

Macro-Strategy Key Issue

Can Europe avoid a Greek tragedy?

Economics

Europe Ex. UK

Crunch time

'Crunch time' is approaching in the stand-off between Greece and the Troika. As of 11 February, the ECB will no longer accept Greek sovereign debt as collateral. On 12 February, Prime Minister Tsipras is scheduled to meet other European leaders in Brussels. Those discussions will come just two weeks before the 28 February deadline for Greece to accept the terms of the existing Troika programme. Markets appear to underestimate the risks of a longer impasse.

A compromise can be found, but will it take stress to achieve?

The ECB's decision has clearly increased pressure on the Syriza-led coalition government, whose overtures about debt and fiscal relief haven't found sympathy with national governments or the Troika. Yet, Syriza faces a damaging loss of domestic political credibility if it accedes unilaterally to the Troika's demands to stay in the current programme without modification. Oddly, there should be sufficient room for compromise. An extension of debt maturities on more favourable terms could reduce the net present value of Greek debt by as much as 17% of GDP, without a 'haircut' from creditors. A modest reduction in Greece's required primary surplus could free up fiscal flexibility. Small steps, to be sure, but potentially enough for compromise. But the overriding question is whether compromise will be found freely or be forced by economic and financial stress, or even fears of a Greek exit?

'Grexit' unlikely, but the risks are non-negligible and potentially very large

A voluntary Greek exit from the Eurozone remains unlikely—polls suggest 75% of Greeks are supportive of continued membership. But if depositors lose faith in the ECB as a lender of last resort, bank runs could lead to the imposition of capital controls and even exit. It is far from certain that contagion could be contained. The ensuing uncertainty could easily derail a brittle Eurozone recovery. Few things are certain except one: 'Grexit' remains by a considerable margin the worst-case scenario for Greece and for the rest of the Eurozone.

How to play it?

Inside, we assess the implications of various scenarios across asset classes. Overall, markets are complacent, in our view, about the risk of financial and economic disruption. Tactically, we opt to cut our exposures to 'risk assets' in our asset allocation portfolio ahead of difficult and contentious negotiations. For similar reasons, we anticipate that the euro will weaken in foreign exchange markets. Within European equity portfolios, financials and cyclicals are most exposed, while we believe defensives, including staples and pharmaceuticals, offer the greatest protection.

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Executive summary

We believe investors are underestimating the risks associated with Greece's difficult negotiating position with the troika. Matters are likely to 'come to a head' in the coming weeks, particularly as the current program must be re-approved and extended by mutual consent at the end of this month. In this report, we look at the economic, policy and market implications of how matters may evolve. Our key conclusions are as follows.

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- **The terms of a compromise are easier to see than the willingness to compromise.** At the time of writing, Greece is deadlocked in its bilateral discussions, as well as with the troika members.
- **Breaking the deadlock voluntarily may not be easy.** Political realities in the rest of Europe argue against granting the Syriza-led government concessions on debt or fiscal relief. Yet the Greek government feels it has a mandate to demand such relief.
- **Hence, outside pressure—in the form of financial and market dislocations—seems necessary to focus minds.**
- **A Greek exit remains the worst case outcome**, both for Greece and the rest of the Eurozone. But that logic, alone, may not drive parties to an easy or quick compromise.
- The rising probability that financial pressures will increase—as has already been evident in depositor flight from Greek banks—makes us **tactically cautious on risk assets**. Our asset allocation team has accordingly cut its allocations to risk assets.
- Contrary to some narratives, an escalation of the crisis or even a **'Greek exit' is unlikely to push the euro higher**. We think contagion effects would have the opposite impact.
- In the (still unlikely) event of a Greek exit, **Greek banks would not have sufficient capital** to address losses and bank lending would likely collapse.
- **In a scenario of Eurozone exit, we believe European cyclical and financials would do worst**, while safe haven markets such as the UK or Switzerland would outperform.

The Greek negotiation game

The new Greek government will have to enter into serious discussions with its European partners and the IMF over the coming weeks to decide the country's future in the Eurozone.

Prime Minister Alexis Tsipras is scheduled to meet the European heads of state and government in Brussels on 12 February. Before that, Finance Minister Yanis Varoufakis has already received policy makers in Athens, and travelled to Paris and Rome, before also making his way to Frankfurt and Berlin last week.

As we argue in this report, we are convinced that Greece's exit from the Eurozone would inflict very high costs for Greece and the rest of the Eurozone – costs that will most certainly be much higher than the costs of ongoing Eurozone membership for Greece. Hence, much is at stake. We believe the negotiations will be difficult and at times tense. Yet, we see good room for compromise – i.e. a solution that would be acceptable for both sides. Consequently, we would regard decisions that would lead to a Grexit as a severe failure in European economic diplomacy and a grave policy mistake.

Below, we outline what we see as the negotiation positions of some of the key players and the potential compromise that we would expect, as our base case scenario, to evolve from these discussions – despite downside risks.

A. The Syriza government

Despite its self-confident rhetoric in recent days, we believe that the negotiating position of the Greek government is not very strong. Almost three-quarters of the Greek electorate want Greece to stay in the Eurozone. Also, Greek GDP has now increased again for three consecutive quarters (0.7% in Q3 2014, i.e. 2.5% in annualised terms) and the economy is arguably through the worst. Pursuing a policy path that would lead to Grexit would trigger a very deep recession that the new government would be partly blamed for—something Prime Minister Tsipras will presumably want to avoid.

But Tsipras' and Syriza's credibility is on the line, which is likely to strengthen their resolve. Given their pre-election rhetoric, and the self-confident statements following the election victory, the government is under great pressure to win concessions from the troika that will lead to meaningful and immediate improvements in the standards of living of the Greek public, particularly those people that are hardest hit by austerity. This means that the *status quo*, without concessions from the troika, is likely to be unacceptable for the Syriza government.

The pressure to stand firm against the troika and deliver tangible results is partly coming from Tsipras' own allies: in particular, the left wing of the Syriza party. The Left Platform, headed by Panagiotis Lafazanis, who serves as Minister for Productive Reconstruction, Environment and Energy in the new government, is advocating a more hard-line stance. At the same time, Tsipras is under pressure to fight for the credibility of the broader left-wing anti-establishment movement in Europe, above all for Podemos, the newcomer far-left party in Spain. Should Tsipras disappoint, it could hurt the broader anti-austerity movement in the Eurozone.

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Our base case scenario is that Greece will stay in the Eurozone – we would regard Grexit as a grave policy mistake

The status quo is unacceptable for the Syriza government

B. Germany and its conservative allies

The German government knows that Greece's exit would be very expensive economically and politically, and we believe that the government wants to avoid this outcome—though not at any price. Always concerned about 'moral hazard', the German government wants a *sustainable* solution to the Eurozone crisis, and it therefore believes that any concessions towards Greece must be backed up by a continuation of structural reform efforts, a belief widely shared by the German public. The German government also suspects that any concessions granted to Greece might have to be offered to other periphery countries as well.

The German government knows that Grexit would be costly, but it insists on structural reforms

The German parliament will have to approve any future disbursements of EU bailout funds and any change in the loan conditions for Greece. Yet, whatever Chancellor Merkel agrees to in Brussels is likely to be signed off by the Bundestag, given the broad majority of Merkel's grand coalition. Still, concessions towards Greece would likely be heavily criticised by the Euro-sceptical Alternative für Deutschland (AfD). In addition, the parliaments of the Netherlands, Estonia and Finland have to approve future bailouts. The approval process might become challenging, particularly in Finland, given the upcoming general elections on 19 April. Prime Minister Stubb has already expressed his scepticism towards major concessions for Greece.

C. Advocates of greater fiscal flexibility

The advocates of greater fiscal flexibility in Europe – France and Italy, but also other periphery countries – will likely play an intermediary role between Greece and Germany and its conservative allies. Many of the respective governments would like to gain greater fiscal flexibility, not just for Greece, but also for themselves. It seems to be no coincidence that Varoufakis first visited Paris and Rome before travelling to Frankfurt and Berlin. Apparently he was hoping that France and Italy might convince Germany to soften its stance. Cyprus, Portugal, perhaps even Spain and Italy, will have an interest that negotiations do not break down because they might suffer contagion in the event of a Grexit. Nevertheless, they would not be keen on outright debt relief for Greece, as this would hit their own public finances.

France and Italy are likely to play an intermediary role

The Spanish government's position is likely to be particularly complex: While it would like austerity to be eased and Grexit-related contagion to be avoided, the Rajoy government will be keen to avoid big concessions to Syriza, as this might boost the credibility of the Spanish opposition far-left Podemos party ahead of the general elections in late 2015.

Scope for a compromise

We see substantial room for compromise between Greece and its partners via a solution that would: (a) offer the Greek government scope for an immediate and visible rise in public spending to alleviate hardship on the most vulnerable parts of the society through (b) concessions that the German government and its fiscally conservative allies will be able to 'sell' to their electorates.

We see room for compromise that should be acceptable for both sides

In particular, we believe that concessions towards Greece will take the following shape (see Gyorgy Kovacs et al: *SYRIZA wins, what's next?* 26 January 2015):

1. The maturities of the bailout loans will be further increased;
2. The interest rate on bailout loans will be further reduced;

3. Greece will be granted greater fiscal flexibility, via a lower primary surplus target for 2015 and likely beyond (currently 4-4.5% of GDP until 2022).

As Bruegel¹ argued, a 10-year extension in the maturity of the €52.9bn (bilateral) Greek Loan facility, from currently 2041 to 2051, would reduce the net present value (NPV) of Greece's sovereign debt by 4.5% of GDP (€8.4bn). Extending the maturity of Greece's EFSF loans by 10 years (the longest maturity is currently 2054) would reduce the NPV by 8.1% of GDP (€15.1bn). Importantly, however, maturity extensions alone would not give the Syriza government an immediate cash flow relief. This is why other concessions would be necessary, in our view.

Greece currently receives its EFSF loan at a premium of only 1 basis point over the actual EFSF borrowing cost, so a further reduction is not possible without exposing the EFSF to losses. However, Bruegel argues that the interest rates on the (bilateral) Greek Loan facility (Euribor plus 50bps) could be cut by another 50bps, which would generate an NPV relief of 3.4% of GDP (€6.4bn). This would also render some immediate cash flow relief for the government.

According to Bruegel estimates, interest rate reductions and maturity extensions could achieve a combined NPV reduction of 17% of GDP (€31.7bn).

Yet, to improve the Greek government's scope for social spending, the troika might also have to consider reducing this year's and future primary surplus targets, currently 4-4.5% of GDP.

Lower interest rates and longer maturities of bailout loans

Greater fiscal flexibility

Little room for a haircut and reversal of structural reforms

In contrast, we think that concessions will be much more difficult to reach with regard to an outright haircut in the notional value of Greek debt and a reversal in structural reforms. As regards a haircut – even if it might become inevitable one day in the future – we do not think that the political ground is currently prepared in the fiscally conservative Eurozone countries. Also, a haircut would put the ECB – a key holder of Greek debt – in a very difficult position.

Outright haircuts and reversal of structural reforms are likely to be resisted

Last week, Finance Minister Varoufakis launched the idea of swapping Greece's bailout loans into (nominal) GDP-indexed bonds and the ECB's holdings of Greek bonds into perpetual bonds. So far, details of the plan have not been released. But we would assume Greece's European partners would scrutinize the proposal very closely as to whether it would imply a de-facto haircut and related losses.

Big concessions seem even more difficult in the case of structural reforms, as this would arguably go against the efforts to achieve a *lasting* improvement in Greece's economy. Against this background, Syriza's plan to increase the number of public employees, to raise the minimum wage, and to put on hold privatisation is likely to face fierce resistance from the troika—to the extent that it could become a deal breaker.

The ECB and the 28 February deadline

28 February is likely to be a key deadline. The rating of Greek sovereign debt is below the minimum threshold that the ECB normally applies for accepting bonds as collateral in refinancing operations. For this reason, the ECB issued a waiver stipulating that banks can use Greek sovereign debt as collateral as long as Greece

¹ Bruegel: "How to reduce the Greek debt burden?" 9 January 2015

has an ongoing troika programme². The Eurogroup, as per their statement from 8 December 2014, set 28 February as the deadline for the closure of the programme review. This implied that if Greece failed to reach an agreement with the Troika by 28 February, Greek banks would no longer be able to use Greek sovereign bonds (or state-guaranteed bonds) as collateral in ECB operations.

Yet, on Wednesday (4 February), following the discussions between ECB President Draghi and Finance Minister Varoufakis, the ECB surprisingly decided that it will no longer accept Greek sovereign debt as collateral as of 11 February. Instead, Greek banks will have to use the Emergency Liquidity Assistance (ELA) provided by the Greek central bank. The ECB said the Governing Council had based its decision "on the fact that it is currently not possible to assume a successful conclusion of the programme review".³ Yet, apparently in an effort to limit the market concern over its decision, the ECB argued that the collateral suspension has "no impact on counterparty status of Greek financial institutions".

11 February: the ECB will no longer accept Greek sovereign debt as collateral – Greek banks will then be dependent on ELA

In our view, the ECB's decision from last Wednesday signals that the Bank might not shy away from taking difficult decisions. Earlier last week, ECB "sources" had already signalled resistance to the Greek government's proposal to issue an additional €10bn in T-bills (beyond the current limit of €15bn), which Greek banks would be able to use as collateral in ECB refinance operations.⁴

How long will the ECB keep the ELA window open?

This raises the question of how long the ECB would allow the ELA window to stay open. The ECB clarified in 2013 that the Governing Council has the responsibility to restrict ELA operations "if it considers that these operations interfere with the objective and tasks of the Eurosystem"⁵. (According to Art 14.4 of the ECB statutes, such a decision has to be taken with a two-thirds majority.) But how should this guidance be interpreted in the current case?

Would the ECB wait—as we would expect—for the Eurogroup to officially declare that negotiations have finally and definitely broken down? Would this happen already on 28 February (according to the Eurogroup's deadline) or will the Greek government, contrary to earlier statements, ask for an extension of the deadline? (We understand that the Eurogroup cannot unilaterally extend the deadline.) And in the event of negotiations breaking down, would the ECB close the ELA window or just keep it open?

Or could the ECB set its own deadlines while negotiations are ongoing? Memories of March 2013 come back when the ECB issued – admittedly under somewhat different conditions – an ultimatum to the Cypriot government that it would close the ELA window if the government did not accept the Troika bailout plan.

Another question is whether the ECB would set hard limits for the size of Greek banks' ELA usage. The German newspaper "Die Welt" reported (not confirmed by the ECB) that the ECB had allowed the Bank of Greece to grant ELA funding of up

² Guideline of the European Central Bank of 19 November 2014 amending Guideline ECB/2014/31 on additional temporary measures relating to Eurosystem refinancing operations and eligibility of collateral and amending Guideline ECB/2007/9.

https://www.ecb.europa.eu/ecb/legal/pdf/oj-jol_2014_348_r_0004-en-txt.pdf

³ See <http://www.ecb.europa.eu/press/pr/date/2015/html/pr150204.en.html>

⁴ See Financial Time, 3 February 2015: European Central Bank resists latest Greek bailout plan.

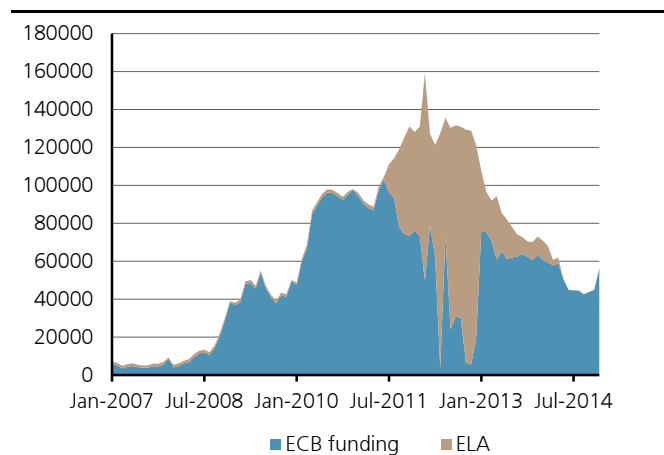
⁵ European Central Bank: "ELA PROCEDURES" 17 October 2013

to €60bn to the Greek banking sector.⁶ But in an environment where a significant part of the funding of Greek banks (not all of it, given that Greek banks still hold repo-able EFSF bonds) has to migrate from the ECB's normal repo operations to the ELA and Greek banks might potentially suffer further deposit outflows in an environment of declining sentiment, the amount of €60bn might be exhausted relatively soon. Would it then be raised by the ECB?

Whatever the answer to all these questions, it seems obvious that the moment the ECB would close the ELA window would mark the point where the Eurozone will arrive at the point of "make or break": either negotiation positions will be adjusted and compromises will be struck or Greek banks will be cut off from liquidity and the Greek government, in order to avoid a banking sector collapse, will have no choice but to bring back Greece's own currency. This would mean the end of Greece's membership in the monetary union and set in motion a potentially severe chain reaction.

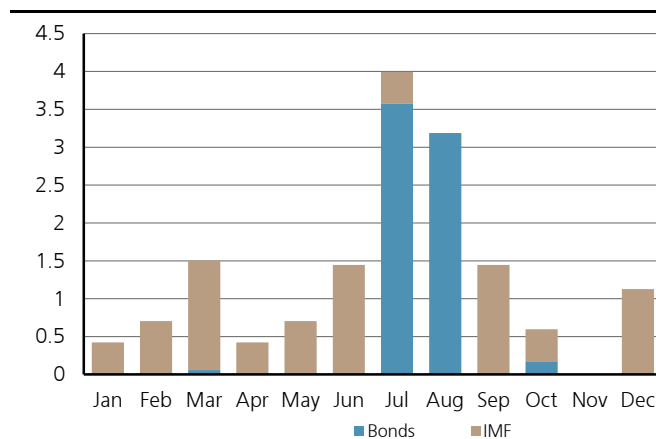
Once ELA stops, the point of "make or break" would be reached

Figure 1: Greek banks' reliance on ECB funding (EUR mn)



Source: Haver, UBS. Data until December 2014.

Figure 2: Maturing government debt (EUR bn)



Source: IMF, Ministry of Finance, Bloomberg, UBS

As we argued above, we see good scope for compromise. But the negotiations will be influenced not just by sober calculations of cost and benefits, but will be exposed to the cross-currents of psychology and domestic politics. This implies a non-trivial risk of miscalculations and – eventually – policy error.

11/12 February: crucial meetings in Brussels

We believe a clearer idea of the negotiations framework will evolve from the Brussels meetings of Eurogroup Finance Ministers on 11 February and the EU Council (Heads of State and government) on 12 February.

Key dates beyond 28 February relate to Greece's debt redemptions. The government needs to pay back €8.5bn to the IMF this year, €2.6bn of which will fall due in both Q1 and Q2. In addition, bonds worth €7bn will mature, heavily concentrated in July (€3.6bn) and August (€3.2bn). Including maturing T-bills, we estimate the 2015 financing need at €17bn. Rolling over this amount is likely to be challenging in the absence of a troika deal, and the recent slowdown in tax collection suggests downside risks for the government's cash position.

⁶ Die Welt: "EZB genehmigt Griechenland Notfallkredite", 5 February 2015

What if Greece goes?

We believe a full blown Greek exit from the euro to be the least likely outcome. However a Greek exit from the Euro would probably have the most disruptive global consequences of any scenario.

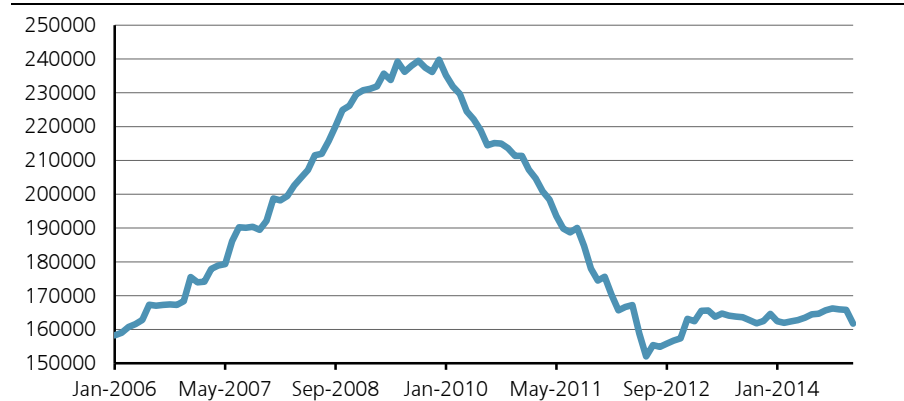
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Greek exit – implications for Greece

Monetary unions, almost without exception, are brought to an end via the banking system. If Greek citizens credibly believe that Greece is *about* to leave the euro, then it is reasonable for Greek citizens to immediately either transfer money out of the Greek banking system to deposit into other euro banking systems, or to withdraw euro notes from the banking system and keep their savings in physical form. Depositors would give greater weight to the certain value of a euro today over the uncertain and probably depreciated value of a national currency tomorrow, and would choose to withdraw funds.

Deposit runs have historically played a key role in the collapse of monetary unions

Figure 3: Greek bank deposits & repos, excluding government deposits, EURmn



Source: Haver

Greek bank deposits from corporates and households hit a low in June 2012, and increased 6.4% from then until the end of 2014. The good news is that this demonstrates some return of confidence in Greece's willingness to remain in the Eurozone. The bad news is that this still allows a significant amount of damage to be done if that confidence is lost in the future. It is this damage which suggests that any Greek exit from the euro would most likely be disorderly. Managed monetary union break-ups do not happen, because bank depositors will try to preempt the political process and get their money out of banks before it is forcibly converted. The speed with which bank runs took place in the US in 1932, or indeed the speed with which queues formed outside UK banks in 2008, is testimony to the alacrity with which threatened bank depositors can act.

It is important to stress that it is not the actuality of monetary union exit that prompts bank depositors to act, but the *possibility* of monetary union exit. The Scottish independence referendum in 2014 led to widespread reports of bank deposit shifts into English-domiciled accounts over concerns about the future ending of the Anglo-Scottish monetary union in the event of independence. The Bank of England (after the referendum) acknowledged the risk of depositors reducing exposure to Scotland in the subsequent Financial Policy Committee report. Anticipation of the break-up of monetary unions throughout the twentieth century led to deposit flight whether the monetary union fragmentation was

complex and over time (the Austro-Hungarian empire or the United States) or relatively swift and simple (the Czechoslovakian experience).

Bank lending in Greece would be likely to suffer significantly in the wake of an exit from the euro, because banks would have a significantly reduced deposit basis from which to lend.

The banking system disruption would be considerable. To this must be added the likely loss of trade finance, and with it additional disruption to Greek exports. In the aftermath of a Greek exit from the euro, Greece would be required to run a current account surplus. This is because Greece would have to earn the foreign currency required to pay for imports in advance, as trade credit would be unlikely to be extended to a country that had defaulted on its debt and had a new currency of no proven track record. Unlike 2012, Greece is in 2015 starting from a position of current account surplus, so in theory a direct correction in GDP is probably not necessary. However, there may be disruption to Greek trade with the rest of the European Union, if Greece is considered to have unilaterally seceded from the Union. Although World Trade Organisation membership may temper the more direct forms of trade protectionism, indirect obstacles are likely to disrupt exports.

Even with a depreciated currency Greece may slip back towards current account deficit in the event of leaving the euro. This is because Greece's export sectors are dependent on imports. In 2009 just under a quarter of Greek exports were made up of components that had to be imported from abroad (the import dependence of the Greek export sector has been relatively stable at around 25% for some time). If there is disruption to trade finance, then not only will Greece need to run a current account surplus to be able to pay for its imports, but it will also need to institute some system of foreign exchange rationing to ensure that its foreign currency earning export industries have access to the hard currency that they will need if they are to continue exporting. This is likely to increase inefficiency in traded sectors. There might be disproportionate knock-on effects too – would tourism in Greece suffer if there were concerns about the Greek medical system in the event that accessing pharmaceutical imports became difficult, for instance? Superficially there is no link between pharmaceutical imports and Greek tourism, but in reality there might be wider effects.

For government debt, the act of exiting from the euro would amount to a repudiation of debt, at least in euro terms. The debt owed to the IMF, at 11% of the total troika holding, is perhaps more moot. While some countries might be prepared to extend Greece short-term credit for political reasons, ultimately Greece would have to be self-funding for government debt in the wake of the exiting the EU⁷. This would require financial repression in a reduced Greek financial system –

Following a potential Grexit, Greece would be forced to run continued current account surpluses

Grexit would amount to debt repudiation

⁷ Greece would probably be held to have exited the European Union with the exit of the Euro because the exit almost certainly could not be negotiated on a European timetable (i.e. a protracted timetable). This would mean that it would effectively make a Unilateral Declaration of Independence from the Treaty of Rome, as the Euro is an "irrevocable" union and part of the body of the European constitution. Without any provision for leaving the irrevocable monetary union, a Greek exit would have to be considered an exit from the whole body of the EU, as unless agreed in advance a country cannot selectively choose which parts of the EU constitution to adopt. Of course, the European Union could negotiate to allow Greece to re-enter the EU – in doing so, Greece would have to agree to sign up to join the Euro as soon as it met the entry criteria (although Sweden shows this is not necessarily strictly enforced). The politics of such renegotiation must be considered impractical on any reasonable time scale. There are some parallels here to the hypothetical position of an

reduced, because of course the preceding deposit flight would leave fewer resources for the Greek government to access. This would create a further strain on the financial system, as the government would have to "crowd out" private sector investment from a significantly diminished pool of capital.

There is little point in looking at current borrowing levels (or even the primary budget balance) as an indication of the likely cost of government borrowing if Greece were to leave the euro; government spending would be affected by automatic stabilisers in the economic downturn, and any tendency towards a barter economy – a common characteristic in similar periods of disruption – would reduce tax revenues.

So what does this amount to for Greece? Assessing the cost of something as disruptive as a monetary union break-up in a capitalist society is very difficult, not least because of the limited precedent. The large number of political and economic variables means that econometric modelling is of limited use. However, it is possible to identify some costs in GDP terms – not quite the same thing as the impact on GDP of a Greek exit from the Euro, but perhaps a helpful range within which investors can consider the consequences. We work with the following assumptions:

Grexit: attempt of a damage assessment

- 50% of bank deposits are withdrawn before conversion. This is comparable to other monetary union break-ups, and more recently compares to the experiences of Argentina in 2002
- There is a 60% depreciation of the currency, and remaining bank deposits are forcibly converted at that rate
- The impact of default and government crowding out equates to a 700bp risk premium on the cost of capital⁸. The cost of this is calculated relative to private sector debt, as it is assumed that there is a default on existing public sector debt. The cost of capital will fall on new public and private sector borrowing – how the cost is allocated between the two sectors depends on the extent of financial repression
- The volume of exports declines 50% with EU trade disruption and pass through from the absence of trade finance (with the two effects roughly equally distributed)
- New bank loans and overdrafts run at 50% of pre-exit levels as the banking system deposit base shrinks. This may be considered a conservative estimate, as financial repression is likely to absorb more private sector capital

independent Scotland with regard to EU membership, were Scotland to secede from the United Kingdom.

⁸ The cost of Greek government debt from Europe is currently 50bp over Euribor. Calculating the impact of the cost of rolling over debt in the wake of a monetary union is necessarily conjectural. Existing government debt to the Troika (excepting perhaps the IMF) is assumed to be in default. New debt would have to be financed domestically, and the rate at which it is financed would be a matter for the government, assuming that the government is able to engage in financial repression and capital controls to utilise those domestic savings that remain in the legal economy. The 700bp risk premium is more about non-government funding costs; if the government has crowded out domestic savings then there must be an increase in debt service costs (even in local currency terms) for private sector borrowing. The risk premium is therefore applied to the private sector bank lending, which is assumed to run at 50% of pre-exit levels.

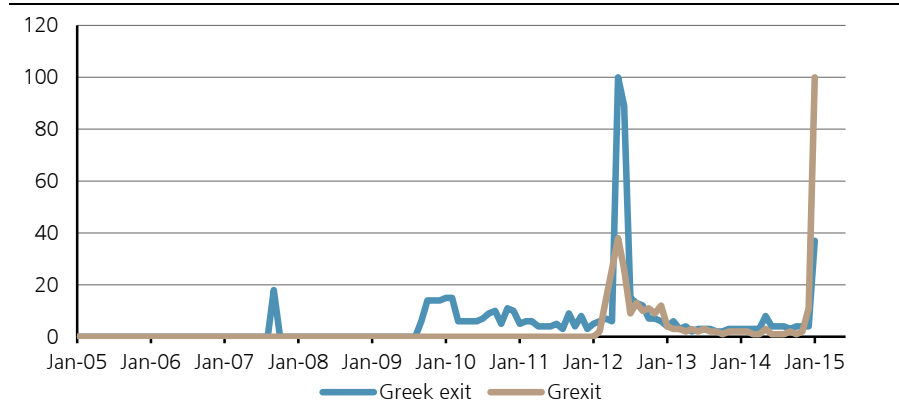
The withdrawal of bank deposits in advance of the exit would limit the losses for the Greek consumer, because that money could be considered relatively "safe" as a store of value, as it would still be in Euro form. The depreciation of the currency would have a positive impact on the competitiveness of exports (and encourage import substitution). Other factors would, of course, detract from Greek GDP.

Using annual GDP data for 2013 the cost of the above factors to the Greek economy would be between 29% and 36% of GDP. That does not mean that Greek GDP would fall by 30% in a year, but that the loss of value to the economy over time would likely fall somewhere in that range. To put this in context, by 2013 Greece had lost 25% of its 2008 peak annual GDP. The ending of the Argentinian dollar peg in 2002 led to a roughly 15% decline in real GDP from its 2000 level, and Slovakia's exit from the Czechoslovakian monetary union in 1993 was associated with a decline in GDP of nearly 25% (from 1991 to 1993). Both the Argentinian and Slovak economies were arguably less financially sophisticated than is the Greek economy, so the consequences of the ending of the Argentinian dollar peg or the break-up of the Czechoslovak monetary union are likely to have been somewhat more muted.

The cost of Greek departure is lower today than it would have been in 2011, when we estimated that the impact on a weak economy leaving the euro would be between 40% and 50% of GDP. The cost of a Greek exit today is lower because some of the negative consequences associated with an exit have already been felt (deposit flight, for instance).

Cost of Greek departure is lower today than it would have been in 2011

Figure 4: Google trends*: Search for 'Grexit' at its highest level since mid-2012



Source: Google, UBS. *Google Trends compiles results for search terms entered into the Google search engine. The results are reported as an index where a value of 100 is given to the highest volume of searches over time.

Impact on the rest of the Eurozone

The remainder of the euro area is not immune from the consequences of a Greek exit from the single currency. The consequences can be placed in three categories: quantifiable costs; costs from increased risk; costs from contagion.

The quantifiable costs arise largely as a result of the euro area system's exposure to Greek debt through the Troika program and the Target 2 imbalances of the central bank system (the latter can simplistically be thought of as the consequences of accumulated Greek current account deficits with the rest of the euro area).

The direct cost

The European governments and institutions like the ECB own some EUR 195bn of Greek government debt. This is the equivalent of 2% of 2013 non-Greek euro area GDP. Although there may eventually be a settlement as to this debt, in the wake of a euro exit with a depreciated currency and severely damaged export and banking sectors it is clear that the Greek government would be in no position to meet its obligations. Even without making assumptions about the performance of Greek GDP in euro terms post a monetary union exit, a 60% depreciation would give Greece a Debt:GDP ratio of almost 440%. With a 30% loss of GDP in local currency terms, and outstanding debt remaining Euro denominated, the debt GDP ratio would exceed 600%. This debt would have to be considered to be in default.

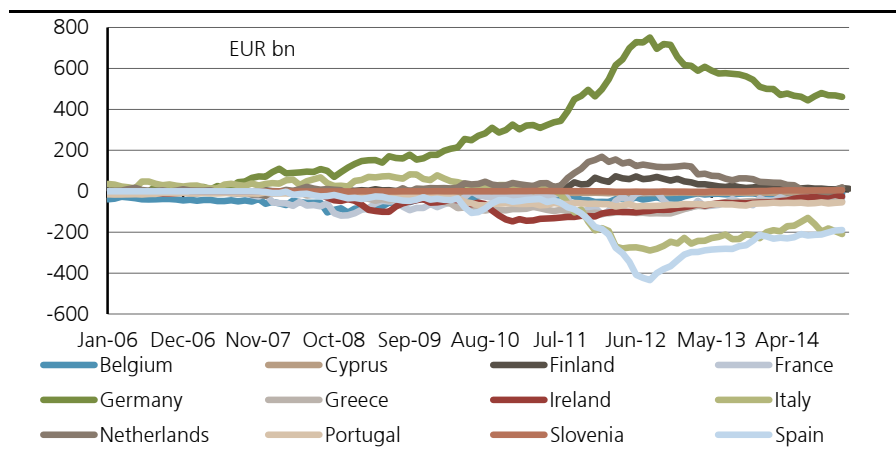
European direct exposure to Greek debt amounts to a minimum of 2% of GDP. In addition the Target 2 central bank clearing system means that various national central banks have claims on the ECB, while the ECB has claims on the Greek central bank. If the Greek central bank ceased to honour those claims, because Greece had left the euro area, then the ECB would need to offset those losses (presumably with recapitalisation). The Target 2 imbalances do not represent debt obligations in the sense of government debt. Instead they represent the consequence of current account imbalances (in this case, a legacy of several years of current account imbalances). Greek exit from the euro would therefore add Target 2 losses to the losses on defaulted debt.

Just because the Bundesbank has claims in Target 2 amounting to some EUR460.8bn it does not mean that the Bundesbank would have to cover the Greek liabilities to the system in the event of a Greek exit from the Euro. The Bundesbank would be liable in proportion to its shareholding at the ECB and not in proportion to its balance in the Target 2 system.

Grexit would likely lead to sovereign default

Greece's Target 2 balance would likely be lost

Figure 5: The evolution of Target 2 System balances



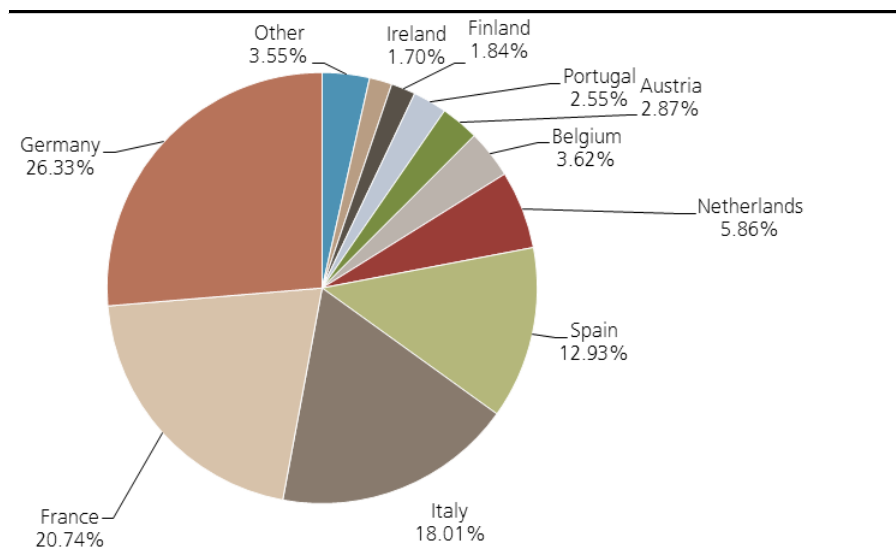
Source: Haver

Greek liabilities under Target 2 amount to some EUR49.3bn as of December 2014 (Greece has no Target 2 assets). However, this is misleading. If the assumption of sudden deposit transfer away from Greek banks is valid, the Target 2 imbalance is likely to be larger than today's level at the moment of Greece's exit. If we make the assumption that half of the deposit flight from Greek banks is in the form of fund transfers to a different banking system (rather than withdrawal in physical form) this would add a further EUR38bn or so to the Target 2 imbalances that exist

today.⁹ That means that the ECB would face a Target 2 loss of 0.9% of 2013 Euro GDP (excluding Greece), in the event of a Greek exit from the euro. This would require recapitalisation of the ECB.

How would the recapitalisation of the ECB be handled? The ECB's shareholders are the Eurozone central banks, backed by their governments. The ECB would need to raise capital from its shareholders, who would have to issue debt to finance the call for capital. Additional debt issuance of almost 1% of GDP, on top of losses incurred by the Greek default of 2% of GDP suggest that the Euro area governments are unlikely to be willing to issue new bonds into the market. There is thus an incentive for the ECB to purchase the bonds – in other words, the ECB prints money to buy euro area government bonds, and the proceeds of those Euro area government bonds are then used to recapitalise the ECB. The ECB is indirectly printing money to recapitalise itself, and this is a fairly naked form of debt monetisation, but it is hard to see what other alternatives may be available in practical terms.

Figure 6: ECB capital key – allocation of shareholdings of Euro members ex Greece



Source: ECB

The direct cost to governments is relatively simple to calculate. Greek exit from the euro at the associated default on its debt would entail a cost of around 3% of euro area GDP for the remaining member states, with an assumption that roughly one third of that cost would be monetised.

⁹ The Target 2 imbalance occurs because transferring a bank deposit from Greece to another Euro member country is a capital outflow, which would be offset by creating a liability for the Greek central bank in the Target 2 system. If, however, money is taken out of a Greek bank and kept in physical form (buried in a hole in the garden, for instance), there is no international transfer and thus no Target 2 change. If we assume 50% of current deposits leave the Greek banking system, but that half of those deposits are retained domestically in physical form, then a quarter of total deposits would be transferred internationally and require an offsetting balance change in the Target 2 system.

The cost of increased risk

Greek exit from the euro would generate two specific forms of risk in the euro area, which would vary from country to country. The first is banking system risk. Euro area banks still have exposure to the Greek economy. This includes exposure to Greek debt, although that has of course been much reduced. In addition, banks have exposure to Greek companies and Greek trade, and as those liabilities are in euros they would either become high-risk debts or (depending on the contract law used to write the debt) would be forcibly redenominated into the depreciated currency of Greece. The normal ripple effect of this would then be felt throughout the euro area, with exposure to affected (non-Greek) banks triggering additional concerns.

The second form of risk is the uncertainty risk premium, and the inclination to differentiate between different credit risks within the euro area. Simply put, a Greek exit from the euro could undermine ECB President Draghi's assertion that the ECB would do "whatever it takes" to save the euro, as self-evidently the euro in its existing form has not been saved. While there would no doubt be an attempt to cast the blame onto the Greek government, the fact that the ECB was not able to hold the euro together would necessarily add a risk premium as to the effectiveness of the ECB's actions. In fact this could manifest in one of two ways: either the ECB fails to reduce credit risk in peripheral government bond markets, and becomes the sole buyer of government paper via the OMT or a similar operation; alternatively the ECB suppresses credit risk with an overwhelming quantitative policy program. This aggressive expansion of the money supply would potentially lead to a fresh legal challenge to the ECB's policy operations.

Contagion risk

The contagion risk of a euro exit reflects the fact that there is a meaningful risk that other countries would join Greece in leaving the euro. The euro is patently not an optimal currency union at the moment, which gives economic momentum to the idea of a broader fragmentation.

Whether other countries leave the euro is contingent on two questions with binary outcomes:

- Do bank depositors think that their country could leave the euro?
- Does the euro area guarantee the integrity of the banking system?

A "double lock" is required to prevent contagion. An assurance that bank deposits are guaranteed by the ECB is completely worthless if the general public believe that the country is going to leave the Euro. If one believes that one's country may leave the euro, then what the ECB does or does not do will no longer apply within one's country, and so it is rational to withdraw one's money sooner rather than later. The parallel here is to the Czech and Slovak monetary union break-up in 1993; the governments both assured the public that the monetary union would stay and their savings were safe, but the public did not regard these statements as credible and so removed their savings from banks. The process became self-fulfilling as the extent of deposit flight contributed to the governments being forced to break their promises and end the monetary union.

Banking system risks

Sharp rise in uncertainty

Risk of contagion to other countries' banking systems

Figure 7: Credibility and outcomes

Does the Euro area guarantee the integrity of the banks?			
Is Euro membership considered certain?	Yes		No
	Yes	Stay in Euro	Unstable
	No	Exit Euro	Exit Euro

Source: UBS

If on the other hand, the authorities (in this case the euro area governments and the ECB) demonstrate so strong a commitment to the integrity of the remainder of the euro that they convince depositors that their money is safe, then there is no motivation to withdraw money from the banking system of a country as the assertion that depositors will be protected has validity. The parallel here is the US monetary union fragmentation and reforming between 1932 and 1933. The statements of the Federal government were not believed (and the monetary union fragmented) until what has been referred to as the "one, two punch" of a closing of the entire banking system and a "fireside chat" from the newly inaugurated President Roosevelt. The scale of the emergency banking legislation was seen as sufficient to guarantee the integrity of the system.

It is very difficult for governments to control the progress of a monetary union break-up because the example of one country exiting will create a precedent in the eyes of other members of the monetary union. The transmission channel is not government bonds, nor equities, not currency markets, but banks. In the event of a Greek exit from the euro, the loss in the real value of Greek bank deposits would encourage bank depositors in other countries to withdraw their funds. This is not a question of bank *solvency* in these other countries – just as deposit withdrawal from Scottish banks ahead of the Scottish referendum in 2014 was presumably not motivated by questions of solvency. Rather the motive is the perception of risk around what currency one will receive in exchange for one's deposit in the future, and what that currency will buy relative to what it can buy today.

The process can be very rapid indeed. In its 1933 report the US Federal Reserve commented, with commendable understatement, that at the start of the year "In addition to currency hoarding, there were substantial transfers of deposit accounts from banks in which depositors had lost confidence to other institutions, involving in many cases the shift of funds from one section of the country to another."

Nevada was the first state to declare a bank holiday on 31 October 1932. The contagion was initially quite slow, but then accelerated – on 4 February 1933 Louisiana joined in, and then on 14 February Michigan declared a four-day holiday and then extended it. Michigan's actions are regarded as the tipping point for contagion. Less than a fortnight later a bank holiday was declared in Maryland. On 1 March 1933 four states declared holidays, another six declared on 2 March, another seven on 3 March, and five (including New York) on 4 March 1933. On 6 March 1933 the national banking system was closed by Presidential order.

In the case of the euro area it seems unlikely that the current, incomplete banking union and non-existent fiscal union would be sufficient to prevent the contagion of bank runs spreading to other countries in the wake of a Greek exit from the euro. The *starting point* is that other countries are at risk of departure in response to a Greek exit. If the political status quo is maintained, it has to be thought likely, maybe probable, that Greece will not be alone in exiting the euro. It would be irrational for depositors to gamble their life savings if they believe that there is even a 5% chance that their country could leave the Euro. A 5% chance of a 60% loss

in the value of one's savings (assuming a Greek parallel) would make the effort of withdrawing or transferring funds worthwhile. As with the deposit withdrawal within Greece, once the first spark of fear has been ignited the conflagration of contagion is likely to spread very rapidly.

The issue is whether, subsequent to those strains emerging, *new* policy initiatives from the euro area would be sufficient to change perceptions around the credibility of the political will to defend the integrity of the euro. Unlimited support from the ECB to euro area banks, large-scale debt monetisation and euro area fiscal confederation would be the sort of policies that could change the perception of credibility. All, of course, come at a cost. One metric to measure the success of such policies might be analysis of the contagion not of bond or other financial markets, but of household sight deposits at banks. The correlation of the change in Greek deposits with the changes in sight deposits in some other peripheral countries has also been high in the past (notably in the wake of 2008 and in the wake of the first wave of concerns about membership of the euro area). While the correlations of deposit change are generally quite low, they are rising. Correlation is not causation, and there are many other factors (including overall economic performance) that can encourage such a correlation, but this fact does rather emphasise the risks.

The rise of European anti-establishment political parties in recent years has, perhaps, increased the risk of a more widespread contagion to other financial systems. Deference to authority, and particularly to authority within Europe, has diminished. Official assurances of the "irrevocable" monetary union (except for Greece) would likely carry less weight. The fact that anti-establishment parties have (to generalise) tended to draw support from lower skilled, older voters may further compound the problem. This economic demographic is less able to adjust their savings so as to hedge break-up risk (making physical cash the main option), and as an older age cohort they are more likely to have savings that are vulnerable.

This then adds an entirely unpredictable element to the Euro area cost of a Greek exit from the euro. The direct costs can be calculated, and an intelligent approximation of the costs of increased risk can be factored in. However, if the break-up of the union expands, the direct costs expand exponentially (because the costs of the Target 2 system increase, and the costs of recapitalising for the remaining members increase, and the costs of financial system exposure increase). The transmission of fear may not be to the most obvious of candidates of course – this is not a question of solvency or of economics. If a Greek exit from the euro leads to other countries exiting, it will be the lack of plausibility of policy makers that generates the collapse.

Would a Greek exit strengthen the euro?

Investors have been debating passionately over the past few years whether a Greek exit would strengthen the euro whenever discussions have turned to long-term Eurozone scenarios. Many have argued that any union will be stronger without its weakest members. And since the strength of the euro in the longer term will be determined by the overall strength of the monetary union, it is logical to argue that the euro should be stronger if some of the weaker members were to leave.

Yet, while all of this might be true in the longer term, in order to get there one has to survive the short term. And in the short term, an exit of any member state would likely have disastrous consequences for markets in general and the euro in

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particular. The reason is that investors would immediately ask the question whether the union as a whole is sustainable once there was a precedent of a country departing. The terms and practical implications of any exit would of course matter hugely to assess the likelihood of other countries following. Yet the shock of an exit, particularly if in a disruptive manner, would surely lead to heavy selling of euro assets and the euro as the most immediate reaction. As a result, we think that a 'Grexit' would lead to a dramatic drop of the euro, at least over any time horizon relevant to the majority of investors. Hence, any perception that exit probability had increased would likely weigh heavily on the euro in the short term.

The last few weeks have been a telling illustration of how the euro reacts to headlines related to exit probabilities. Going into the Greek elections on 25 January, EURUSD dropped to a multi-year low of briefly below 1.11. Yet, as Syriza failed to win an outright majority and started to seemingly soften its tone once in power, markets reacted with relief and the euro moved higher to above 1.15. But this week the short-squeeze was abruptly reversed and EURUSD quickly dropped 1% when the ECB surprised with an announcement to stop accepting Greek government bonds as collateral in its regular funding window.

Some observers might argue that the ECB's tough stance will accelerate negotiations and thus increase the probability of a relatively quick deal. The optimistic take may thus be that the Greek government feeling the market pressure upfront will be more willing to compromise and the markets thus get an outcome that investors can live with. Yet the risk of 'accidents' as a result of the escalation has clearly increased, in our view, and this means that investors will have to price in some probability of a worst case scenario. For the euro this will likely mean downside pressure and headline risk for the coming weeks if not months. The situation is possibly even more difficult for the Swiss franc, which has arguably become a 'purer' safe haven following the SNB's decision to abandon the floor. Due to these risks we continue to forecast parity on EURCHF in both 1m and 3m and 1.13 and 1.10 for EURUSD, respectively.

Outlook for bond markets

The outlook for the bond markets from here is dependent on how much time passes before Greece finds agreement with its creditors. Put simply, the longer it takes, the closer the Greek state comes to euro exit, and therefore the more Greek bonds – and those of other member states – suffer, even if only temporarily.

The answer to the question of when the Greek government runs out of money is a relative one. Amounts owed in arrears to suppliers have risen recently, suggesting that by this measure at least, the money may have already run out.

As public sector workers need to be paid and debt redemptions met over the short term, the government could go further into arrears with suppliers, in the absence of further disbursements of aid to it. But if the stand-off with the official sector creditors continues, the government might have to resort to the issuance of IOUs to settle its bills, as it did briefly in 2011 to repay suppliers in the pharmaceutical industry (the so-called "Pharma Bonds"). Taken further though, payments in this form of parallel currency (whose secondary market value would not match its nominal value) would ultimately lead to euro exit as government tax revenue would eventually return in this form as well.

Naturally, this process would be long and painful, not least for the domestic economy if government suppliers were not being paid and for the banking system

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as deposit flight accelerated. With a backdrop of such strong popular support for remaining in the euro, the government would likely feel strong pressure to return to the negotiation table. Similarly, tension in other peripheral bond markets over the increased likelihood of a Greek exit would put pressure on other euro area member states to find agreement with Greece. Certainly, it would be a shock for policy makers outside of Greece to witness a sudden return to a sovereign debt crisis. These are among the reasons why we see Greek euro exit as so unlikely, and at some point should be faded in peripheral markets, either in those of Greece or those of more liquid markets such as Spain and Italy.

What if the worst happened?

We do have to consider the consequences of euro exit for sovereign debt markets, unlikely though that may be. For Greece, it would be relatively straightforward: investors would lose most if not all of the nominal value of their debt in the devaluation (and possible repudiation) that would follow.

Stress in other markets—possibly greater than that of the 2011/2012 period—would almost certainly follow Greek exit. Promises by fiscal and monetary authorities alike to keep the euro together would have been broken and it is likely that bondholder and bank deposit holder confidence in other peripheral countries would be severely shaken.

In addition, at this moment of high market stress, member states would need to issue large extra amounts of bonds. The EFSF would lose the money owed to it and would therefore need to be recapitalised by calling on the guarantees of the member states. Central banks would also need recapitalisation as they would have suffered according to their share of the loss of Greece's Target 2 balance, which would likely have risen above the €120bn peak seen in 2012.

What would happen next in bond markets would depend on whether a policy response on a scale not seen before to save the euro could take place. Without one, it is possible that the political implications of the fiscal loss just incurred would undermine the anti-crisis structures already created. It might be difficult, for example, for the German Bundestag to approve aid programmes in the future, or for the ECB to activate the OMT programme as its interpretation of high yields representing irrational convertibility risk would no longer hold water. At this point then, the other peripheral bond markets would very much be in the hands of the policy makers.

Asset allocation: From systemic to idiosyncratic

The market attitude to the Greek crisis has changed in a number of aspects, as summarised in the following charts. Importantly, investors remain sanguine, willing to "look through" the crisis. We think such attitudes are overly simplistic and we underscore the risk of market dislocations.

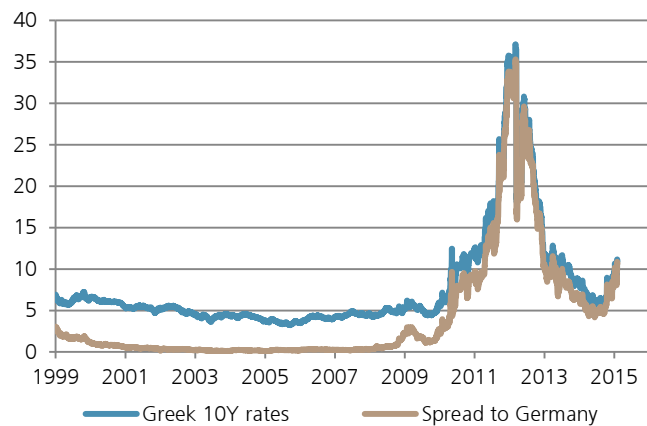
Stylised fact #1: A less acute crisis

Thus far, the current Greek crisis is more benign than the ones of 2011-2013. Pressure on sovereigns' spreads and volatility has remained limited.

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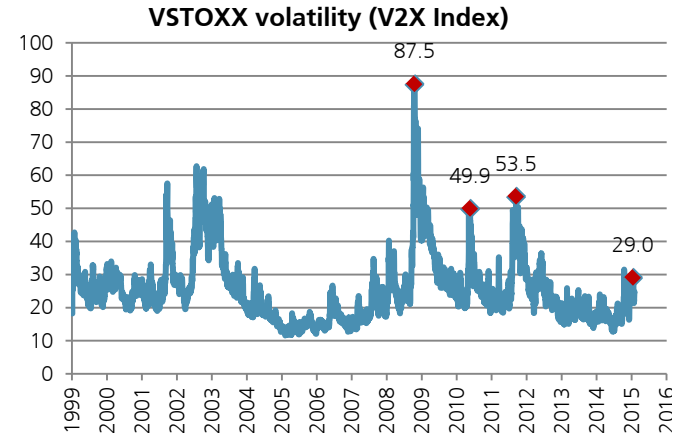
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Figure 8: Greek spreads have widened, but considerably less than in 2011-2012



Source: Bloomberg

Figure 9: Equity volatility has remained moderated too

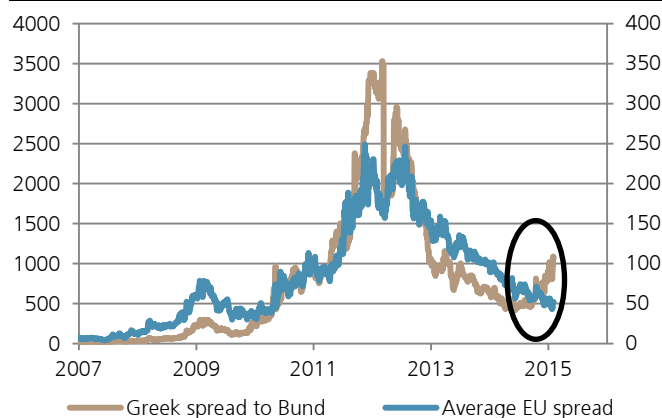


Source: Bloomberg

Stylised fact #2: Greece has de-correlated

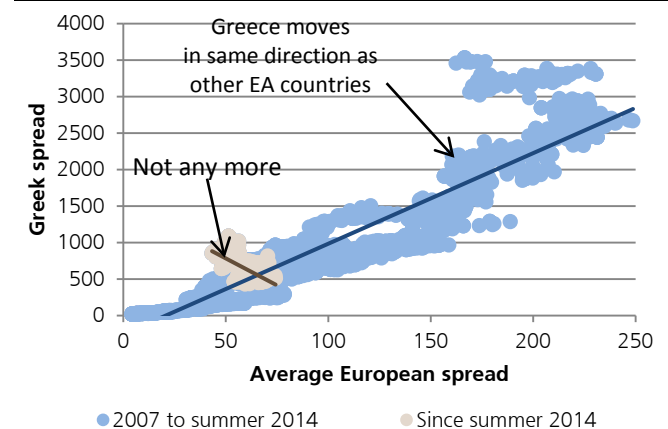
More interestingly, the following charts show that between 2007 and the summer last year, Greece tended to move in tandem with other spreads. Since last summer, however, Greece has become uncorrelated. Greek stress, so far, has had little impact on the overall European risk premium.

Figure 10: Greek spreads used to be correlated with the Average European spreads; not any more



Source: Bloomberg

Figure 11: The correlation actually turned negative last summer



Source: Bloomberg

We use an econometric method to look at how countries are grouped in the euro area. During the last crisis (2012-2013), Greek bonds behaved like other peripheral bonds. Since the beginning of this year, Greek pricing has parted ways.

Figure 12: Greek sovereign spreads used to behave like other peripheral countries in 2012-2013

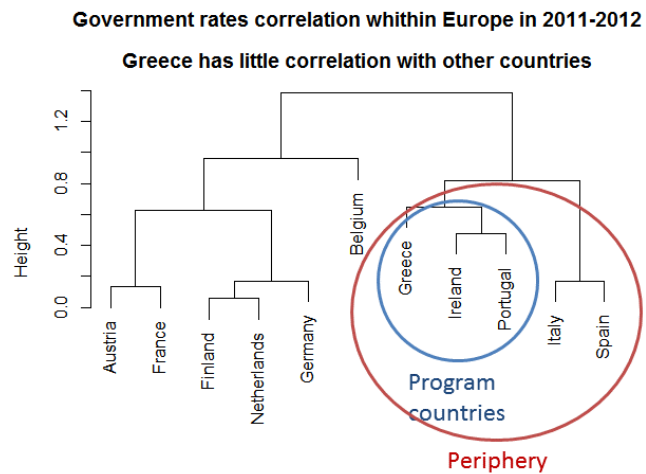
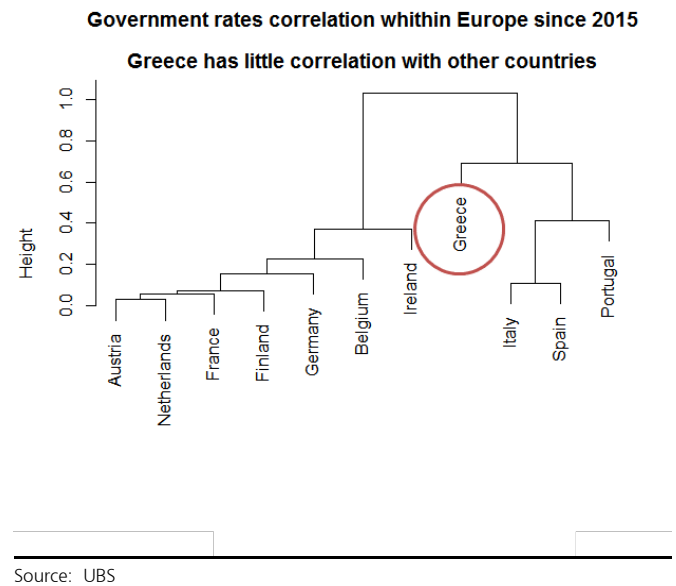


Figure 13: They now have little correlation with any other country



Stylised fact #3: Greek stock-market has exited the Eurozone already

Interestingly, the stock market became uncorrelated much earlier. Unlike the Greek sovereign debt market, which was highly correlated during the 2012-2013 crisis, the Greek equity market was already largely uncorrelated and has remained so.

Figure 14: The Greek stock market was highly correlated with European markets until the end of the last decade

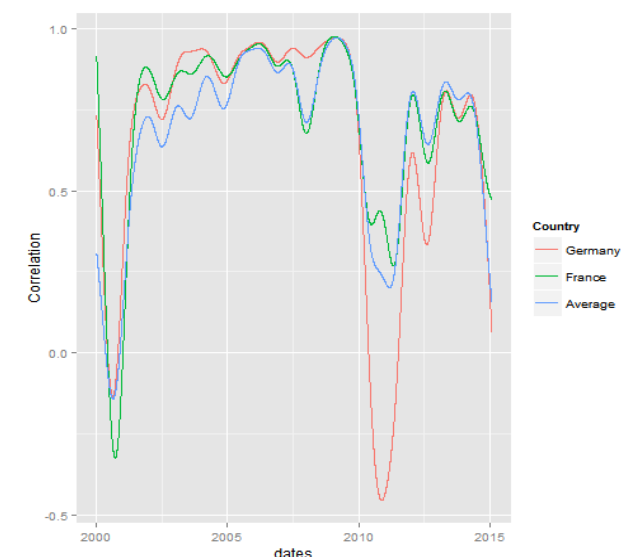
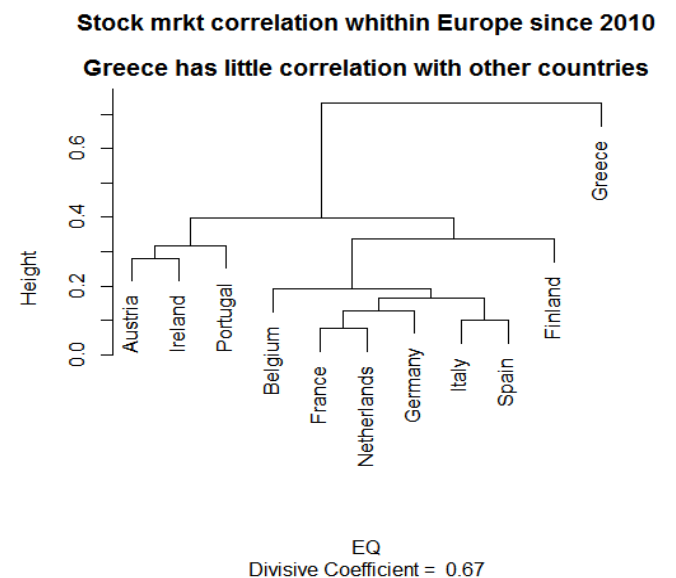


Figure 15: A correlation analysis since 2010 shows that the Greek market is behaving very differently to any other European stock market



The multi-asset impact of 'Grexit'

The main impact from a 'Grexit' scenario would be a jump in risk aversion. The preceding analysis suggests that investors would view Greece as idiosyncratic risk. We, in contrast, would have few doubts that 'Grexit' would trigger a broader jump in risk premiums. We analyse the outcome via an investment clock, dependent on risk aversion. Figure 16 depicts the dependency of asset class performance on the level of risk aversion as well as the change in risk aversion.

Jump in risk aversion

Figure 16: Sensitivity analysis shows that only the Treasury curves reacts positively to an increase in risk aversion

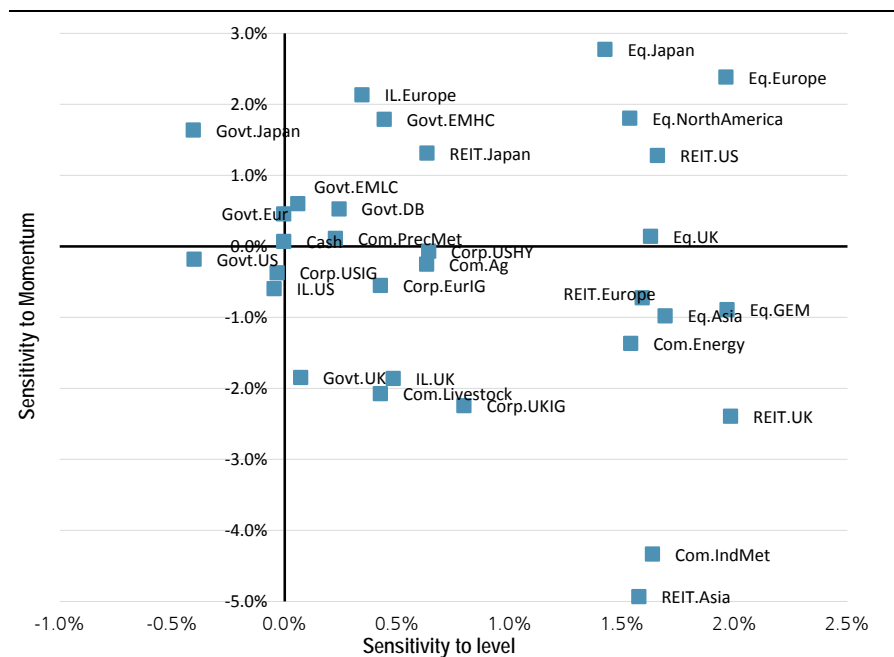
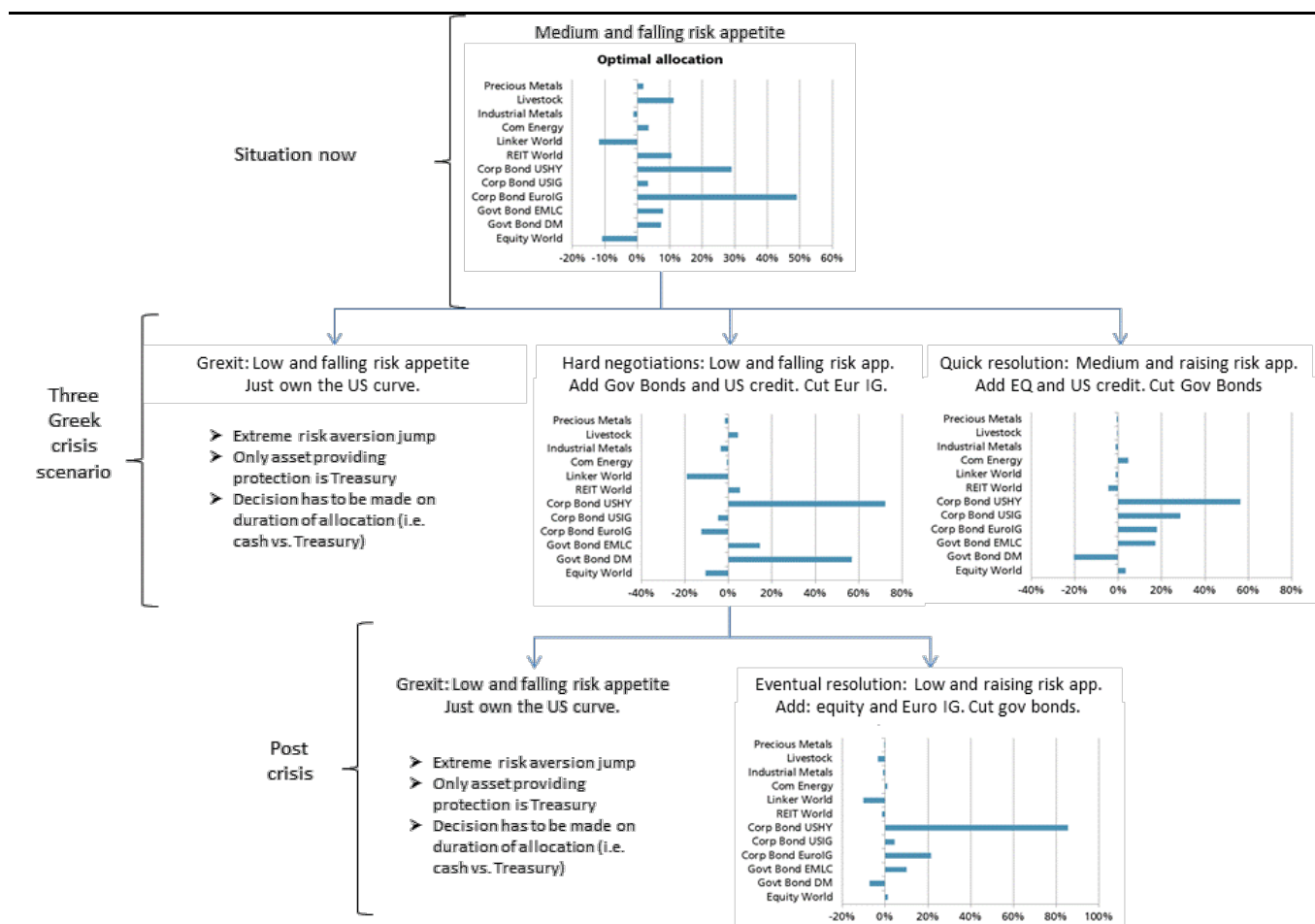


Figure 17: Optimal allocations in periods of low/medium/high risk appetite which is rising/falling over the previous month (data from 2002 onwards).

Risk Appetite	Low	Medium	High	Low	Medium	High
Change in Risk Appetite (1m)	Rising			Falling		
Equity World	1.2%	3.3%	25.1%	-10.6%	-10.9%	9.8%
Govt Bond DM	-7.2%	-20.4%	-16.7%	56.9%	7.3%	-30.0%
Govt Bond EMLC	10.1%	17.2%	-1.8%	14.4%	8.0%	0.3%
Corp Bond EuroIG	21.5%	17.9%	56.7%	-12.5%	49.0%	50.4%
Corp Bond USIG	4.4%	28.7%	72.7%	-4.8%	3.3%	18.4%
Corp Bond USHY	85.5%	56.4%	-30.0%	72.2%	29.0%	43.5%
REIT World	-1.5%	-4.6%	-0.6%	5.2%	10.6%	4.6%
Linker World	-10.2%	-1.2%	-11.0%	-19.2%	-11.8%	-6.5%
Com Energy	0.9%	4.6%	0.9%	-0.7%	3.4%	-4.5%
Industrial Metals	-0.9%	-1.1%	4.8%	-3.6%	-1.2%	1.5%
Livestock	-3.4%	-0.4%	-0.8%	4.4%	11.2%	9.8%
Precious Metals	-0.4%	-0.6%	0.4%	-1.7%	1.9%	2.7%

Source: Source: Source: Source: UBS

Figure 18: How to navigate our table? Scenario analysis



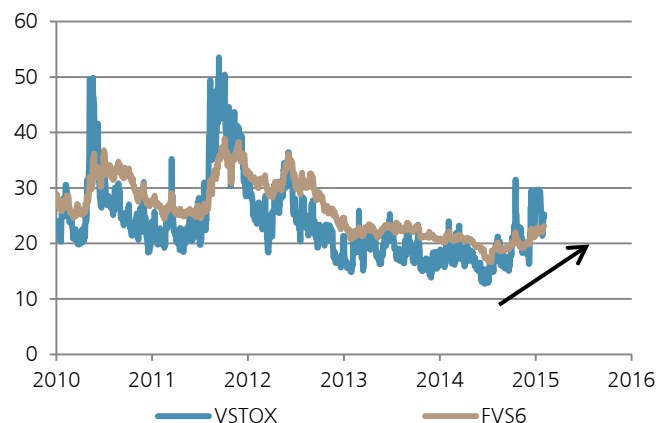
Source: UBS

How to protect a portfolio: Trading volatility

The above analysis shows that few assets provide adequate protection in the case of a significant rise in risk premiums (e.g., in a 'Grexit' scenario). But even without assuming a worst-case scenario, we think there is a high probability that markets will have to jettison their sanguine assessment as deadlines approach. Accordingly, we believe it is appropriate to protect portfolios. One manner is to take a position in volatility. Notably, in past such episodes the volatility curve has flattened, as short-term volatility has increased much more than future volatility.

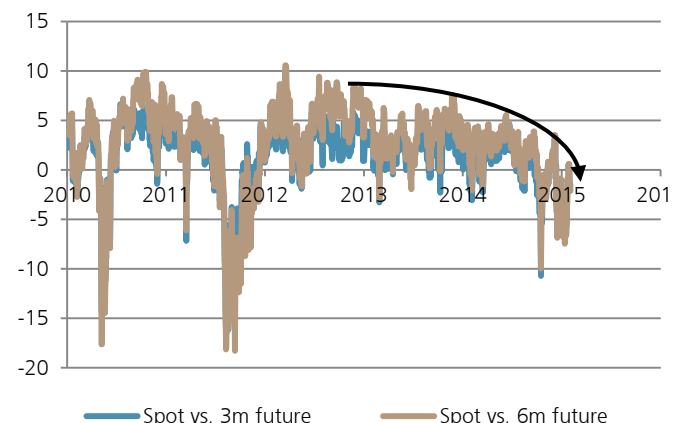
Volatility starts to move

Figure 19: Volatility, both spot and 6 month forward has been trending up



Source: Bloomberg, UBS

Figure 20: And the slope of the curve has declined significantly

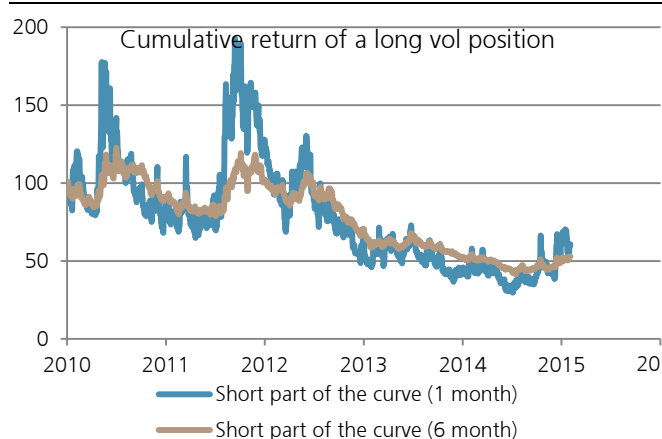


Source: Bloomberg, UBS

How to play it? The way to protect a portfolio is to get long volatility. Alas, by doing that investor will incur carry costs. The first chart below shows the cumulated performance of a portfolio invested in volatility. The position provides protection when the volatility jumps, but over time returns decay due to carry.

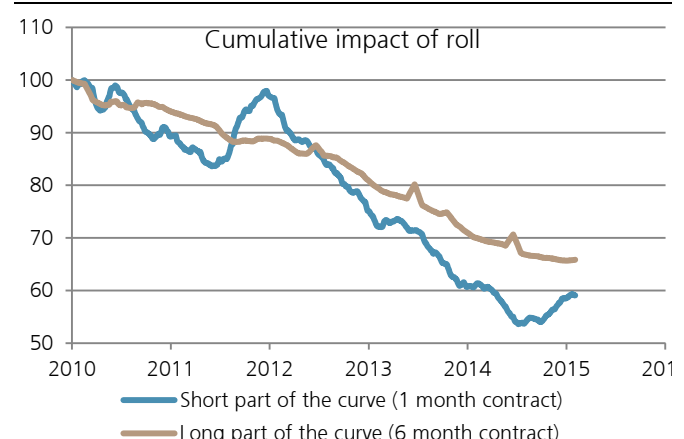
Buying protection is very expensive

Figure 21: A long position in VStoxx will protect investors during volatility jumps, but generate very negative returns on the long term



Source: Bloomberg, UBS

Figure 22: The reason is that the carry is very expensive



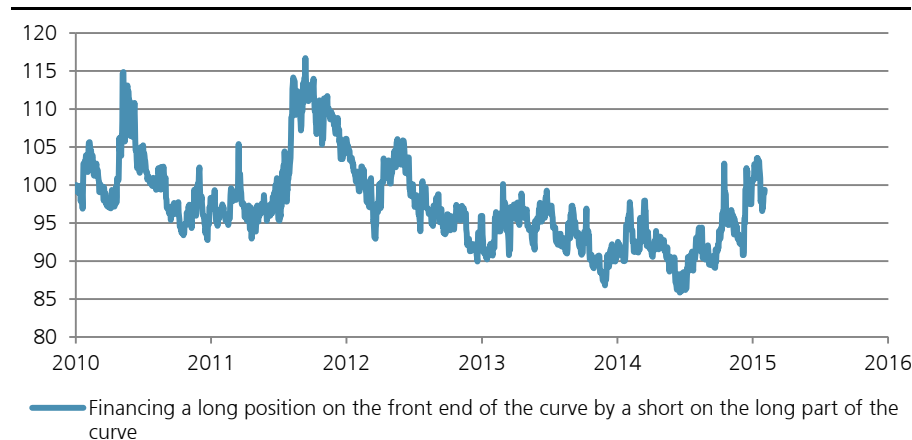
Source: Bloomberg, UBS

We thus look at a different strategy: We finance a long position on the front end of the volatility curve by selling long-dated contracts to neutralise the roll cost. On the long-term we obtain a return that is stable. However, we also find that the

And the solution is.....

front end of the curve moves considerably more. Hence our position on the short part of the curve still provides protection, without as much cost.

Figure 23: Financing the position on volatility allows to remove the long term downward trend



Source: UBS

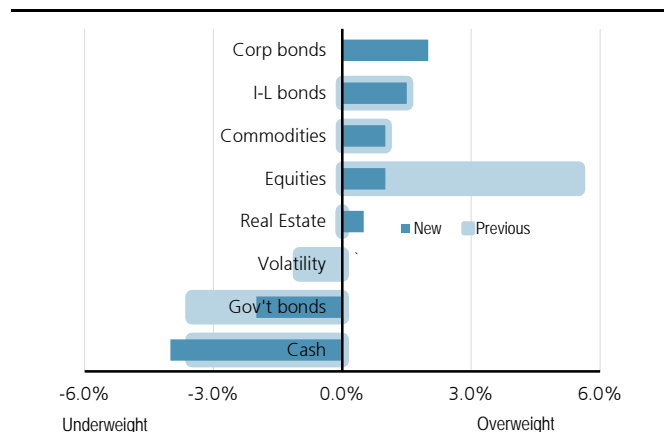
Asset allocation: Reduce risk

Although we remain constructive on the medium term regarding 'risk asset' fundamentals we are increasingly concerned about market complacency regarding near-term Greece risks. Indeed, as noted above, market corrections or dislocations may be required to motivate both Greece and the troika toward compromise. Moreover, equity markets have dwindling upside but greater volatility. Our year-end target for the STOXX Europe 600 index is 380, and we are almost at that target.

We are worried

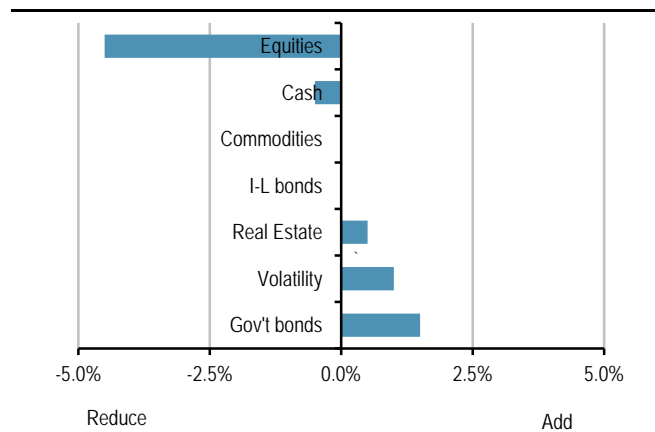
We therefore believe it is correct to tactically reduce risk. Our revised allocations are as follows (Figures 28-29):

Figure 24: New allocations



Source: UBS

Figure 25: Changes on our allocation



Source: UBS

Nevertheless, over the medium term, it is important to emphasize that we remain constructive on risk assets, for the following reasons:

- Equities in developed markets remain the most attractive asset class given an ongoing global recovery.
- When we compare equity and credit valuations we find that equity is cheap compared to credit, (see *Equities look cheap compared to credit*, Stephane Deo, 20 August 2014).
- For European equities, absent sustained shocks to confidence, the Eurozone economy has potential for upward surprises. Earnings will be supported by a weak euro. The ECB lending survey shows improving demand for credit and a greater willingness to lend. Lower oil prices are a plus for Europe (with twice the positive growth impact in Germany and France than for the US, see *Oil Spill – What is the impact of lower oil prices on non-oil value chains?* Andrew Cates, 4 December 2014).
- Market signals are also supportive. The European reporting season is thus far positive. Dividend yields of around 3.7% in Europe are attractive relative to prevailing bond yields.
- Investors remain underweight Europe equities in global portfolios.

World recovery

Relative pricing

Economy

Markets

Positioning

Figure 26: Detailed previous and new asset allocation

	Benchmark	Current	Previous	Load (x)	Prev Load (x*)
Equities					
N. America	24.5%	25.0%	25.5%	1.02	1.04
Japan	3.0%	4.0%	4.0%	1.33	1.33
UK	3.0%	3.5%	3.5%	1.17	1.17
Europe	7.0%	7.0%	8.5%	1.00	1.21
Asia	5.5%	5.5%	6.5%	1.00	1.18
GEM	2.0%	1.0%	2.5%	0.50	1.25
Total equities	45.0%	46.0%	50.5%	1.02	1.12
Government Bonds					
United States	7.0%	7.0%	6.5%	1.00	0.93
Europe	9.0%	8.5%	8.5%	0.94	0.94
UK	2.0%	1.5%	1.5%	0.75	0.75
Japan	3.5%	3.0%	3.0%	0.86	0.86
Dollar bloc	1.0%	1.0%	1.0%	1.00	1.00
EM Debt LC	3.0%	2.5%	1.5%	0.83	0.50
EM Debt HC	2.0%	2.0%	2.0%	1.00	1.00
Total gov't bonds	27.5%	25.5%	24.0%	0.93	0.87
Inflation indexed Bonds					
United States	1.0%	2.0%	2.0%	2.00	2.00
UK	1.0%	1.5%	1.5%	1.50	1.50
Europe	0.5%	0.5%	0.5%	1.00	1.00
Total infl. Indexed bonds	2.5%	4.0%	4.0%	1.60	1.60
Corporate bonds					
US inv. grade	6.0%	6.5%	6.0%	1.08	1.00
US high yield	1.5%	1.5%	1.5%	1.00	1.00
Euro IG	2.0%	2.5%	2.5%	1.25	1.25
Sterling IG	0.5%	1.5%	0.0%	3.00	0.00
Total corp. bonds	10.0%	12.0%	10.0%	1.20	1.00
Commodities					
Energy	1.0%	2.0%	2.0%	2.00	2.00
Industrial metals	1.0%	1.0%	1.0%	1.00	1.00
Precious metals	1.0%	1.0%	1.0%	1.00	1.00
Agriculture	1.0%	1.0%	1.0%	1.00	1.00
Livestock	1.0%	1.0%	1.0%	1.00	1.00
Total commodities	5.0%	6.0%	6.0%	1.20	1.20
Listed real estate					
United States	2.5%	3.0%	2.0%	1.20	0.80
Europe	0.5%	0.5%	1.0%	1.00	2.00
UK	0.5%	0.5%	0.5%	1.00	1.00
Japan	0.5%	0.5%	0.5%	1.00	1.00
Asia	1.0%	1.0%	1.0%	1.00	1.00
Total real estate	5.0%	5.5%	5.0%	1.10	1.00
Cash	5.0%	1.0%	1.5%	0.20	0.30
Volatility	0.0%	0.0%	-1.0%	0.00	-1.00

Source: UBS

Impact of "Grexit" on European Equities?

We reiterate that Greece leaving the Eurozone is not our base case and this exercise is simply one of scenario analysis.

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Contagion? Likely to be less now, than if had happened in 2011

Whilst the impact on European equities is likely to be a sharp rise in volatility in the near-term and a spike in risk aversion, we would argue that if a Greek exit were to occur today it would have less impact on wider European equity markets than at the peak of the crisis in 2011.

We look at the scenario of what "Grexit" might mean for Equities (though this is not our central view)

What's changed since 2011?

(1) Firewalls: With around 80% of the Greek government debt held by the public sector, the transmission mechanisms via the European banking system are smaller than before. Additionally, the ECB is now the regulator for the major European banks and has run its own stress tests, credit availability is easing to corporates, consumers and SMEs for the first time in seven years, and the periphery countries' fiscal deficits are significantly smaller than four years ago.

Several changes since 2011 crisis:

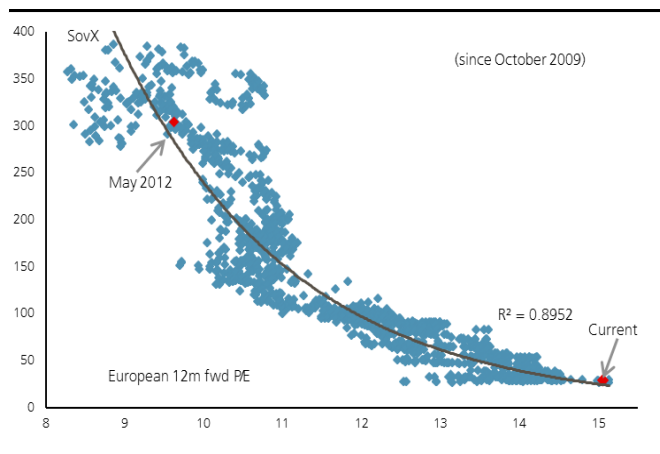
Firewalls are better, countries' deficits lower, banks better capitalised, corporate balance sheets stronger...

(2) Corporate balance sheets: Gearing has come down further and net debt to equity for the median European company is down at 34% compared to 53% in 2008 and 38% in 2011.

...and a more robust global macro backdrop...

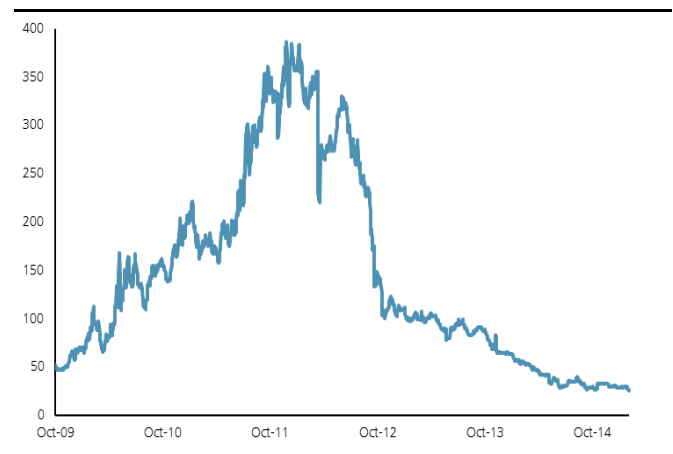
(3) The global macro recovery: The global economy is in a much better place than it was three or four years ago, with the financial system in the US and UK repaired and supporting decent loan growth.

Figure 27: The P/E multiple on the European market has re-rated...



Source: Datastream, Bloomberg, UBS European Equity Strategy

Figure 28: As sovereign risk has fallen...

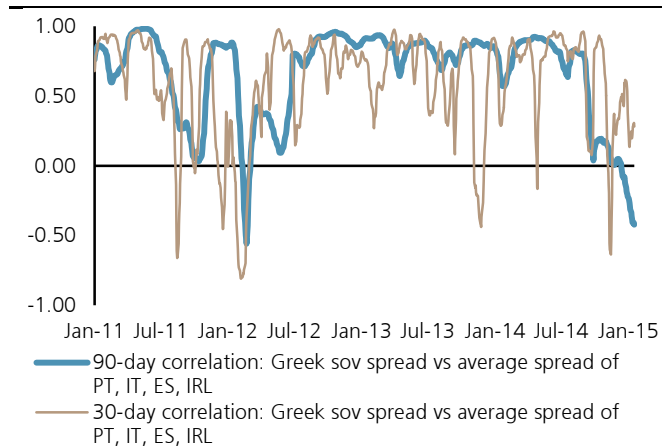


Source: Datastream, Bloomberg, UBS European Equity Strategy

Furthermore, as noted previously, the correlation between Greek capital market assets (both bonds and equities) with the rest of Europe has decoupled from the peak of the crisis, even if there are signs of a modest pick-up over the past month.

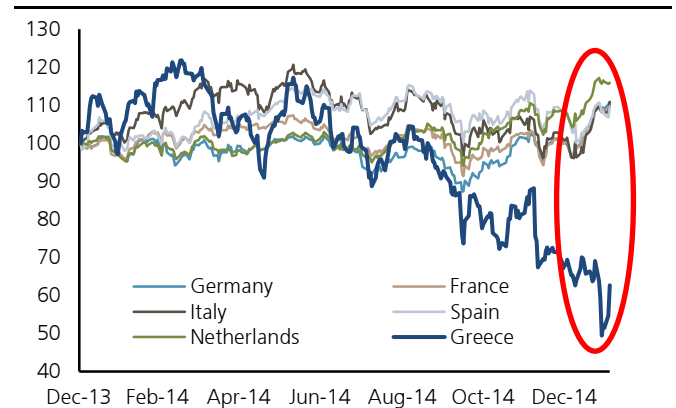
Eurozone Bonds and Equities have de-coupled from Greece...

Figure 29: Correlation between Greek Spreads and other periphery spreads



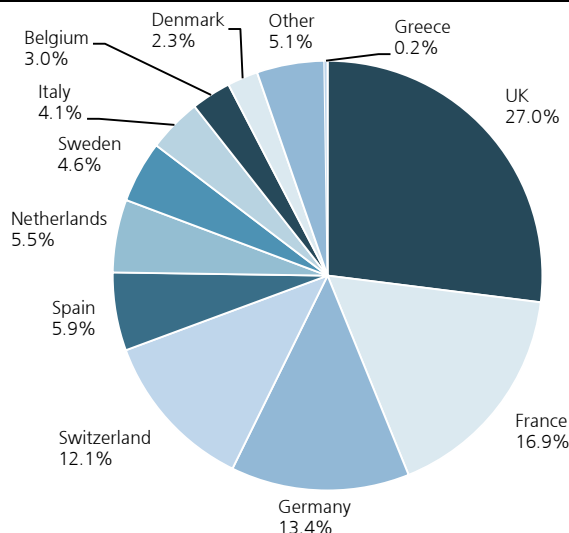
Source: Datastream, UBS European Equity Strategy

Figure 30: Greek Equities – Decoupled from Europe... (Dec 2013 = 100)



Source: Datastream, UBS European Equity Strategy

Figure 31: Stoxx 600 Index - Split by Countries



Source: Datastream, UBS European Equity Strategy

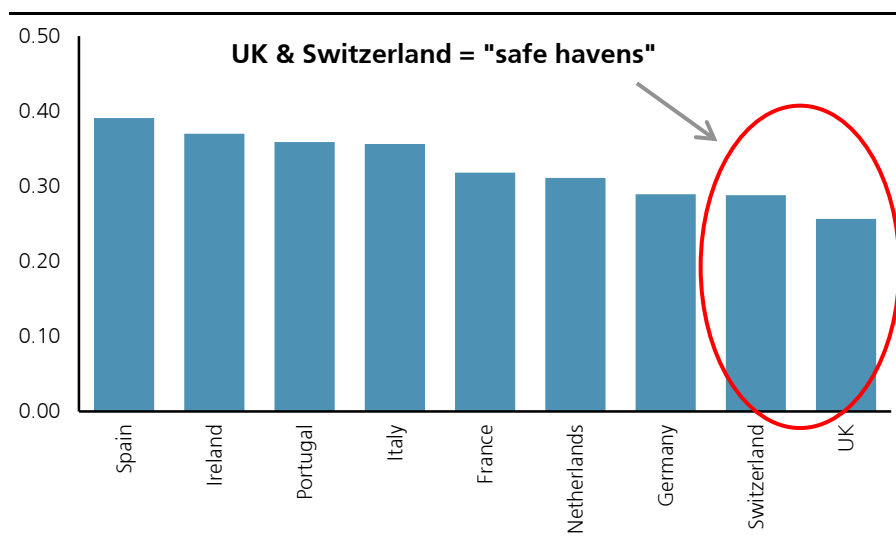
Country Impact

In the near term it is likely that the euro weakens as concerns over the Eurozone spreads. This would favour Germany as a core rather than a peripheral market and with its high euro exposure (we have been overweight Germany for some time). Interestingly, it also has the lowest correlation of any of the major Eurozone markets to Greece (alongside Switzerland). But stress would also favour the more defensive non-Eurozone markets, such as the UK and Switzerland, where we are currently more cautious.

But the indirect impact would be much bigger...

Most exposed countries: Spain, Ireland, Portugal and Italy. Germany the most defensive in the Eurozone

Figure 32: European Country correlations to Greece



Source: Datastream, UBS European Equity Strategy

Sectors: Who's exposed?

We see two risks for sectors: Economic cycle risk (lower economic growth) and sovereign credit risk (as measured by the Sov-X). Given the structural change in the political risk, we have gone back to the period of 2010 to 2011 to look at *historical* correlations.

The sectors that would most likely be exposed to a "Grexit" would be Banks, Diversified Financials and Insurance. But also, to a lesser degree, it would be negative for Capital Goods, Transports and Real Estate.

The "safe havens" would be those sectors that have a low correlation to sovereign credit risk and are economically defensive, such as Pharma, HPC and Tobacco.

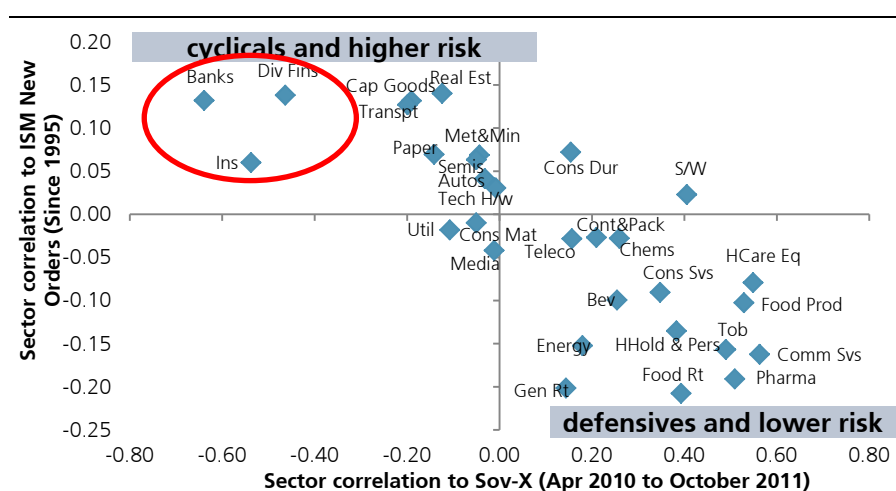
Outside of this, we see little direct impact at a stock level given how small Greece is as a share of Eurozone GDP, but there are specific cases, such as Coca-Cola Hellenic Bottling, listed in the UK.

At a sector level we examine cycle risk and Sovereign credit risk...

Banks, Div Fins and Insurance appear most exposed (although arguably less so than in 2011)...

Pharma, HPC and Tobacco are likely "safe havens" from both Sovereign risk and the cycle

Figure 33: European Sectors: Cycle risk vs. Sovereign Credit risk



Source: Datastream, Bloomberg, UBS European Equity Strategy

Implications for the Greek banking sector

In our view, as mentioned elsewhere in the note, breaking up a currency union happens through the banking system. Indeed, we think that an escalation of 'Grexit' discussions would suffice to undermine confidence in the banking sector and could lead retail depositors to reduce exposures, whether via access to foreign bonds, different banking systems or increasing holdings cash or gold.

The latest available sector data from the Greek central bank shows that in December political uncertainty led to deposit outflows. Total deposits decreased by €4.6 bn (2.6%) m/m. Term deposits with agreed maturity of less than one year were the most impacted and fell 6.6%. January numbers will be out at the end of February and we would expect deposit outflow accelerated in January in light of the political and regulatory uncertainty before and after the Greek elections.

The experience of the previous sovereign crisis showed that, from October 2010 to June 2012, c€70bn of deposits (c30% of the total) left the system, and since June 2012 only €14bn came back. Funding constraints and lack of capital pushed the system to consolidate and deleverage. As a result, the loan-to-deposit ratio, which peaked above 120%, decreased by 10 percentage points (including foreign loans and deposits).

Just before the recent political uncertainty escalated, Greek banks were becoming ready to start lending. Recent deposit outflows and escalating uncertainty means that the loan growth will be delayed further—indeed, funding pressure may lead to further lending contraction. In the event of escalated 'Grexit' fears, loan growth may not restart for several years, significantly constraining any economic recovery.

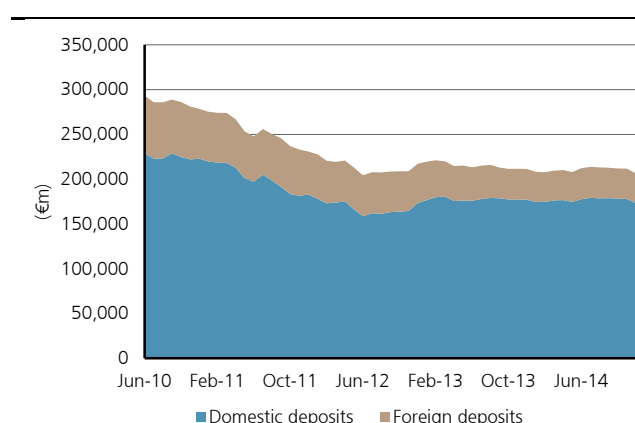
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Deposits already started to leave the system in December; outflows likely accelerated in January

If deposits leave, it's not that easy to attract them back

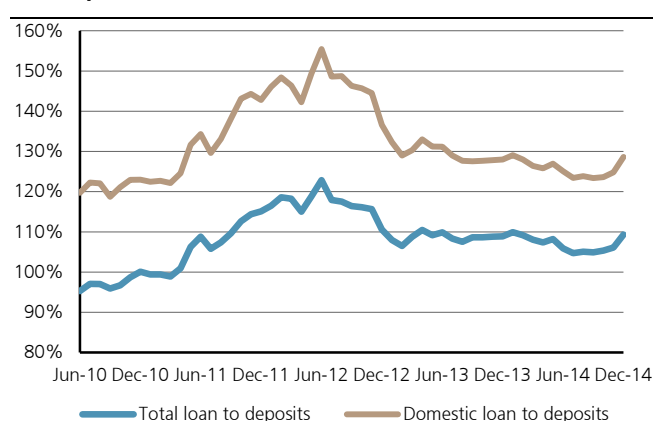
Moving back to crisis mode

Figure 34: Greek banking system deposits development



Source: Bank of Greece, UBS

Figure 35: Greek banking system loan to deposit ratio development



Source: Bank of Greece, UBS

The reliance on wholesale funding has come down significantly since its peak in February 2012 when the wholesale funding exceeded 40% of the liabilities and stood at €158bn, of which the largest proportion was ELA. As of December 2014, the reliance on the wholesale funding for the Greek banking system was 24% of total liabilities, equivalent to €96bn of which €56bn was Eurosystem funding and €40bn was interbank funding.

Due to escalating political uncertainty, the banks already requested access to ELA in order to maintain their liquidity positions in light of expected changes in ECB collateral rules and in case deposit outflows accelerate.

Greek banks heavily reliant on ECB and back to ELA

Last week the ECB decided to lift the current waiver of minimum credit rating requirements for securities issued or guaranteed by the Greek sovereign. The decision was in line with the current Eurosystem rules, since the ECB does not believe in a successful conclusion of the programme review. In our view, the decision will impact the eligibility of Pillar II (government guaranteed bonds), which were previously losing eligibility from March 2015, but also Pillar III (GGBs).

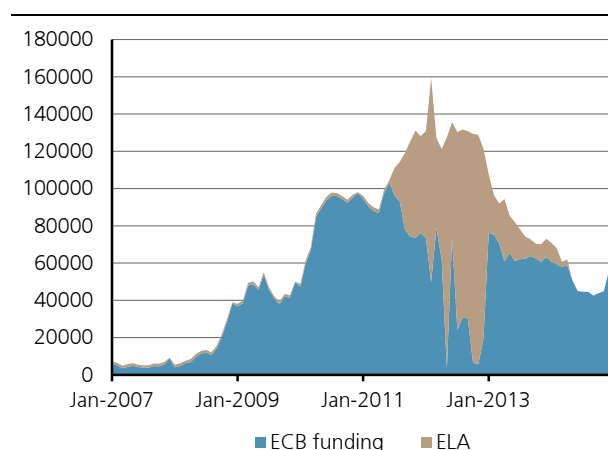
ECB is starting to put pressure, pushing banks back to ELA

Pillar II and Pillar III funding together comprised c€7.2bn for Alpha Bank (c10% of total assets), c€6.5bn for Eurobank (c9%) and c€5.4bn for Piraeus (c6%) as of 9M 2014. We believe that in order to replace this amount, banks will need to access the ELA, which will have negative implications for funding costs (c5-10 bps UBSe) as ELA is 150bps more expensive than ECB funding. So far, we would expect the banks to be able to rely on ELA financing in the near term to meet additional liquidity needs. However, as the ELA needs to be approved by the ECB's Executive Board, its availability should not be considered automatic.

NIM to shrink, just the opposite of recent banks' guidance

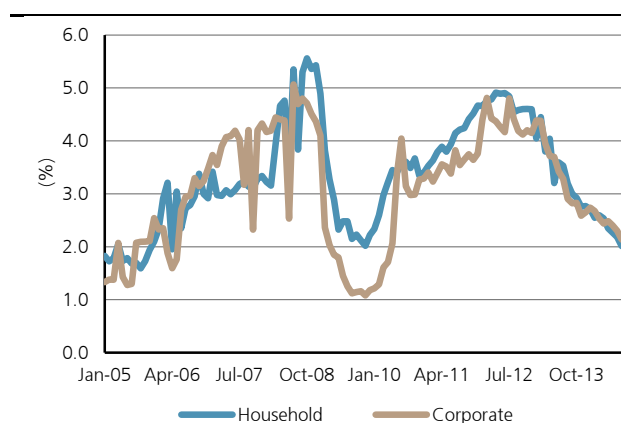
In the case of Grexit fears and ECB constraining/cancelling the ELA, the implications for banks' funding costs would be significant, with deposits costs doubling or tripling, as happened in a period from 2010 to 2012. 'Grexit' fears would also lead to a reassessment by international banks of repo funding lines, which would have an additional negative impact on wholesale funding costs.

Figure 36: Greek banks reliance on ECB funding (EUR mn)



Source: Haver, UBS

Figure 37: Cost of deposits with agreed maturity in Greece



Source: Bank of Greece, UBS

If we assume that Grexit fears escalate, parallels may ensue with the Argentinian banking system in 2001, where twelve months prior to default 40% of private sector deposits in local currency left the system. When Argentina defaulted and the government announced the end of the convertibility regime and a plan to devalue the peso (what would be largely equivalent to a "Drachma-ization" of the Greek economy), the peso went into a tailspin, shooting to ARS4/\$1 over a short period of time. Dollar contracts were forced into pesos but dollar deposits were converted at the rate of US\$1 = ARS1.4 and dollar loans at one-to-one. This "asymmetric pesification" in the financial system was enough to wipe out banks' capital, while restrictions on bank deposits were also kept for some time.

In Argentina, banks lost 40% of local currency deposits in the run-up to the crisis

In Greece we believe that the secondary effect from the escalating uncertainty regarding 'Grexit' will result in more asset quality issues, especially in the corporate sector, where diminished access to credit should stress funding. This would add to asset quality concerns, on top of already high NPL ratios in the corporate segment (38% on average).

Continuous Grexit talks may lead to more companies defaulting due to the lack of funding

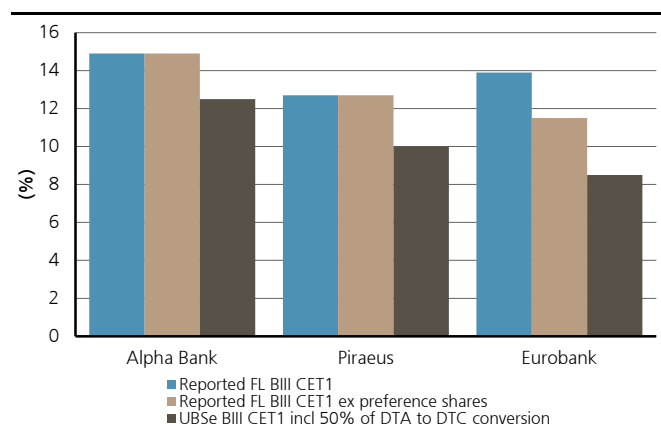
In addition, the viability of residential mortgages would come under question, further pressuring capital ratios. The non-performing ratio for mortgages currently stands at 26%. We estimate that in order to increase the coverage of mortgages banks will need to take extra provisions equivalent to 5-10% of their tangible book values.

The viability of residential mortgages may also come under pressure

Although we acknowledge that the Greek banks did a lot of work to strengthen their capital positions, the capital would not be enough to sustain any substantial pressure from 'Grexit' pressures, even before the event itself. HFSF still has €11bn available from €50bn fund to recapitalise the Greek banks, which should lead to further nationalisation of the sector. We also note that the capital definition used by Greek banks is different compared to the Basel 3 definition, owing to the inclusion of DTAs – the chart below to the left assumes they will be include at least half.

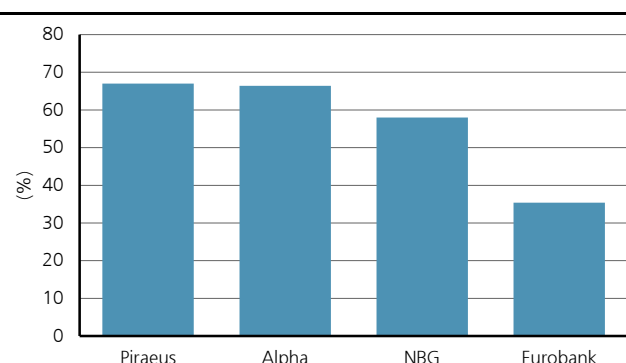
The bottom line: capital is not enough to sustain a shock

Figure 38: Greek banks capital position benchmarks



Source: Companies data, UBS estimates. Note: BIII CET1 incl 50% DTA to DTC conversion is shown for the illustrative only, to reflect any potential extreme situations

Figure 39: HFSF's shareholding of Greek banks



Source: Company data, UBS estimates

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Buy	FSR is > 6% above the MRA.	47%	37%
Neutral	FSR is between -6% and 6% of the MRA.	42%	32%
Sell	FSR is > 6% below the MRA.	11%	21%
Short-Term Rating	Definition	Coverage ³	IB Services ⁴
Buy	Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.	less than 1%	less than 1%
Sell	Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event.	less than 1%	less than 1%

Source: UBS. Rating allocations are as of 31 December 2014.

1:Percentage of companies under coverage globally within the 12-month rating category. 2:Percentage of companies within the 12-month rating category for which investment banking (IB) services were provided within the past 12 months.

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	UBS Terminology	Time Horizon	Definition
Issuer Ratings			
Credit Rating	AAA, AA, A, BBB, BB, B, CCC, CC, C (+/-)	Up to 12 months	UBS' assessment of a company's creditworthiness
Outlook	Positive; Stable; Negative	Up to 6 months	UBS' expected trend in a company's creditworthiness
Security Recommendations			
Bond Recommendation	Outperform; Marketperform; Underperform	Up to 3 months	A corporate bond's expected relative performance versus a defined reference
CDS Recommendation	Buy Protection; Sell Protection	Up to 3 months	Recommendation to hedge a company's creditworthiness

Note: Recommendations for periods under 3 months are defined as 'Tactical', as in Tactical Outperform or Tactical Underperform. The UBS credit rating may be modified by the addition of a plus (+) or minus (-) sign where applicable to show relative standing within the major categories.

Source: UBS

Company Disclosures

Company Name	Reuters	12-month rating	Short-term rating	Price	Price date
Alpha Bank SA	ACBr.AT	Neutral	N/A	€0.37	05 Feb 2015
Coca-Cola Hellenic Bottling Company S.A.⁵	CCH.L	Neutral	N/A	1,098p	05 Feb 2015
Eurobank Ergasias SA^{2, 4, 5}	EURBr.AT	Neutral	N/A	€0.15	05 Feb 2015
National Bank of Greece^{2, 4, 5, 8, 16}	NBGr.AT	Not Rated	N/A	€1.14	05 Feb 2015
Piraeus Bank SA^{2, 3, 4, 5}	BOPr.AT	Neutral	N/A	€0.64	05 Feb 2015

Source: UBS. All prices as of local market close.

Ratings in this table are the most current published ratings prior to this report. They may be more recent than the stock pricing date

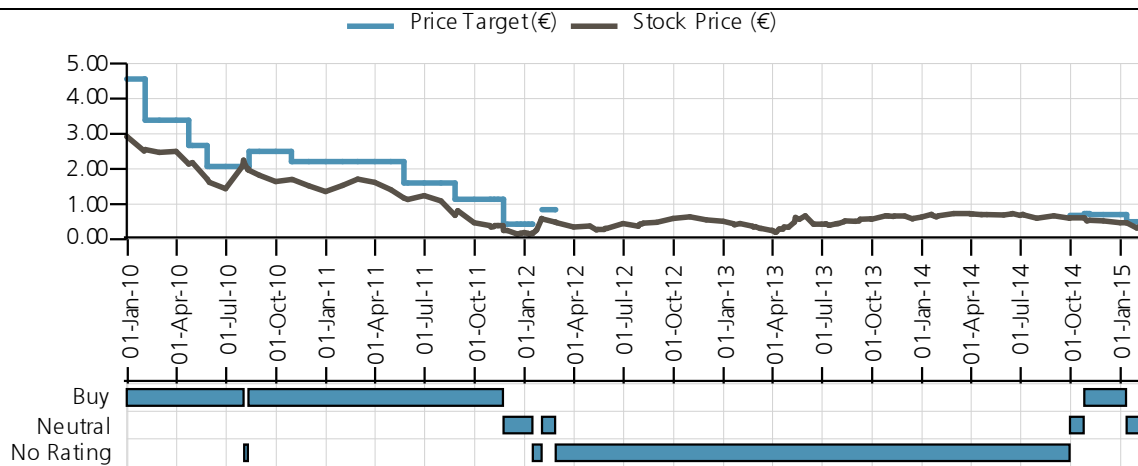
Issuer Name	Credit Rating	Outlook
European Union²²	-	-

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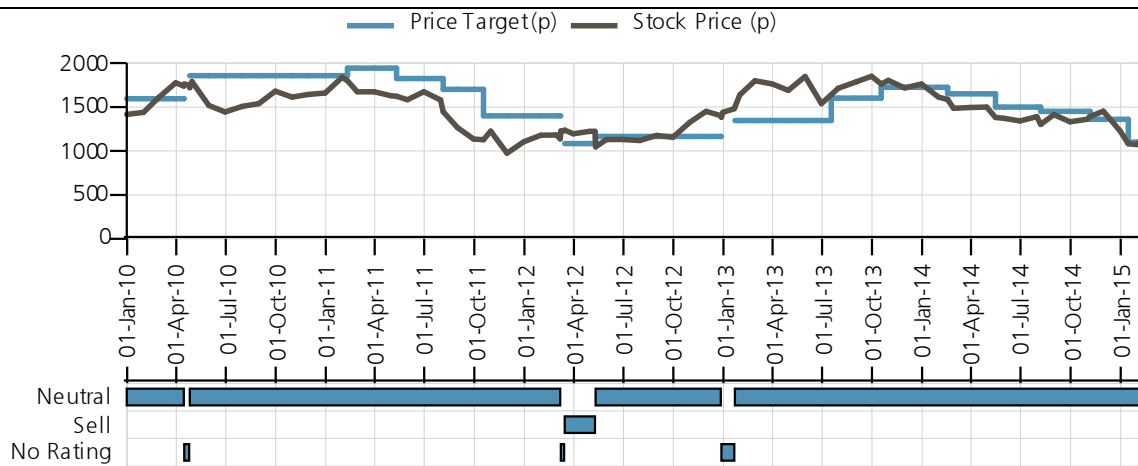
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Alpha Bank SA (€)



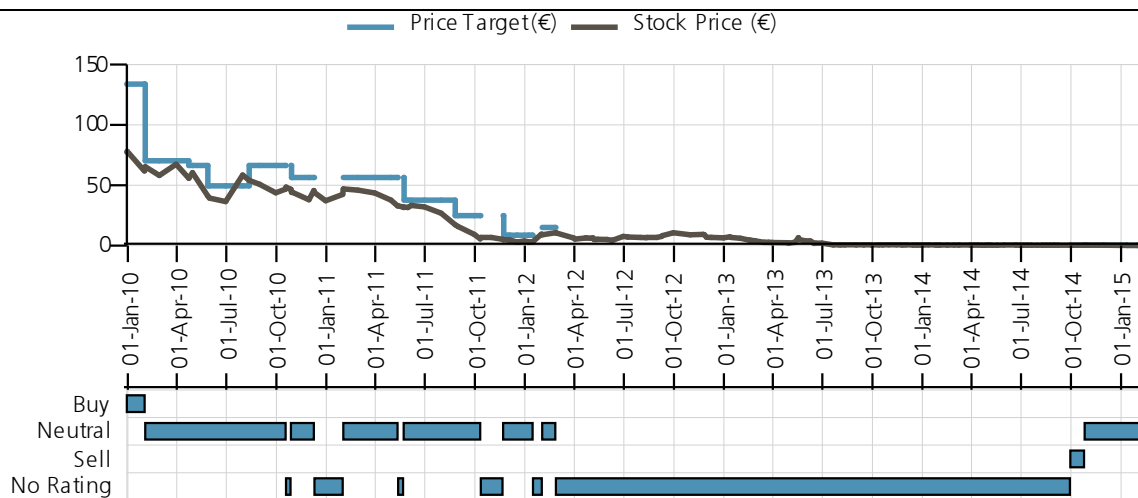
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Coca-Cola Hellenic Bottling Company S.A (p)



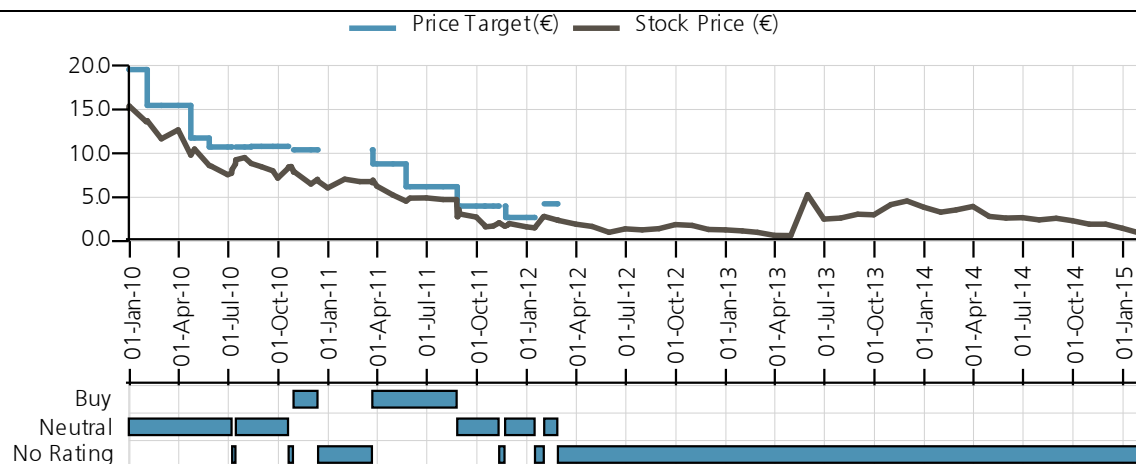
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Eurobank Ergasias SA (€)



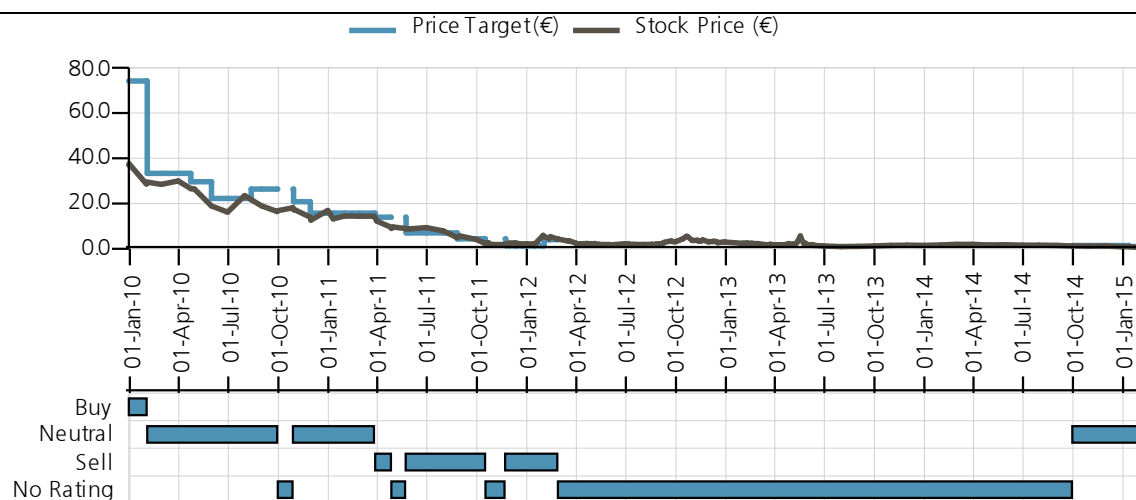
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National Bank of Greece (€)



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Piraeus Bank SA (€)



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