www.economics.pwc.com

What next for the Eurozone?

Possible scenarios for 2012

December 2011

Executive Summary

Expect surprises next year. We are currently experiencing unprecedented levels of uncertainty in the Eurozone. The potential political and economic outcomes emerging from the Eurozone crisis in 2012 are disparate, although all share a similar theme. A harsh adjustment to a new fiscal reality will be unavoidable, regardless of the path politicians finally decide to follow.

The Eurozone that re-emerges next year is likely to be very different to the one we know today and the implications for business within and outside this region are enormous. We spend a lot of time advising boards and senior executives on the scenarios that they should consider and their potential impact on their bottom line. In this report, we bring you insights from a range of distinctive scenarios that we are recommending our clients use to prepare for potential outcomes that could take place next year.

Growing market pressure and significant tranches of sovereign debt due for refinancing by early Spring point at a likely resolution to the current phase of the crisis around the first quarter of 2012. Politicians have taken more than two years to face up to this moment. And the resolution they finally agree is likely to be implemented overnight in order to minimise market actions that can make it harder to implement.

Scenario 1: Monetary expansion

ECB is given the go ahead to inject significant liquidity into vulnerable economies and banks. Recession is avoided, interest rates are kept low in the short term, but inflation rises well above its 2% target, while the euro depreciates.

Scenario 2: Orderly defaults

A programme of voluntary defaults is agreed for the most indebted countries, which triggers a contractionary debt spiral and a prolonged recession, lasting between 2 and 3 years, and which results in a cumulative loss in GDP of around 5%.

Scenario 3: Greek exit

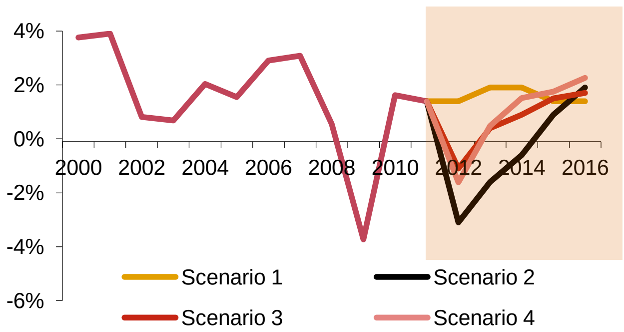
Greece is compelled to leave the Eurozone, and then suffers a sharp deterioration in its economy, a rapid depreciation of its new currency and an inflation spike. The Eurozone seeks to protect its currency through tough fiscal discipline and other investor confidence increasing measures, but still suffers a recession that lasts for up to two years.

Scenario 4: New currency bloc

A Franco-German acknowledgement that the existing Eurozone is unsustainable paves the way for a new, smaller and more tightly regulated currency bloc. We expect the 'new-euro' to appreciate dramatically and for the new bloc to benefit from a boom in domestic demand. Economies that are excluded suffer a sharp currency depreciation and severe economic contraction.

We expect these scenarios to have an impact well beyond the Eurozone; countries like the UK and US are likely to see falls in exports and banking sector problems but possibly also increased levels of capital inflows, as investors look to place a larger proportion of their portfolios in 'safe haven' markets. Other countries, like China, will have to deal with a decline in a significant proportion of their export markets.

Figure 1: Eurozone GDP projections for each of the scenarios



Source: Eurostat, PwC projections

If you would like to discuss the material in this report in more detail, please contact:

Yael Selfin
yael.selfin@uk.pwc.com
+44(0)20 7804 7630

William Zimmern
william.zimmern@uk.pwc.com
+44(0)20 7212 2750

Richard Boxshall
richard.boxshall@uk.pwc.com
+44(0)20 7213 2079

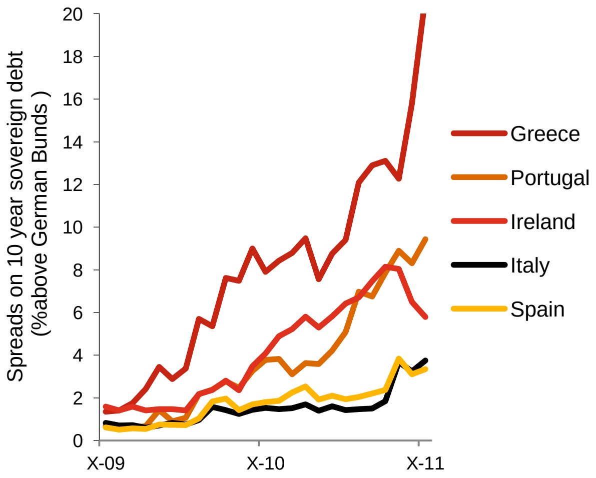
Katarina Punovuori
katarina.punovuori@uk.pwc.com
+44 (0) 207 804 5173

Introduction

The current Eurozone sovereign debt crisis was triggered two years ago when the Greek government revealed that its budget deficit for 2009 would be 12.5% of gross domestic product, substantially higher than the 3.7% predicted earlier in the year.

Since then markets have focused increasing attention on the magnitude of sovereign debts in other Eurozone countries and have started to question their ability to repay. The cost of borrowing relative to the German benchmark Bund has rocketed for Greece, Portugal and Ireland and is increasing for Italy and Spain (see Figure 2).

Figure 2: European sovereign bond spreads



Source: Thomson Reuters Datastream

Greece, Portugal and Ireland have requested financial assistance from the troika – the European Central Bank (ECB), the European Commission and the International Monetary Fund (IMF) – and there has been an endless stream of European summits discussing ways to resolve the crisis. None has so far succeeded.

At the present time, Greece and its creditors are negotiating a default of around 50% of its sovereign debt through the restructuring of repayments on sovereign bonds. Meanwhile investor confidence appears to be ebbing away from the larger economies of Italy and Spain, who are seeing their borrowing costs rise.

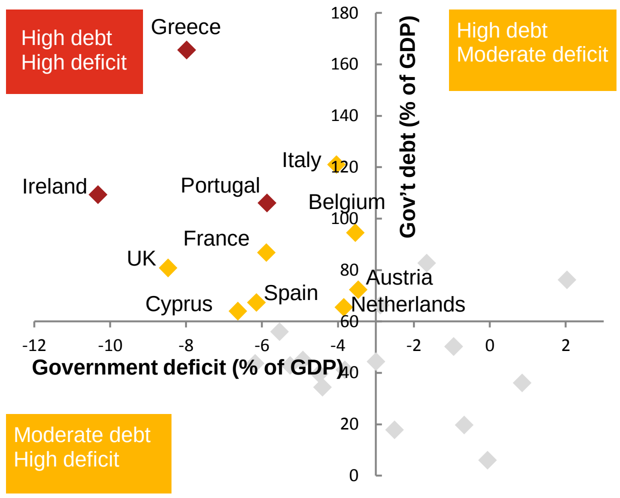
Economic backdrop

The roots of the crisis go back to the euro's inception in 1999, and two underlying problems that have gone unchecked. First, there has been a build-up of government and private sector debt in some countries; and second, the Eurozone countries developed large differentials in their competitiveness.

Over-reliance on debt

The aim of the Stability and Growth Pact was to curb government excesses, but it has not proved to be an effective constraint on rising deficits and debt levels (see Figure 3) - the majority of countries are in a 'high debt, high deficit' zone. Neither did the market act to rein in fiscally profligate economies before 2009, lending at similar rates to Germany irrespective of a country's debt level and ability to pay. As a result, many countries borrowed too much, which they are now struggling to repay. In addition, countries like Ireland and Spain saw a steep increase in private sector debt.

Figure 3: European government debt and deficit, 2011



Source: IMF

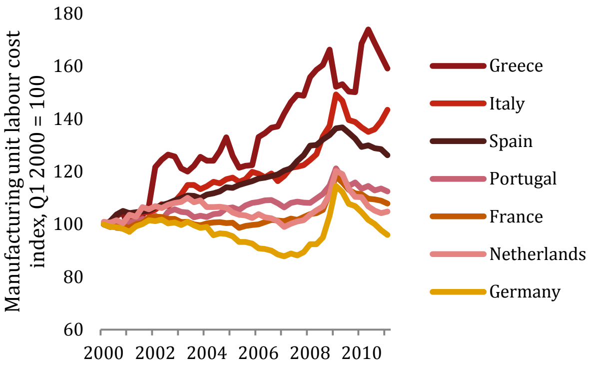
Note: axes refer to Maastricht limits

While the UK has relatively high debt and deficit it has recently seen borrowing costs decline. Investors currently regard UK gilts as a safe haven on account of the credible fiscal path set by the UK government and its independent central bank with flexible exchange rates.

Diverging competitiveness

Over the last decade, there has also been a divergence of competitiveness between countries running a current account surplus and countries running a deficit as illustrated in Figures 4 and 5 on the next page. The sizable and persistent imbalance has been supported by a complementary flow of credit from the surplus countries to the deficit countries. This has enabled a build up in public and private debt, delayed a correction in competitiveness and allowed the structural problems of the Eurozone to be hidden.

Figure 4: Divergence in European Labour Costs

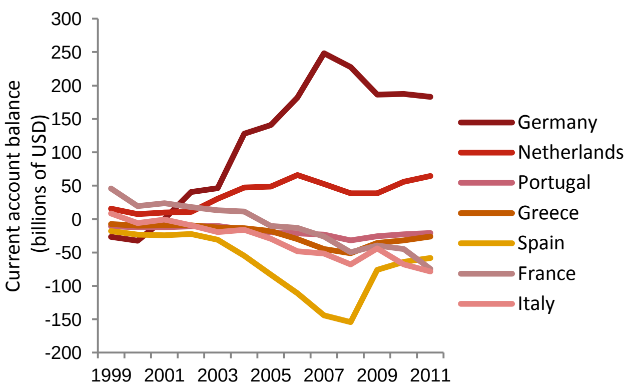


Source: OECD

To ensure a permanent resolution of this crisis, we believe that these fundamental problems need to be addressed. Without a floating exchange rate, deficit countries will have to increase their productivity and reduce wages relative to surplus Eurozone countries. This adjustment is likely to require a prolonged deflationary period of rising unemployment and falling living standards.

Without this adjustment, a permanent fiscal transfer from surplus to deficit countries would be required to sustain the currency union. Given the considerable discontent of the German people to existing transfers, we do not view this as a plausible outcome.

Figure 5: Eurozone current account imbalances



Source: IMF

Scenarios

The question remains as to how this crisis will end. Will the Eurozone survive, and if it does, then in what form, and at what economic cost? In this report we have developed four potential scenarios to help address this question.

The starting point for our scenarios is our expectation that continuing in a similar way to what we have experienced over the past year will soon cease to be a policy option. Leaders will be forced to act in the face of escalating events and address the underlying causes of the crisis not just the symptoms. Thus, each of our scenarios describes a set of policy actions, from which we have quantified the potential economic consequences on Eurozone economies.

There are a number of likely ways in which this crisis could play out depending on the mix of policy responses over the next year or two. We have defined four scenarios that we think represent a range of potential resolutions to the crisis in 2012:

1. **Monetary expansion.** A concerted programme of monetary expansion by the ECB, with support from the European Financial Stability Facility (EFSF), boosts nominal growth to contain the crisis.
2. **Orderly defaults.** Vulnerable economies restructure debt through voluntary defaults to bring debt levels under control.
3. **Greek exit.** Greece exits the currency union and the rest of the Eurozone commits to protecting the remaining members.
4. **New currency bloc.** Core countries propose a new-euro bloc with integrated fiscal and monetary institutions. Vulnerable economies exit the euro.

In these scenarios we differentiate between the economic impacts on different countries. We view countries with high debts and high deficits as vulnerable, and include among them Spain, Italy, Portugal, Ireland and Greece. Surplus countries include Germany, Finland and the Netherlands. France is difficult to categorise: its fiscal position is similar to Spain, but as a country so integral to the euro project we cannot envisage a new currency bloc which excludes France.

To estimate the economic impact of these scenarios on the Eurozone countries, we have used analysis from macroeconomic simulation models and made comparisons from previous global crises.

Scenario 1: Monetary expansion

The ECB stimulates the economy through a concerted programme of bond purchases. In the short-term we expect this would help the Eurozone reduce its debt burden, but would necessarily cause inflation to increase significantly above the ECB's 2% target.

While the ECB's actions are likely to help the Eurozone in the short-term, future growth prospects could be jeopardised through higher interest rates in the medium term.

Policy developments

In this scenario Eurozone leaders agree to pursue an expansionary monetary policy in response to the escalating crisis. We assume that there is a political commitment to save the euro and a recognition that a mix of quantitative easing and structural adjustment would be necessary. The package of stimulus measures would consist of three key elements:

- The ECB is asked to buy short and long term sovereign bonds to provide liquidity to the markets, and is liberated to act as lender of last resort.
- The ECB allows higher than usual inflation for a temporary period, returning to the 2% target by 2016.
- EFSF resources would be boosted by donations from member countries and from countries outside the Eurozone, keen to see the region stabilise. This would increase governments' ability to borrow and aid bank recapitalisation where necessary.

This Eurozone level package would be complemented with a credible commitment from vulnerable countries to reduce deficits to below 3% within 3 years and to bring debt down to manageable levels.

Economic outcomes

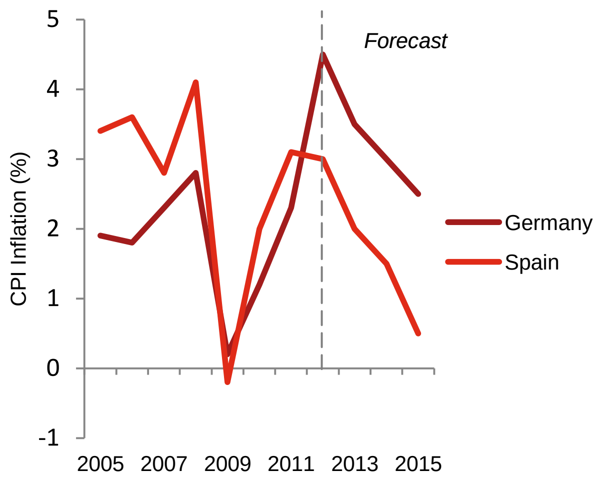
Access to capital at lower interest rates is the driving feature of this scenario. Despite investor concerns over inflation, the sum of the interventions by the ECB and EFSF would artificially hold down long-term interest rates on sovereign debt below 5%, while short-term interest rates would remain below 2%. This would allow countries to access credit at a reasonable price and provide support for private sector demand.

The monetary stimulus would come as a shock to investors and they would sell euro assets causing the euro to depreciate. We estimate that this depreciation could be around 20% relative to the US dollar. A weaker exchange rate would add to inflationary pressures in the short-term through more expensive imports.

The austerity measures undertaken in parallel by the vulnerable economies would mean that even against an inflationary backdrop they would struggle to grow before 2015. We expect that countries with the largest debts and deficits to contract in the first 18 months. However, we expect that surplus Eurozone economies would continue to grow buoyed by low interest rates and a small boost to exports from the weaker euro.

The short term result of this policy package would be to invert historical inflation patterns, so that surplus economies would see higher inflation than their deficit counterparts – demonstrated in figure 6. This would facilitate the structural adjustment that we believe is necessary to close the competitiveness gap within the currency union.

Figure 6: Projected inflation after monetary easing



Sources: Eurostat, PwC projections

While we view this as a relatively benign way for the Eurozone to reduce its debt burden and make necessary structural adjustments, it could come at the expense of lower medium-term growth prospects. This is because the ECB would need to restore its credibility and low-inflation expectations in the medium term. This would only be achieved through a prolonged period of high interest rates and a correspondingly lower potential growth rate than in the 2000s.

Table 1: Eurozone outcomes – Scenario 1 (% change)

	2012	2013	2014	2015	2016
GDP growth	1.5	2	2	1.5	1.5
Inflation	4.5	3.5	3.5	3	2

Source: PwC projections

Scenario 2: Orderly defaults

A programme of voluntary debt restructuring is agreed by highly indebted economies and their creditors. To prevent contagion, Eurozone leaders also agree to a package of partial bank recapitalisation by making resources available to vulnerable economies.

Despite these support measures, we expect that the Eurozone enters a prolonged recession and would risk falling into a debt-deflationary spiral. The longer term consequences might be a prolonged reliance by the defaulting economies on fiscal support from the rest of the Eurozone.

Policy developments

In this scenario Eurozone leaders negotiate a one-off debt restructuring for countries with very high debt – defined in this scenario as debt to GDP ratios greater than 100%. We assume that there would be a 50% default on Portuguese and Irish sovereign debt and a 25% default on Italian sovereign debt, in addition to the 50% default already announced on Greek debt.

In parallel, leaders would agree a package of measures to partially insulate the rest of the Eurozone from a damaging collapse in confidence.

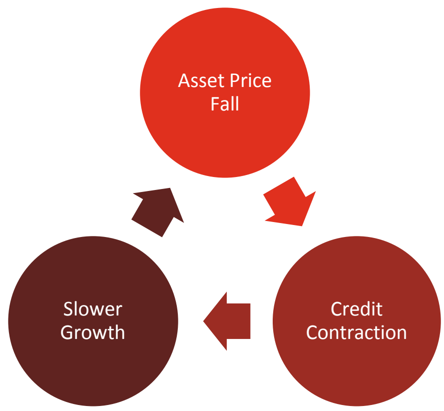
Additionally, we assume that countries restructuring their debts would be required by Treaty to implement a programme of fiscal austerity.

Economic outcomes

We estimate that the debt restructuring could have a total impact of over €800bn in lost wealth in the private sector, which may result in over €100bn lost by banks[1]. This could reduce banks risk weighted assets by between 3 and 6% in the most exposed countries, before any re-capitalisation. While this would be painful, we expect the greater impact would be the triggering of a debt and deflation downward spiral of credit contraction, recession and declining asset prices, as illustrated in Figure 7.

Bank losses would, as part of this scenario, only be partially recapitalised from EFSF funds and banks would be required to absorb some of the losses. Without further funds from the private sector or banks taking other mitigating actions, this would force them to reduce lending to bolster their capital ratios causing a further contraction in GDP.

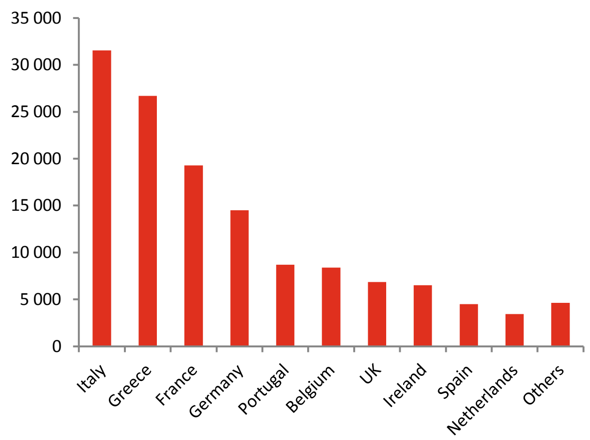
Figure 7: Contractionary debt spiral



Source: PwC analysis

The resulting economic contraction would be hardest felt in countries with banks with the greatest exposure to the restructured bonds: Italy, Greece, and Portugal as illustrated in Figure 8. These economies would additionally have to implement austerity measures, exacerbating the contraction.

Figure 8: Bank losses assuming defaults on Portuguese, Irish, Italian and Greek debt (€ millions).



Source: European Banking Authority (EBA)

We expect that surplus countries would still experience three years of negative growth under this scenario. The scale of expected contraction is illustrated in Figure 9.

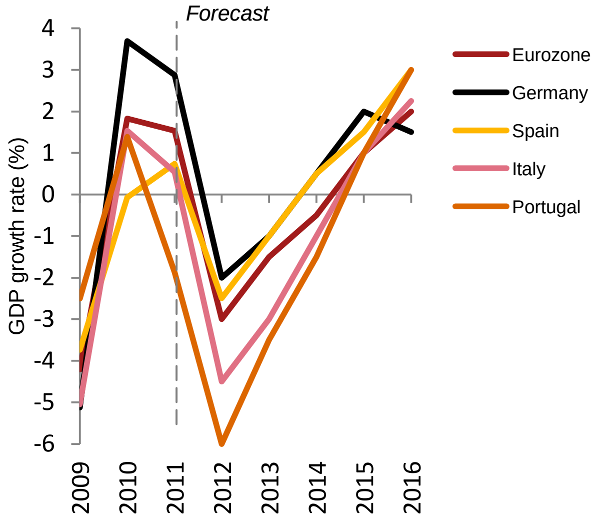
[1] Source: EBA data and PwC analysis

Box: Impact of new core tier 1 capital ratios in the Eurozone

Eurozone banks face two obstacles in the short-term. First, they must meet enhanced Core Tier 1 capital rules of 9% by July 2012 but, a lack of investor appetite to inject more capital and unease to dilute shareholder holdings, will make meeting the new capital requirements difficult. Second, a mark-down on core and peripheral Eurozone sovereign debt would adversely impact the existing capital they do have.

These trends suggest that banks are likely to resort to reducing their assets via reduced lending to bolster their capital ratios. The macroeconomic costs of a round of deleveraging, or 'credit crunch', would increase the likelihood of a recession in the region. Analysis by the Bank of International Settlements (BIS) suggests that banks seeking to restore tier 1 capital ratios by 1 percentage point can cause a contraction in GDP of around 0.2 percentage points annually over 4½ years if this is achieved through reduced lending.[2]

Figure 9: Projected GDP growth assuming defaults on Portuguese, Irish, Italian and Greek debt



Source: PwC projections

We expect some capital flight, depreciating the euro against the US dollar by around 20%. Experience from 2008 suggests that investors would look for perceived safe havens like the US, Japan, Switzerland, and the UK.

In the long term, vulnerable countries may struggle to regain access to financial markets. This would necessitate long term support from European institutions, including the EFSF, and represent a drain on the fiscal positions of the surplus economies.

Table 2: Eurozone outcomes – Scenario 2 (% change)

	2012	2013	2014	2015	2016
GDP growth	-3	-1.5	-0.5	1	2
Inflation	1	0	0	1	2

Source*: PwC projections*

[2] Bank of International Settlements (2010), "Assessing the macroeconomic impact of the transition to stronger capital and liquidity requirement"

Scenario 3: Greek exit

A combination of domestic pressure and a loss of patience by other Eurozone members precipitates Greece's exit from the Eurozone. The short-term impact on Greece would be a sharp deterioration in its economy led by rapid depreciation of its new currency and a spike in inflation. The long term benefits to Greece would depend on its ability to sustain a competitive advantage and build credibility in its institutions.

The direct impact on the Eurozone from Greece's exit would be small. However, the Eurozone would need to act decisively to prevent contagion spreading to other vulnerable economies and restore investor confidence in the euro.

Policy developments

In this scenario, Greece and its Eurozone partners agree to separate. The separation takes place in a relatively orderly way:

- Greece erects temporary capital controls to prevent flight during the transition period.
- The Greek government re-denominates all new and old contracts in to a 'new-drachma' at parity to the euro.
- The 'new-drachma' is then used in all foreign exchange transactions.
- Capital controls are expected to be eased after a period.

We assume that Greece is allowed to remain in the European Union, and that the IMF continues to provide structural adjustment support to partially cushion the transition.

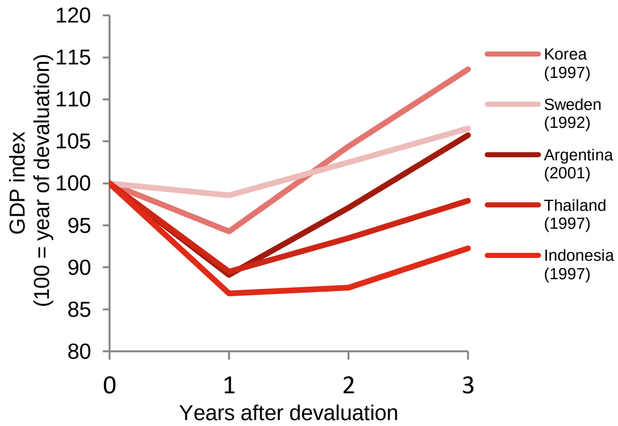
Economic outcomes for Greece

It's possible that the new-drachma would depreciate by at least 50% overnight once floated. This would have a big impact on the Greek economy. We estimate inflation would increase to about 30% in the first quarter and average 10% in the first year due to the loss of a credible monetary anchor and imported inflation. This would reduce disposable income for households and make conditions harder for businesses to operate.

The de-facto default on external debt (given that it would be denominated in a much weaker currency) would ensure that the government remains frozen out of international bond markets for several years, leaving the country reliant on the IMF to finance its fiscal deficit which would come with conditions to accelerate its fiscal adjustment.

Figure 10 shows the impact on GDP growth in previous devaluation episodes. Argentina, for example, was already in recession when it defaulted through currency devaluation and subsequently its economy contracted by a further 10 per cent in the following year.

Figure 10: GDP growth path at the time of devaluation



Source: IMF

We expect that the combination of these effects would drive the Greek economy into a deep recession. This would be a critical period for Greece as the government would need to re-build a credible central bank and complete the fiscal and structural adjustments it has begun in the face of rising unemployment and social unrest. The required adjustments would include a contraction in the size of the public sector, a re-orientation of the private sector towards producing goods and services for export, and a fall in real wages across the economy.

We assume that Greece would be successful in navigating this adjustment. With a significantly reduced debt burden and a much more competitive workforce, we estimate that growth would resume within 4 years led by a rebound in net exports. The long term benefits to Greece would depend on its ability to sustain its newly created competitive advantage and the credibility of its new institutions.

Table 3: Greece outcomes – Scenario 3 (% change)

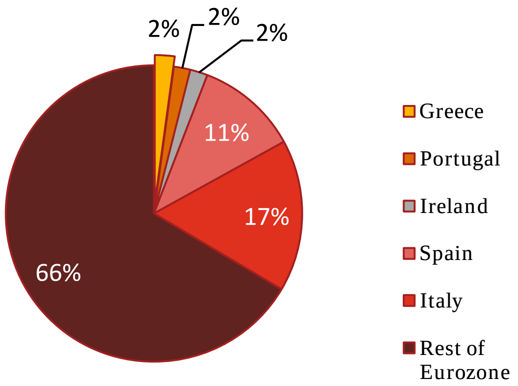
	2012	2013	2014	2015	2016
GDP growth	-5.0	-1.5	0	2.6	2.8
Inflation	10	8	8	6	6

Source: PwC projections

Impact on the Eurozone

The direct impact of a Greek exit on the Eurozone would be limited as it only accounts for 2% of Eurozone GDP, as illustrated in Figure 11.

Figure 11: Country share of Eurozone GDP in 2011



Source: Eurostat

Nevertheless, Eurozone leaders would need to act decisively to prevent a wider panic spreading at the prospect of other vulnerable countries leaving the euro.

We therefore assume that leaders credibly commit to saving the single currency for its remaining members and bring forward a package of measures, including some ECB intervention and use the EFSF to recapitalise banks that face loses following from their exposures to Greece.

Economic outcomes for the Eurozone

The immediate effect of Greek exit would include bank losses and some capital flight as investor confidence would be shaken.

The Greek exit would provide an impetus for other vulnerable countries to bring forward the necessary fiscal and structural adjustment measures to “avoid the Greek fate”. However, even with an effective support package, recession is likely and would be hardest felt in countries such as Portugal, Ireland, Spain and Italy.

The stronger countries would not be immune from the impact of a Greek exit and subsequent slowdown. But we estimate that these impacts would be relatively short lived and that growth in these countries would resume after 18 months.

Overall, the exit of one Eurozone member would be the wakeup call the other members states need to get on top of their problems.

Table 4: Eurozone outcomes – Scenario 3 (% change)

	2012	2013	2014	2015	2016
GDP growth	-1	0.5	1	1.6	1.8
Inflation	1.5	1.75	2	2	2

Source: PwC projections

Scenario 4: New currency bloc

A Franco-German acknowledgement that the existing Eurozone is unsustainable paves the way for a new, smaller and more tightly regulated currency bloc. The new bloc benefits from an inflow of capital and a boom in domestic demand but loses competitiveness. Economies that are excluded suffer an economic contraction in the short-term and an uncertain future.

Policy developments

In this scenario, Germany and France decide that the Eurozone in its existing format is unsustainable and create a new currency bloc – the new-euro – with integrated fiscal and monetary institutions. This new bloc would include: Germany, France, Netherlands, Finland, and some of the stronger new member states.

To join, countries would need to agree to a new 'Maastricht Treaty' that would set out more stringent rules for members on fiscal union and structural positions. Learning from the mistakes of the old-euro, this new bloc would be more tightly integrated. A further consequence might be a refusal by the new-euro countries to provide additional direct bailout assistance to vulnerable economies, except through the IMF.

Countries outside the new-euro bloc would be unlikely to stay together. The credibility benefits would disappear once the stronger economies leave the euro, and the temptation for competitive devaluation and the urge to distance themselves from other troubled economies would push them towards becoming once again the masters of their own currencies. We assume this group would include Spain, Italy, Portugal, Ireland and Greece.

Economic outcomes

The economic outcomes from this scenario would diverge sharply between the countries that would be able to join the new currency bloc and the periphery that would break off.

We expect that investors would support the new-euro, causing an appreciation as capital flows in from peripheral Eurozone economies and the rest of the world. In the first year, economic growth would be dragged down by transition costs and the downward pressure on net exports as a result of the stronger currency, but the new bloc would have the fiscal space to provide stimulus support to prevent a prolonged recession. Following this initial phase, cheap capital and cheap imports would support a boom in domestic demand.

We expect that the new-euro exchange rate would be permanently higher by 15% compared to major trading partners, and by over 30% with key trading partners like Italy, Spain, and Portugal. The pattern of trade between the new bloc and its key trading partners would be permanently affected.

Countries that exited the euro and were not part of the new bloc would face similar challenges to Greece in scenario 3. As each country exits the euro, their new currency would swiftly depreciate. These countries would then face the long hard challenge of individually reconstructing credible fiscal and monetary institutions and establishing credible new currencies. The success or failure of each country would depend on the choices that their leaders and citizens make. All would suffer in the short-term as they adjust to a weaker currency, higher interest rates and fiscal contractions. In the long-term some countries would thrive in a low cost exporting environment unconstrained by a strong currency, while others would not do so well.

Table 5: New-euro outcomes – Scenario 4 (% change)

	2012	2013	2014	2015	2016
GDP growth	0.25	2.5	2.5	2	2
Inflation	-1	0	0	2	2

Source: PwC projections

Table 6: Periphery countries outcomes – Scenario 4 (% change)

	2012	2013	2014	2015	2016
GDP growth	-5	-2	0	2	3
Inflation	10	8	7	5	3

Source: PwC projections

Wider impacts from these scenarios

There is a high probability that the Eurozone will undergo fundamental changes while the future path is likely to be volatile. The impacts of these changes will be felt well beyond the Eurozone, transmitting through trade, finance and, in the short-term, confidence.

UK

A crisis in the Eurozone may serve to highlight the UK's position as a safe haven for capital. Capital flows out of the Eurozone and into the UK would cause sterling to appreciate against the euro. Borrowing costs may well be lower as investors purchase UK gilts in preference to risky Eurozone bonds.

However, the UK's principal trading partner is the Eurozone which is the destination for around 50% of its exports. A relatively strong sterling and a recession in the Eurozone would weigh down on the UK's growth prospects. British banks' exposure to public debt in Greece, Portugal and Ireland is limited.

US

Additional capital would be expected to flow to the US as investors seek to avoid the troubled Europe, causing the dollar to appreciate, and extending the US's current account deficit. Trade in goods and services makes up around 15% of the US economy so the reduction in trade, on account of dollar appreciation, will have some negative effect on the US economy.

Rest of the world

We expect Eastern European economies to come under severe pressure from a crisis in the Eurozone. Firstly, as lending from the Eurozone economies dries up, we do not expect that banks would agree to a second 'Vienna Initiative', launched at the onset of the financial crisis to prevent large scale withdrawal of capital from the region. Secondly, exports would suffer as demand from the Eurozone contracts.

The impact on emerging economies would depend on their links to the European continent. Four of China's top 10 export destinations are from the Eurozone, which combined are worth around the same as its total current account surplus. Worsening terms of trade and reduced investment flows from the Eurozone would drag down Chinese growth.

Russia's economic prospects are tied to its commodity exports; and the more severe the recession in the Eurozone the further commodity prices will fall. Other emerging economies such as India may be broadly less affected given the limited links to the Eurozone bloc through trade and finance.

We will be happy to talk to you in more detail about these scenarios and how they could impact your business.

ML3-2011-11-24-1238-EP