from 30 to 15 days, and to 7 days in case of no agreement in the consultation with workers' representative on collective changes. End of the so-called ultra atividad: an expired agreement has no validity beyond one year after the expiry date.

External firm flexibility, dismissal and unemployment benefits

From 2012, specification of the conditions for justified dismissals is broadened to a situation of a persistent reduction (effective or expected) in the level of sales (previously only revenues were considered). A persistent reduction occurs when sales or revenues fall for 3 consecutive quarters. Removal of the administrative authorization required for collective dismissals or other business decisions, such as the suspension of contracts or the temporary reduction of working hours for economic or business-related reasons. Also the notification period for justified dismissals is reduced to 15 days compared to 30 previously. In the event of unfair dismissal, reduction of the compensation that all workers on permanent contracts receive, from 45 days' pay per year worked for a maximum of 42 months to 33 days' pay for year worked for a maximum of 24 months. After a rise of the working time to 37.5 hours a week in 2011, in the public sector (central government), public administration can make collective redundancies for economic or business-related reasons. These measures are permissible specifically in cases of "insufficient budget" or for other technical or organizational reasons.

Fiscal incentives on labor costs

With the 2012 reform, introduction of an indefinite contract for young and unemployed workers—called "support to entrepreneurs"—, which can be used by companies of less than 50 employees. Companies that hire young unemployed workers under permanent contracts receive a €3,000 tax reduction upon first hire. Moreover, if the new worker had been receiving unemployment benefits, the tax reduction is equal to 50 per cent of the amount the worker was receiving in unemployment benefits at the time of hire. Other financial incentives include discounts in social security contributions for hiring an unemployed worker aged 16 to 30 years or over the age of 45 on a permanent contract, and for hiring a woman in an industry where females are under-represented. Incentives are conditional to keeping the worker at least 3 years in the firm (some exceptions are foreseen). The new contract will remain in force until the unemployment rate in Spain falls to under 15%. With the 2014 reform, introduction of temporary single monthly contributions to Social security (for common contingencies such as pensions, health and safety) of 100 euros (instead of 23,6% employer contribution rate) for all firms and self-employed, during 24 months, who increase their level of net indefinite employment and maintain it for at least 36 months. The new contracts have to be executed between February 25, 2014 and December 31, 2014. The new flat rate is regardless of the size and whether the recruitment is full or part time. In case of part-time contracts, the company's contribution will amount Euro 50 or 75 per month depending on the working times being up to 50% or 75% of a full time contract. These reductions apply for a period of 24 months, and during the following 12 months, companies with less than 10 employees are also entitled to obtain a reduction of 50% of contributions.

Wage Setting in the public sector

Cut in public sector wages by an average of 5% in 2010 (cut by between 8% and 15% for high-ranking officials and between 0.56% and 7% for those on lower pay). Public sector wage freeze since 2011.

Greece

In the framework of 'Measures for the immediate reduction of public expenditure and the creation of a favorable investment environment, of 6 May 2010 and of Economic Adjustment Programme (EAP) of 2011 set up with the Troïka support (IMF, ECB and EU), Greece has launched a reform programme aimed to undermine the collective agreements from the 'social Pact of 1990' and reduce the labor costs. The main measures are as follows:

About Job Protection

2010 Lowering the thresholds for collective dismissals. Abolishing the principle of the "implementation of more favourable provision", that the terms of company agreements apply only when they are more favourable than the terms of sectoral agreements, which, in turn, apply only when they are more favourable than the terms of the General Confederation of Greek Workers. Shortening significantly the notice period for terminating white-collar workers' open-ended employment agreements. This amounts to an indirect reduction of white-collar workers' severance pay by 50%. Extension of probationary period from 2 months to 1 year. Extension of maximum work period under temporary work agencies.

2011 Expanding use of fixed-term contracts.

2012 Reducing the length of the periods of notice for terminating an open-ended employment contract (from 1 to 2 months according the seniority in the firm). Reduction of severance pay on dismissal. All rules providing special protection (banks, public sector companies) against dismissal are to be abolished and only the common regulations of dismissal shall apply.

About Wage Setting

In the public sector

2009 Freeze of basic salaries of civil servants and public sector pensioners.

2010 20% Cutbacks in the earnings of all persons employed in the wider public sector. 30% reduction in the maximum limit of overtime afternoon hours. Introduction of a ratio of one hire to five departures for permanent employees and for those with indefinite-term private law employment contracts—except in health, safety and education sectors. Readjustment of bonuses, the Christmas, Easter and holiday bonuses which amount to two monthly salaries and are referred to as the 13th and 14th month salary.

2011 Increase in working hours in government sector to 40 hours per week. Cut in productivity allowance to 50% for ordinary staff for one year. Introduction of a single wage grid. Freeze of government wage drift. Reduction in maximum hours of overtime– ordinary staff only – from 40 to 20 hours.

2012 Reduction in salaries of special wage regimes of general government. Abolition of the remainder of Christmas, Easter and summer allowances (1000 per year). Postponing the implementation of the productivity allowance of Law 4024/2011 (after 2016)

In the private sector

2010 Introducing the possibility to derogate from conditions set at higher level agreements

Introducing a new type of company-related Collective Employment Agreement (CEA), the 'special company-related CEA', which may provide for remuneration and other working terms that are less favourable than the remuneration and working terms provided for by the respective sectoral CEA. Minimum wages and minimum working conditions at national and intersectoral level are still laid down by the EGSSE. Freeze of Minimum wage frozen for three years (2010-2012) and decreasing for workers under 25 years of age, to 84% of the minimum national wage and for underage workers aged 15-18 years to 70% of the minimum wage through the conclusion of apprenticeship agreements

2011 The suspension of the favourability principle implies that firm-level agreements prevail over sector and professional agreements for the duration of the EAP (2011-2016). Suspension of the extension of occupational and sectoral collective agreements to non-signatory parts for the duration of the EAP. Possibility of undercutting wages set in collective agreements by up to 20% for the hiring of new workers between 18 and 25 years old

2012 Reducing the 'after-effects' regime of expired collective agreements to 3 months. If, after this period, no new collective agreement has been signed, the 'after-effect' principle means that after which some allowances can be suspended until a new contract is signed. Maximum duration of collective agreements set at 3 years. Cut of 22% of the minimum wage (32% for workers under the age of 25). Temporary suspension of automatic wage increases

2013 Approbation of a new statutory way to set the national minimum wage

About labor costs

2010 Reducing overtime costs by between 5% and 10%. Abolition of tripartite financing of the social security fund

2011 Working time arrangements have been made more flexible

2012 Reduction in social contribution rates for employers by 1.1 percentage points

2012-2013 Abolishing regulations limiting commercial shop opening hours

About unemployment benefits

2011 Cap on duration of unemployment benefits (450 days over a four-year period as of 1 January 2013—400 days as of 1 January 2014). Cut in unemployment benefits paid around Easter and Christmas

2012 Reduction from 12/3/2012, of the basic unemployment benefits by 22%

Source: http://ec.europa.eu/economy_finance/indicators/economic_reforms/labref/

Ireland

Despite an attractive labour market regulation for firms, Ireland has put in place some new measures to deepen flexibility and stimulate job creation. Active labour market policies are very used but government has also implemented several reforms

About Job Protection

2012 Reduced State rebate on statutory redundancy lump sums from 60% to 15%.

About Wage Setting

In the public sector

2009 End of social partnership as public sector talks collapse.

Public service wages were cut on average by about 14% over 2009 and 2010

2010 Four year 'Crooke Park' Agreement (2010-2014):less generous pension scheme for new recruits; increased room for flexibility, mobility and redeployments; and increase in working time in certain sectors.

2013 Four year 'Haddington Road' Agreement (2013-2016): temporary cuts (from 5,5% to 10%) on salaries above €65.000; increase of the standard working hours. additionnal Flexible working arrangements

In the private sector

2010 Reduction of statutory minimum wage by 1 euro (or 12%), down to 7.65 euros

2012 Regulation by the Government of the wage bargaining framework (e.g. extension of collective agreements, representativeness of social partners, etc.)

About labor costs

2010 Exemption from social insurance contributions for 12 months in case of hiring of unemployed for 6 months or more

2013 JobsPlus incentive programme to recruit long-term unemployed people: €7.500 for recruits unemployed for more than 12 but less than 24 months and €10.000 for recruits unemployed for more than 24 months. To date over 1.800 jobseekers have benefitted from this subsidy, ca. 60% of whom were two years unemployed

About unemployment benefits

2009 Reduction of Unemployment benefits by 4,1%

2010 Reduction of Unemployment benefits by 4,1%

2011 Penalty measures for beneficiaries not in compliance with job-search conditionality

2012 Reduction of the duration of Jobseeker's Benefit by 3 months (from 12 months to 9 months for recipients with 260 or more contributions paid; and from 9 months to 6 months for recipients with less than 260 contributions paid) and the benefits are now linked to previous earnings. Withholding or reducing up to 9 weeks under certain circumstances (refusal to take up a suitable job offer or to participate in the activation process.

2013 Reducing duration of JobPlus scheme for those younger than 26. Reduced Jobseeker's Allowance for those younger than 26.

Sources :   http://ec.europa.eu/economy_finance/indicators/economic_reforms/ labref/, National Reform Programme, Ireland, April 2014, Macroeconomic Imbalances, Ireland 2014, EUROPEAN ECONOMY, Occasional Papers 181, March 2014.

Deleveraging is going on…

Beyond these factors, the absence of significant recovery, coupled with a slowing inflation rate and weak credit conditions highlight a deeper crisis, which is reminiscent of the Japanese situation in the early 1990s. Some seven years after the financial crisis broke out, the euro area GDP is still 1.6% below its pre-crisis level. Between 2007 and 2013, growth averaged -0.2%. By way of comparison, Japanese GDP grew by 0.5 % per year on average between 1992 and 1999 during the so-called "lost decade". Can the euro area also end up in a situation of deflation and anaemic growth? There is a real risk and the literature on financial crises highlights that recessions which occur in such circumstances are longer and more costly (Claessens, Kose and Terrones, 2011). Post-financial crisis periods are characterized by weak credit and investment, due to deteriorating financial intermediation and deleveraging by private agents (Jorda, Schularick and Taylor, 2013). The euro area banking system, which plays a major role in financing non-financial agents, was severely undermined by the subprime and sovereign debt crises.

Moreover, the crisis stems from excessive private debt which created real-estate bubbles, especially in Spain and Ireland. Under these conditions, non-financial agents (households and non-financial corporations) need to clean up their balance sheet before activity can recover. These two elements—fragility of the banking system and balance-sheet deleveraging of non-financial agents—epitomizes the idea of balance-sheet recession, which was described by Koo (2011). The consequence is a weak internal demand, especially as regards investment. This situation fuels deflationary pressures, which in turn deteriorate the situation of indebted agents and makes monetary policy ineffective.

After the two crises which hit the euro area banking system, the question of its soundness remains. The recent AQR led by the ECB has clarified some doubts on the risk of insolvency, but vulnerabilities remain, notably because their leverage effect[10] is still high. European banks were very exposed to toxic assets (structured products, subprime). They were also exposed to the sovereign risk of their home country, and to the sovereign risk of other countries[11] in the euro area, because of an increasingly integrated of EU bond market during the 2000s. The collapse of the market for structured products, followed by the fall in the price of some sovereign bonds reduced banks' access to liquidity and threatened their solvability. This led the ECB to intervene by proposing fixed rate refinancing (FRFA) and longer maturities (LTRO and VLTRO). Non-performing loans have not been completely cleared from the banks' balance sheets (in Spain, in Italy, Table 4): this reduces the banks' risk appetite and reinforces the fragmentation in European banking systems. The high level of non-performing loans hampers the distribution of new credits by banks, in spite of the ECB's very accommodating monetary policy, and of the recent TLTRO program.

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10. The leverage effect is measured by the ratio between equity and non-weighted assets. When it comes to the calculation of solvency ratios, assets are weighed according to the associated risk level. Thus, public bonds, which are regarded as riskless, are not taken into account in the weighted assets.
11. See Davies and Ng (2011).

**Table 4. Major trends in non-performing loans between 2008 and 2013,
in some euro area countries**

	Bank Regulatory Capital/Risk-Weighted Assets 2013	Variation *in % points* 2008-2013	Non-performing loans/total loans 2013	Variation *in % points* 2008-2013
AUT	18.0	5.1	2.9	1.0
BEL	18.7	2.3	4.3	2.7
DEU	19.2	5.6	2.7	-0.2
ESP	13.3	2.0	9.4	6.6
FIN	16.0	2.4	0.5*	0.1*
FRA	15.4	4.9	4.5	1.7
GRC	13.5	3.5	31.9	27.2
IRL	20.4	8.4	25.3	23.4
ITA	13.7	3.3	16.5	10.3
NLD	14.9	3.0	3.2	1.5
PRT	13.3	3.9	10.6	7.0

* 2012 figures.
Source: FMI Financial Soundness Indicators, octobre 2014.

These difficulties are reflected in the weakness of credit to non-financial corporations. Credit flows are negative since the start of 2013 (Figure 8). The SAFE survey, realized by the ECB on the access to finance of enterprises, also indicate that small and medium enterprises (SMEs) are facing funding difficulties. In Greece 32% of SMEs report that access to finance was their most pressing problem between April and September 2014 (Table 5). These percentages amount to 18% in Ireland and 17% in Spain and Portugal, while German and Austrian firms encountered less difficulties since access to finance is the most pressing problem for only 9% and 7% of SMEs.

Table 5. Access to finance of firms in the euro area

	BEL	DEU	IRL	GRC	ESP	FRA	ITA	NLD	AUT	POR	FIN	EUZ
% of SMEs for which the most pressing problems is access to finance												
Oct-13/Mar-14	9.2	6.2	21.6	39.8	16.6	11.9	16.3	16.0	8.0	18.3	9.1	13.4
April-14/Sept-14	11.2	8.8	17.6	31.7	17.3	11.2	14.4	14.1	7.1	17.0	10.4	13.2
	BEL	**DEU**	**IRL**	**GRC**	**ESP**	**FRA**	**ITA**	**NLD**	**AUT**	**POR**	**FIN**	**EUZ**
% of SMEs that did not apply for bank loans because of possible rejection												
Oct-13/Mar-14	4.4	1.9	13.1	22.3	5.4	8.0	7.8	9.9	1.7	7.5	2.8	6.3
April-14/Sept-14	3.9	6.3	14.9	29.4	9.1	5.6	9.5	9.9	4.4	8.6	3.7	8.4
	BEL	**DEU**	**IRL**	**GRC**	**ESP**	**FRA**	**ITA**	**NLD**	**AUT**	**POR**	**FIN**	**EUZ**
% of SMEs that did not apply for bank loans because of sufficient internal funds												
Oct-13/Mar-14	54.9	53.3	53.5	22.8	36.2	30.9	31.1	51.4	65.0	30.8	55.2	40.4
April-14/Sept-14	37.6	48.5	39.6	25.7	34.0	33.8	23.5	36.5	50.2	37.8	33.8	36.2

Source : ECB (SAFE survey).

However, it is difficult to disentangle between supply problems (credit rationing) and reduction of credit demand. The Bank Lending Survey (BLS), also conducted quarterly by the ECB, stressed that banks from the euro area have reported that demand factors have been as important as supply factors. From the banks' perspective, the refusal to provide credit may reflect a deterioration in the average quality of borrowers. But the borrower would here consider that credit supply was rationed if he has been denied a request for funding. Moreover, even if debt securities issuance has increased, it is far from compensating the decline in bank lending. In addition, equity financing has also declined so that total non-financial corporations financing flows are lower than in 2003. The weak demand for credit in the euro area reflects both the slowdown in economic activity but also the deteriorating financial situation of non-financial agents.

Figure 8. Euro area financing flows of non-financial corporations

4-quarter cumulated flows, euro billions
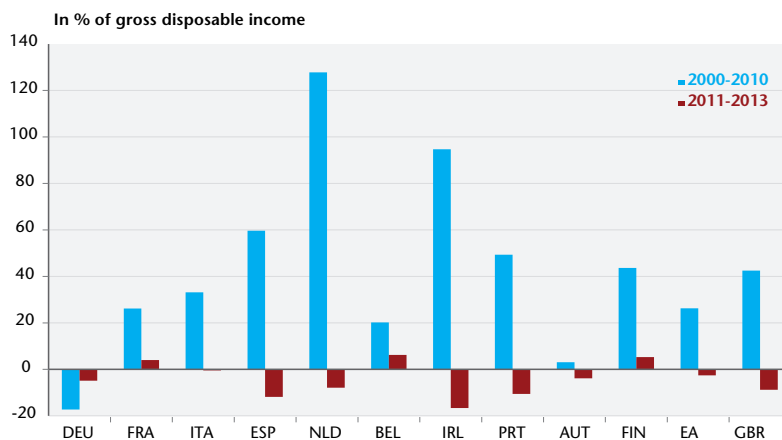
Source: ECB.
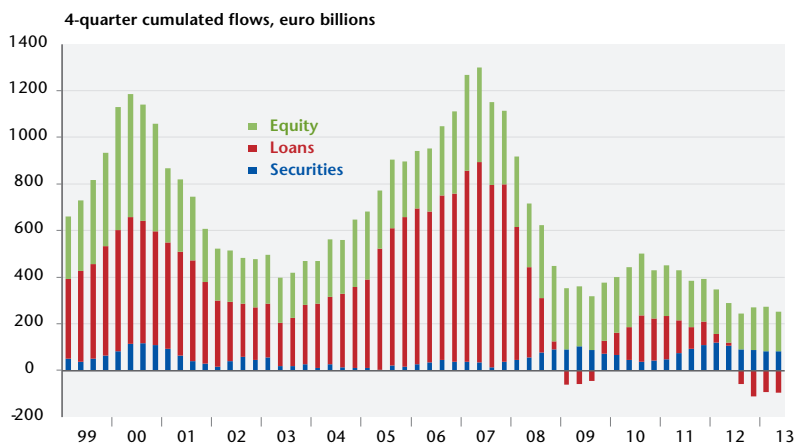
Access to external funding may be restricted for firms or households if they suffer from a fall in their income or profitability, or if they are not able to provide adequate collateral. External financing (funding from banks or financial market) becomes more expensive. In practice, enterprises (or households) reduce their funding requests because they know that their situation has deteriorated and therefore cannot benefit from attractive financing conditions. This self-selection process has concerned 36% of SMEs in the euro area according to the SAFE survey (Table 5), notably 48.5% of German or 50% of Austrian firm against less than 26% of Greek SMEs for which the fear of a possible rejection was the main reason given for not seeking funding. However, it can be considered that the difference between these two motivations is rather subjective. These two factors may then reflect the weakening of the financial situation of small and medium firms in the euro area.

Spending is then constrained either because of the inability to get credit or by the need to reduce debt. Deleveraging generally takes a considerable time explaining why post-financial crisis periods are characterized by low growth. In

the euro area, household debt has fallen by 3 points since 2011, which is still very limited compared to the previous increase of 25 points between 2000 and 2010 (Figure 9). Household debt has declined in all countries but France, Belgium and Finland. Debt has decreased at a very moderate pace in Italy and more significantly in Spain, Ireland and Portugal. In Austria, the level of household debt at the end of 2013 is slightly lower than its 2006 level and Germany is the only country for which household debt is decreasing since 2000, where it amounted to 106.6% of disposable income against 83.3% in 2013.

Figure 9. Change in household debt in the euro area

In % of gross disposable income

Source: ECB.

For firms, strong heterogeneity remains across countries in the euro area. The reduction of corporate debt is particularly marked in Spain but less marked in Germany and Italy, while in France, corporate debt has stabilized at around 127% of value added (Figure 10). Deleveraging may not have come to an end but it is yet difficult to assess its likely duration, not least because the target value of debt for households and corporates is not known. According to the European Commission[12], it might be a long-lasting process which is expected to hamper investment spending by non-financial corporations and households (housing investment) and consumption spending. Medium-term growth will then be negatively impinged.

In this environment, monetary policy may play a crucial yet limited role. It is crucial to avoid a credit crunch as banks and non-financial agents' balance sheets are impaired. Ongena, Peydro and Saurina (2012) analyse the impact of monetary policy through the bank lending channel in Spain. They suggest that rejection of loans decreases when the ECB cuts interest rates. The effect is stronger for fragile banks (less liquid or capitalized). Thus, monetary policy plays an important role in reducing the effects of credit supply restriction. But the impact on demand may be limited when financial net worth of firms is impaired. Bech, Gambacorta and

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12. See European Commission, Autumn forecasts, 2014 (box I.1, I.2 et I.3)

Kharroubi (2012) find indeed that monetary policy is less effective during recoveries following financial crises. The interpretation is that spending is weakly supported by loose monetary policy as long as deleveraging is the priority for the non-financial sector. However, the exchange rate channel of monetary policy may be powerful during these periods as it improves competitiveness and boosts external demand. Although the exchange rate is not a target of the ECB, recent statements of Mario Draghi have illustrated that ECB is showing stronger interest in the value of euro. The aims of ECB measures taken in June 2014 was at least indirectly to bring down the euro and reduce the risk of deflation.

Figure 10. Non-financial corporate debt in the euro area

In % value-added
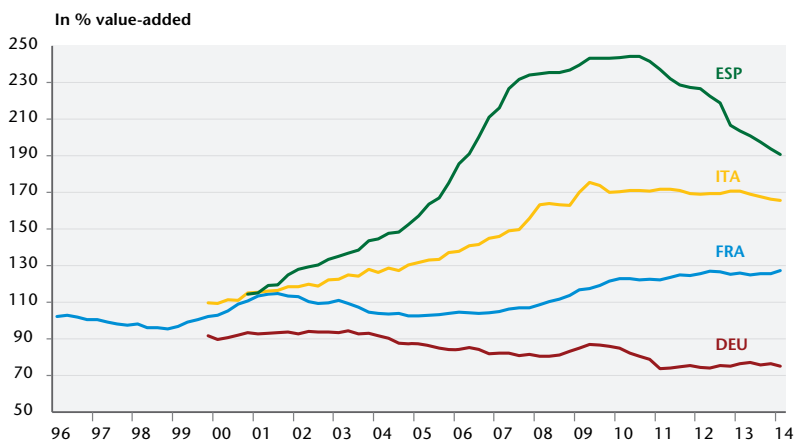
Source: Banque de France.

2. Risk of deflation and hysteresis

Harmonised consumer price inflation was 0.4% in October 2014, at constant tax rates the rate stood at only 0.2% (figure 11). In the past 12 months, the decline has been largely due to lower import prices, especially energy prices. But already a year ago headline inflation was well below the ECB's target of 1.9%, reaching only 0.7% in October 2013 and 0.8% in November 2013. The core HICP rate excluding energy, food alcohol and tobacco better reflects the underlying inflation dynamic. It has fluctuated between 1.0% and 0.7% during the past 12 months and is currently at 0.7%. The euro area is in the midst of a longer period of too-low inflation, with several countries registering negative rates, i.e. deflation.

Inflation expectations have continually declined over the past year (Figure 12). This applies to short-term, medium-term and long-term expectations. Lower inflation expectations imply higher real interest rates. In a simulation for the euro area, IMK (2014) found that a decline in inflation expectations by 1 percentage point would depress euro-area GDP by 0.9 percentage points (Figure 13).

Figure 11. Harmonized consumer price index (HICP)

Source: Eurostat.
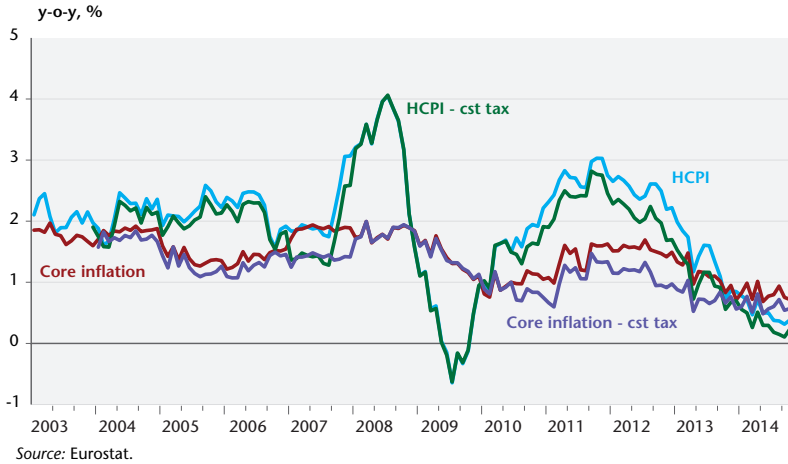
Figure 12. Inflation expectations (Survey of Professional forecasters)
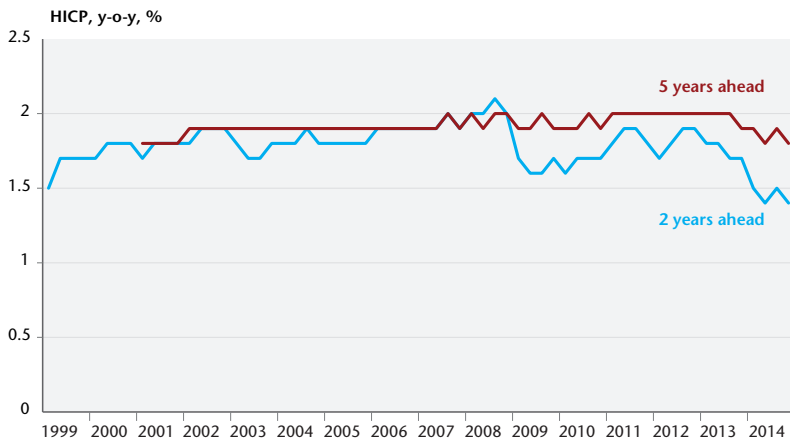
Note: In 1999 and 2000 the SPF collected five-years ahead inflation expectations only in the first quarter.
Source: ECB (Survey of professional forecasters).

Only the real-interest effect is captured by the simulation. Beyond this effect, lower longer-term inflation expectations negatively impact on investment and consumption demand by raising uncertainty: They signal that market participants are less confident that the ECB will be able to meet its inflation target. Lower inflation expectations and lower inflation also increase the debt burden of consumers and enterprises which further reduces aggregate demand and investment,[13] in

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13. See Eggertson and Krugman (2012) for a recent theoretical approach on Fisherian debt deflation mechanisms.

particular. If inflation expectations turn negative, i.e. deflation sets in, matters are made worse as consumers and investors defer purchases in expectation of lower prices. Once inflation is very low, the ECB's policy rate become ineffective, because it has a nominal lower bound of zero. As inflation expectations decline, the real rate of interest increases, effectively robbing the central bank of its key policy instrument. This is one reason why central banks have an inflation target well above zero. The inflation target has to provide a "sufficient safety margin against deflation" (ECB 2003, p. 17).

**Figure 13. Lower inflation expectation: Impact on euro area GDP**
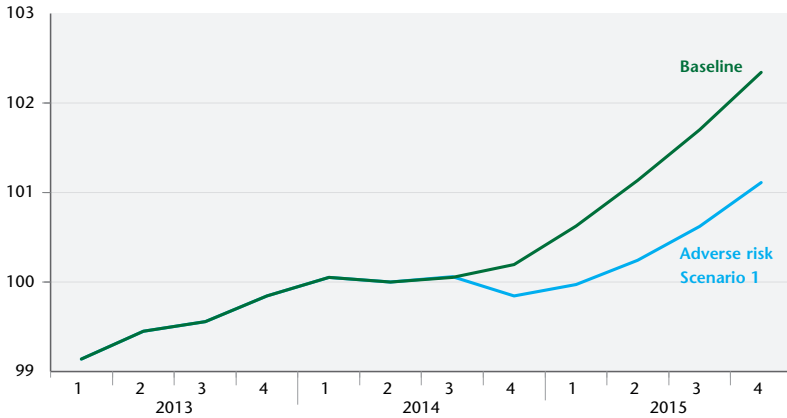
1 Lower 10-year inflation expectations in the euro area by 1 percentage point compared to baseline.
Source: IMK (2014), NiGEM.

The ECB currently expects inflation rates to remain well below its inflation target in the longer term. According to its latest forecast in September 2014, the ECB expects an inflation rate of 0.6% in 2014, 1.1% in 2015 and 1.4% in 2016. Monetary policy makers still have tools available and are currently using them: a negative deposit rate, long-term fixed rate refinancing operations and security purchases, in particular the purchase of covered bonds and ABS. But there is little empirical data to gauge the effect of these instruments. Waiting to see whether deflation takes hold to implement them—as recently suggested by the German Council of Economic Experts (2014, p. 163)—seems highly unwise.

The safety margin against deflation is no longer sufficient. This alone justifies that the ECB has adopted new policy measures to prop up demand and inflation. But aside from the risk of deflation, another strong argument for more expansionary macro policy is to be found in the long duration of the current crisis. Low inflation is indicative of a large output gap as well as low investment opportunities and aggravates the euro area's problem of high indebtedness. Firms and households are faced with higher real debt burdens as incomes fall short of their expected nominal values. The unemployment rate in the euro area has been above 10% for almost 5 years. Currently it is at 11.5% and well above this level in many euro-area countries, reaching around 25% in both Spain and Greece.

Resources are wasted and future potential output is impaired as youth unemployment is well above the average rate, reaching more than 50% in both Spain and Greece (see also Chapter 2). The longer GDP remains below its potential level and the higher remains the unemployment rate, i.e. the longer a negative output and unemployment gap persists, the more likely it becomes that potential output declines as well. This risk is significant today as unemployment rates still reach record levels in some euro area countries (Figure 14) and may persist given our current growth forecasts.

Figure 14. Unemployment rate

In % of labour force

Sources: Eurostat, iAGS forecasts.
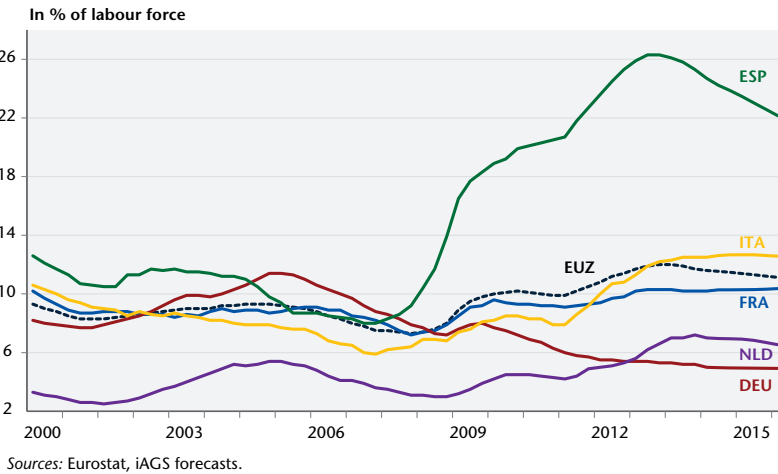
Potential output is the sustainable, non-inflationary output an economy can produce. The key factors that affect the level of potential output are the capital stock, the labour force and productivity. As investment comes to a halt, the capital stock declines due to depreciation. With low investment and reduced expenditure on research and technology, the rate of innovation slows impacting negatively on total factor productivity. And as unemployment spells lengthen, the unemployed may experience a loss of skills and human capital and become discouraged. This causes the labour force to decline as both the inflation-stable rate of unemployment (NAIRU) rises and the participation rate falls (Ball 2009, Logeay/Tober 2006). Through these so-called hysteresis effects, the level of potential output is thus affected by the level of actual output. In this vein, ECB-president Draghi also argued for more expansionary macroeconomic policies in the euro area when he stated in August 2014:

"Demand side policies are not only justified by the significant cyclical component in unemployment. They are also relevant because, given prevailing uncertainty, they help insure against the risk that a weak economy is contributing to hysteresis effects." (Draghi 2014)

Potential output is endogenous to the actual level of economic activity not only on the theoretical, but also on the empirical level. Unfortunately, in empirical estimations potential output adjusts to actual output largely for econometric

rather than economic reasons.[14] During a long-lasting crisis such as the current crisis in the euro area the estimated potential output is revised downwards: the output gap may as a consequence appear to be smaller than it is and with it the perceived necessity of expansionary macroeconomic policies.

In the case of the inflation-stable unemployment rate (NAIRU) the procyclical development recently led the EU Commission to change the specification of the NAIRU model for several countries, most prominently Spain (European Commission 2014a). As can be seen in Figure 15, in Autumn 2013 the EU Commission's forecast of the Spanish NAIRU for 2014 almost equaled the forecast of unemployment for that year. As Spanish unemployment was declining at the time, the actual unemployment rate was likely to be lower than the estimated NAIRU in 2015. An unemployment rate of above 20% entailing youth unemployment of more than 50% was thus being interpreted as labour market equilibrium or even labour market tightness, i.e. an overutilization of labor. Given this implausible outcome, in the Spring 2014 forecast the EU Commission changed the model specification of NAIRU. Rather than climbing to 26.6% in 2015, the new NAIRU now increases to only 20.5% in 2015.

Figure 15. EU Commission estimates of the Spanish NAIRU at different publication dates
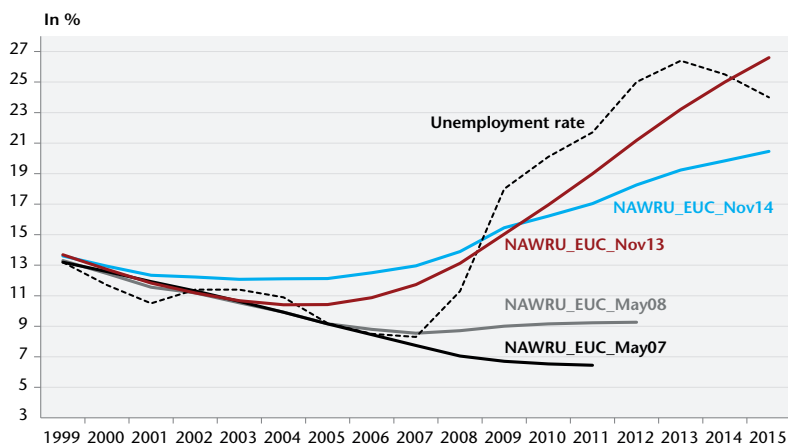
Sources: European Commission, *Economic Forecasts*, European Economy and CIRCA website.

Despite the change in model specification, the NAIRU estimate is still procyclical, albeit less so. This is relevant for economic policy, because the NAIRU estimate affects the estimate of potential output and thereby also the structural deficit of euro-area countries. On average, an increase in the EU-Commission's

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14. For a discussion of the dominance of time series properties in the estimates of the EU Commission's NAIRU, see Gechert/Rietzler/Tober (2014), who show that the European Commission's NAIRU is mostly driven by actual unemployment and turns out to be quite resilient to structural reforms.

NAIRU by 1 percentage point lowers the output gap by 0.65 percentage points which, in turn, increases the structural deficit by 0.4 percentage points (EU Commission 2014b: 29).

Economic growth is a major factor not only in attaining low unemployment but also in achieving sustainable public finances. If GDP is 2% higher, the deficit will be 1 percentage point lower, given a budgetary semi-elasticity of 0.5. Analogously, if potential output is 2% higher, the structural deficit will be 1 percentage point lower. There is thus a risk of a vicious circle in which persistent low growth leads to upward revisions of the NAIRU, reduced estimations of potential output, higher structural deficits and thus pressure for greater fiscal consolidation, which in turn depresses output further.

Given a shortage of aggregate demand and a lack of investment in part due to adverse profitability prospects, more expansionary monetary and fiscal policies are required to boost economic growth. If successful, there is even the real chance, that the euro area enters a virtuous cycle of higher growth and employment as well as fiscal consolidation with a declining inflation-stable unemployment rate, a rising labour participation rate, more capital investment and a higher rate of productivity growth.

3. The risk of a new wave of austerity

Though it has still significant impact on economic activity, austerity has been lessened in 2014 and 2015. Two arguments may explain this slowing pace of consolidation. On the one hand, countries have benefited from extended deadlines in 2013 for correcting the excessive deficit. Spain, France, the Netherlands and Portugal were notably concerned. New headlines deficits targets were set by the European Commission, which also mentioned careful attention would be paid to the reduction of structural deficits. The aim was not to allow countries to reduce their effort of fiscal consolidation, but rather to take into consideration the fact that former targets were not achievable given the deterioration of the economic outlook. With these new deadlines, excessive deficits should have been corrected in 2014 for the Netherlands, which is the case, in 2015 for France and Portugal and in 2016 for Spain. On the other hand, some countries are already under the 3% threshold and have exited the excessive deficit procedure: Germany, Italy, the Netherlands, Belgium, Austria, Finland, Luxembourg, Slovakia, Lithuania and Latvia. Although Greece is still in the excessive deficit procedure, the headline deficit is expected to be below 3% of GDP in 2014. Given GDP forecasts and voted fiscal impulses for 2014, the situation should not change in 2015, as France, Portugal and Spain will not reach the target, whereas Ireland would exit the EDP (table 6).

But austerity has not yet not come to an end, as fiscal rules were reinforced in 2011 with the fiscal compact. Beyond the deficit rule according to which headline deficit should not exceed 3% of GDP, a debt rule was introduced, stipulating that debt-to-GDP ratio should reach 60%. Besides, the medium term objective (MTO) sets a maximum value for structural deficits that should not exceed 0.5% (or 1% for countries where debt is below 60%). Considering the current level of public debt, countries will hardly benefit from fiscal space even if they have succeeded to reduce the headline deficit below 3% and are no longer in the excessive deficit

procedure. Some will have to implement further austerity as soon as the transition period is over. The aim of this last section is precisely to assess the amount of consolidation that will be needed to comply with fiscal rules. To that end, we run simulations based on the iAGS model.[15] The first step involves simulating the macroeconomic dynamic with current expected fiscal impulses already decided for 2015 and expected according to the Stability Programmes for the period 2016-2018 (see table 3). Simulations start in 2015 and initial values, as well as the main features of the model are detailed in Box 3.

Table 6. Fiscal balances

In %

	2014	2015
DEU	0.5	0.4
FRA	-4.5	-4.3
ITA	-3.0	-2.9
ESP	-5.0	-4.2
NLD	-2.9	-2.2
BEL	-2.6	-1.9
PRT	-3.8	-2.4
IRL	-3.6	-2.6
GRC	-1.6	-1.0
FIN	-2.7	-2.4
AUT	-2.5	-1.4
EUZ	-2.3	-2.0

Source : Eurostat, iAGS forecasts.

Box 3. Short description of the model and main hypotheses for the baseline simulations

The key features of the model are the following:

- It allows for an explicit representation of the main euro area countries: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal and Spain. An aggregated euro area is also computed.

- On the demand side, an open economy aggregate demand function is represented, with fiscal and monetary policy, external demand (a channel for intra EU interdependencies) as well as exogenous shocks on the output gap (the gap between actual and potential GDP). The equation is written as an error-correction model. The stabilization of the economy stems from adjustments in the long-term interest rates and competitiveness, which have feedback effects on the output gap. The stabilisation may then hinge on private demand (through interest rates adjustment and monetary policy) and on external demand (through the decrease in relative prices).

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15. A full representation of the model is given by Blot, Cochard, Creel, Ducoudré, Schweisguth and Timbeau (2014).

Exchange rate is exogenous. The calibration allows to simulate standard hypotheses as well as alternatives, checking the dependence of results on different sets of hypotheses. Furthermore, the size of fiscal multipliers is allowed to vary along the business cycle. The ineffectiveness of monetary policy is made possible when the economy hits the zero lower bound (ZLB).

- External demand is modelled using a bilateral trade matrix representing interdependencies between countries. The trade matrix is also used as a basis for imbalances analysis.

- We model prices by a generalized Phillips curve relating current and expected inflation to the output gap, imported inflation and other exogenous shocks. Expectations can be modelled as adaptive (backward-looking) or rational (forward-looking).

- A Taylor rule sums up monetary policy, except under the Zero Lower Bound.

- Changes in the short-term monetary policy rate are then passed through the long-term interest rates. Hence, according to the expectations theory, the long-term interest rate for German public bonds is set equal to the expected sum of future short-term interest rates (Shiller, 1979), with short-term interest rates set by the (European) central bank. The long-term public rate for Germany is considered risk free, and long-term public rates for other countries include a risk premium that is set exogenously. We also temporarily set exogenously the long-term rate for countries that entered the EFSF to account for a lower interest rate on debt refinancing. Finally, for each country the long-term interest rate on private bonds is equal to the public one plus a risk premium that is set exogenously.

- The stance of monetary policy remains expansionary as long as the euro area aggregate output gap is negative and if inflation is below the 2% target. In case of a negative idiosyncratic demand shock, the convergence to the potential growth rate hinges partly on the effects of common expansionary monetary and on a competitiveness effect. Due to hysteresis effect, the output level may be permanently affected by a negative demand shock. Trend growth of the potential output will always converge to an exogenously set path.

- The public balance separates interest payments, cyclically-adjusted balance and cyclical components, in order to properly assess the fiscal stance, *i.e.* the part of fiscal policy which is under the direct control (discretion) of current governments. We then derive public debt projections for euro area countries.

Simulations begin in 2015. To do so, we need to set some starting point values in 2014 for a set of determinant variables. Output gaps for 2014 come from OECD forecasts. These hypotheses, as well as those for long-term growth projections are necessarily open to debate. Simulations are provided to assess the sensitivity of our result on the output gap and long-term growth. Concerning fiscal policy and budget variables, the main assumptions are as follows:

— Public debt and public balance in 2014 come from iAGS forecasts;[16]

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16. There might be some small differences with previous tables or with country-tables in the appendix for fiscal balance, public debt or fiscal impulses as simulations have not necessarily been realized with the latest available information.

— Fiscal impulses come from iAGS forecasts for 2015. For 2016-2018, we use fiscal impulses implied by the Stability and Growth Pact reported in the "Stability Programmes" presented in 2014 by each country.
— Sovereign spreads come from iAGS forecasts under the hypothesis of convergence of long-term interest rates completed in 2017.

Table 7. Main hypotheses for 2014

In %

	Public debt	Fiscal balance	Structural balance	Primary structural balance	output gap	Inflation rate	potential growth
DEU	75.6	0.2	0.2	2.2	-0.1	1.0	1.0
FRA	93.9	-4.5	-2.6	-0.4	-3.9	0.7	1.4
ITA	131.6	-3.0	-0.3	4.8	-5.4	0.2	0.2
ESP	98.4	-5.5	-2.1	1.3	-6.8	0.1	1.4
NLD	75.6	-2.9	-0.5	1.2	-4.3	0.4	1.3
BEL	102.3	-2.6	-1.6	1.5	-1.9	0.8	1.5
PRT	131.5	-3.8	-0.6	3.7	-7.0	0.2	1.0
IRL	118.7	-3.6	-0.4	4.3	-8.0	0.4	1.8
GRC	176	-3.3	2.4	7.4	-13.1	-0.9	1.0
FIN	61.3	-2.7	-0.6	-1.6	-4.2	1.3	1.6
AUT	76.1	-2.9	-1.4	0.7	-3.3	1.6	1.4

Sources: OECD, European Commission, iAGS forecasts.

With current fiscal impulses (corresponding to the current stance for 2015 and to P-stab forecasts for 2016-2018), we first illustrate the debt dynamic until 2034. A 20-year horizon was chosen here to stick to the horizon set in the fiscal compact for achieving the 60% debt-to-GDP ratio. The 60% threshold would not be reached by France, Italy, Spain and Finland. It must be stressed here that initial values on structural balance are critical to assess the relative position of each country in 2034. Debt dynamics hinge on the critical gap between real interest rate and real GDP growth rate. Given the model properties, the critical gap converges to zero[17] so that the structural balance matters to explain differences across countries in the baseline's projections for public debt. As fiscal impulses beyond 2015 remain limited, the initial value for structural deficit is a critical hypothesis. This hypothesis is here strongly related to the output gap. For a given headline deficit, the higher is the output gap, the smaller is the structural deficit. This may explain here why situation is more favourable in Spain than in France. Though the Spanish headline deficit is higher, the structural deficit would be smaller, so that debt-reduction by 2034 is more substantial in Spain than in France. It must be added that structural balance between 2014 and 2034 will also depend on expected fiscal impulses and on the dynamic of potential output. With hysteris effects, a reduction in activity leads to a decrease in the potential output and everything else equal a rise in the structural deficit, because the decrease in potential output triggers a permanent reduction in fiscal receipts.

17. In the long run, real interest rate is equal to the potential output growth rate to make sure that output gap converges to zero.

In Table 8,[18] output gaps are closing between 2015 and 2019 explaining why GDP growth rates are above long-term growth rates. Inflation is below 2% for all countries and reverts to the ECB target after 2020.

Table 8. Baseline scenario

In%

	Public debt			Structural balance			CFI	Average growth rate		Min-OG	Average inflation rate	
	2015	2020	2034	2015	2020	2034	2015-2018	2015-2019	2020-2034	2015-2034	2015-2019	2020-2034
DEU	73	60	29	0.4	0.7	1.2	0.3	1.2	1.0	0.0	1.2	2.0
FRA	96	94	86	-2.4	-2.0	-2.6	-1.3	1.8	1.5	-3.6	1.0	2.0
ITA	133	119	67	-0.2	1.0	2.3	-0.6	0.9	0.2	-4.5	0.8	2.0
ESP	101	96	66	-1.7	-0.8	-0.3	-1.7	2.0	1.5	-5.3	0.6	1.9
NLD	76	69	49	-0.3	-0.4	-0.3	-0.5	2.0	1.3	-3.6	0.4	2.0
BEL	102	86	33	-0.7	1.2	2.3	-2.3	1.7	1.5	-1.9	0.7	2.0
PRT	131	114	60	-0.4	0.7	1.9	-1.4	1.8	1.1	-5.8	1.2	2.0
IRL	116	95	14	0.8	2.4	4.8	-1.9	2.9	1.9	-6.1	-0.1	2.0
GRC	172	141	50	2.6	2.4	4.9	-0.9	2.7	1.0	-10.5	0.4	1.9
FIN	64	64	73	-0.8	-2.0	-3.5	-1.0	2.1	1.6	-3.9	0.9	2.0
AUT	77	71	57	-1.3	-1.0	-1.0	-0.5	1.8	1.4	-3.0	1.4	2.0
EUZ	**96**	**86**	**56**	**-0.7**	**-0.1**	**0.2**	**-0.7**	**1.5**	**1.1**	**-2.9**	**0.9**	**2.0**

CFI: Cumulated fiscal impulse.
Source: iAGS forecasts.

The next step is to assess whether countries are able to meet the ceiling by 2034. As for last report, the aim is to reach 60% for all countries so that for countries which are below 60% in table 8, we consider positive fiscal impulses. These countries have fiscal space (this point is also discussed in Box 4 to take into account the constraints coming from the MTO). Considering current fiscal rules, we apply fiscal impulses capped at +/-0.5. Successive positive (if country-debt is below 60% in table 8) or negative (if country-debt is above 60% in table 8) impulses are implemented until the debt-to-GDP reaches 60%. We find that all countries would be able to comply with the fiscal rule on public debt. Yet, it may involve a significant additional effort. The cumulated effort to reach the 60% ratio would amount to 3.4 points in France (Table 9) instead of 1.3 in table 8. Italy, Spain and Portugal would be constrained to additional efforts of 0.7, 0.5 and 0.7 point of GDP. Considering fixed annual value for fiscal impulses of 0.5, additional effort for Italy, Spain and Portugal would not go beyond 2 years. Germany would benefit from fiscal space according to the debt criteria and may implement a fiscal stimulus of 2.1 points (approximatively 4 years of positive fiscal impulses of 0.5 point of annual GDP. It must be stressed that Ireland and Greece would also have fiscal space in this scenario. This conclusion critically hinges on the initial

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18. Simulations are based on the main hypotheses table for 2014. Public debt figures may be slightly different than expected in country-tables.

values for structural deficits which are supposed to be -0.4 for Ireland and +2.4 in Greece. Considering the extreme case where the entire headline deficit is structural, conclusions would be significantly modified. This alternative scenario is considered in table 10 where we have made the extreme hypothesis that output gap is zero. Deficts are now fully structural explaining why all countries but Germany, Belgium and Ireland would have to consent to significant fiscal consolidation efforts. The cumulated restrictive fiscal stance between 2015 and 2034 would now exceed 5 GDP points for France, Italy, Spain and Greece.

A more positive scenario may also be considered if long-term growth is higher. An increase in potential growth may stem from an initiative for investment as the ones described in iAGS report 2014 or in Chapters 3 and 4 of this report. This may also be the objective of the recently announced Junker investment initiative but we may cast some doubts on its ability to boost investment and growth (see Box 5). The ability to comply with the debt-rule is then assessed when long-term growth rates are higher[19] (Table 11). The values for long-term growth in this new scenario are shown in column 7.

Table 9. The cost of reaching 60% debt-to-GDP

In %

	Public debt			Structural balance			CFI	Average growth rate		Min-OG	Average inflation rate	
	2015	2020	2034	2015	2020	2034	2015-2034	2015-2019	2020-2034	2015-2034	2015-2019	2020-2034
DEU	73	64	60	0.4	-1.4	-1.7	2.4	1.4	1.0	-0.1	1.3	2.0
FRA	96	93	60	-2.4	-0.6	0.1	-3.4	1.7	1.5	-3.6	1.0	1.9
ITA	133	119	60	-0.3	1.5	3.1	-1.3	0.8	0.3	-4.5	0.7	2.0
ESP	101	95	60	-1.7	-0.3	0.4	-2.2	2.0	1.5	-5.3	0.6	1.9
NLD	76	71	60	-0.3	-1.1	-1.3	0.3	2.1	1.3	-3.7	0.5	2.0
BEL	102	91	60	-0.8	-0.5	-0.1	-0.6	1.9	1.5	-1.9	0.8	2.0
PRT	131	118	60	-0.5	0.7	2.2	-2.1	1.4	1.2	-5.9	1.0	1.9
IRL	116	98	60	0.8	-0.6	0.2	1.7	3.4	1.8	-6.1	0.1	2.0
GRC	172	138	60	2.6	1.5	3.6	0.4	3.1	1.0	-10.5	0.6	2.0
FIN	64	62	60	-0.9	-1.2	-2.3	-2.0	2.0	1.6	-4.0	0.9	2.0
AUT	77	72	60	-1.4	-1.2	-1.3	-0.4	1.8	1.4	-3.0	1.4	2.0
EUZ	**96**	**87**	**60**	**-0.7**	**-0.5**	**-0.1**	**-0.5**	**1.5**	**1.1**	**-2.9**	**0.9**	**2.0**

CFI: Cumulated fiscal impulse
Source: iAGS model.

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19. The values for these long-term growth rates are taken from OECD estimates (see Johansson *et al.*, 2012). We have computed a weighted average over the period 2014-2050.

Table 10. 60% debt-to-GDP with higher initial structural deficits

In %

	Public debt			Structural balance			CFI	Average growth rate		Min-OG	Average inflation rate	
	2015	2020	2034	2015	2020	2034	2015-2034	2015-2019	2020-2034	2015-2034	2015-2019	2020-2034
DEU	73	64	60	0.4	-1.3	-1.6	2.3	1.4	1.0	-0.1	1.3	2.0
FRA	97	99	60	-4.1	-2.2	1.7	-6.8	1.2	1.4	-0.9	1.3	1.9
ITA	135	131	60	-2.8	0.2	4.7	-5.4	0.0	0.2	-1.2	1.1	1.9
ESP	102	104	60	-4.4	-2.0	1.6	-5.9	1.2	1.4	-0.7	1.2	1.9
NLD	77	74	60	-2.4	-1.0	-1.2	-2.0	1.3	1.3	-0.6	0.7	2.0
BEL	102	92	60	-1.7	-0.6	0.0	-1.5	1.6	1.5	-0.5	0.9	2.0
PRT	132	121	60	-3.3	-0.4	2.7	-4.6	0.9	1.0	-0.7	1.8	2.0
IRL	116	105	60	-2.0	-0.6	0.7	-1.5	2.1	1.8	0.0	0.6	2.0
GRC	172	154	60	-2.3	0.4	5.3	-5.9	0.9	1.0	-0.4	1.5	1.9
FIN	65	67	60	-2.8	-2.0	-1.7	-4.2	1.5	1.6	-0.9	1.2	2.0
AUT	78	75	60	-2.8	-1.1	-1.1	-1.9	1.3	1.4	-0.9	1.6	2.0
EUZ	**97**	**92**	**60**	**-2.2**	**-1.2**	**0.7**	**-2.9**	**1.2**	**1.1**	**-0.4**	**1.2**	**1.9**

CFI: Cumulated fiscal impulse.
Source: iAGS model.

Table 11. 60% debt-to-GDP with higher long-term growth

In %

	Public debt			Structural balance			CFI	Average growth rate		Min-OG	Average inflation rate	
	2015	2020	2034	2015	2020	2034	2015-2034	2015-2019	2020-2034	2015-2034	2015-2019	2020-2034
DEU	.73	64	60	0.4	-1.5	-1.8	2.5	1.5	1.1	-0.1	1.3	2.0
FRA	96	91	60	-2.4	-0.6	-0.2	-3.1	1.9	1.7	-3.6	1.0	1.9
ITA	132	114	60	-0.2	0.6	2.1	0.0	1.7	0.9	-4.5	0.8	2.0
ESP	100	94	60	-1.7	-0.7	0.0	-1.7	2.4	1.8	-5.3	0.6	1.9
NLD	76	70	60	-0.3	-1.4	-1.6	0.6	2.6	1.7	-3.7	0.5	2.0
BEL	102	90	60	-0.7	-0.9	-0.4	-0.2	2.3	1.9	-1.9	0.8	2.0
PRT	130	110	60	-0.4	0.0	1.2	-0.4	2.6	1.6	-5.8	1.3	2.0
IRL	116	97	60	0.8	-0.6	0.0	1.9	3.6	2.0	-6.1	0.1	2.0
GRC	171	134	60	2.6	0.9	2.9	1.3	3.7	1.5	-10.5	0.6	2.0
FIN	64	61	60	-0.9	-1.4	-2.4	-1.8	2.4	2.0	-4.0	0.9	2.0
AUT	77	72	60	-1.3	-1.2	-1.3	-0.3	1.9	1.5	-3.0	1.4	2.0
EUZ	**96**	**86**	**60**	**-0.7**	**-0.7**	**-0.4**	**-0.1**	**1.8**	**1.4**	**-3.0**	**1.0**	**2.0**

CFI: Cumulated fiscal impulse.
Source: iAGS model.

Box 4. Fiscal space and unemployment rate under the MTO

Beyond debt constraints, countries also have to stick to medium-term objectives, which are country-specific. According to the reformed Stability and Growth Pact, stability programmes and convergence programmes present a medium-term objective for the budgetary position. It is country-specific to take into account the diversity of economic and budgetary positions and developments as well as of fiscal risks to the sustainability of public finances, and is defined in structural terms (see structural balance).

In its overall assessment of the 2015 Draft Budgetary Plans (DBPs) [http://ec.europa.eu/economy_finance/economic_governance/sgp/pdf/dbp/2014/communication_to_euro_area_member_states_2014_dbp_en.pdf],
the Commission considers that the neutral fiscal stance is an appropriate balance for the euro area but it also considers that "*there is a need to closely monitor on its distribution across member States in relation to the room available under the Stability Growth Pact (SGP). In particular, maintaining a neutral aggregate fiscal stance, while some Member States are called to increase their efforts in order to comply with the SGP implies a degree of fiscal support coming from the exploitation of the fiscal space available elsewhere.*"

This approach would work at the euro area level if efforts made by countries at risk of non-compliance with the SGP are effectively compensated by the use of the fiscal space for countries which are not constrained. But this recommendation may stumble on two hurdles:

1. Only three countries (Germany, Luxembourg, Netherlands) in the euro area have already reached their Medium Term Objective (MTO) and do possess some fiscal space. These countries account for 35% of the GDP of the euro area. At the opposite, the DBPs of seven countries (Belgium, Spain, France, Italy, Malta, Austria and Portugal) pose a risk of non-compliance. These countries represent 57% of GDP. Thus, there is disequilibrium between countries which have fiscal space and countries which do not and have to make more efforts to comply with the SGP. For the euro area to keep a neutral aggregate balance if not a positive one, Germany, Luxembourg and Netherlands would have to implement more expansionary fiscal policies than the seven other countries that will still need to consolidate;

2. The economic context for compliant countries does not push them to stimulate their economies and even if they do it, it might be inefficient in order to spur growth in the euro area.[20] The three compliant countries having already reached their MTO have the lowest unemployment rate in 2014 of the euro area and are probably close to full-employment. For instance, Germany, which represents nearly 30% of the GDP of the euro zone, has an unemployment rate of 5.0% and is benefiting from a very expansionary monetary policy. Even if considerable labour reserves remain, it is probably more prone to accumulate budget surpluses in order to absorb the impact of ageing on their public finances rather than to seek a reduction in unemployment.[21] At the

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20. See Blot, Cochard, Creel, Ducoudrén Schweisguth and Timbeau (2014), "Fiscal consolidation, public debt and output dynamics in the Euro Area: lessons from a simple model with time-varying fiscal multipliers", *OFCE Working Paper*, 2014-14.
21. Symptomatic is a plan currently under discussion within the German government for a €10 billion investment package. This is not to start until 2016 and will be spread over three years, representing about 0.1% of German GDP each year. This is despite years of negative net public investment in the country (Rietzler 2014).

opposite, the majority of countries, for which there is a risk of non-compliance, have high unemployment. This is the case for Spain, Portugal, Italy, and to a lesser extent, France and Belgium. Their output gap and unemployment situation calls for a more lax fiscal policy but the Commission recommends more budgetary efforts to ensure compliance with the SGP.

Moreover, European Commission's recommendations for compliance with the SGP are clearly more binding (ending in sanctions if failed) than the call to use fiscal space when available. As a consequence, if France, Belgium and Italy are forced to increase their fiscal adjustment before March, as it can be expected from the DBP assessment, the forecast of a neutral fiscal stance for the euro area as a whole for 2015 may be put into question and pose new risks to the recovery.

Figure 16. Gap between structural balance (2014,% of GDP) and MTO and unemployment rate for countries in the euro area
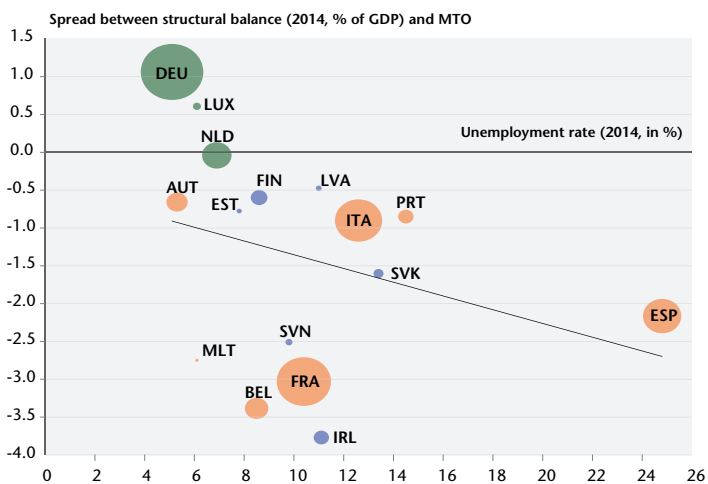
Note: In green , countries which have a fiscal space. In blue, countries which are compliant or broadly compliant with the SGP provisions. In red, countries which pose a risk of non-compliance.
Sources: European Commission, DBP's, iAGS calculations.

Box 5. Juncker's investment plan for Europe: Much ado about nothing?

Investment is one of the three main pillars of the Commission's strategy for 2015. Indeed, the Commission has presented an Investment Plan for Europe, which should provide at least 315 billion euros of extra public and private investment over a three-year period (2015-2017). The plan relies on a new *ad-hoc* fund—the European Fund for Strategic Investments (EFSI). This Fund

will be granted 21 billion euros: 16 billion euros of guarantees drawn from the 2014-2020 EU budget and 5 billion euros of capital injection from the European Investment Bank (EIB). The Commission estimates the 21 billion euros will allow the EIB to raise €60bn by issuing new bonds, and that this cash will be leveraged by contributions from the private sector: on this basis, the Fund is expected to reach 315 billion euros.

Yet, Mr. Juncker's proposals have been under fire since they were unveiled by the Commission. First of all, the Fund will be created with no "fresh" money: apart from an extra 5 billion euros from the EIB, it will be based on recycled EU resources. An opening has been made to allow member states to contribute and to exclude such contributions from the constraints of the fiscal compact. But contributions can't be targeted to contributing countries and, moreover, the lack of consensus among members States has constantly prevented them from reaching a more ambitious agreement. In June 2012, the Rome summit was largely dedicated to investment. Several proposals were discussed, notably the recapitalization of the EIB, the reallocation of non-used structural fund resources, the idea of project bonds. Yet, the bones of contention remain the same. Even though France defended the idea that more resources were necessary to supplement the Fund, it faced reluctance from multiple sides. The UK strongly opposed an increase in the EU budget, while Germany refused a larger contribution from the EIB that might have jeopardized the EIB's triple A credit rating. Besides, Central and Southern European countries are reluctant to use the European structural and cohesion funds, because it would jeopardize their public balance because of project co-financing. Precisely, EU structural and cohesion funds, which also have a leverage effect, have been notably underused. It is therefore hard to believe that the EFSI could fare better. Moreover, many critics highlighted that the plan was extremely optimistic as regards the willingness of the private sector to invest massively. Many observers doubt that the capital base will be sufficient to raise enough money to fund projects. Therefore, the Juncker plan is likely to fail to deliver on its promises.

Debt-deflation dynamic and fiscal rules

The ability to reduce debt may also depend on the inflation dynamic. As emphasized in debt-deflation spiral, the real debt burden becomes higher when countries enter into deflation. Taking into account the constraints imposed by the TSCG, may then force governement to further austerity measures reinforcing the deflation risk and increasing the debt burden. We illustrate this scenario by considering alternative negative shocks to the inflation rate. For each scenario, we run the same simulations as in Tables 9 to 11 in order to assess whether public debt for each euro area country can reach 60% by 2034. Negative or positive fiscal impulses (capped at +/-0.5) are implemented for countries until they reach the 60% threshold. Four scenarios (described in Box 6) are considered: 3 of them are based on a symmetric shock as inflation rates decrease for all euro area countries. The last shock is asymmetric as we consider that the risk of deflation is certainly higher in some countries (in Spain or Greece rather than in Germany or the Netherlands). Besides, EC's recommendation made within the macroeconomic imbalances procedure have promoted measures favouring competitiveness in countries that had current account deficits before the crisis. A symmetric adjustment is certainly needed as emphasized in iAGS report 2013 and 2014 but it

would imply a relative increase in inflation for Germany, Austria and the Netherlands while other countries would need to restore competitiveness for their net external position to be sustainable. But, it seems more likely that the adjustment is realized asymmetrically, so that inflation in deficit countries may be significantly lower for a sustained period. We have then considered the case of an asymmetric shock in Belgium, Finland, France, Greece, Italy Portugal and Spain. The adjustment is supposed to take place over a 20-year period. The calibration of the shock for each country is based on chapter 5 simulations where the aim is to reach a sustainable external position.

The consequences of a symmetric reduction of the inflation rate are rather small in the model. When euro area inflation in reduced by more than 1.2 points during 2 years, the cumulated additional fiscal impulse needed to reach the 60% debt-to-GDP ratio increase by 0.2 on average for the euro area. More efforts are needed in Portugal and Greece. Actually, the model would trigger a significant reduction in the interest rate as the monetary policy rule implies a reduction in the short-term interest rate. This implies a reduction in long-term interest rates, which are forward-looking, computed as the weighted average of present and future short-term interest rate. For a symmetric shock, ZLB constraint is not binding beyond 2017. Forward-looking long-term interest rates would also be significantly lower except for Greece and Portugal where intial inflation rates are already low so that real interest rates would increase at the time of the shock.

Yet, it must be stressed that potential costs of deflation are certainly underestimated in the model and for symmetric shock. Monetary policy authority is supposed to be quite reactive in the model and would keep substantial leeway to cut down interest rate. ZLB constraint binds only temporarily. For the ZLB constraint to be effectively binding for a sustained period, it would imply substantial costs, much higher than those estimated here. Recent evidence has indeed shown that the ECB is facing real difficulty to cope with deflation's risk as detailed in Chapter 3. Besides, inflation expectations in the model are also anchored and always revert to the inflation target and private debt are not introduced of the model limiting the scope of debt-deflation spiral.

Turning to the asymmetric shock leads to more significant effects, notably because the ECB would react only to the extent that euro area inflation is decreasing. The decrease of monetary policy rate and of long-term interest rates are then limited and would not fully offset the reduction in inflation rates observed in adjusting countries. The critical gap becomes positive, increasing the debt-to-GPD ratio. For those countries, the 60% threshold might still be achieved but with substantial additional austerity. Such a consolidation might be unrealistic because it would imply high macroeconomic and social costs in countries already suffering from past and current austerity. Costs may even be larger if monetary policy is less reactive than supposed in the model and if private deleveraging would be taken into account. Debt rule may automatically become more stringent triggering a vicious debt-deflation spiral. Lower inflation increases the debt burden driving away the country from the 60% threshold. Further austerity is then needed to comply with the rules. If deflation risk is isolated, this country (or this group of countries) may not benefit from additional monetary stimulus as long as average inflation is close to the target. On the one hand, it may improve competitiveness and foster growth that way—depending on the relative size of

the tradable sector—but on the other hand, it would make the compliance with fiscal rules harder.

Then dealing with the risk of deflation remains a priority. Besides, internal devaluation strategies are also risky and may diffuse debt-deflation spiral in more fragile countries.

These long-term scenarios show that additional austerity may occur when countries have exited from EDP. Fiscal rules set up in the Fiscal compact may hamper growth for a sustained period in the euro area, increasing poverty and inequalities. These rules certainly go beyond the requirement of public finance sustainability. There is a significant risk that the euro area enters a stagnation trap or even a deflation trap if economic policies are not significantly revised. The Fiscal compact has already imposed and will still impose too much austerity and constraints on growth. It is still time to reconsider it and to substitute alternative rules, which are growth-friendly.

Box 6. Debt-rule and the risk of lower inflation

The ability to reduce debt may also depend on the inflation dynamic. As emphasized in debt-deflation spiral, the real debt burden becomes higher when countries enter into deflation. Taking into account the constraints imposed by the TSCG, may then force governement to further austerity measures reinforcing the deflation risk and increasing the debt burden. To this end, we analyse the consequences of a decrease of the inflation rate under 4 alternative scenarios (3 symmetric shocks on the inflation rate and 1 asymmetric shock):

— *Symmetric shock S1*: a transitory inflation shock (-1 the first year and -0.5 in year 2), which may result from a negative oil price shock. Due to the inflation dynamic in the model, the shock is long-lasting (see figure 17). Inflation in the euro area is reduced by 1.2 point the first two years and goes back progressively to 2% by 2022.

— *Symmetric shock S2*: a transitory shock on expected inflation (-1 the first 2 years and -0.5 for the 4 following years). Here, inflation in the euro area is reduced by 0.6 point for a 5-year period and goes back progressively to 2% by 2023.

— *Symmetric shock S3*: a drop in the target for inflation over all the period (2015-2034). We consider a 0.5 point decrease.

For shocks S1 and S2, even if euro area inflation reverts to the 2 % target no later than in 2023, heterogeneities remain across countries as initial values for inflation rate are different (see table 7 with the main hypotheses). Yet, all inflation rates converge to 2%. For shocks S3, there is a permanent fall in the inflation rate of each country.

— *Asymmetric shock S4*: based on Chapter 5 estimates, we have calibrated negative shocks over a 20-year period. Stabilizing external position would then imply a yearly long-lasting reduction of inflation rates, which would amount to 0.2 point in Belgium, 0.1 point in Finland, 0.9 point in France, 0.7 in Greece, 0.6 in Italy, 0.1 point Portugal and 0.4 in Spain.

Figure 17. Difference with baseline inflation rate
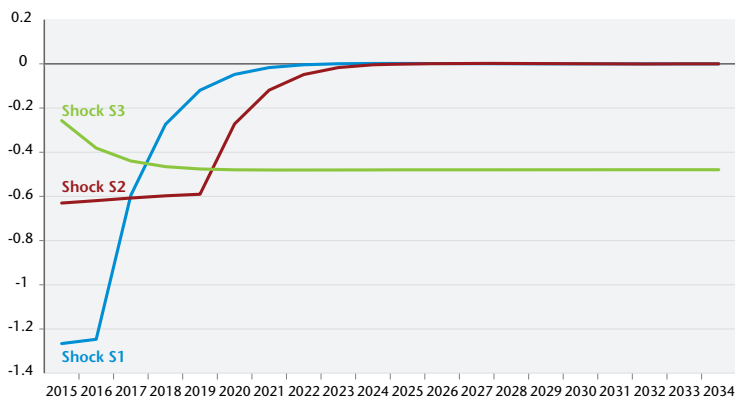
Source: iAGS model.

For the 3 symmetric shocks, we illustrate the debt dynamic, the ability to reach a 60% ratio by 2034 and the additional fiscal impulse needed to reach the 60% debt ratio (Table 12). In the first scenario, it would imply additional austerity measures which would amount to 0.2 on average for the euro area. The rather limited impact results from model properties. Actually, the model would also trigger a significant reduction in the interest rate. For a symmetric shock triggering a decrease in the euro area inflation rate, the monetary policy rule implies a significant reduction in the short-term interest rate. With a standard Taylor rule, for a 1 point reduction in the inflation rate, ECB would cut the policy rate by 1.5 point, if and only if the ZLB constraint is not binding. This implies a reduction in long-term interest rates, which are forward-looking, computed as the weighted average of present and future short-term interest rate.

Therefore, the negative impact of declining inflation on debt will occur if and only if monetary policy is constrained by the ZLB. Here, ZLB constraint is binding until 2017 for these 3 shocks so that a lower inflation imply higher real short-term rate for a limited period. The critical gap between real interest rates and real GDP growth rate, does not increase permanently and significantly because monetary policy is reactive and also because expected inflations remain anchored to the 2% target. The additional efforts are generally higher in scenario S3. The highest effort should be implemented in Greece because of higher initial public debt and lower initial inflation rates. For Greece, the ZLB would be more constraining as a significant deflation would occur. For other countries, real long-term interest rate would adjust downward, limiting the debt-deflation vicious circle.

We then consider that not all euro area countries face the same risk of deflation or of a sustained period of low inflation. The risk is indeed higher for Spain and Greece than for Germany or the Netherlands. We focus here on countries for which a current account adjustment is needed (Belgium, Finland, France, Greece, Italy, Portugal and Spain). Even if current account deficits have turned to surpluses for some countries (figure 6), part of the adjustment have resulted from the fall in internal demand so that current account may revert to deficits once the output gap will be closed.

   Those countries would not necessarily fall into deflation but may have lower inflation for a 20-year period, the time needed to achieve the current account adjustment. The inflation shock would be weak but sustained. It would trigger a deflation in France, Italy and Greece. Even if euro average inflation would be reduced, it would decrease less than in scenarios where shocks are applied to all countries. The reaction of monetary policy and long-term interest rates would then not fully offset the reduction in inflation rates observed in adjusting countries. The critical gap would become positive, increasing the debt-to-GPD ratio. For those countries, the 60% threshold might still be achieved but with substantial additional austerity (Table 13).

Table 12. 60% debt-to-GDP with different deflationary shocks

Difference with table 9

	CFI2015-2034			Inflation 2015-2019*		
	S1	S2	S3	S1	S2	S3
DEU	-0.1	0.0	0.0	-0.7	-0.6	-0.4
FRA	-0.2	0.0	-0.3	-0.7	-0.6	-0.4
ITA	-0.2	-0.1	-0.2	-0.7	-0.6	-0.4
ESP	-0.1	-0.1	-0.2	-0.7	-0.6	-0.4
NLD	0.0	0.1	0.0	-0.7	-0.6	-0.4
BEL	-0.1	0.0	-0.1	-0.7	-0.7	-0.4
PRT	-0.6	-0.3	-0.6	-0.9	-0.7	-0.6
IRL	-0.2	0.0	-0.1	-0.7	-0.6	-0.4
GRC	-0.5	-0.4	-0.9	-0.8	-0.6	-0.5
FIN	0.0	0.1	0.0	-0.7	-0.6	-0.4
AUT	-0.1	0.0	-0.1	-0.7	-0.6	-0.4
EUZ	-0.2	0.0	-0.1	-0.7	-0.6	-0.4

CFI: Cumulated fiscal impulse.
* Beyond 2020. inflation reverts to the target except for scenario S3 where we have implemented a permanent shock.
Source: iAGS model.

Table 13. 60% debt-to-GDP with asymmetric disinflationary shocks

In %

	Public debt			Structural balance			CFI	Average growth rate		Min-OG	Average inflation rate	
	2015	2020	2034	2015	2020	2034	2015-2034	2015-2019	2020-2034	2015-2034	2015-2019	2020-2034
DEU	73	62	60	0..5	-1.1	-2.0	3.5	1.5	1.0	0.0	1.3	2.1
FRA	98	101	60	-2.3	-0.3	2.5	-5.2	1.7	1.5	-3.9	-0.7	-0.2
ITA	134	125	60	-0.2	2.5	4.4	-1.9	0.8	0.4	-4.6	-0.4	0.6
ESP	101	98	60	-1.7	0.3	1.1	-2.4	2.0	1.5	-5.4	-0.2	0.9
NLD	76	70	60	-0.2	-1.6	-1.6	1.4	2.3	1.3	-3.5	0.5	2.1
BEL	102	93	60	-0.7	-0.5	0.3	-0.1	2.0	1.5	-1.9	0.3	1.5
PRT	131	115	60	-0.5	0.7	2.0	-0.9	1.9	1.1	-5.9	0.9	1.7
IRL	116	95	60	0.9	0.0	-0.3	3.0	3.5	1.9	-5.9	0.0	2.0
GRC	175	164	60	2.5	3.8	7.1	-3.9	1.9	1.2	-11.1	-1.2	0.2
FIN	64	61	60	-0.8	-1.5	-2.3	-1.2	2.2	1.6	-3.8	0.8	1.9
AUT	77	72	60	-1.3	-1.6	-1.4	0.7	2.1	1.4	-2.8	1.5	2.1
EUZ	96	89	60	-0.6	-0.1	0.3	-0.5	1.6	1.2	-3.0	0.3	1.2

CFI: Cumulated fiscal impulse.
Source : iAGS model

4. Conclusion

Recovery has not happened yet and deflation is still threatening eurozone countries. The impact of austerity has declined but has still a negative impact, weighing down demand. Deleveraging may also drag down private spending. There is then a real threat of a persistent stagnation trap (low growth – low inflation) in the euro area.

Moreover, fiscal consolidation is not over and will affect a number of European countries even after they exit from the EDP. This is due to the other rules in the European fiscal framework, notably the debt-rule and the need to reach a fiscal MTO (medium-term objective) in structural terms. Fiscal space is therefore limited. Required additional fiscal efforts would be significant for France, Italy, Spain, Portugal and Finland. These efforts would even be larger if some countries enter into deflation. These are the countries suffering most from depressed demand and high unemployment. A small number of countries, especially Germany, does have fiscal space. However it is only limited incentives to use it.

Without any change in the macroeconomic strategy, unemployment will be long-lasting triggering negative hysteresis effects, increasing inequalities and poverty (see chapter 2 for details).

Monetary policy has a crucial role but cannot do all the job. The effects of unconventional measures are uncertain and may be limited (see chapter 3 for details). Empirical literature emphasized the lower effectiveness of monetary policy in post-financial crisis periods, due to deleveraging. A solution might be to trigger a depreciation of the euro to foster an increase in extra-EMU demand. This is partly (and indirectly) the aim of measures taken by ECB in June 2014. To make quantitative easing more effective and achieve results rapidly, it is necessary for the ECB to widen its scope to include government bonds in its secondary-market asset purchases.

Regarding fiscal policy, the first-best solution would be to abrogate the fiscal compact. The debt rule has no strong theoretical or empirical support. It would also be appropriate to exclude productive public investment from fiscal rules as it makes economic sense, in terms of efficiency and inter-generational equity, to credit-finance projects that generate long-term returns.[22] A crucial need both to support short-term growth and to increase potential output is for countries to increase both public and private investment. The Juncker Investment Plan seems likely to deliver only a fraction of the promised €315 billion in additional investment. An alternative proposal to increase investment in the area of climate-change prevention is detailed in chapter 4.

The European Banking Union represents an important instrument helping to establish future financial market stability. However, there are challenges to take beyond the current stage: In particular, a more effective backstop mechanism has to be implemented and the too-important-to-fail problem has to addressed.

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22. See Creel, Hubert and Saraceno (2013).