Economic Assessment of the Euro Area

Winter 2011/2012 Report

January 2012

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EXECUTIVE SUMMARY

With the unresolved debt crisis, the uncertainty surrounding the euro area economy is particularly acute this winter. This fact was nicely summarised by Olivier Blanchard (2011):

'... [P]ost the 2008-09 crisis, the world economy is pregnant with multiple equilibria—self-fulfilling outcomes of pessimism or optimism, with major macroeconomic implications.'

Because of this uncertainty, in preparing this outlook for the euro area economy using NIESR's NiGEM world model, we have considered three different scenarios. In the central forecast we see the EU "muddling through" the crisis, with current levels of uncertainty about debt sustainability persisting through to the middle of the year. The recapitalisation of the EU banking system will also exercise a negative effect on growth in the first half of 2012. On the basis of these assumptions there would be no growth in output in the euro area this year, with a return to limited growth of only 1.4% in 2013 (Table 1).

Table 1: Summary of Forecast for GDP in different scenarios

	2011	2012	2013
Central Forecast	1.7	0.0	1.4
Upside scenario	1.7	0.8	1.8
Downside scenario	1.7	-2.1	-1.2

The second, more pessimistic (downside) scenario, models the effects of a further deepening of the crisis if the current uncertainty about the sustainability of government debt continued until the end of 2012. Such an outcome could result in a fall in GDP in 2012 of just over 2% and a further fall in 2013 of just over 1%.

The third upside scenario models the effect of 'decisive action' that might be taken by European policy makers in the immediate future, which could rapidly shock the markets out of the current mood of pessimism and uncertainty and see a return of confidence in the ability of the euro area governments to meet forthcoming debt obligations. Under this scenario GDP could grow by 0.8% this year followed by growth of 1.8% next year.

The major tightening in fiscal policy that is occurring across the euro area is inevitably having a substantial negative effect on output. This report suggests that this fiscal policy stance may result in growth in 2012 being between 0.8% and 1.3% lower than it would otherwise be. For 2013 the negative impact of announced fiscal policy measures could be to reduce growth by between 0.6% and 1.1%.

The travails of the banking system and the requirement for recapitalisation over the next six months will have a very significant impact on the EU economy in 2012. On the basis of our assumptions, the

NiGEM model simulations suggest that this factor could reduce the rate of growth in GDP in the euro area by around 0.8 percentage points. This estimate is included in our forecast scenarios.

This report is rather different from previous EUROFRAME forecasts produced over the last decade. On this occasion the major uncertainty in the forecast arises from the stance of domestic policy within the euro area, not from external factors. Because of this uncertainty we have focused on three different scenarios for 2012 and 2013 rather than concentrating on a single "likely" forecast, as was usual in the past.

1 INTRODUCTION

In the aftermath of the Great Recession, the world economy is changing rapidly. Today increased uncertainty is a fundamental feature of the economy. This fact was nicely summarised by Blanchard (2011):

'... [P]ost the 2008-09 crisis, the world economy is pregnant with multiple equilibria—self-fulfilling outcomes of pessimism or optimism, with major macroeconomic implications.'

With the unresolved debt crisis, the debates in certain countries about the break-up of the European Union, and the negotiations on the new Treaty in full motion, this winter the uncertainty surrounding the euro area economy is particularly acute. While we view any collapse in the euro area as being extremely unlikely, there are a number of other scenarios, or "equlibria" as Blanchard terms them, which are possible. Depending on the response of policy-makers and how consumer and financial market confidence develops, the euro area could return to recession or could claw its way back to growth over the coming year.

In this context, it is extremely challenging to provide a comprehensive outlook for the euro area. The task requires the analysis of these 'multiple equilibria'. Therefore, the approach behind the outlook presented in this report, was to use NIESR's NiGEM model to develop a central forecast, characterised as "muddling through" the crisis and two other scenarios which represent more optimistic and more pessimistic outcomes. The more pessimistic or downside scenario attempts to model the effects of a further deepening of the crisis as uncertainty continues unabated until the end of 2012. The upside scenario, aims to capture the effects of some possible 'decisive action' that might be taken by European policy makers, which would shock the markets out of the current mood of pessimism and uncertainty and see a return of confidence in the ability of the euro area governments to meet forthcoming debt obligations without difficulty.

Three factors are contributing to the current slowdown or recession in the euro area. The major rise in oil prices in 2010-11 has been a dampener on growth. The major tightening in fiscal policy that is occurring across the euro area is inevitably having a substantial negative effect on output. The travails

of the banking system and the requirement for recapitalisation over the next six months will have a much wider impact on the economy, not just for the euro area, but also for the EU as a whole. This report gives special attention to the last two of these factors. The fiscal tightening is dealt with in section 8 and the bank recapitalisation in section 9. While we do not analyse the impact of the high oil price in this report, Barrell, Delannoy and Holland (2011), in a study using the NiGEM model, find that a $20 rise in the price of oil can be expected to reduce GDP growth in the euro area by about 0.5%.

The current background to our forecast is discussed in Section 2. In Section 3 of this report we look at the global context facing the euro area over the coming two years and Section 4 gives more detailed consideration to the prospects for major world economies. Based on this external environment and the fiscal and monetary stance currently in place in the euro area, Section 5 sets out our central forecast where we see the euro area "muddling through" over the next year. Section 6 considers a downside scenario where the crisis deepens and "muddling through" continues much longer, so that while the euro area survives intact, substantial additional damage is done to growth prospects. While it is possible for the euro area economy to seriously underperform, as in the downside scenario, it is also possible that more "decisive action" could see a serious recession being avoided with growth in GDP continuing through 2012 and accelerating in 2013. This upside or "decisive action" scenario is considered in Section 7.

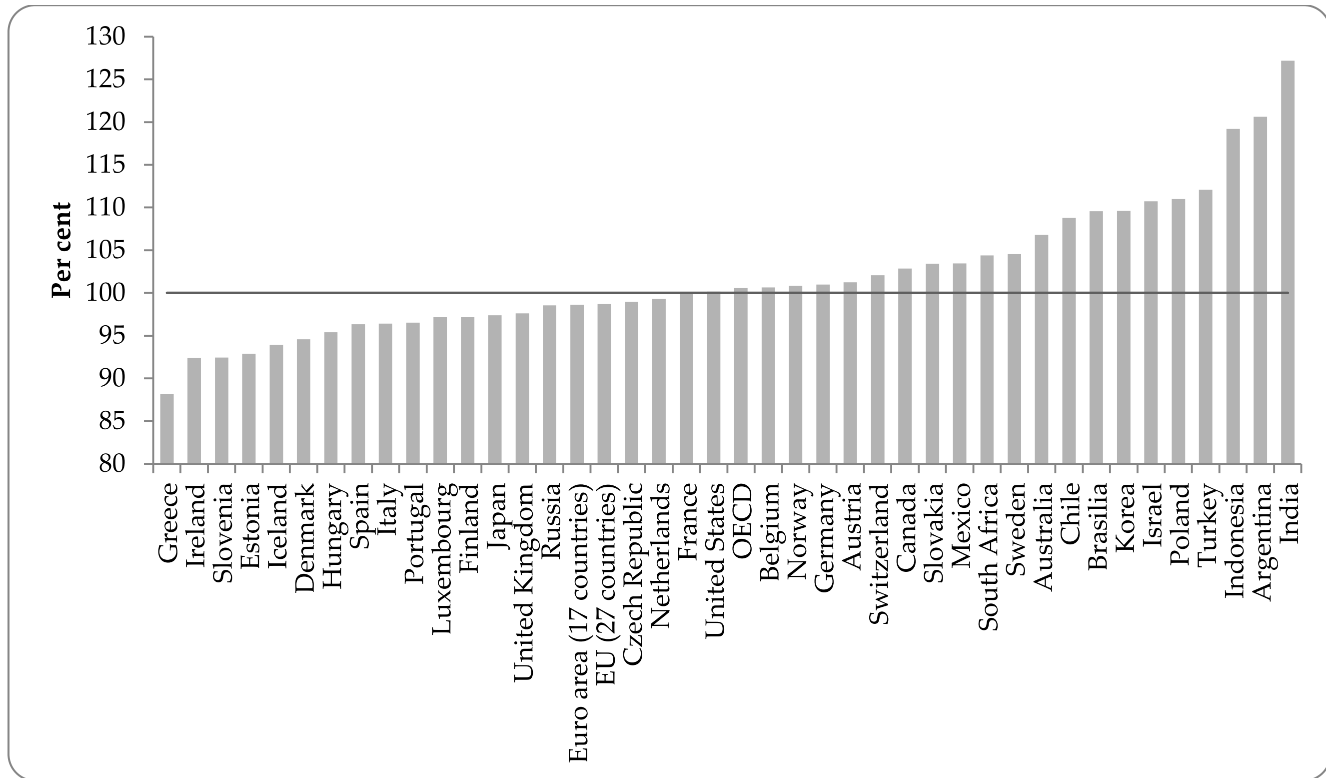
Even on conservative assumptions it is clear that the tightening of fiscal policy is an important factor in current developments in the euro area economy. The negative impact of the current contractionary stance of fiscal policy in the euro area is assessed in Section 8. Section 9 provides a preliminary assessment of how the problems facing the EU banking system may be contributing to current woes. This is likely to be particularly important in the short-term development of the economy out to the summer of 2012. Finally, in Section 10 we summarise our results.

2 OVERVIEW

The world economy entered the year 2012 in a fragile state. As the Great Recession of 2008/9 ended in summer 2009, there was a significant rebound; however, it masked large differences in the growth rates of individual countries. Developing countries, particularly in Asia, managed to set their economies in motion more quickly than industrialised countries. In particular, growth in China was substantially stronger than in the developed economies.

The worst crisis since the 1930s was turned around by an unusually strong and partly co-ordinated monetary and fiscal stimulus. As a result, by the third quarter of 2011, output in a number of industrialised countries, such as the US, Germany and France slightly exceeded or were close to the pre-crisis level. In the euro area, however, GDP remained 1.4% below its level in the second quarter of 2008 (see Figure 1), and in winter 2011/12 the euro area is on the brink of a further recession.

Figure 1: Comparison of GDP in 2011 Q3 with GDP in 2008 Q2 in Selected Countries



Source: OECD, ETLA.

The Great Recession and the subsequent stimulus packages and support to the financial sector have increased the budget deficits and public debt to unprecedented levels. In some countries, the collapses of bubbles in the housing market have had a serious adverse impact on banking and public sector balances. In spite of the fact that output is below potential, precedence is being given to tightening fiscal policy because debt has accumulated to levels that the financial markets consider to be unsustainable. Monetary policy is, however, accommodative and unconventional measures are widely utilised.

Since the last peak in output in December 2007, US economic growth has been at historically low levels. Employment growth has also been quite weak and in October 2011 the unemployment rate was only one percentage point below its peak in 2009. There are some positive signs, but large public sector imbalances, combined with political gridlock and the crisis in the euro area, are damaging confidence and slowing growth. Due to its high oil intensity, the US economy is affected by expensive crude oil more strongly than most other developed countries.

In Japan, development of the economy was dominated by the triple catastrophe in March 2011, when the exceptional earthquake and a large tsunami brought about unprecedented devastation, which

included a nuclear catastrophe. Consequently, in spring 2011 economic activity was very weak, but when the reconstruction began, it started to recover strongly.

The euro area drifted deep into a severe sovereign debt crisis in May 2010. Rescue operations in 2008-9 succeeded in preventing a global depression, but growth remained weak and public finances deteriorated strongly. Markets started to price in increased risk and Greece, Ireland and Portugal had to be rescued, as financing of their deficits and rolling-over of their maturing debt became too expensive. On the other hand, German bond yields were driven down to very low levels as they served as a safe haven for investors. There were a number of policy actions aimed at calming the situation and erecting a firewall around the crisis countries. In spite of these actions, risk premiums on Italian and Spanish bonds rose as the crisis was transmitted in the autumn of 2010. Had the ECB not intervened in the markets, their risk premiums would probably have increased to critical levels. Some other countries have also felt some pressure. Many governments have been forced to introduce strong austerity measures to calm the markets, however, the upward pressure on yields remains strong. The financing situations of Italy and Spain will be a critical issue in the spring of 2012.

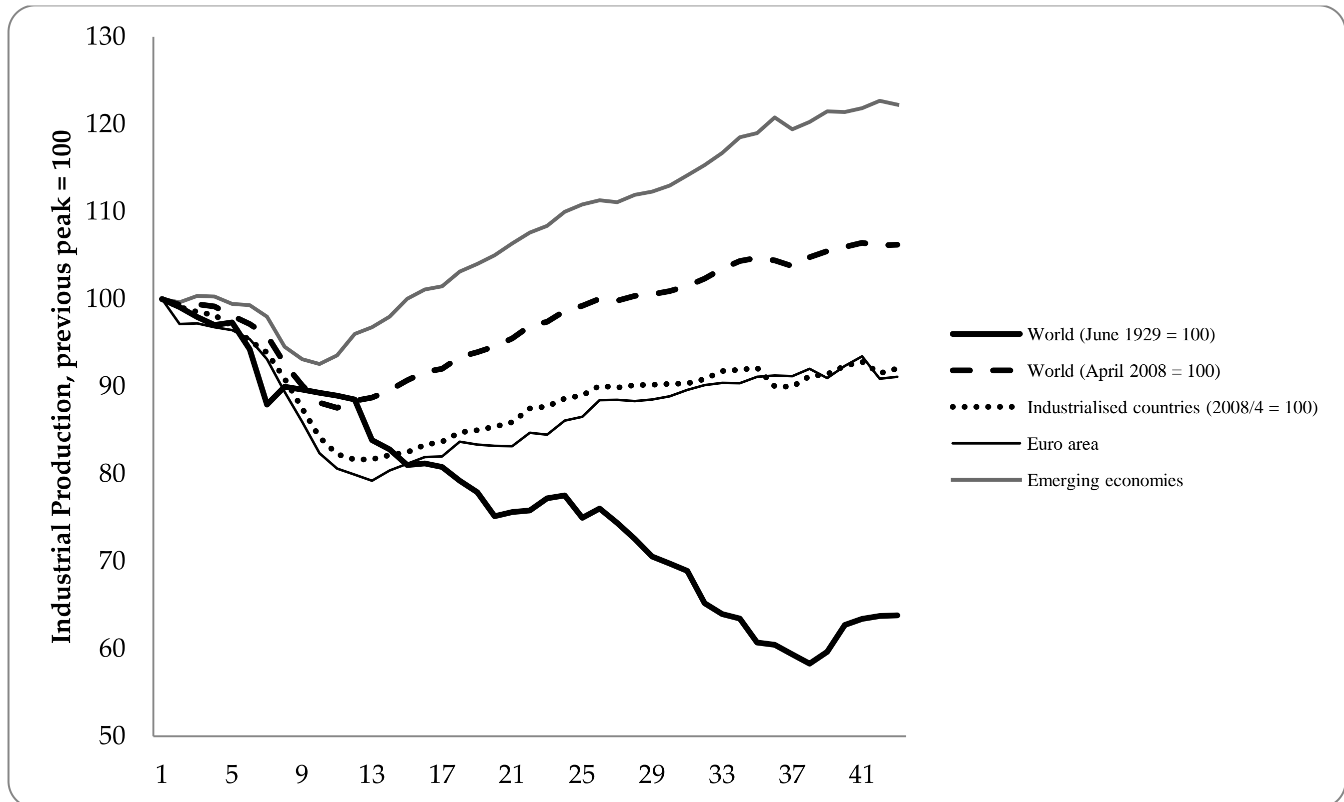
In contrast to the stagnant development of industrial countries, the key developing country, China, grew rapidly. In spring of 2010, in order to cool its overheating economy, China changed its policy stance to restrictive, however, this winter its economic policy is easing. Inflation remained high, albeit below its peak last summer. Property markets and exports were cooling down. In December the central bank started to cut reserve requirements. As exports have weakened, the priority of the government has shifted from calming inflationary pressures to stabilizing growth with special focus on consumer demand.

3 GLOBAL OUTLOOK

Global economic activity slowed down considerably towards the end of 2011. Growth in the euro area lost momentum in the second and third quarters with a GDP growth of only 0.2%, compared to 0.8% q-o-q growth in the first quarter. According to the Euro Growth Indicator, the euro area is on the brink of recession (EUROFRAME, 2012), and the fourth quarter Composite Purchasing Managers' Index (PMI) indicated the worst quarter since the spring of 2009 (Markit Economics Limited, 2012). In the US, growth accelerated to 0.5% during the third quarter. Whereas the leading indicator of the OECD points to a slowdown (OECD, 2011), the fourth quarter PMI was at 53.9%, an increase of 1.4 percentage points over the third quarter reading. The strong recovery in emerging markets, which started in early 2009, also seems to be running out of steam. During the first three quarters of 2011, Chinese GDP grew by 9.4% compared to 10.4% during the same period in 2010. The Manufacturing PMI and composite leading indicator (CLI) for China both point to a slowdown in economic activity during the fourth quarter (OECD, 2011). The PMI's for other Asian countries also point to slower growth towards the end of 2011. Overall, figure 2 shows that while the Great Recession had a negative effect on industrial

production in both the developed countries and the emerging economies, at the end of 2011 it remains below its pre-crisis peak in industrialised countries in general, and the euro area in particular, and above it in the emerging economies.

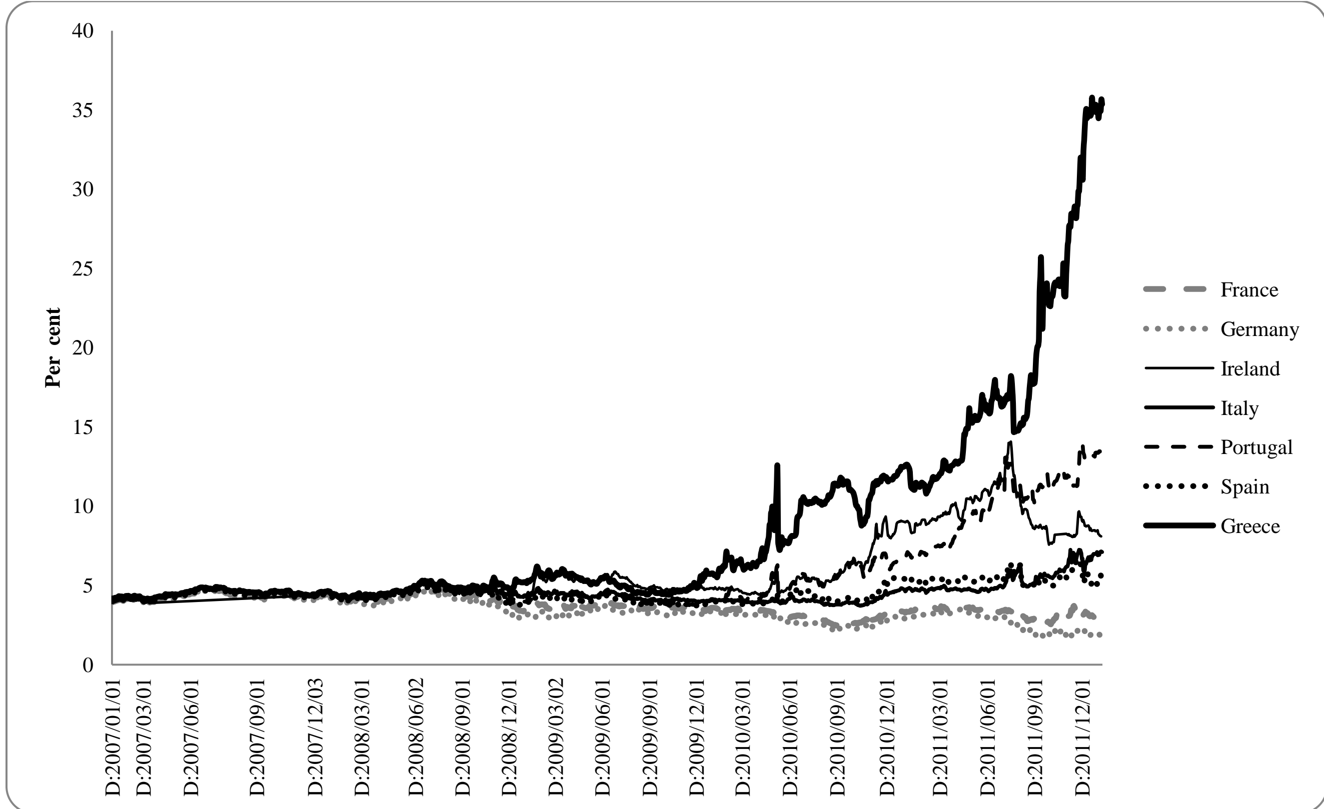
Figure 2: Comparison of Industrial Production with its peak in April 2008



Source: OECD, IMF, CPB, ETLA.

The negative feedback loop between the euro area sovereign debt crisis, the banking crisis and the political deadlock over fiscal policy in the US, are creating significant headwinds for the economy by depressing producer and consumer confidence, disrupting global trade and tightening credit conditions. So far, the results of consecutive summits of the European Council and euro area Heads of State or Government fell short of the public pledges that have been made to reassure the financial markets. During the first half of November, the interest rates on sovereign bonds showed a significant increase, not only in Italy and Spain but also in France and Belgium (figure 3). This was a clear sign that the financial markets were not convinced by the agreements made at the October summit. Credit rating agencies were also displeased and are increasingly concerned about the prospects for economic growth in the euro area. Furthermore, this showed that the crisis, which had started on a more limited scale in the periphery of Europe, has now reached Europe's core.

Figure 3: 10-year Government Bond Yields in Selected Countries



Source: Bloomberg, ETLA.

The financial markets had hoped that the summit would provide the 'big bazooka' – for example, a significant increase of the European Financial Stability Facility (EFSF), with which all liquidity problems could be solved. However, shortly after the summit concluded it turned out that the 'big bazooka' would be very difficult to achieve. This failure led to increased uncertainty, having a detrimental effect on the economy: spending on consumption halted and investment decisions were postponed or even cancelled. Because these effects occurred in many countries at the same time, world trade growth came to a standstill (see figure 4 below). Market uncertainty was also apparent in the equity markets, where the implied volatility (VIX for S&P500 and VSTOXX for Dow Jones) has been at an elevated level since August, albeit not as high as after the fall of Lehman Brothers. Also as a result of the uncertainty in the financial markets, capital costs for the non-financial corporate sector increased strongly, much more so in the euro area than in the US. On the eve of the December summit, Germany's chancellor Angela Merkel and France's president Nicolas Sarkozy gave the impression that this time they would achieve a decisive breakthrough. At the summit, agreement was reached on stronger and binding budget surveillance, leveraging of the EFSF, additional resources for the IMF and an acceleration of the entry into force of the European Stability Mechanism (ESM), the successor of the EFSF. Positive market response, however, was again short-lived as the implementation of the

agreements, and in particular the proposed increase in EFSF guarantees, turned out to be more problematic than it was previously thought.

In general, during 2011 the ECB policy has been accommodative. Interest rate increases earlier in the year have been reversed as circumstances changed. Liquidity supply has been ample, especially towards the end of the year, when the ECB decided on additional enhanced credit support measures to strengthen bank lending and liquidity in the euro area money markets. To avoid a lack of collateral, the list of eligible collateral has temporarily been expanded. In December the newly introduced LTRO met a large demand of almost €490 billion for its three year loans against a fixed rate of 1%. Participating banks can use these loans to increase lending to households and businesses but they can also buy sovereign debt from distressed euro area states.[1] The current strain in bank funding is one of the main reasons for the introduction of this type of non-standard measure by the ECB.

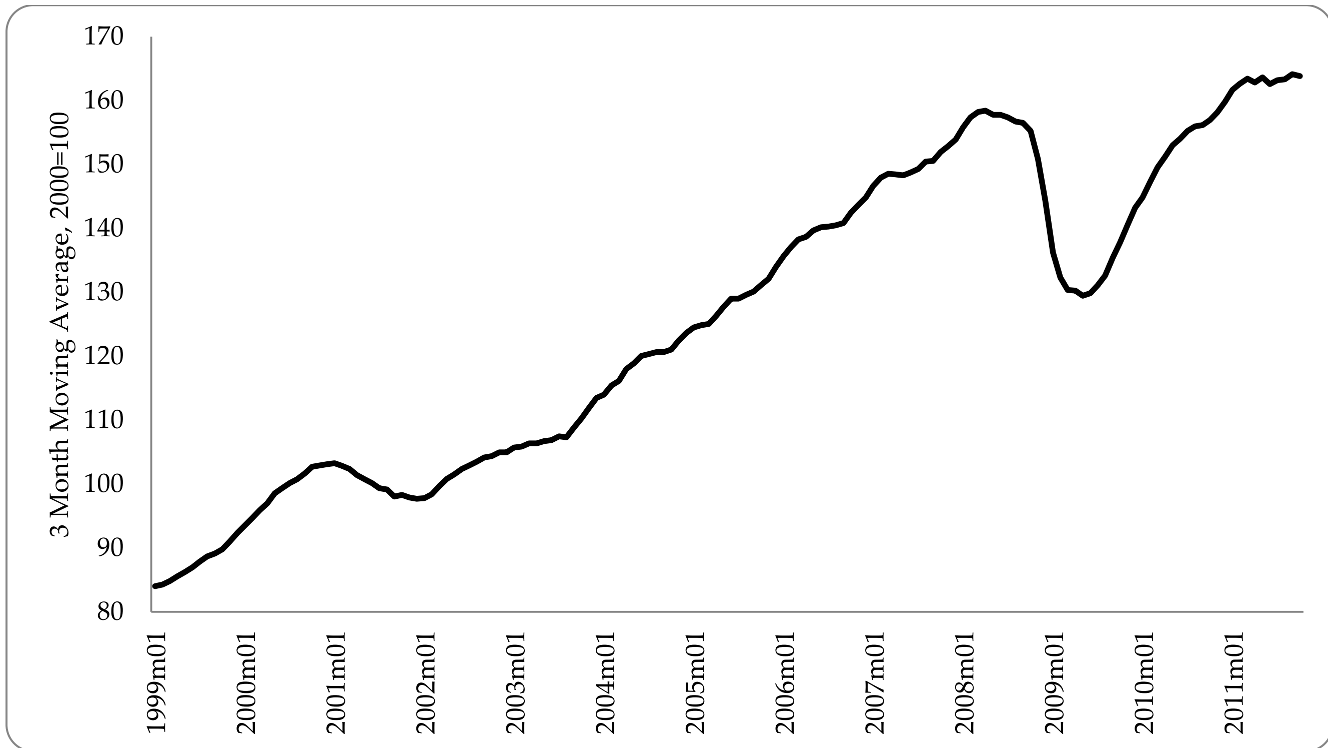
There was hope that with a political agreement at the December summit on stronger and binding budget surveillance, the ECB would be able to take a more active part in the solution of the crises. Until now the ECB has, however, resisted political pressure to step up direct intervention in government bond markets.

According to the OECD figures, government debt in the US (as a percentage of GDP) surpassed the euro area debt in 2010. Political gridlock about the debt ceiling and a near sovereign default at the end of July made the S&P downgrade the US rating from AAA to AA+. In November, after the deal on the debt ceiling was passed, the cross-party super committee started to negotiate budgetary savings of USD 1.2 trillion over 10 years, but failed to reach an agreement. This failure will trigger automatic cuts in defence and domestic spending over the 10 years from 2013. Negotiations about a one year extension of payroll tax cuts and unemployment insurance failed too. Eventually, a compromise deal on extending these stimulus measures for two months passed the Senate and the House of Representatives. Negotiations over a full year extension will resume in January.

Figure 4 below shows that the spectacular recovery in world trade that started in 2009 has run out of steam during 2011. Leading indicators point to a small decline in the fourth quarter of 2011. The trade slowdown is especially acute in the developed economies as a result of the increased uncertainty in financial markets, budget austerity in various countries, and high oil prices. At the same time, imports into emerging economies are slowing down because of monetary tightening and capacity constraints. For 2011 as a whole, this implies an increase in world trade of almost 6% after a surge of 15% in 2010.

[1] In this way the LTRO could act as the 'big bazooka' from the ECB as described by Christian Noyer, France's central bank governor.

Figure 4: Level of World Trade, Three Month Moving Average: 2000 = 100



Source: CPB World Trade Monitor

After a period of relative stability in credit standards of loans to non-financial corporations (NFCs) and households (loans for house purchases and consumer credit), there was a significant net tightening of standards by euro area banks in the third quarter of 2011 (ECB, 2011). In the fourth quarter of 2011, banks expected a further net tightening of credit standards to NFCs. The tightening of credit standards for households is expected to be limited. The tightening of credit standards is closely linked to the re-intensification of the sovereign debt crisis that undermined the perceived soundness of banks. The Bank Lending Survey indicates that the deterioration of funding conditions was one of the key factors behind tightening of credit standards. Two other indicators, the Euribor/OIS-spread and the spread of financials bond yields over government bond yields, also point to increasing bank funding problems as they both showed significant increases during 2011. The Euribor/OIS-spread, a measure of banks' reluctance to lend to one another, rose in December to its highest point in 2½ years and the spread of financials over governments bonds has shown a large increase since April. These bank funding strains were one of the main arguments for the ECB to introduce the three year LTRO.

The financial crisis is hurting individual countries in the euro area in different ways. With an average GDP growth of 0.2% in the third quarter of 2011, growth in the individual countries ranged from -0.4% (in Portugal) to 0.9% (in Finland). Unemployment rates also showed a wide range, from 4.0% (in Austria) to 22.9% (in Spain) (November 2011figures).

Leading indicators suggest that growth will be subdued, at least in the first half of 2012. Higher unemployment and deleveraging by households and firms will continue to depress aggregate demand for some time to come. Public sector consolidation programs will also put downward pressure on demand. This time governments in many advanced economies have no means to neutralise a huge fall in private sector demand. Nevertheless, in the central scenario it is assumed that governments have the means and the determination to prevent destructive events, such as disorderly sovereign defaults or systemic bank failures. As a result it is assumed in the central forecast that a serious depression is avoided. In this 'muddling through' scenario the situation in the financial markets is assumed to improve during the second half of 2012, leading to greater confidence and a pick-up in growth rates.

Inflation accelerated rather strongly in 2010-11, when commodity prices rebounded sharply from their lows in the recession of 2008/9. Commodity prices first reacted to the strong demand from China and other commodity-intensive emerging economies, which recovered from the recession quickly. Emerging economies, and China in particular, have a big impact on commodity prices as their share in commodity demand has risen markedly by the early 2000s, and their growth rates, especially in commodity-intensive industrial production, are very strong. The recovery in industrialised countries, albeit weak, also supported the rise of the commodity prices

Consumer price inflation in November 2011 varied from -0.2% in Japan to 3.4% in the US, 4.2% in China and 4.8% in the UK. In the euro area, consumer prices rose by 3%. In most countries, inflation is expected to decelerate due to weak economic growth and lower commodity prices.

Energy prices dominate the changes in inflation in the euro area (see figure 5). Crude oil affects inflation directly through oil product prices and also indirectly by affecting other energy prices and the prices of energy-intensive products and services. During the Recession, oil prices (Brent) declined below USD 40 per barrel, but recovered quickly once the turnaround in emerging economies was apparent. The crude price rose rather rapidly to around USD 95 by the beginning of the 2011 when the political risks in North Africa and Middle East intensified. Oil prices peaked at around USD 125 in April when the Libyan crisis developed into a civil war. Libyan production practically ceased until October 2011 when the civil war ended. Since October, the price has been fluctuating around USD 110 per barrel. Although the economic outlook has deteriorated the price was supported by, among other factors, Iran-related risks. The effect of energy on inflation, however, has passed its peak and, in the absence of new geopolitical shocks, it will quickly moderate even if prices stay high due to the base effect.

Rapidly increasing food prices had a big effect on inflation around the world, especially in the emerging economies where the share of food in consumption is large. Rises in the prices of wheat and coffee have been very strong. Figure 5 shows that in the euro area, food inflation has been clearly faster than the headline inflation. The effect of food on consumer prices has been rather strong this winter,

but as in the case of energy, its impact has probably peaked already, provided that the forthcoming harvests are normal. Even though in China food prices had already reached a peak, they rose by 8.8% in November 2011 and added to consumer inflation by 2.7 percentage points.

Figure 5: Euro Area Harmonised Inflation by Main Groups

Source: Eurostat. CPB, ETLA

In contrast to energy and food prices, core inflation, i.e. inflation excluding energy, food, alcohol and tobacco, has been stable and relatively low. In the euro area, even core inflation has accelerated slightly in recent months but it was still only 1.6% in November 2011. Sharp increases in commodity prices have affected the prices of energy-intensive products and services but they did not induce strong secondary effects. In industrialised countries wage pressures have remained modest as capacity utilisation has not normalised after the recession and unemployment rates are generally high.

Moderate core inflation, together with weak growth and a fairly bleak economic outlook have kept central banks in the industrialised countries cautious. The US Federal Reserve, the ECB, the Bank of England and the Bank of Japan have different mandates. The Federal Reserve, the Bank of Japan and

the Bank of England have kept their steering rates low and they have actively utilised so-called quantitative easing to support the functioning of money markets according to their policy goals. In the euro area, the steering rate was unexpectedly raised by 0.25 percentage points on two occasions in April and in July. In November, the rate was decreased by 0.25 percentage points, with a further 0.25 percentage point cut in December. The ECB has also utilised unconventional measures to support banks' liquidity. A Security Market Program was established in May 2010 to support the euro area financial system by buying government bonds of countries facing special stress. It has helped keep the government yields of the crisis countries in check. The most recent measure was to allow banks to access unlimited three-year financing from the central bank in order to ease pressures to trim their balance sheets.

The euro exchange rate has been rather volatile reflecting expectations of the relative developments of the euro area vis-à-vis other currency areas. During the euro crisis, the euro strengthened against the dollar until May 2011, but has since weakened. Between summer 2010 and autumn 2011 the USD weakened steadily vis-à-vis the Chinese renminbi, and the price of the euro in yuans has fluctuated rather strongly, with a weakening trend in recent months. In the immediate future the Chinese central bank may be reluctant to let the renminbi appreciate further as domestic inflationary pressures are diminishing and the growth of Chinese exports has declined.

4 EXTERNAL ENVIRONMENT

4.1 China

Indicators of the current situation in the Chinese economy point not only towards a slowdown in economic activity but also towards a decrease in the inflation rate. Industrial production growth in y-o-y terms is almost 10 percentage points lower than in the first half of 2011. The December level of the Purchasing Manager Index was under 50 (the threshold between growth and contraction) for the second month in a row, suggesting more difficulties in the future. Furthermore, export performance is poor in comparison to early 2011, but it is still at approximately 9% y-o-y (and thus very far from the sharp decline in 2009). The trade surplus is also shrinking. Trade and exchange rate disputes with the US (e.g. recent measures against US car imports) add concerns about trade developments in the coming quarters. However, facilitated by the 2010 free-trade-agreement with ASEAN, a certain amount of trade re-orientation towards Asian markets is already taking place. Domestic consumption continued to grow at a buoyant pace of approximately of 17% y-o-y, with a slight acceleration in real terms due to the reduction in the inflation rate.

At the moment, the decline in economic activity is not comparable with that of the early stages of the great recession and policymakers have room to prevent rapid worsening. After a period of tightening, monetary policy could now be reversed and, given a more acceptable inflation rate since October, fiscal policy also has the room for expansionary measures.

In the case of sudden deflation in the housing market and the construction sector, or further deterioration in global demand, the risk is of a more severe slowdown.

4.2 United States

In the third quarter of 2011, the US economy expanded further after the very weak performance at the beginning of the year (0.4%, 1.3% and 1.8% annualised growth in the first, second and third quarters, respectively). The expansion was driven by strong private consumption, and fixed non-residential investments. However, residential investment remained weak, and inventories had a negative impact on GDP growth.

Despite the recent positive signs in the labour market (in December the unemployment rate declined to 8.5% and jobless claims fell more than expected), this recovery is characterised by a much weaker labour market than in previous episodes, with rising long-term unemployment and a steady exit of discouraged workers from the labour market. This adversely affects households who remain in a vulnerable position because they need further balance sheet corrections and continue to suffer from the negative wealth effects, due to the adverse developments in the financial markets.

Equity prices dropped by approximately 6% in the second half of 2011 according to S&P 500 index, and, according to the Case-Shiller index based on the data from 20 cities, house prices are still 30% lower than they were in the pre-crisis peak. Corporate borrowing spreads have risen, albeit to a lesser extent than in Europe. The negative effects of the deterioration in the financial condition on firms' investments and household consumption are not expected to be offset by the positive effects of the fiscal stimulus proposed for 2012 by President Obama. The difficulties in getting agreement on the expansionary measures introduced by the American Jobs Act in September are likely to reduce considerably the impact of the bill. According to the Congressional Budget Office, the proposed measures would increase spending by $50 billion in the fiscal year 2012, and cut tax revenues by $213 billion. Based on a simulation using NiGEM, the package is expected to raise growth by 0.3 percentage points in 2012 and 0.2% in 2013.

4.3 United Kingdom

UK economic growth in the first three quarters of 2011 has been weak. The volatility of quarterly growth rates is due to a series of 'special factors'[2]. The average rate of quarterly growth in 2011 was just 0.3%. NIESR's monthly estimate of GDP suggests the UK economy expanded by just 0.1% in the final quarter of 2011, with the production sector a noticeable drag on the economy (declining by 1.3% in the fourth quarter of 2011). Overall, GDP growth has decelerated from 2.1% per annum in 2010 to 1% in 2011. The UK economy is currently 3.6% below its pre-recession peak.

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[2] These factors include the rebound in the first quarter of the year from a contraction due to exceptionally adverse weather in the final quarter of 2010. The second quarter of the year was affected by the additional holidays associated with the Royal Wedding, the effect of payments of Olympic tickets and the effect on supply chains from the earthquake and tsunami in Japan.

The latest data suggest the economy is further away from rebalancing than previously estimated. The estimate for the current account deficit has been revised from 2.5% of GDP in 2010 to 3.3% of GDP. While the latest vintage of data now show deterioration in the UK's balance of payments in 2011: the current account deficit has widened from 2% of GDP in the first and second quarters to 4% of GDP in the third quarter of that year. The widening current account deficit is due to adverse movements in all three components: trade, income and transfer balances. But predominately due to the surplus on the income account shrinking from 1.3% of GDP in the second quarter of 2011 to 0.1% in the third quarter of this. The Office for National Statistics suggests this is due to lower profits of UK banks and the foreign subsidiaries of UK non-financial corporations and an increase in the profits of foreign owned banks operating in the UK. Movements in income credits and debits are volatile and we do expect the surplus on the income account to widen over the short to medium term. We expect the deficit on the current account to narrow over the next couple of years. The deficit on the trade account is forecast to narrow, but this is due more to a weak domestic economy and the consequent muted demand for imports than to robust export growth. Net trade is expected to provide a positive contribution to GDP growth. We expect the domestic economy to be a drag on economic growth next year. A recession in the first half of the year is followed by a return to more robust growth at the end of 2012. Overall the UK economy is expected to expand by 0.2% per annum in 2012, accelerating to 2.3% in 2013.

Unemployment has begun to rise again in the UK. The ILO unemployment rate has increased from 7.7% at the start of 2011 to 8.3% in the third quarter of this year. We expect the hoarding of labour to persist in 2012. Employment is expected to fall next year, but the continued hoarding of labour is forecast to minimise the magnitude of this fall. Given the forecast expansion in the labour force we expect the rate of unemployment to increase throughout 2012 rising to towards 9% before falling back gradually over the course of 2013 and subsequent years. There is particular concern around the increase in youth unemployment and the government has recently announced measures designed to combat this phenomenon[3]. The 'Youth Contract' will provide measures including support for extra jobsearch activity, wage subsidies for employers, and a new programme to support disadvantaged 16-17 year olds into education and training.

Given the poor outlook for the UK economy and the insistence of the UK government on persisting with the planned magnitude of fiscal consolidation in the short-term, it is unsurprising that financial markets currently expect the Monetary Policy Committee (MPC) to increase Bank Rate in December 2013, at the earliest. In addition the MPC of the Bank of England has restarted quantitative easing, almost exclusively government bonds. An additional £75 billion of assets will be added to the Bank's balance sheet by February 2012. If our current point forecast materialises as the outturn then recent

[3] The number of 16-24 year olds defined as unemployed increased to 1.03 million the three months to October 2011; an increase of 5.6% from the three months to July 2011.

speeches by MPC members make it clear that quantitative easing would be extended even further (see, for example, Weale, 2011).

The rate of CPI inflation has been persistently above the MPC's target of 2% per annum in 2011. Much of this can be explained by temporary factors: the increase in the standard rate of VAT at the start of the year, the effect the sharp increases in commodity prices as well as the continued feed through of robust import prices into consumer prices. These factors will stop contributing to the upward momentum of prices and we expect the rate of inflation to drop below 2% per annum in the second half of 2012. In the absence of any further positive shocks to the price level we expect to see the large amount of spare capacity (around 4% on our current estimates) bear down on consumer price inflation.

The UK government's self-imposed Fiscal Mandate has a primary target of balancing the cyclically-adjusted public sector current budget, on a fiscal year basis, at a five year horizon (currently 2016-17). They have tasked the newly created Office for Budget Responsibility (OBR) with evaluating whether there is a greater than evens chance of this outcome. In their latest forecast, published at the end of November 2011, the OBR suggested that there was a greater than evens chance of this outcome, but this positive evaluation occurred only after the government announced additional spending cuts equivalent to 1.5% of GDP over the period 2015-16 to 2016-17. On the basis of the Maastricht criteria we expect the deficit on the government's financial balance to shrink from 10.2% of GDP in 2010 to 7.4% in 2013.

4.4 Central and Eastern Europe

Compared to 2010, in 2011 the macroeconomic situation in the majority of Central and Eastern European EU member states outside the euro area has improved. The strongest upturn was registered in the Baltic states, where GDP growth rates were above 5% on the back of a robust recovery of consumer and investment demand. Domestic demand also fuelled economic growth in Bulgaria and Romania, though at comparably low rates (2-3%). The main driver of the region remained Poland, where GDP growth accelerated slightly to 4.2%, thereby keeping up with its high pace in 2010. While consumer demand was fairly strong and investment gained momentum, the main reason for the solid performance of the Polish economy was the improvement in the foreign trade balance following a weakening of the zloty in the second half of the year. The Czech Republic registered a slight slowdown in growth (to below 2%) due to shrinking consumer demand, in spite of strong net exports, which were offsetting a part of this disadvantageous trend. The Hungarian economy was pushed into serious turmoil due to internal policy debates and attempts to limit central bank independence. This led to reduced international support (by the IMF), a loss of foreign investors' trust and mounting costs of public debt servicing. As a consequence, Hungary registered the lowest growth among CEE countries (slightly above 1%) in 2011, with vanishing domestic demand and fragile prospects for the coming years.

The outlook for Eastern Europe is overshadowed by uncertainties resulting from the sovereign debt crisis in the euro area. We expect a deterioration in the access to capital and a worsening in consumer confidence. In addition, several countries (Poland, Romania, Lithuania, Latvia and Cyprus in 2012 and the Czech Republic in 2013) face deadlines for fiscal corrections under the excessive deficit procedure, which will require some tough fiscal adjustments, and will further weaken domestic demand. Poor prospects for growth in the EU as a whole will hamper exports from Eastern Europe. This is only partly compensated by weaker imports, resulting from slowing domestic demand and – in countries with flexible exchange rates – rather weak currencies. As a result, we expect deterioration in GDP dynamics in all analysed countries for 2012, with stable growth only in Bulgaria. In 2013, growth is likely to accelerate again, driven by a gradual recovery in the euro area and an improvement in general economic sentiment. A notable exception is Poland, where we expect a slight slowdown in 2013 compared to 2012, due to further weakening of investment demand and de-stocking.

5 CENTRAL FORECAST FOR THE EURO AREA

After growth in GDP of 0.8% in the first quarter of 2011, GDP growth in the euro area declined to 0.2% in the second and third quarter. The weaker growth mainly reflected stagnant domestic demand, while export growth continued to hold up also in the third quarter (+1.5%). All sectors of production were affected by the weakening in activity since the beginning of the year. Growth in manufacturing stalled in the 3rd quarter, while construction contracted for two quarters in a row. The cyclical position continues to be very diverse across the euro area countries. In the third quarter, euro area GDP was 1.4% above its level in 2010 Q3. The major contributor to the third quarter growth was the 2.6% growth in Germany, while in the same period GDP in Greece, Portugal, Slovenia and Cyprus declined further with an increase of less than 1% in Italy and Spain.

With the re-emergence of the public debt crisis in late August, the euro area became the major source of risk to the continuation of the world economic recovery. The renewed concerns about the stability of public finances have driven up government bond yields in highly indebted euro area member states. This gives rise to a risk of a vicious circle operating between banks' balance sheets and public finances: the higher yields both hamper the ability of highly indebted countries to refinance the debt and seriously damage banks' balance sheets. This has accelerated the flight from bonds of those countries and has driven up yields even further. As a result, bond yields temporarily increased to close to or even above 7% for Italy and Spain, while they declined for Germany. In the beginning of this year, some auctions even resulted in negative yields on short-term German bonds.

With some delay, on 27 October and on 9 December the European Council agreed to a fiscal compact and stronger policy coordination and governance in order to increase the credibility of budgetary policies by enhancing the commitment to keep structural deficits close to zero. This is to be achieved by the so-called debt break, i.e. (possibly constitutional) national laws to limit structural fiscal deficits to

0.5% of GDP. The plans have yet to pass national parliaments. New governments in Italy and Spain are about to implement consolidation measures of a substantial magnitude. Further measures include the faster implementation of the ESM and higher capital requirements for banks.

Still, despite some improvement on bond markets, confidence remains very fragile in early 2012 and money markets are almost frozen. The Euribor/OIS-spread, a measure of banks' reluctance to lend to one another, rose in December to its highest level in 2½ years. The latest ECB bank lending survey from October showed a significant tightening of credit standards due to deteriorating access to market financing – in terms of both money markets and debt securities issuance – and partly due to a worse economic outlook. Part of the reason for this tightening might be the rise in capital requirements. Recent EBA regulations require banks to raise their core capital (tier 1) ratio to 9% by mid-2012, which implies a capital shortfall of about €115 billion. A number of banks appear to have difficulties with finding appropriate sources of capital.

In response to this situation, the ECB has continued its expansionary policy stance. Since July, the main refinancing rate was lowered by 50 basis points to 1%. The ECB has also revived its programs to buy government bonds on a moderate scale and has taken decisive action to boost liquidity: in mid-December euro area banks hastened to take up the offer of 3-year loans at an interest rate of 1%. They borrowed an amount of €490 billion. Furthermore, to counter the outflow of foreign funds, the ECB has announced the extension of US-liquidity providing measures from its mutual swap lines with the Federal Reserve.

Clearly, the success of these policies and possible future measures aimed at resolving the debt crisis will be crucial for the evolution of the euro area economy in forthcoming years.

In the Central Forecast it is assumed that a credible plan is implemented to restore confidence in the debt of euro area governments in the first half of 2012, though there is no clear evidence that the programmes put forward so far are succeeding in achieving this goal. Therefore, the central forecast that is presented below is based on the assumption that policy makers continue to 'muddle through' the crisis and that this will be sufficient to see confidence returning in the second half of the year.

Country-specific risk premia are assumed to remain high to mid-2012. We assume policy is adapted gradually over this period to ensure that there is not a complete collapse of the euro, and over time, markets begin to accept that authorities will continue to adjust policy as necessary, allowing risk premia to recede from the middle of the year and throughout 2013.

In addition to the high risk premia on government debt in a number of euro area economies, there are two other key assumptions underlying our central forecast: the significant pro-cyclical tightening of fiscal policy across Europe and the sharp tightening of bank lending conditions, which is partly attributable to the recapitalisation requirements imposed by the European Banking Authority

consequent on the latest round of stress tests. Both of these assumptions are discussed in greater depth in separate sections of this report.

The technical assumptions underlying the central projections are as follows. Fiscal programmes as detailed in table 3.1 of this report have been implemented using the NiGEM model. For the euro area as a whole, these measures amount to 1.5% and 1% of GDP in 2012 and 2013, respectively. We impose high borrowing constraints on both firms and households for the first half of 2012. This is implemented through a rise in bank lending rates of 2.4 percentage points for the first two quarters of the year, compounded by a rise in the sensitivity of household spending to current income. Government bond spreads over Germany are assumed to remain at current levels to June 2012, and then narrow by 10% per quarter thereafter.

Overall, following an increase of 1.7% in 2011, we expect euro area real GDP to stagnate in 2012 and to rise by 1.4% in 2013. In 2012, domestic demand will be depressed by fiscal consolidation and somewhat tighter credit standards. For the euro area as a whole, the fiscal deficit is forecast to decline to 3.1% in 2013 from 4.2% in 2011 and 3.3% in 2012. All components of domestic demand are expected to contract in 2012. Private consumption is expected to decline by 0.3% in 2012, as fiscal consolidation reduces real disposable household income by the same amount. Capital formation will be restrained by weak demand and tighter credit conditions. The decline in domestic demand is, however, offset by a positive contribution from net exports. With the impulse from fiscal consolidation dying out and bank lending conditions loosening, the economy should reach a turning point in mid-2012 and moderate growth should resume.

In December 2011, euro area HICP inflation stood at 3.0%. Core inflation (excluding energy and unprocessed food) amounted to 2.0%. In spite of various tax increases, the rate of inflation is forecast to decline to 1.8% in 2012 and 1.4% in 2013. In coming months the effects of the sharp increase in oil prices in late 2010 and early 2011 will vanish. This should reduce the rate of inflation close to 2.0%. Looking further ahead, weak demand is likely to dampen inflationary pressure over the entire forecast horizon. Labour markets are expected to hold up well given the weak growth prospects. The unemployment rate would increase slightly from 10.1% in 2011 to 10.5% in 2012 and decline to 10.2% in 2013.

A distinct feature of the current recovery is that there are pronounced differences in the momentum of growth across countries. These differences are expected to persist over the forecast horizon and thereby contribute to some narrowing in current account imbalances and competitiveness differentials. Among the large euro area economies, growth in 2012 is expected to be negative in France, Italy and Spain as the fiscal tightening and the fragile condition of the banking sector weigh heavily on these countries. On the other hand, GDP in Germany is expected to increase by 0.5%. Similarly, in 2013 inflation is forecast to reach 2.1% in Germany, while remaining at 1.1% in France and Italy.

Table 2: Euro Area Forecast Details

	Annual percentage change						
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
Consumption	1.7	0.3	-1.1	0.9	0.3	-0.3	1.1
Private investment	5.0	-1.5	-13.9	-0.6	2.8	-2.5	4.5
Government expenditure	2.2	2.1	2.8	-0.1	-0.2	-0.5	0.5
Stockbuilding	0.3	-0.1	-0.8	0.6	0.2	-0.2	0.1
Total domestic demand	2.7	0.3	-3.5	1.0	0.8	-0.9	1.7
Export volumes	6.7	0.8	-12.8	10.9	6.5	2.6	5.9
Import volumes	6.2	0.7	-11.6	9.1	4.6	0.9	7.1
GDP growth	3.0	0.3	-4.2	1.8	1.7	0.0	1.4
Average earnings	2.1	2.9	2.1	0.7	1.6	1.6	1.6
Harmonised consumer prices	2.1	3.3	0.3	1.6	2.6	1.8	1.4
Private consumption deflator	2.2	2.7	-0.4	1.7	2.4	1.9	1.4
Real personal disposable income	1.8	0.8	0.4	0.3	-0.8	-0.3	0.7
Standardised unemployment rate,	7.6	7.7	9.6	10.1	10.1	10.5	10.2
Govt. balance as % of GDP	-0.7	-2.0	-6.3	-6.0	-4.2	-3.3	-3.1
Govt. debt as % of GDP	66.2	69.9	79.3	85.1	87.9	89.6	89.5
Current account balance as % of	0.1	-1.6	-0.3	-0.5	0.2	2.0	1.3

5.1 Germany

The strong recovery of the German economy has continued in 2011, although the economic expansion lost momentum during the course of the year. In the second quarter of 2011, output exceeded the pre-Great Recession levels. After a relatively weak expansion in the second quarter, in the third quarter, GDP growth accelerated again to 0.5%. There was a particularly strong expansion in domestic demand. Private consumption recovered after the decline in the second quarter. Investment in machinery and equipment continued to increase, although not as strongly as during 2010. Exports and imports expanded at almost the same pace resulting in a slightly positive contribution to GDP growth from foreign trade.

Towards the end of the year, however, the recovery has clearly faltered. Indicators suggest that GDP has contracted in the fourth quarter, mainly due to weak exports. In addition, the deterioration in the external environment and the strong increase in the financial stress indicator calculated by the Kiel Institute (see Box below) provide evidence of a weak investment climate.

The recent stabilization of the sentiment indicators suggests, however, that production will not plummet as in late 2008. Based on the assumption that the sovereign debt crisis will not worsen, we expect that growth in investment will resume in the course of 2012, and private consumption will stabilize domestic demand through the year. Exports to Western Europe will suffer but exports to the rest of the world are expected to continue rising. Due to the resilient domestic demand, net exports are

likely to dampen the expansion of real GDP. All in all, we expect GDP to rise by 0.5%. The labour market will be affected only modestly and the unemployment rate (ILO definition) will decrease somewhat further from 5.9% in 2011 (and 7.1% in 2010). The inflation rate will decline to 1.8%.

In 2013 the German economy will gain renewed momentum, although the high growth rates of 2010 and 2011 will not be repeated. Capacity utilization is estimated to be above its normal level already so that the endogenous factors will start to weaken the upswing and, in particular, higher wage growth will start to bite into employment growth. With an increase in hourly wages of almost 3% in 2011 and 2012 and increases in unit labor costs of 2.2% and 1.5% in 2011 and 2012, respectively (compared to -1.5% and 0.9% in 2010 and 2011, respectively), the overall price competitiveness, which is also aided by a weaker dollar, will remain largely unchanged over the forecast horizon, but will start diminishing vis-à-vis the rest of the euro area.

All in all, GDP will increase by 2%. Domestic demand will again be the main driver of expansion, while net exports to the rest of the euro area will continue to shrink. Overall, due to reacceleration in exports to the euro area, the effect of foreign trade to growth should be neutral. Unemployment will continue to decline, and inflation will accelerate slightly to 2.0%.

The slowdown will affect public finances only modestly since domestic demand is likely to remain intact and the labour market situation is not deteriorating. The public deficit will stay constant at approximately 1.1% of GDP in 2012 and 2013. The government has introduced a large number of measures that are designed to raise revenue and reduce expenditure in 2012. They are, however, generally small in size and will produce a combined fiscal impulse of -0.5% of GDP, which is modest in comparison to most other European countries. This policy will prevent a slight increase in the deficit that would have occurred otherwise. In 2013 the fiscal impulse will be almost zero. There will be a slight decline in gross debt relative to GDP from the estimated 80% level in 2012, and a more significant decline to approximately 78% in 2013.

Box: Financial Market Stress Index for the Euro Area and Germany

The financial crisis of 2008-2009 has strongly increased the attention to monitoring financial market variables by economic research institutions all over the world. International institutions such as the IMF and the OECD, central banks, such as the Federal Reserve and the European Central Bank, and private banks such as Citigroup and Deutsche Bank, have developed financial stress indices in order to produce early warning indicators of problems in financial markets. In general, an increase in these indicators points to a significant increase in the risk perception of market participants. A variety of economic studies have shown that stress in financial markets may lead to economic contractions and may even trigger severe recessions (Bloom 2009 and IMF 2011).

The movement of single financial indicators, such as increasing stock market volatility or surging interest spreads, are related but not identical to an exacerbation in financial conditions. On the one hand, stock market volatility could be low simply due to low transaction volumes and low trading frequency; on the other hand, stock market volatility may be high simply due to new information in the market, such that trade volumes surge without having a direct negative impact on financial conditions (Blix-Grimaldi 2010). A financial stress indicator should, therefore, consist of several financial market variables that reflect the state of the financial system and indicate a regime of financial stress when the indicator significantly increases.

The indicators for financial stress presented here are calculated for the euro area and for Germany, respectively, and have been introduced by van Roye (2011). The indicators exploit the information from different financial variables and transform it into one single measure by applying an approximate dynamic factor model as employed by Brave and Butters (2011) for the United States. The indicator is constructed using 22 financial variables that are divided into 3 subcategories. The first group consists of financial variables from the banking sector. The second group includes financial variables from the securities and stock market. The third group captures real exchange rate volatility. In general, high volatilities and high yield spreads have a positive contribution to the indicator, i.e. increasing volatilities and rising yield spreads lead to an increase of financial stress.

Increases in the indicators have significant negative effects on economic activity both for Germany and the euro area. In particular, a one standard deviation increase in the financial stress indicator leads to a decrease in GDP growth on an annualized basis of about 0.5 percentage points. The dampening effect on GDP growth is quite persistent. The decline reaches its trough after 4 quarters and growth slowly converges back to the initial rate.

Financial Market Stress Indicator 1999-2011

5
4
3
2
1
0
-1
-2
Index
1999 2001 2003 2005 2007 2009 2011
Euro Area
Germany

Monthly data.

Source: ECB, Eurepo, Deutsche Bundesbank, Thomson Financial Datastream, own calculations.

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van Roye, B. (2011): Financial Stress and Economic Activity in Germany and the Euro Area. Kiel Working Paper 1743. The Kiel Institute for the World Economy, Kiel.

5.2 France

The French recovery came to a halt in the second quarter of 2011, with a slight decline in GDP of 0.1% in that quarter, and an increase by a mere 0.3% in the third quarter, according to the second release of national accounts (revised downwards from 0.4%, following the incorporation of the latest industrial production data). In the second quarter of 2011 both households' consumption and private investment growth began to decelerate, while government spending growth was almost flat. External trade provided an almost neutral contribution to growth on average in the first three quarters of 2011. Hence, in the third quarter of 2011 French GDP was still 0.5% below its 2008Q1 level. Although in the 2008 crisis, GDP decreased less rapidly in France than in Germany, the recovery has also been less rapid. Industrial production declined by 1.0% in the last three months to November as compared to the previous three months, and was still 10% below its early 2008 level. The French economy has come to a standstill, and latest business and consumer survey results suggest that GDP decreased in the last quarter of 2011. According to both OFCE's quarterly GDP indicator and INSEE's forecasts released in December, French GDP fell by around 0.2% in the last quarter of the year.

Annual HICP inflation rose by 2.7% in December 2011, as compared to 1.8% a year earlier, reflecting upward pressures mainly from energy and food prices. Although the underlying inflation rate also increased over recent months, it remains moderate at 1.7% on a y-o-y basis. If energy prices stabilise as we expect, and in the absence of wage pressures, consumer price inflation will recede over the forecast horizon. The French economy is clearly operating below its optimum capacity, with the unemployment rate standing at 9.8% in November 2011 according to EUROSTAT ILO figures.

In the initial phase of the recovery, French output benefited from a fiscal package, but in 2010 the fiscal stance became contractionary, and was tightened further in 2011. According to our estimates, the negative fiscal impulse amounted to 1.4% of GDP in 2011, of which 1.1% was tax based and 0.3% was spending based. General government borrowing will probably come close to 5.8% of GDP in 2011, after 7.1% in 2010. The French government has announced it will bring the deficit down to 4.5% of GDP in 2012 and 3% in 2013, and has stated that it will remain committed to this target even if GDP growth turns out to be lower than expected in the budget forecast (1% in 2012). Under current budget plans, the fiscal stance is strongly negative over the forecast horizon: fiscal tightening will amount to 1.7% of GDP per annum in 2012 and 2013, of which 1.1% of GDP is tax based in 2012 and 0.6% spending based, while it would be equally split between taxes and spending in 2013.

In our central scenario, French GDP will decline by 0.3% in 2012, however,. there is a risk that the government would increase fiscal tightening further, in order to meet its deficit target, if GDP declines in 2012 as in our forecast. This could initiate a vicious circle of adding fiscal consolidation in the short-run in order to meet targets for deficits-to-GDP ratios, thereby depressing domestic demand further at a time when fiscal policy is tightened almost everywhere else in the EU, with the major exception of Germany. The main downward risk for the French economy in the short run is the simultaneous

implementation of fiscal austerity plans in major EU economic partners. With French export markets being mostly in the EU, there is hardly any chance that stronger external demand could offset the negative impact of domestic fiscal consolidation in the short run.

However, our central scenario assumes that the tensions related to the sovereign debt crisis will recede over 2012. This would allow for better growth prospects in 2013, with French GDP growing by 1.7%, which is below the growth in Germany (2%) but well above that in Italy (-0.1%). This would leave the unemployment rate close to 10%.

5.3 Italy

Following a slow recovery, the economic picture worsened during the third quarter, and Italy's GDP decreased by 0.2%. Growth was sustained by net exports (0.8 percentage point contribution to GDP growth), while both domestic demand and inventories contributed negatively (-0.4 percentage points and -0.5 percentage points, respectively).

Inflation has increased after the summer: in October, the twelve-month producer price inflation was still at 4.7%, and in December consumer price inflation reached 3.4%. Prices have already incorporated the VAT increase enacted in September, and some measures on tariffs and taxes on fuel. Core inflation remained low. The latest business surveys and producer prices of manufactured goods indicate less pressure on input costs.

The latest indicators confirmed that domestic demand is weak. It is depressed by the poor employment outlook and mounting uncertainty over the general economic situation. Exports are at risk in the context of a world demand that is losing momentum.

The Italian outlook, however, depends primarily on the impact of the crisis on its sovereign debt. This situation remains unresolved.

During the summer, in response to the strains in the financial markets, the Italian Government approved two austerity packages for the years 2011-2014. These fiscal packages were aimed at addressing the main problem of the Italian public finances - the need to reduce public debt, and at reassuring financial markets. Together, the two packages provide a reduction in the net borrowing that is officially estimated to be €2.8 billion in 2011 (0.2% of GDP), €28.3 billion in 2012 (1.7% of GDP), and €54.3 billion and €59.8 billion in 2013 and 2014, respectively (3.3% and 3.5% of GDP in 2013 and 2014, respectively).

Despite the fact that the size of the correction was consistent with the level of the Italian structural deficit (which is around 3% of GDP, 1% of which is the cyclical component), and the aim of reducing the debt/GDP ratio, the rise in the spread on Italian sovereign bonds during the autumn signalled that

the financial markets consider the probability of a consistent improvement in the Italian public finances to be very low.

There are two main reasons behind the Italian sovereign debt crisis and the rise in spreads, other than the uncertainty of governance that affects the EMU itself. On the one hand, the Italian political system lacks credibility, and this is judged to be unsuitable for the implementation of the package. On the other hand, there is a lack of reform aimed at tackling the main issues in the Italian economy, such as growth and competitiveness.

In addition, austerity will depress growth and, in the context of global economic slowdown, this is likely to have a negative impact on the fiscal balance itself. The rise in interest rate spreads represents an additional risk for the fiscal consolidation by increasing interest expenditure and by creating a vicious circle where the pessimistic mood of the markets becomes self-fulfilling.

With this background, the newly appointed Government with Mario Monti as Prime Minister has to reverse this negative trend in order to reassure the financial markets, not only with the additional fiscal correction, but also with the implementation of credible structural reforms aimed at enhancing growth. The new Ministers were appointed on November 19th and they prepared a fiscal plan, which was approved by the Parliament on November 22nd.

Considering the three plans together, they provide a reduction in the net borrowing that is officially estimated to be €48.4 billion in 2012 (3% of GDP), €75.6 billion in 2013 and €81.2 billion in 2014 (4.6% and 4.8% of GDP in 2013 and 2014, respectively).

More than 60% of the adjustment, or €51 billion in 2014, will come from increases in revenues, while spending cuts are estimated at €30billion.

The largest effect of the measures, estimated at around €36 billion in 2012 and €60 billion in 2014 (75% of the total adjustment), will be felt by the household sector. Of this, €12 billion in 2012 and €21 billion in 2014 are expected to come from measures that will reduce households' disposable income: fiscal and welfare cuts, tax on income from financial assets, solidarity contributions on high incomes and on high pensions, savings on public employment, and significant measures in the pension system. In addition, other measures, estimated at around 22% of the total adjustment, will impact households' purchasing power: the increase in stamp duty on securities accounts, the introduction of a municipal real estate levy based on the value of properties and local services, excise taxes on fuel, tax surcharges on luxury items and a tax on the so-called 'tax shielded' assets. Finally, purchasing power will be negatively affected by the increase in the VAT rate from 20% to 21%, which is expected to increase inflation by approximately 0.5 percentage points in 2012. Another increase (from 21% to 23% and from 10% to 11%) can be implemented in September 2012 (and will be followed by a further increase in the rates of half a

percentage point in 2014) if the government does not manage to implement the law on tax and welfare reform (which would produce €13.1 billion of additional revenue in 2013 and €16.4 billion in 2014).

Only a small part of the adjustment will affect firms directly: corporate income measures (surtax on energy sector, increase in the rate of IRAP, the regional tax on productive activities, applying to bank and insurance companies and others) account for € 8 billion. In fact, there are measures aimed at enhancing growth focused mainly on firms, the most important of which are the introduction of a tax benefit for recapitalisations, the reduction of the tax wedge on labour, which is operating through tax deduction from IRAP, especially in the case of employment of women and young workers, and the re-funding of the guarantee fund for SMEs.

Spending cuts in direct public consumption and investment amount to around €18 billion. A large part of the spending cuts will be achieved through cuts in local government expenditure, €9.2 billion, and savings on the healthcare system, €5 billion.

According to our estimates, the overall impact of the package on economic activity (assuming almost complete ex-ante effectiveness of the measures) is about 2.2% of GDP in the period 2012-2014 (with respect to a baseline scenario without fiscal adjustment) of which 1.3% is in 2012, 0.7% is in 2013 and 0.2% is in 2014.

In our estimates more than 40% of the negative effect on GDP comes from the impact on private consumption, mainly through measures that affect households' disposable income directly. Moreover, real disposable income will be negatively affected by the increase in VAT. Expenditure reductions explain one third of the negative effect on GDP.

Despite the less favourable GDP growth, we expect that a "close to balance" position could be achieved in 2013.

The debt crisis is having negative effects on the Italian economy not only through the necessity for restrictive fiscal policy, but also through other channels. First of all, households are experiencing financial wealth losses through both the depreciation of Italian sovereign bonds and the reduction in value on stock exchanges. Higher interest rates also affect the cost of mortgages for households. The cost of borrowing is also affecting firms, and the risk of a new credit crunch is now very high. Given the weak economic outlook and the difficulties of more indebted firms, the latest financial crisis may have a further negative impact on growth.

All in all, without any counter-action, a new recession during the winter is expected, and all the components of GDP are forecast to decline during the next two quarters.

6 DOWNSIDE SCENARIO

The central scenario, shown above, assumed that the funding problems of Italy and Spain are gradually overcome in the early months of 2012. By contrast, in this downside scenario, the economic crisis is assumed to deepen, with a consequential impact on risk premia and on the banking system persisting through to the end of this year. The result of these assumptions would be that the euro area would continue to limp from crisis to crisis over the course of the year with, for example, the funding needs of Spain and Italy being met on a "just in time" basis. Related to this uncertainty about sovereign debt, the pressures on the EU banking system would remain acute: this scenario assumes a return to the banking crisis conditions that persisted in Europe in 2008-2009.

We implement these assumptions by raising the risk premium on borrowing by 5 percentage points in the first quarter of 2012, to reach the peak that they attained in 2009. Risk premia are assumed to remain at this level until the end of 2012, and recede gradually over 2013. The Government risk premium in Italy and Spain is assumed to rise by a further 275 basis points in 2012 compared to the base, and recede gradually in 2013. Elsewhere in the euro area, bond spreads are assumed to remain at current levels until the end of 2012, whereas they begin to decline in the second half of 2012 in our central forecast scenario. We also assume greater liquidity constraints for consumers than in our central forecast scenario, although the impact of these constraints on consumer spending would, to some extent, be offset by weaker inflation.

The impact of these very adverse conditions would be to move the euro area into recession in 2012 with a fall in GDP of just over 2%, and there would be a further fall in GDP in 2013 of 1.1% (Figure 6). Compared to the central forecast the growth rate of GDP in 2012 and 2013 would be reduced by between 2 and 2.5 percentage points each year with a cumulative reduction in the level of GDP over the two years relative to the central forecast of almost 5%. While in this "downside" scenario the volume of consumption would fall in both 2012 and 2013 (and fall relative to the central forecast) as shown in Figure 7, the impact would be much greater on investment (Figure 8), reflecting the very adverse pressures on the cost of capital and the greatly heightened uncertainty.

The impact of such a negative outcome would be to raise the unemployment rate in the euro area and it would have serious negative consequences for the euro area government balance. In spite of the contractionary stance of fiscal policy across the euro area, the government balance as a percentage of GDP would increase from a deficit of 4.2% in 2011 to 5.4% in 2013. By contrast, the central forecast envisages a government deficit in the euro area in 2013 of 3.1% of GDP. We have not made any adjustment to fiscal policy in this scenario, although under the new fiscal compact additional fiscal tightening measures may be required as deficits widen. This would exacerbate the projected declines in GDP.

Figure 6: GDP Growth in the Euro Area

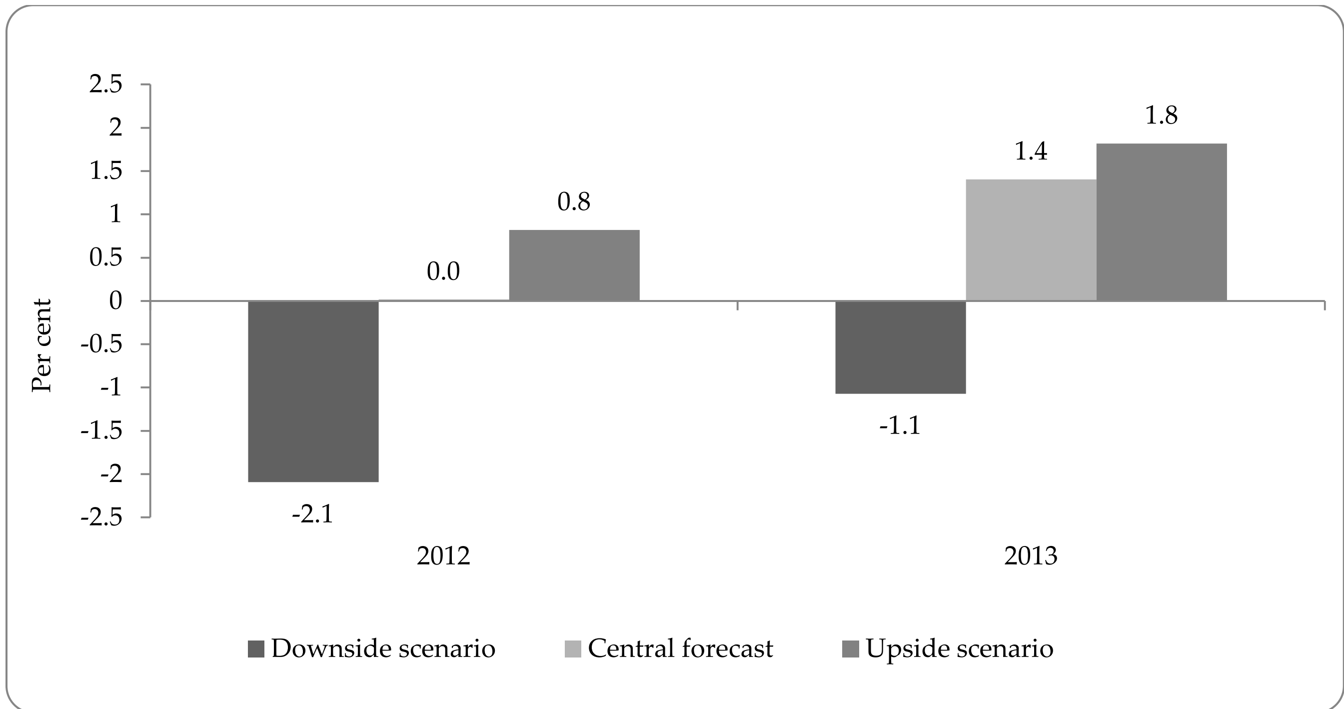


Figure 7: Consumer Spending Growth in the Euro Area

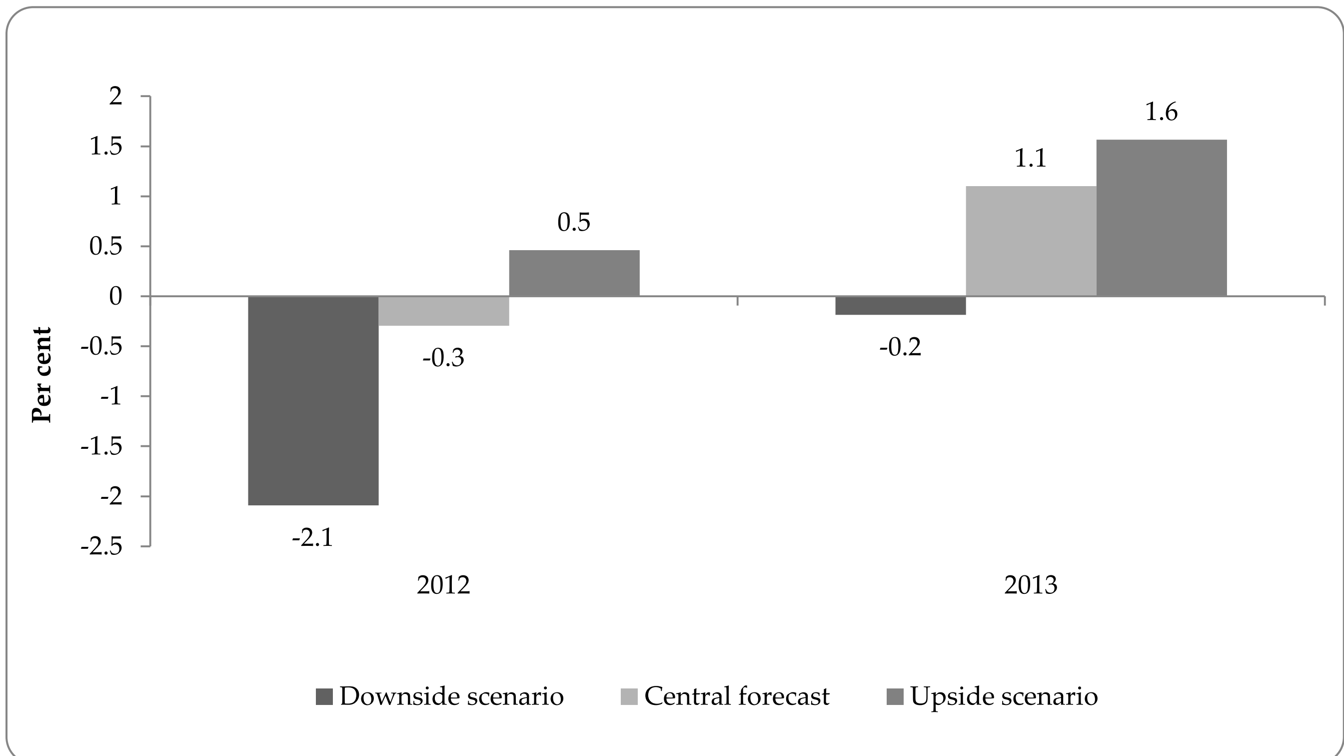
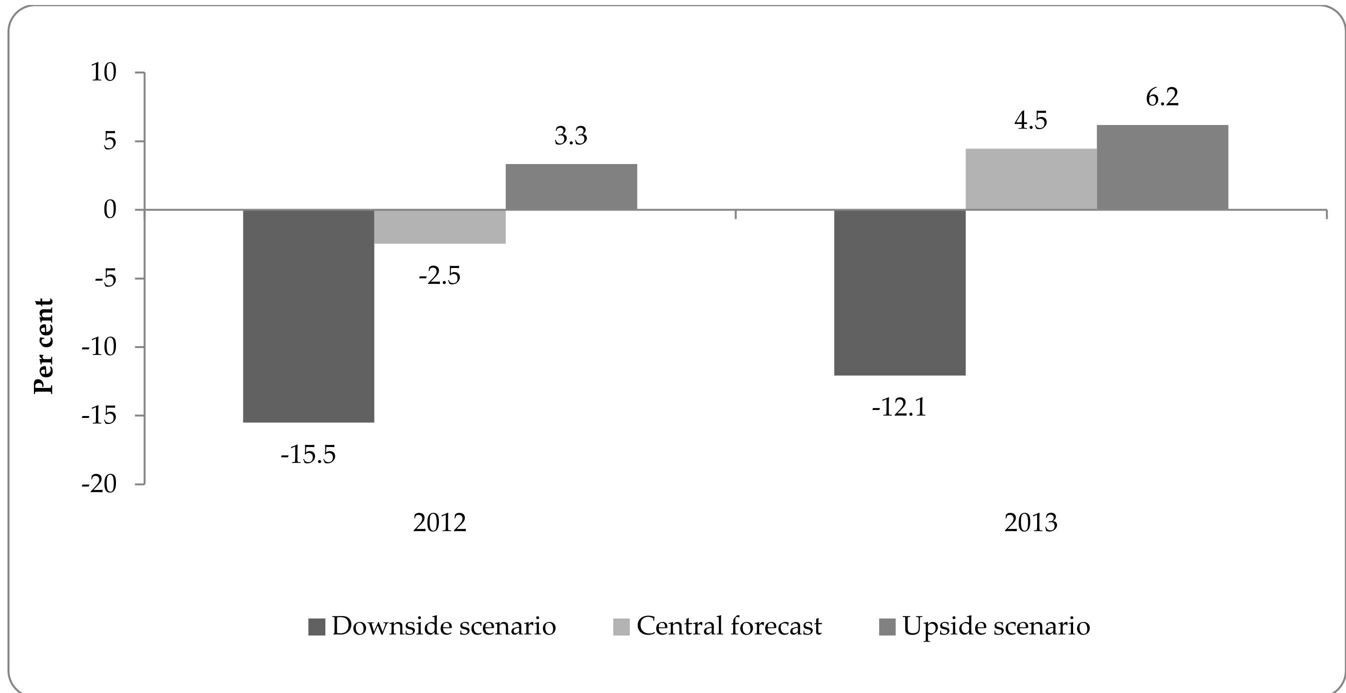


Figure 8: Investment Growth in the Euro Area



7 UPSIDE SCENARIO

The euro area debt crisis, which started in May 2010 in Greece, is at a critical point. A number of ambitious policy packages have been put together to defuse the crisis but so far they have not succeeded in preventing the crisis deepening. One reason for this is that despite their ambitious nature, the measures have not been strong enough. Investors do not believe that the euro area countries are capable of consolidating the most indebted countries' public sectors without a significant private sector involvement.

This upside scenario assumes that the numerous policy measures already taken will be topped up with new decisive actions that will swiftly restore investors' confidence in the capability of the crisis countries to cope with their payments. The subsequent decrease in risk premiums is assumed to feed the demand for financial assets, thereby raising the prices of government bonds and stocks. This would relieve the pressure on banks to cut their balance sheets by selling assets, to which they are resorting to meet the tightening capital adequacy rules because raising new capital remains difficult. However, even with an increase in bank lending, approximately one percentage point rise in lending rates will be required to match the higher capital requirements. Compared to the central forecast, in the upside scenario private consumption is assumed to be stronger as consumers' wealth rises (Figure 7), and investment is assumed to increase (Figure 8) as lower long term rates decrease the user cost of capital.

Under this scenario, the risk premia on government debt drops back to 'normal' levels in the first quarter of 2012 in most euro area economies. We allow a high premium to remain in those countries operating under bail-out programmes, although yields begin to recede in these countries as well from early 2012. While some tightening of bank lending conditions is inevitable in the first half of 2012 given the requirements to raise capital ratios by June 2012, we assume only the minimum tightening is required, with no spillovers to uncertainty in the banking system as a whole. This is implemented through a 0.8 percentage point rise in bank lending rates for the first two quarters of 2012, compared to the 2.4 percentage point rise in the central forecast scenario. We ease liquidity constraints on consumers, allowing a greater degree of consumption smoothing through borrowing than in the central forecast scenario.

In the upside scenario, GDP is forecast to grow by 0.8% in 2012, compared with zero growth in the central forecast as shown in Figure 6 above. In 2013, GDP growth is forecast to accelerate to 1.8%, which is half a percentage point higher than in the median forecast.

The upside scenario does not promise strong growth for the euro area; rather it would mark the beginning of normalisation for the euro area economies. Even in this scenario, in Spain the ratio of debt to GDP, though on a relatively comfortable level, only stabilises at around 75% of GDP in 2012-13, and the government budget balance is expected to be -5.2% and -3.8% of GDP in 2012 and 2013, respectively (Figure 9). In Italy, which is central for further development of the debt crisis, the high debt-to-GDP ratio would start declining rather strongly from a level of 125% as the general turnaround would be supported by recently introduced domestic austerity measures. The Italian government budget balance would be -1% of GDP in 2012, and would become marginally positive in 2013 under our upside scenario, as shown in figure 10 below.

The upside scenario is regarded as less probable than the downside scenario, which reflects the series of unsuccessful attempts in the past to resolve the crisis. The differences in the three scenarios arise primarily from differences with respect to policy measures assumed to be implemented and differences in the assumed success of those policies in convincing financial markets.

Figure 9: Government Budget Balance (% GDP) in Spain

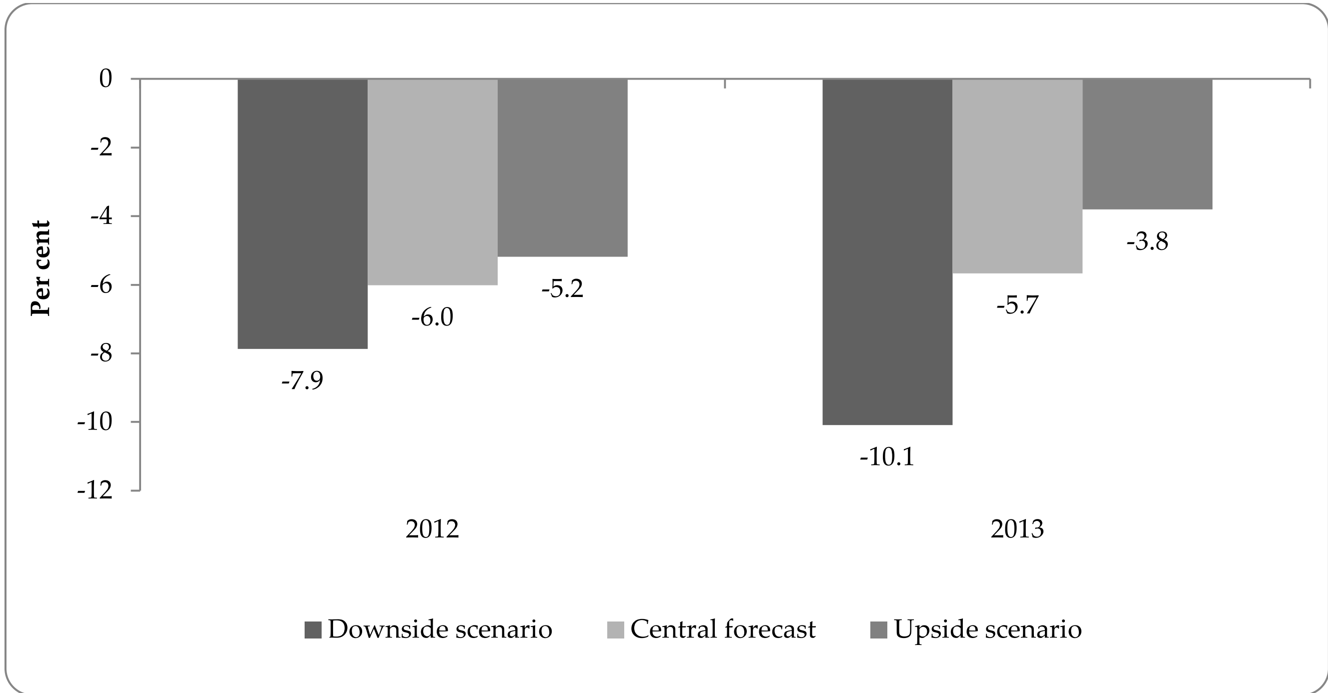
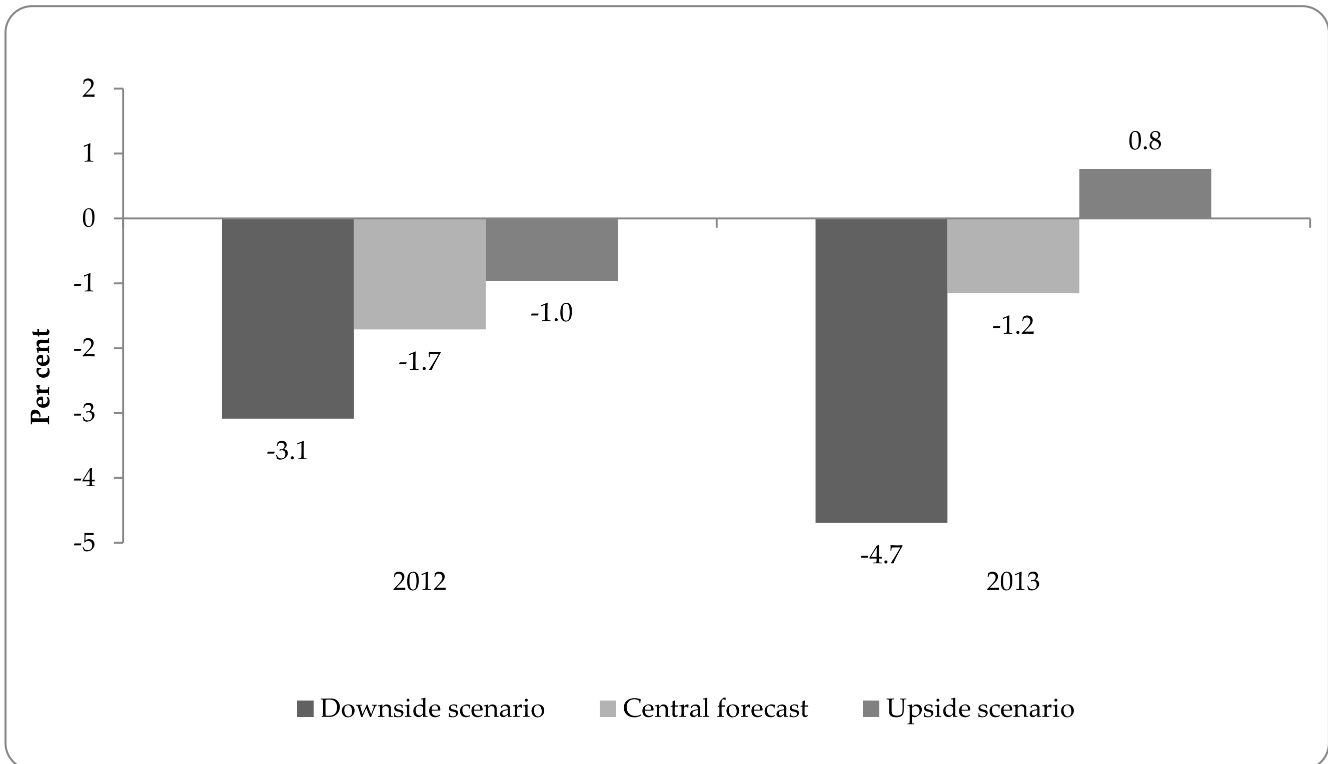


Figure 10: Government Budget Balance (% GDP) in Italy



8 IMPACT OF FISCAL POLICY TIGHTENING IN THE EURO AREA IN 2011 - 2013

8.1 Methodology

It is not straightforward to measure the stance of fiscal policy because the change in government borrowing in any year is a function of both changes in the underlying economy and discretionary changes in policy.

When cyclical factors (or structural changes) result in substantial deviations of the growth rate in an economy from the rate of growth in potential output this can have a substantial impact on the fiscal balance. This was particularly acute in the case of the collapse in economic activity in the euro area in 2009. In many cases, such as Ireland, the deterioration in the fiscal position as a result of the collapse in output was worse than might have been expected based on previous research (e.g. Van den Noord, 2000).

Even measuring discretionary fiscal action is not a straightforward process as it is very often rather different from the fiscal measures announced in a budget. For example, in the case of excise taxes, an increase in the rate of excise duty is considered a discretionary budgetary measure by governments in many countries whereas it might be more sensible to assume that excise tax rates are indexed to the rate of inflation and that deviations from this indexed rate are considered as discretionary.

In the light of these difficulties there are a number of different approaches to measuring the fiscal stance. However, here we adopt the simple expedient of measuring the impact of the fiscal measures announced by individual governments set out in Table 3.1 below.

The possible limitations of this approach can be gauged by comparing the announced fiscal action with that measured using an alternative approach by OFCE based on data in the autumn 2011 OECD Economic Outlook using trend GDP (Table 3.2). This comparison would suggest that the actual impact of fiscal policy on economic growth could be greater than that implied by the policy changes shown in Table 3.1 and this must be taken into account in considering the measured impact of this discretionary fiscal policy on economic growth in the euro area in 2011-13.

Table 3.1: Ex-ante Net Fiscal impulses 2011-2013 as announced by governments

	2011			2012			2013		
	Fiscal impulse (% of 2011 GDP)	**of which tax based**	**of which spending based**	**Fiscal impulse (% of 2011 GDP)**	**of which tax based**	**of which spending based**	**Fiscal impulse (% of 2011 GDP)**	**of which tax based**	**of which spending based**
Austria	-0.9	-0.4	-0.5	-0.4	-0.2	-0.3	-0.1	0.0	-0.1
Belgium	-0.7	0	-0.7	-1.2	-0.5	-0.7	-1.3	-0.4	-0.9
Finland	-0.3	-0.3	-0.1	-0.6	-0.5	-0.1	-0.1	-0.1	0.0
France	-1.4	-1.1	-0.3	-1.7	-1.1	-0.6	-1.7	-0.8	-0.8
Germany	-0.5	-0.2	-0.3	-0.2	0.0	-0.2	-0.1	-0.1	0.0
Greece	-2.7	-1.2	-1.5	-5.1	-3.5	-1.6	-2.0	-0.9	-1.1
Ireland	-3.4	-0.9	-2.5	-2.4	-1.0	-1.4	-2.1	0.7	-1.4
Italy	-0.5	-0.3	-0.2	-3.0	-2.4	-0.6	-1.5	-0.6	-0.9
Netherlands	-0.8	-.3	-0.5	-0.6	-0.5	-0.1	-0.6	-0.45	-0.15
Portugal	-5.9	-2.7	-3.2	-2.1	0	-2.1	-1.9	-0.5	-1.4
Spain	-2.5	-0.5	-2.0	-2.1	-0.4	-1.7	-1.4	-0.3	-1.1
UK	-2.1	-1.1	-1.0	-1.8	-0.2	-1.6	-1.0	0.0	-1.0

Note: Here we define the fiscal impulse as the ex-ante expected change in revenue/spending as a % of 2011 GDP as a result of announced policy changes. The impact on GDP will depend on the fiscal multipliers in each country, and cannot be read directly from this table. The ex-post impact on government balances will depend on the response of GDP, and so also cannot be read directly from this table.

Table 3.2: Fiscal Impulses estimated using trend GDP growth

	2011	**2012**	**2013**	**Total 2011 -2013**	**Total 2011-2013**
Germany	-1.0	-0.6	-0.7	-2.3	-0.8
France	-1.8	-2.3	-2.0	-6.1	-4.8
Italy	-1.6	-3.6	-2.9	-8.1	-5.0
Spain	-4.1	-3.0	-2.3	-9.4	-6.0
Netherlands	-1.4	-2.1	-1.0	-4.5	-2.0
Belgium	-0.8	-1.3	-1.4	-3.5	-3.2
Austria	-0.6	-1.2	-0.6	-2.4	-1.4
Portugal	-6.6	-4.5	-2.4	-13.5	-9.9
Finland	-1.0	-1.5	-0.9	-3.4	-1.0
Ireland	-1.5	-3.8	-3.0	-8.3	-7.9
Greece	-7.1	-5.1	-3.5	-15.7	-9.8
UK	-2.1	-1.8	-1.8	-5.7	-4.9
Euro area	-1.9	-1.8	-1.8	-5.8	-3.7

Source: OFCE estimate using OECD Economic Outlook, November 2011 data. Estimates are calculated based on announced changes in cyclically adjusted balances, using pre-crisis trend GDP growth.

8.2 Discretionary Fiscal Action

Subject to the limitations set out above, we use the NiGEM world model to provide a quantitative assessment of how the growth rate in 2012 and 2013 may be affected by the tightening of fiscal policy across the euro area. We use the "discretionary" measures as summarised in Table 3.1.

We consider two alternative scenarios that incorporate different assumptions on the behaviour of financial markets. Because of the unusual situation in the euro area today this assessment of the impact of fiscal policy is not straightforward. Under normal circumstances a tightening in fiscal policy would be accompanied by a relaxation in monetary policy which would tend to offset the negative multiplier effects of the budgetary action. However, with interest rates already at exceptionally low levels, further tightening in fiscal action is unlikely to result in such an offsetting monetary policy reaction over the coming year. In both scenarios, policy interest rates of the ECB are held fixed until the end of 2013, and then respond to an interest rate rule, which is driven by deviations in inflation and nominal GDP from the baseline.

In the first scenario, 10-year government bond yields are modelled as 'rational', in that the outturns are consistent with the expected path of short-term interest rates over a 10-year forward horizon, allowing for an exogenous risk premium. Fiscal tightening in 2011-2013 slows the euro area economy down, easing inflationary pressures, and policy interest rates would be expected to decline from 2014 when the feedback rule becomes endogenous. As a result, long-term interest rates decline immediately in the first scenario, softening the impact of the fiscal tightening to some degree. In the second scenario we treat long-term interest rates as adaptive, responding to current changes in policy rates, and so they remain fixed until the end of 2013.

Exchange rate movements also differ between the two scenarios. In the first scenario we assume forward-looking financial markets, and exchange rates adjust to ensure that uncovered interest parity holds. In the second scenario exchange rates are held fixed to the baseline.

In both scenarios we also raise the household savings rate by approximately 1 percentage point in the euro area, to capture a loss of consumer confidence and job security stemming from the fiscal tightening measures.

8.3 The Macro-economic Impact of Fiscal Policy

Countries having to implement very restrictive fiscal policies at a time of high government interest rates and financial instability will see, as a result, a large domestic output fall. Our central forecast presented in this report envisages a decline in GDP this year in France and Italy, and no growth in the euro area as a whole, which implies an area-wide recession in the first half of the year. Southern EU economies in particular would see a large output fall, followed by a recession and high unemployment. We expect the unemployment rate in the euro area as a whole to average 10.5% this year, and according to latest European Commission's forecasts, the unemployment rate will reach 13.6% in

Portugal in 2012, 14.3% in Ireland, 18.4% in Greece, and 20.9% in Spain. In such circumstances, the government deficit targets will not be reached, which will call for additional restrictive measures, in accordance with the new 'fiscal compact' adopted by the EU Council on 9 December 2011. Such a policy would be unavoidable, according to the Commission, in order to reassure markets. But would a policy leading to a long depression period be reassuring?

Figures 11 - 13 illustrate the estimated impact of the fiscal tightening programmes detailed in table 3.1 above on key indicators in the euro area, according to the NiGEM simulations. We designate the first scenario described above as the "forward scenario" and the second scenario as the "backward scenario". When we allow long-term interest rate and exchange rate adjustments to soften the impact on output (forward scenario), GDP growth in the euro area is estimated to be 0.6 - 0.8 percentage points weaker per annum in 2011-2013 as a result of the fiscal tightening measures introduced across Europe. Long-term interest rates decline by about 35 basis points as a result, while the exchange rate depreciates by 2.8%. If we believe that interest rates and exchange rates do not respond to the weaker economy (backward scenario), the impact on GDP growth is much stronger, reducing growth by 0.9-1.3 percentage points per annum in the euro area over this period. These estimates suggests that in the absence of tightening measures the euro area economy would have expanded by 2.3- 2.6% last year, and would be expected to grow by 0.8- 1.3% in 2012.

Figure 11: Impact on GDP Growth in the Euro Area

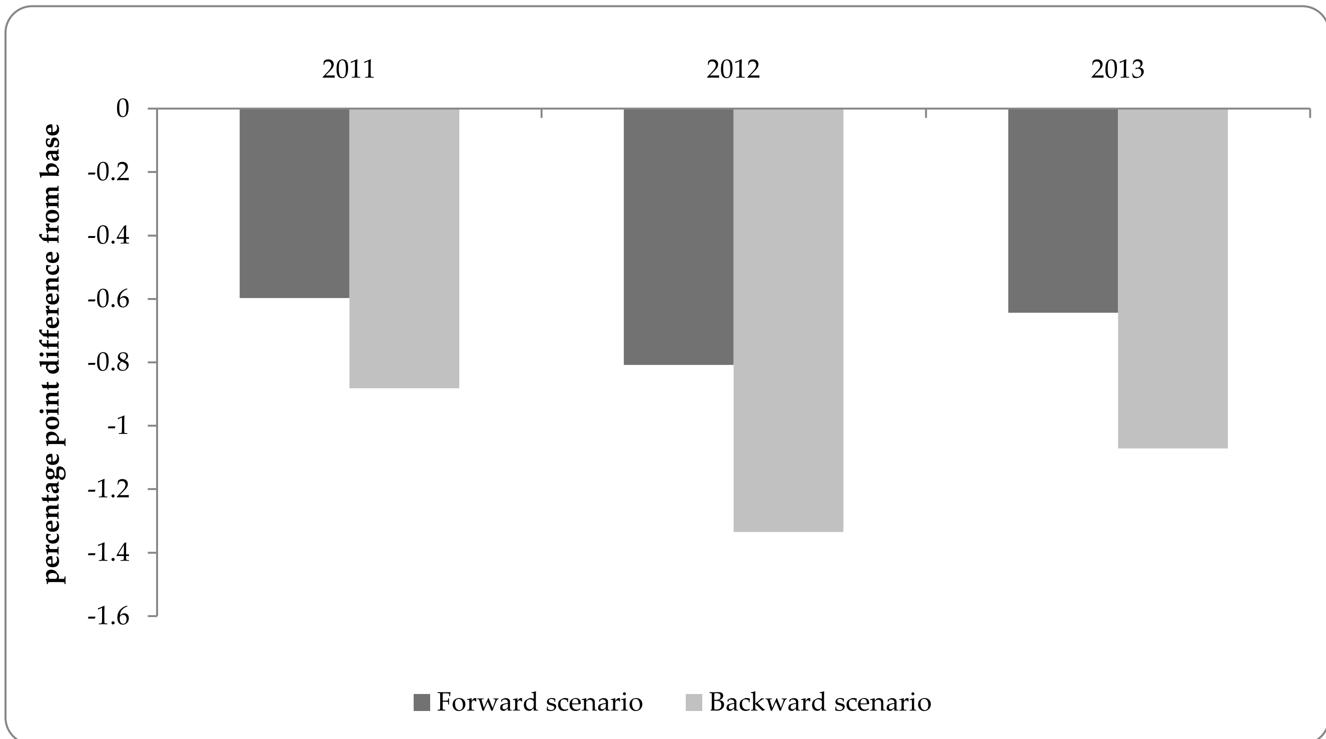


Figure 12: Impact on Government Budget Balance (% of GDP) in the Euro Area

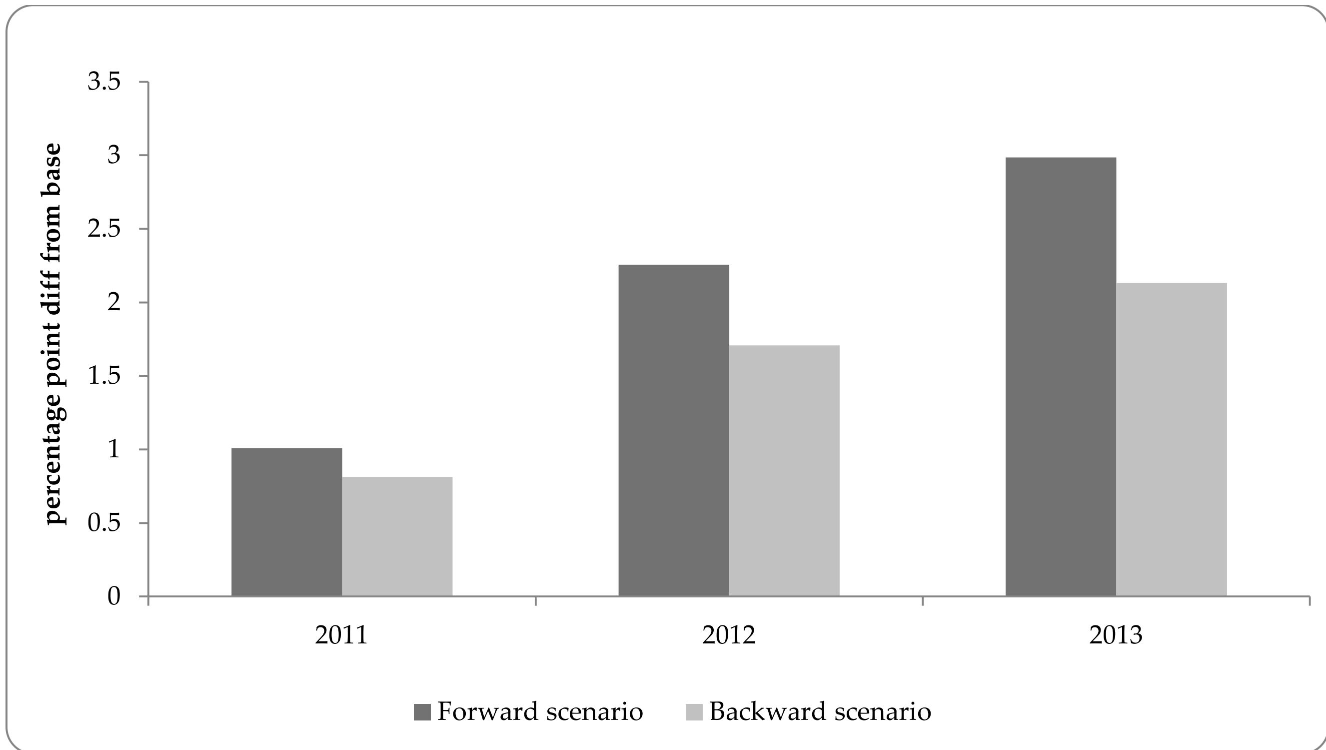
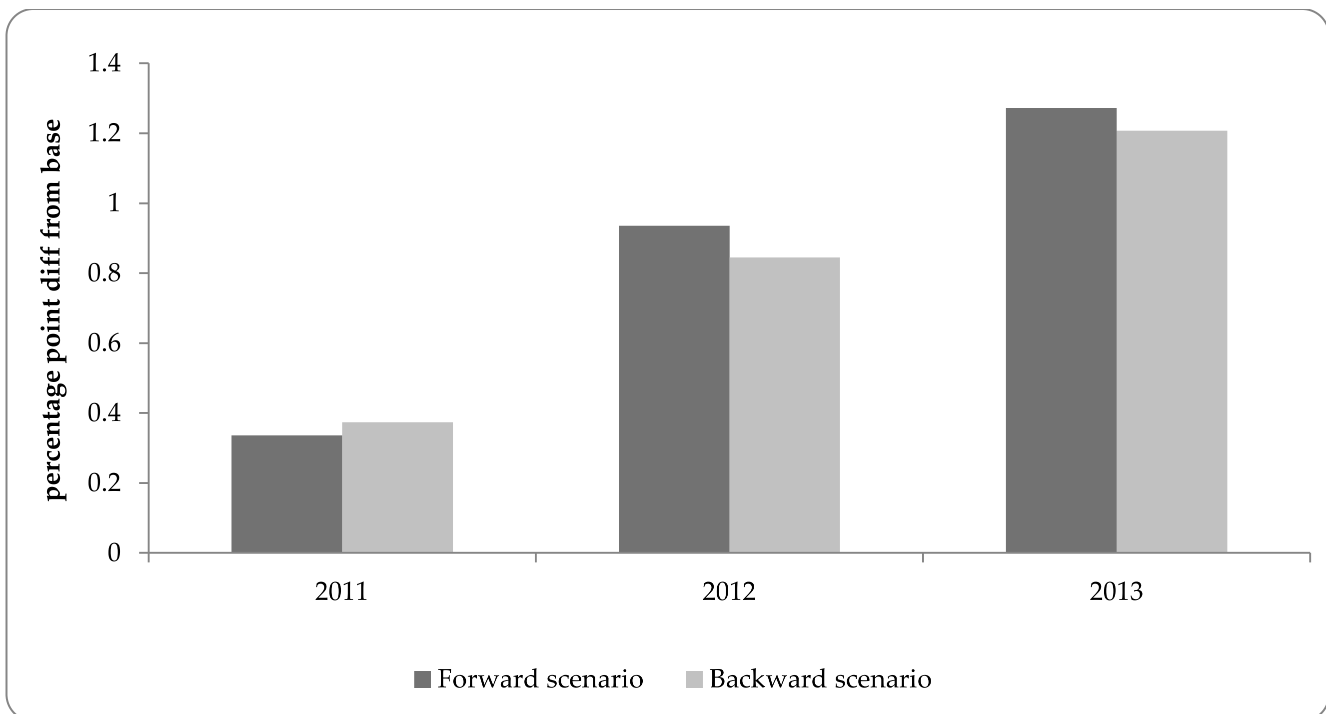


Figure 13: Impact on Current Account Balance (% of GDP) in the Euro Area



The fiscal position in the euro area as a whole would improve by 2-3% of GDP by 2013. In the forward scenario the government budget balance improves slightly more than in the backward scenario, reflecting the more moderate declines in GDP growth, a slightly lower rate of unemployment, and the impact of the modest decline of government bond yields on government interest liabilities. Much of this improvement in government balances is reflected in the current account balance, which is expected to improve by more than 1% of GDP by 2013 compared to where it would have been in the absence of fiscal tightening across Europe.

OFCE have developed a small model which accounts for the 'direct impact' of fiscal policy on the basis of domestic multipliers (close to 1 for the larger economies and to 0.6 for smaller economies), and for the indirect effect via external trade. These multipliers are close to the results implied in the NiGEM model backward scenario. When applied to their much larger estimate of discretionary fiscal policy, shown in Table 2, this model would suggest an even larger negative impact on GDP of fiscal policy in the euro area. The impact on Euro Area growth will be of -2 percentage points of growth in 2011, 12, 13. The government deficit will improve ex post by 2.7 percent of GDP and the debt ratio would increase by 1 percentage point (due to the output GDP)

9 *ECONOMIC EFFECTS OF BANKING RECAPITALISATION AND FINANCIAL UNCERTAINTY*

9.1 Banking Recapitalisation

As a result of the heightened uncertainty concerning the financial strength of a number of euro zone economies (Ireland, Greece and Portugal) over the summer there was an upward drift in risk premia. While confined initially to Ireland, Greece and Portugal, in the late summer Spain and Italy began to come under pressure followed by a range of other euro zone members. The fall in the market value of sovereign bonds from these countries began to impact the balance sheets of individual banks. In turn, this created an uncertain environment for all banks in Europe, leading to a dramatic drop in liquidity. Banks became increasingly unwilling to lend to each other and the ECB had to step in with additional funding to support bank lending and liquidity in euro area money markets[4]. Related to the provision of liquidity by the ECB was a rise in deposits with the ECB as banks preferred the security of the ECB to perceived riskier lending to other European banks. Bank deposits with the ECB increased during the last quarter of 2011 and reached record levels in early 2012 reflecting the heightened tensions in interbank markets.

The concerns about European banks exposure to sovereign debt led to a new round of stress tests of all major European banks. These stress tests were undertaken using valuations as of the end of September.

[4] On 8th December 2011, the ECB announced that it would conduct two longer-term refinancing operations (LTROs) with a maturity of three years. The ECB extended €489 billion to banks in the first of the three year liquidity auctions held on 21st December.

(It should be noted that there was a substantial further rise in Italian and Spanish bond yields after that date which was not taken into account in the stress tests, as illustrated in figure 14. This will put additional pressure on bank balance sheets and their appetite for lending.) The final results of this exercise were announced in early December. It suggested that a range of banks across a range of countries needed further capital to take account of this revaluation. Details are set out in Table 4.

Figure 14: 10-year Yields on Spanish and Italian Government Bonds

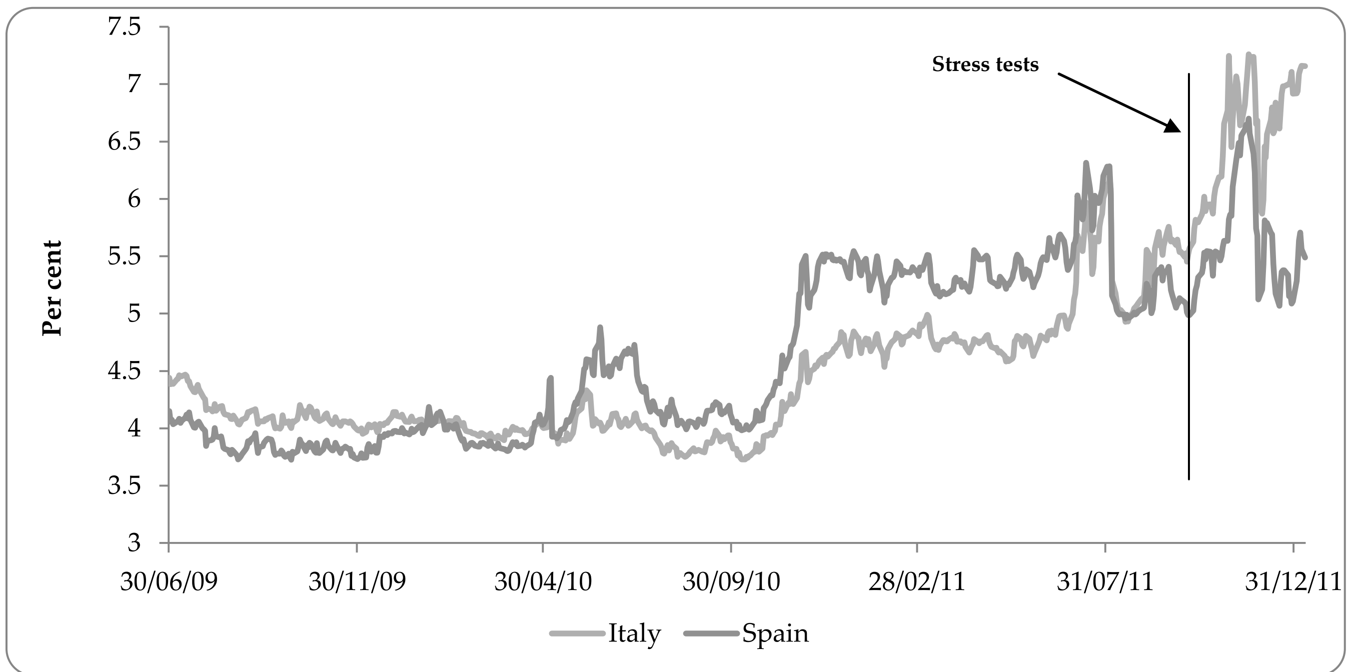


Table 4: Aggregate Capital Shortfall of Banks, by country, € million

Austria	3,923
Belgium	6,313
Cyprus	3,531
Germany	13,107
Spain	26,170
France	7,324
Greece	30,000
Italy	15,366
Netherlands	159
Norway	1,520
Portugal	6,950
Slovenia	320
Total	**114,685**

Source: EBA (2011)

The effect of this assessment is that the banks with shortfalls must raise additional capital by the middle of 2012. The total shortfall of €114.7 million is approximately 0.4% of the total bank asset base in the euro area. For this to be recovered by June 2012, margins would have to rise by 0.8 percentage points for 2 quarters. In our 'upside' forecast scenario presented in this report, we assume that this minimal capital recovery is effected where necessary, without any additional spillovers to banks that do not face direct exposure to the losses.

However, while the direct exposure only affects some banks in Europe, all banks are conscious of the fact that at today's valuations the shortfall might be larger and might affect more banks. Even banks that are reasonably well capitalised are aware that a further recession in Europe could erode their capital base. The result is that all banks are made more cautious, and this constitutes the assumption underlying our central forecast scenario presented in this report.

For banks that have to raise capital the implication is that the value of existing shareholders' investment in those banks will be substantially downgraded. The capital loss of shareholders from this necessary recapitalisation will be high as a percentage of the original value of their shareholding and this prospect must affect their views on the policies pursued by their banks over the coming months.

All additional loans issued between now and mid-2012 will further enhance the capital requirements of the relevant banks. As indicated above the cost of replacing this capital will be very high for the shareholders. Thus the option value on not giving a loan is very high, much higher than the interest that would be paid on those new loans. The effect of this will be that, for the banks affected, the most profitable way of meeting the recapitalisation requirement will be first to issue no new loans and then to contract the size of the balance sheet by selling more peripheral assets. The net result will be that such banks will prefer to offer no credit to borrowers till after the middle of 2012.

Because many of the banks affected provide banking services beyond their national frontier this credit squeeze will spread well beyond the countries listed in Table 4. This issue is of particular importance in countries such as Estonia, Poland and Hungary where the domestically owned banking system is small or non-existent. This is one of the costs of the gradual renationalisation of banking services over the course of the current crisis (Barrell, Fic, Fitz Gerald, Orazgani & Whitworth, 2011). There has been some explicit recognition of this problem with indications that banks will give preference to providing credit in their home markets rather than in foreign markets.

Because of the extreme uncertainty of the current situation for the European financial system this pattern of behaviour is likely to affect banks that are currently recognised as being adequately funded. This will further aggravate the credit squeeze in the first half of 2012.

9.2 Macro-economic Effects

Modelling the effects of credit rationing poses difficulties and instead we proxy the squeeze on lending through a substantial rise in risk premia affecting the cost of credit. In a sense this is the shadow price of the constraint on credit. As discussed above we see this credit squeeze affecting most of the EU economy because of the integration of the financial system. Thus the risk premium is increased for all 27 EU countries.

It is impossible to quantify the precise impact of the recapitalisation requirement on risk premia. As a result, the scenario which we present here is just that – a scenario. However, it does illustrate the potential importance of this decision to recapitalise the banks over a six month period to the middle of 2012.

We implement this stylised shock for all EU countries, which entails a rise in the shadow price of credit of 240 basis points for the first two quarters of 2012, returning to baseline in the third quarter. On top of this, we increase credit constraints on consumers by increasing the short-term income elasticity of consumption in all EU countries by 0.5 in the first half of 2012. The effects on growth of this shock are reported in table 5 below. Euro area GDP falls by 0.8% in 2012. This lost output is partially recovered in 2013, as we assume bank conditions revert to 'normal' in the second half of 2012. Consumer spending also falls by 0.8% in 2012, whereas investment in the euro area is down by 4.5%. The impact on investment is especially severe, given the dependence of the company sector on external funding and also because of the importance of credit to fund private investment in housing. Much of the lost investment is recovered in 2013, whereas the household sector recovers more gradually. We would expect the shock to raise the unemployment rate by 0.3 percentage points in the euro area this year, and worsen aggregate public finances by 0.4% of GDP. The current account balance would be expected to improve somewhat, as imports decline and a depreciation of the exchange rate supports external demand.

Table 5: Impact of bank recapitalisation on the Euro Area

	Percentage point difference from the base	
	2012	2013
GDP growth	-0.8	0.3
Consumer spending growth	-0.8	0.1
Private investment growth	-4.5	3.2
Inflation Rate (Harmonised)	0.0	-0.4
Unemployment Rate	0.3	0.1
Govt. Balance as % of GDP	-0.4	-0.3
Current account balance as % of GDP	0.5	0.2

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11 APPENDIX: FORECAST TABLES

Annex Table 1: Summary of Key Forecast Indicators for Euro Area

	2007	2008	2009	2010	2011	2012	2013
Output Growth Rate	3.0	0.3	-4.2	1.8	1.7	0.0	1.4
Inflation Rate (Harmonised)	2.1	3.3	0.3	1.6	2.6	1.8	1.4
Unemployment Rate	7.6	7.7	9.6	10.1	10.1	10.5	10.2
Govt. Balance as % of GDP	-0.7	-2	-6.3	-6.0	-4.2	-3.3	-3.1

Annex Table 2: Euro Area Forecast Details

	Annual percentage change						
	2007	2008	2009	2010	2011	2012	2013
Consumption	1.7	0.3	-1.1	0.9	0.3	-0.3	1.1
Private investment	5.0	-1.5	-13.9	-0.6	2.8	-2.5	4.5
Government expenditure	2.2	2.1	2.8	-0.1	-0.2	-0.5	0.5
Stockbuilding	0.3	-0.1	-0.8	0.6	0.2	-0.2	0.1
Total domestic demand	2.7	0.3	-3.5	1.0	0.8	-0.9	1.7
Export volumes	6.7	0.8	-12.8	10.9	6.5	2.6	5.9
Import volumes	6.2	0.7	-11.6	9.1	4.6	0.9	7.1
GDP growth	3.0	0.3	-4.2	1.8	1.7	0.0	1.4
Average earnings	2.1	2.9	2.1	0.7	1.6	1.6	1.6
Harmonised consumer prices	2.1	3.3	0.3	1.6	2.6	1.8	1.4
Private consumption deflator	2.2	2.7	-0.4	1.7	2.4	1.9	1.4
Real personal disposable income	1.8	0.8	0.4	0.3	-0.8	-0.3	0.7
Standardised unemployment rate, %	7.6	7.7	9.6	10.1	10.1	10.5	10.2
Govt. balance as % of GDP	-0.7	-2.0	-6.3	-6.0	-4.2	-3.3	-3.1
Govt. debt as % of GDP	66.2	69.9	79.3	85.1	87.9	89.6	89.5
Current account balance as % of GDP	0.1	-1.6	-0.3	-0.5	0.2	2.0	1.3

Annex Table 3: Real GDP in Major Economies

	Annual percentage change										
	World	OECD	China	EU-27	Euro	USA	Japan	German	France	Italy	UK
2007	5.4	2.8	13.2	3.2	3.0	1.9	2.3	3.4	2.2	1.4	3.5
2008	2.8	0.2	9.3	0.2	0.3	-0.3	-1.2	0.8	-0.2	-1.3	-1.1
2009	-0.7	-3.9	8.9	-4.2	-4.2	-3.5	-6.3	-5.1	-2.6	-5.2	-4.4
2010	5.1	3.0	10.4	1.9	1.8	3.0	4.1	3.6	1.4	1.2	2.1
2011	4.0	1.6	9.1	1.7	1.7	1.8	-0.1	3.0	1.7	0.8	1.0
2012	3.7	1.3	8.5	0.4	0.0	1.5	2.1	0.5	-0.3	-0.7	0.2
2013	4.3	2.4	8.6	1.8	1.4	2.5	2.1	2.0	1.7	-0.1	2.3

Annex Table 4: Private Consumption Deflator in Major Economies

	Annual percentage change								
	OECD	EU-15	Euro Area	USA	Japan	Germany	France	Italy	UK
2007	2.2	2.2	2.2	2.7	-0.6	1.5	2.1	2.3	2.6
2008	2.9	2.8	2.7	3.3	0.4	1.7	3.0	3.2	3.5
2009	0.3	0.0	-0.4	0.2	-2.1	0.1	-0.6	0.0	1.4
2010	1.7	2.1	1.7	1.8	-1.6	1.9	1.2	1.5	4.1
2011	2.4	3.0	2.4	2.5	-1.0	2.0	2.1	2.3	4.5
2012	1.9	2.3	1.9	2.1	-0.7	1.8	1.5	2.1	2.2
2013	1.6	2.1	1.4	2.0	-0.2	2.1	1.1	1.1	1.6

Annex Table 5: World Trade Volume and Prices

	Annual percentage change		
	World trade volume	World export prices ($)	Oil price($ per barrel)
2007	7.4	5.9	70.5
2008	2.8	5.1	95.7
2009	-10.8	-7.9	61.8
2010	12.2	1.2	78.8
2011	6.6	4.8	108.3
2012	4.3	0.3	102.8
2013	7.9	1.7	104.8

Annex Table 6: Interest Rates

	Per cent per annum							
	Central Bank Intervention Rates (% annum)				Long-term Interest Rates (% per annum)			
	USA	Japan	Euro Area	UK	USA	Japan	Euro Area	UK
2007	5.1	0.5	3.8	5.5	4.6	1.7	4.3	5.0
2008	2.1	0.5	3.9	4.7	3.6	1.5	4.3	4.5
2009	0.3	0.1	1.3	0.6	3.2	1.3	3.8	3.7
2010	0.3	0.1	1.0	0.5	3.2	1.2	3.5	3.6
2011	0.3	0.1	1.2	0.5	2.8	1.1	4.0	3.1
2012	0.3	0.1	0.9	0.5	2.2	1.0	4.2	2.4
2013	0.5	0.2	1.1	0.5	2.6	1.1	4.1	2.5
2010Q1	0.3	0.1	1.0	0.5	3.7	1.3	3.7	4.1
2010Q2	0.3	0.1	1.0	0.5	3.5	1.3	3.5	3.7
2010Q3	0.3	0.1	1.0	0.5	2.8	1.0	3.3	3.2
2010Q4	0.3	0.1	1.0	0.5	2.9	1.0	3.6	3.3
2011Q1	0.3	0.1	1.0	0.5	3.4	1.2	4.1	3.7
2011Q2	0.3	0.1	1.2	0.5	3.2	1.2	3.9	3.4
2011Q3	0.3	0.1	1.5	0.5	2.4	1.0	3.8	2.8
2011Q4	0.3	0.1	1.3	0.5	2.1	1.0	4.0	2.3
2012Q1	0.3	0.1	0.9	0.5	2.1	1.0	4.1	2.3
2012Q2	0.3	0.1	0.9	0.5	2.2	1.0	4.2	2.3
2012Q3	0.3	0.1	0.9	0.5	2.3	1.0	4.2	2.4
2012Q4	0.3	0.1	0.9	0.5	2.4	1.1	4.1	2.4
2013Q1	0.4	0.2	1.0	0.5	2.4	1.1	4.1	2.4
2013Q2	0.4	0.2	1.1	0.5	2.5	1.1	4.1	2.5
2013Q3	0.5	0.2	1.2	0.5	2.6	1.1	4.1	2.5
2013Q4	0.6	0.2	1.4	0.6	2.7	1.1	4.1	2.6

Annex Table 7: Nominal Exchange Rates

	Annual percentage change						
	USA	Japan	Euro Area	Germany	France	Italy	UK
2007	-4.6	-4.7	3.3	1.5	1.7	1.8	2.1
2008	-2.0	12.9	5.1	2.0	2.6	2.5	-11.8
2009	7.0	15.5	6.0	2.4	1.7	2.4	-10.6
2010	-3.1	4.6	-6.1	-3.6	-2.8	-3.2	-0.2
2011	-3.0	7.1	1.8	0.5	1.0	1.2	-0.3
2012	4.5	5.1	0.9	1.0	0.1	0.5	1.1
2013	0.9	-0.2	0.2	0.0	0.1	0.3	0.9

Annex Table 8: Bilateral Exchange Rates

	Bilateral rate against US$		
	Yen	Euro	Sterling
2007	117.8	0.731	0.500
2008	103.4	0.683	0.544
2009	93.6	0.72	0.641
2010	87.8	0.755	0.647
2011	79.9	0.719	0.625
2012	78.1	0.748	0.642
2013	78.6	0.75	0.640
2010Q1	90.7	0.722	0.642
2010Q2	92.0	0.787	0.671
2010Q3	85.8	0.775	0.645
2010Q4	82.6	0.736	0.632
2011Q1	82.3	0.732	0.624
2011Q2	81.7	0.695	0.614
2011Q3	77.7	0.709	0.621
2011Q4	77.8	0.740	0.640
2012Q1	77.8	0.740	0.650
2012Q2	78.0	0.750	0.640
2012Q3	78.4	0.750	0.640
2012Q4	78.4	0.750	0.640
2013Q1	78.6	0.750	0.640
2013Q2	78.6	0.750	0.640
2013Q3	78.6	0.750	0.640
2013Q4	78.6	0.750	0.640