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## Global Economics View

### A Greek Exit from the Euro Area: A Disaster for Greece, a Crisis for the World

- A Greek exit from the Euro Area has become more likely recently.
- Greek EA exit would be hugely costly for Greece and yield only small benefits.
- Greek EA exit would also have large negative effects on the rest of the EA through direct and indirect channels.
- The most important indirect effects would be due to the fact that a taboo was broken that countries do not leave the EA, further increasing pressures on the remaining weak EA countries.
- Greek EA exit would most likely be preceded by a halt in Troika (IMF, EU/EA, ECB) funding for the Greek sovereign and banks and would be closely preceded or followed by Greek sovereign default.
- Greek sovereign default is consistent with Greece remaining in the EA.
- Deep restructuring involving large NPV losses for both private and official creditors other than possibly the IMF is a given in the case of Greece – a Greek exit from the euro area (EA) is not. For the sake of economic stability and growth in the EA, the wider EU and globally, we hope that this message is taken to heart by the European authorities.

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See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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# A Greek Exit from the Euro Area

## 1. Introduction

**The effects of Greek exit from the EA are likely generally underestimated**

**EA exit would be hugely costly for Greece**

**The economic and political consequences for the rest of the EA and even globally are likely to be severe**

The prospect of Greece exiting the euro area is seldom viewed with the proper degree of fear and trepidation, in our view. Some commentators indeed believe that exit will be beneficial for Greece. The introduction of a new currency, the New Drachma (ND), and a prompt sharp reduction in its external value relative to the euro is considered a necessary, sometimes even a sufficient, condition for the restoration of Greece's economic fortunes. Even when Greece's exit is viewed as costly, possibly disastrous, for Greece, it is often considered a minor issue of the remaining 16 euro area member states, the rest of the EU and the world at large. A Greek exit is indeed often viewed as 'euro-positive' in the narrow sense of likely to be associated with a strengthening of the effective exchange rate of the euro – mainly because it eliminates the prospect that a sovereign default in Greece would entail the risk of part-monetisation of Greek government debt by the ECB.

We agree that Greece's exit from the euro area would likely be 'euro-positive' in the narrow sense just given. We fear, however, that it would be a financial and economic disaster not only for Greece, but also for 16 continuing euro area member states, and that it would also have severe economic and political implications for the whole of the EU and the wider global economy.

## 2. Greek exit now more likely than before

**Greece will likely miss its IMF/EU/ECB Troika programme targets by a large margin**

An exit from the euro area by Greece is no longer unthinkable. The Greek programme is significantly off-course. The European Commission expects, in its Spring 2011 forecasts, that the Gross General Government debt as a share of GDP in 2011 will be 157.7 percent. Citi now expects it to be 167 percent of GDP at the end of the current year. We forecast a general government deficit of around 10 percent of GDP for 2011, 2.4 percent higher than planned under the latest incarnation of the Greek stabilisation programme. Only about one third of the deficit overshoot can be attributed to the weaker-than-expected state of the Greek economy. Structural reforms are going nowhere and the lack of realism in the forecast of the proceeds from privatisation (€5bn this year and €35bn by the end of 2014) is becoming clear even before we reach the end of Q3, 2011. The first bail-in or private sector involvement (PSI) proposal (a sovereign debt buyback/rollover/exchange) appears to be still some distance from achieving its 90 percent hoped-for private sector participation rate ([Euro Weekly - Greece — Stuck in the Mud](#)).

**Austerity fatigue in Greece and bail-out fatigue in the core Euro Area continue to rise**

Austerity fatigue in Greece is visible and audible, and so is bail-out fatigue in the core euro area member states. It may be that the new fiscal austerity measures announced by the Greek government on 11 September 2011, especially the two-year property tax designed to raise €2bn this year, will succeed where other taxes have failed. However, the endemic weakness of tax administration and tax compliance in Greece do not inspire a great deal of confidence, in our view. The announcement that the German Chief Economist and ECB Executive Board member Jürgen Stark will retire 'for personal reasons' as soon as a successor can be found is likely to keep German resistance to the ECB's interventions in support of Greece and the other euro area periphery nations (Ireland, Portugal, Italy and Spain). The reason is that it would reinforce unease among the German public and parliamentary backbenchers (and their Dutch, Finnish, Slovak and Slovene counterparts) about the ability of the ECB Executive Board to resist pressures from the markets and from the euro area political leadership to purchase ever-increasing amounts of periphery sovereign debt. This growing popular and backbencher fear that the ECB is becoming the heir of the Reichsbank rather than of the Bundesbank should limit the amount of pressure the core euro area political leadership is able to

put on the ECB to increase its market purchases of periphery sovereign debt and may indeed force some of that political leadership to distance themselves publicly from the ECB. This in turn would make it more difficult for the ECB to continue to buy outright risky sovereign debt under the Security Markets Programme (SMP), or to accept risky sovereign or sovereign-guaranteed debt as collateral for loans from the Eurosystem to banks that could well default themselves if the sovereign whose debt they offered as security were to default. This also suggests that while the ECB continues the purchases under the SMP until the EFSF has the power to intervene in secondary bond markets, it is likely to stop the purchases (at least temporarily) once the EFSF is allowed to step in with purchases of its own.<sup>1</sup>

**Stark resignation may further reduce German support for the ECB's Securities Markets Programme (SMP) and his successor is likely to hold similar views to Stark's**

Stark's resignation follows the earlier resignation of the President of the Bundesbank, Axel Weber, also in protest at the ECB's sovereign debt purchases under the SMP, and the continued open dissent of his successor as Bundesbank President, Jens Weidmann, from these purchases. Jörg Asmussen, German Finance Minister Schaeuble's nominee to succeed Stark as ECB Executive Board member, currently state secretary at the German finance ministry and a member of the German opposition centre-left Social Democrats (SPD), is unlikely to have views on the SMP that differ much in substance from those of Stark, Weber and Weidmann. These are German views, not just Bundesbank views. Admittedly, the German political leadership dislikes taking a direct fiscal exposure to the periphery sovereigns – through the Greek loan facility, the EFSF and the EFSM, or through E-bond issuance – even more than it dislikes the ECB/Eurosystem taking a quasi-fiscal exposure to the periphery. Mrs. Merkel would rather see the ECB use the SMP for additional periphery sovereign debt purchases than face the prospect of having to seek parliamentary permission for a further increase in the size of the EFSF or for E-bond issuance. Both of these explicitly fiscal options have also been made more difficult by the recent ruling of the German Constitutional Court on the constitutionality of German involvement in the Greek Loan Facility and the EFSF.

**A Greek exit from the EA is still unlikely, but more likely than a few weeks ago**

The breakdown on September 2 of the negotiations between the Troika (European Commission, ECB and IMF) and the Greek government on additional austerity and structural reform to make up for the earlier Greek failures to meet the conditionality of the Greek stabilisation programme is worrying. It is true that the Press Release by the Troika on September 2 said that *"The mission expects to return to Athens by mid-September, when we expect the Greek authorities to have completed the technical work, to continue discussions on policies needed to complete the review."*, but the palpable mutual distrust and continued brinkmanship engaged in by both sides could easily result in an outcome neither side wants.

Although still unlikely, a Greek exit from the euro area now is less unlikely than it was even a few weeks ago.

As discussed in some of our other recent publications (see e.g. Buiter and Rahbari (2011)), Greece cannot, under the European Treaties as currently written, be formally expelled from the euro area or from the EU. A Treaty change in this regard may happen in the medium or long term but, like all substantive Treaty changes, will

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<sup>1</sup> Asked about conditions to end the ECB's government bond purchases ECB President Trichet said in the September 8 press conference: "There is a commitment of the governments, not only to do everything to reinforce their creditworthiness individually under the surveillance of the others, there is also, as I said, a commitment to have the EFSF up and running and be able to intervene on the secondary market. These are the conditions for financial stability to be reasonably ensured in the euro area. Then, at that moment we ourselves do not have to intervene and to help restore a better transmission of our monetary policy stance. We do so only because of the present situation. Of course, the first very heavy responsibility is for those who put themselves in this situation, but there is also a responsibility for the absence of correct, ex ante surveillance."

**Greece cannot be expelled from the EA, but it could be de facto forced out by a halt of funding by the Greek loan facility, the EFSF and the ECB**

not be easily achieved. We also subscribe to the view (expressed e.g. in Athanassiou (2009)), that a country can leave the euro area (voluntarily) only if it also leaves the EU. Even though Greece cannot be formally expelled, it can be de facto forced out by being asked for politically infeasible fiscal austerity, structural reforms and privatisation progress in return for continued financial support from the Troika.

An exit scenario results if Greece rejects the Troika's demands for additional fiscal austerity, structural reforms and privatisation and if as a result the Troika decides that Greece is wilfully non-compliant with the conditionality of its adjustment programme. Greece then gets cut off from external funding by the Greek Loan Facility, the EFSF (if the crisis happens after the EFSF has started to disburse funds under the second Greek adjustment programme) and the IMF. It also loses the financial support from the ECB, which no longer purchases Greek sovereign debt outright through the SMP, no longer funds its banks through the Eurosystem and restricts or prevents access to the Greek emergency liquidity assistance facility (ELA).

At that point Greece could decide to leave the euro area 'voluntarily', not so much because the sovereign no longer gets funded by the Troika, but mainly because the ECB/Eurosystem refuses to continue to fund the Greek banks when they offer Greek sovereign or sovereign-guaranteed debt as collateral for loans from the Eurosystem, and because the ECB restricts or stops access by Greek banks to the ELA facility run by the central bank of Greece (the Bank of Greece) under a Greek sovereign guarantee but subject to ECB Governing Council approval. Faced with the disappearance (as far as Greek banks and sovereign are concerned) of the euro area lender of last resort, Greece could blunder into exiting from the euro area. It is the denial of access for banks to ECB/Eurosystem funding and to the ELA facility that would be the defining moment for Greece in our view.

**Declaration by the Troika that Greece is wilfully non-compliant with its programme conditions may come as early as September or October 2011, but would be more likely in December 2011 or March 2012**

If Greece is forced to leave the euro area involuntarily, it does not really matter for the scale of the financial disaster that follows whether it stays in the EU or not. The main driver of systemic financial destruction would be Greek exit from the euro area. The risks of Greek EA exit have clearly risen. Conceivably, a Greek exit from the euro area could happen anytime. For example, a refusal by the Troika to disburse the €8bn fifth instalment of the first Greek adjustment programme in September or October this year could be a trigger for Greek EA exit. It is more likely that Greece would only be declared by the Troika to be wilfully non-compliant with the conditionality of the programme and is cut off from further official funding after one or two further quarterly reviews of the Greek adjustment programme, in December 2011 and March 2012. Deep restructuring involving both deep PSI and deep OSI, that is, large NPV losses for private and official creditors other than possibly the IMF, is a given in the case of Greece. A Greek exit from the euro area still is not. For the sake of economic stability and growth in the euro area, the wider European Union and the global economy, we hope that this message is taken to heart by the European authorities.

### **3. Regardless of whether Greece exits or stays, PSI and OSI are given**

**Regardless of Greek exit from the EA, a large debt restructuring by the Greek sovereign is bound to happen eventually, likely in several successive steps**

Regardless of whether Greece stays in the euro area or exits, deep write-downs (net present discounted value (NPV) losses relative to par or face value) for all Greek creditors are bound to happen in our view. We estimated earlier that, with Greece continuing as a euro area member, NPV losses of between 65 and 80 percent of face value would be likely. These losses would likely not be imposed in a single grand

restructuring, but in a cumulative sequence of relatively small restructurings, rather like the 21% NPV haircut implied by the Greek debt restructuring through debt exchange, roll over and buyback that is under consideration.

**Losses resulting from Greek sovereign debt restructuring are likely to be shared between private and official creditors**

We also consider it all but unavoidable that these NPV losses would be shared between the remaining private creditors of the Greek sovereign, through private sector involvement (PSI) of one kind or another, and by the official creditors, through official sector involvement (OSI). The official creditors include the Greek Loan facility and, once the second Greek program gets under way, the EFSF, as well as the ECB/Eurosystem and the IMF. The ECB has a direct exposure to the Greek sovereign through the SMP estimated at between €45bn and €50bn (the ECB refuses to provide information on the composition of its SMP purchases) and a unknown further exposure through Greek sovereign and sovereign-guaranteed securities offered as collateral by banks (mainly Greek banks) borrowing from the Eurosystem. Again, the ECB/Eurosystem refuses to make available sufficient information about the composition of the collateral offered by eligible counterparties to the Eurosystem to determine the Eurosystem's exposure to the Greek sovereign through the bank collateral channel.

**ECB will also likely have to face losses: neither it nor the EFSF have preferred creditor status – only the IMF does**

The ECB/Eurosystem has no special standing that would give it preferred or senior creditor status vis-à-vis the private creditors of the Greek sovereign. The Greek Loan Facility or the EFSF also don't have preferred creditor status. There is one relevant difference between the EFSF (and possibly the Greek Loan Facility) on the one hand and the private creditors on the other: more than 90 percent of the Greek sovereign debt held by private creditors was issued under Greek law. The loans to Greece under the Greek Loan Facility (like any future loans to Greece by the EFSF under the second Greek stabilisation programme) have been issued under London law. A single act of the Greek parliament would make it possible for the Greek sovereign to walk away from its debt issued under domestic law. No doubt this would constitute a ratings default and a credit event, but there would be no recourse for the creditors in foreign courts. In contrast, the official creditors of Greece *would* have recourse to the London courts in case of a default by the Greek sovereign on the loans extended by the official creditors since June 2010.

We expect that, should Greece stay in the euro area, the ECB/Eurosystem will still be treated the same way as the private creditors, with an ultimate, cumulative NPV loss relative to par or face value of between 60 and 80 percent. There are precedents for the ECB here. It took its losses alongside the private sector in 2008 when Lehman Brothers defaulted and when the Icelandic banks defaulted. There could be reasons why the ECB/Eurosystem might be treated more leniently in a default not just than the private creditors but also than the official creditors other than the IMF. It could be viewed as a supranational entity, rather like the IMF, and thus might be granted preferred creditor status (although it has not yet claimed such status). If Greece defaults and stays in the euro area, the ECB/Eurosystem might also be spared as part of a policy by Greece to continue to have access to the Eurosystem and/or the ELA by its banks. De facto preferred creditor status for the ECB could, conceivably, even result in continuing purchases of Greek sovereign debt under the SMP even if the official creditors (temporarily) suspend their funding of the Greek sovereign as they digest the Greek default.

If Greek sovereign solvency could be restored without imposing losses on the Greek Loan Facility (and in the future on the EFSF), that would certainly be the preferred outcome with Greece remaining in the euro area. We doubt however, that this is feasible and therefore expect OSI to occur even with Greece continuing as a euro area member state. Only the IMF is likely to remain exempt, thanks to its mysterious

Large debt restructurings can be effected by way of large maturity extensions without imposing haircuts to minimize political embarrassment for official creditors

Should Greece leave the EA, a full repudiation of all Greek sovereign debt held by the private sector and the ECB would be more likely, and maybe also of loans on the Greek Loan Facility, despite having been issued under English law

preferred creditor status.<sup>2</sup> This status, however, is a conventional right, not written down in any Agreement, Treaty or Act and has never been tested in the courts. With Greece staying in the euro area, care would no doubt be taken to impose the 65-80 percent NPV losses on the official creditors in ways that would minimize political embarrassment. There would be maturity lengthening and reductions in effective interest rates but no write-down of the principal value. From a substantive economic perspective, a €1bn face value bond is worth only  $\approx \text{€}0.000000000006470$  today in NPV when converted in a zero coupon, one thousand year maturity bond when the market interest rate is 5 percent, say, so there would be no great burden left on Greece from a face-saving maintenance of the face value of their claims by the countries guaranteeing the Greek Loan Facility and the EFSF. Currently – before the proposed Greek debt swap - the average maturity of traded Greek government bonds is around 7 years<sup>3</sup>. Lengthening the average maturity to around 28.5 years (an extension of 21.5 years), again, assuming a 5 percent yield to maturity, would yield a debt reduction of roughly 65%. An 80% haircut would require lengthening the average maturity to 40 years (an extension of 33 years).

Were Greece to be forced out of the euro area (say by the ECB refusing to continue lending to Greek banks through the regular channels at the Eurosystem and stopping Greece's access to enhanced credit support (ELA) at the Greek central bank), there would be no reason for Greece not to repudiate completely all sovereign debt held by the private sector and by the ECB. Domestic political pressures might even drive the government of the day to repudiate the loans it had received from the Greek Loan Facility and from the EFSF, despite it having been issued under English law. Only the IMF would be likely to continue to be exempt from a default on its exposure, because a newly ex-euro area Greece would need all the friends it could get – outside the EU.

In the case of a confrontation-driven Greek exit from the euro area, we would therefore expect to see around a 90 percent NPV cut in its sovereign debt, with 100 percent NPV losses on all debt issued under Greek law, including the debt held, directly or indirectly, by the ECB/Eurosystem. We would also expect 100 percent NPV losses on the loans by the Greek Loan Facility and the EFSF to the Greek sovereign.

## 4. What happens when Greece exits from the euro area?

### 4.1 Consequences for Greece

Costs of EA exit for Greece are very high, most notably the damage done to balance sheets of Greek banks and nonfinancial corporates in anticipation of EA exit.

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<sup>2</sup> At the end of 2010, Greek's debt to official creditors only stood at €31.5bn out of a total of €515bn or 6%, but both the amount of debt to official creditors and its share of the total are set to rise rapidly (and have of course, already risen substantially in 2011, following the disbursements of further tranches of the Greek Loan programme.

<sup>3</sup> That means we are excluding loans from the Greek programme and other loans. Including them would lengthen the current average maturity of outstanding Greek debt.

**Costs of EA exit for Greece are very high, most notably the damage done to balance sheets of Greek banks and nonfinancial corporates in anticipation of EA exit**

We have recently discussed at length what we think would happen should Greece leave the euro area (Buiter and Rahbari (2011)), so we shall be brief here. Note that we assume that Greece exits the euro area and does not engage in the technical fudge discussed in Buiter and Rahbari (2011), under which it technically stays in the euro area but introduces a second, parallel or complementary currency.

The instant before Greece exits it (somehow) introduces a new currency (the New Drachma or ND, say). Assume for simplicity that at the moment of its introduction the exchange rate between the ND and the euro is 1 for 1. This currency then immediately depreciates sharply vis-à-vis the euro (by 40 percent seems a reasonable point estimate). All pre-existing financial instruments and contracts under Greek law are redenominated into ND at the 1 for 1 exchange rate.

What this means is that, as soon as the possibility of a Greek exit becomes known, there will be a bank run in Greece and denial of further funding to any and all entities, private or public, through instruments and contracts under Greek law. Holders of existing euro-denominated contracts under Greek law want to avoid their conversion into ND and the subsequent sharp depreciation of the ND. The Greek banking system would be destroyed even before Greece had left the euro area.

There would remain many contracts and financial instruments involving Greek private and public entities denominated in euro (or other currencies, like the US dollar) that are not under Greek law. These would not get redenominated into ND. With part of their balance sheet redenominated into ND which would depreciate sharply and the rest remaining denominated in euro and other currencies, any portfolio mismatch would cause disruptive capital gains and losses for what's left of the Greek banking system, Greek non-bank financial institutions and any private or public entity with a (now) mismatched balance sheet. Widespread defaults seem certain.

**Improvement in competitiveness resulting from the introduction of a new Greek currency and a sharp depreciation would likely be short-lived**

As discussed in Buiter and Rahbari (2011), we believe that the improvement in Greek competitiveness that would result from the introduction of the ND and its sharp depreciation vis-à-vis the euro would be short-lived in the absence of meaningful further structural reform of labour markets, product markets and the public sector. Higher domestic Greek ND-denominated wage inflation and other domestic cost inflation would swiftly restore the old uncompetitive real equilibrium or a worse one, given the diminution of pressures for structural reform resulting from euro area exit.

In our view, the bottom line for Greece from an exit is therefore a financial collapse and an even deeper recession than the country is already experiencing - probably a depression.

## **4.2. Monetising the deficit**

**If Greece remains in the EA, official funding from the Greek facility, the EFSF, the IMF and the ECB will likely continue**

A key difference between the 'Greece stays in' and the 'Greece exits' scenarios is that we believe/assume that if Greece remains a member of the euro area, there would be official funding for the Greek sovereign (from the Greek Loan Facility, the EFSF and the IMF), even after the inevitable deep coercive Greek sovereign debt restructuring, and even if NPV losses were imposed on the official creditors – the Greek Loan Facility, the EFSF and the ECB. The ECB probably would no longer engage in outright purchases of Greek sovereign debt through the SMP, but the EFSF would be able to take over that role following the enhancement and enlargement of the EFSF later in 2011.<sup>4</sup> If Greece remains a member of the euro

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<sup>4</sup> To be clear, there is little indication that the ECB has recently engaged in any purchases of Greek sovereign debt.

In the case of a confrontational EA exit, all official funding would likely cease for Greece for a while

Greece would then have to impose large additional austerity measures to close its remaining primary deficit and the remaining interest burden after debt restructuring

Need to find additional budget financing may lead to the monetization of deficits and potentially even hyperinflation

area, the ECB would likewise, in our view, continue to fund Greek banks (which would have to be recapitalised following the Greek sovereign debt restructuring), both through the regular liquidity facilities of the Eurosystem and through the ELA.

In the case of a (confrontational and bitter) departure of Greece from the euro area, it is likely that all official funding would vanish, at least for a while, even from the IMF (which would, under our most likely scenario, not have suffered any losses on its loans to the Greek sovereign). The ECB/Eurosystem would, of course, following a Greek exit, cease funding the Greek banks.

This means that the Greek sovereign would either have to close its budget gap through additional fiscal austerity, following its departure from the euro area, or find other means to finance it. The gap would be the primary (non-interest) general government deficit plus the interest due on the debt the Greek sovereign would continue to serve (the debt issued under foreign law other than the loans from the Greek Loan Facility and the EFSF, and the debt to the IMF), plus any refinancing of this remaining sovereign debt as it matured. We expect the Greek General Government deficit, including interest, to come out at around 10 percent of GDP for 2011, while the programme target is 7.6 percent. General government interest as a share of GDP is likely to be around 7.2 percent of GDP in 2011, which means that we expect the primary General Government deficit to be around 2.8 percent of GDP.<sup>5</sup>

We don't know the interest bill in 2011 for the IMF loan and for the outstanding privately held debt issued under foreign law. If we assume that these account for 10 percent of the total interest bill on the general government debt – probably an overestimate as interest rates on the IMF loan are lower than on the rest of Troika funding – then we would have to add 0.72 percent to the primary deficit as a percentage of GDP to obtain an estimate of the budget deficit that would have to be funded by the Greek government, say 3.5 percent of GDP. We would have to add to that any maturing IMF loans and any maturing privately held sovereign debt not under Greek law. This is on the assumption that even those creditors under international law that continue to get serviced in full, would prefer not to renew their exposure to the Greek sovereign once they have been repaid. In addition, future disbursements by the IMF under the first Greek programme would be at risk following a Greek exit. This would create a further funding gap.

Assume the Greek authorities end up (very optimistically) having to find a further 5 percent of GDP worth of financing. This could be done by borrowing or by monetary financing. Borrowing in ND-denominated debt would likely be very costly. Nominal interest rates would be high because of high anticipated inflation – inflation that would indeed be likely to materialise. Real interest rates would also be high. Although the Greek sovereign's *ability* to service newly issued debt would be greatly enhanced following its repudiation of most of its outstanding debt, the default would raise doubts about its future *willingness* to service its debt. Default risk premia and liquidity premia (the market for ND-denominated Greek debt would be thin) would raise the cost of borrowing in ND-denominated debt. Even if the Greek authorities were to borrow under foreign law by issuing debt denominated in US dollars or euro, default risk premia and liquidity premia would likely be prohibitive for at least the first few quarters following the kind of confrontational or non-consensual debt default we would expect if Greece were pushed out of the euro area.

So the authorities might have to finance at least 5 percent worth of GDP through issuance of ND base money, under circumstances where the markets would inevitably expect a high rate of inflation. The demand for real ND base money would

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<sup>5</sup> The estimate for the 2011 General Government interest bill is from the European Commission.

be very limited. The country would likely remain de-facto euroised to a significant extent, with euro notes constituting an attractive store of value and means of payment even for domestic transactions relative to New Drachma notes. We have few observations on post-currency union exit base money demand to tell us whether a 5 percent of GDP expected inflation tax could be extracted at all by the issuance of ND – that is, at any rate of inflation. If it is feasible at all, it would probably involve a very high rate of inflation. It is possible that we would end up with hyperinflation.

The obvious alternative to monetisation is a further tightening in the primary deficit through additional fiscal austerity (of something under 5 percent of GDP), allowing for some non-inflationary issuance of base money. Because Greek exit would be in part the result of austerity fatigue in Greece, this outcome does not seem likely.

A collapsed banking system, widespread default throughout the economy, a continuing non-competitive economy and high inflation with a material risk of hyperinflation would make for a deep and enduring recession/depression in Greece. Social and political dislocation would be certain. There would, in our view, be a material risk of a downward spiral of dysfunctional politics and economics.

### 4.3 Filling the current account gap

Greece also needs to finance continuing current account deficits and primary current account deficits which exclude interest payments abroad

Greece's current account deficit has in recent years been roughly the same size as its general government deficit. Citi expects a 7.5 percent of GDP current account deficit for 2011. Including debt to official creditors, about 60% percent of Greece's marketable public debt is held abroad, so with a 7.2 percent of GDP estimated total General Government interest bill, the foreign interest bill of the Greek government would be 4.3 percent of GDP. Assume that the around 10 percent of GDP sovereign debt issued under foreign law is all held abroad, carries the average interest rate and continues to be serviced in full while the rest of the government's foreign debt does not get serviced. This leaves an official primary external balance of 3.2 percent of GDP and an overall external balance of 3.9 percent. Assume the private sector continues to pay the interest due on its external debt. We must add to this any maturing external sovereign debt issued under foreign law, which we assume not to be rolled over on redemption.

There will therefore have to be at least 3.9 percent of GDP worth of primary external account tightening (through an increase in exports net of imports of goods and services) following a Greek sovereign default. If the Greek private sector were cut off from the international financial markets when the Greek sovereign defaults, we would have to add to this the amount of maturing international debt of the private financial sector. While we don't have good information on the maturity distribution of the external private sector liabilities (or its precise breakdown into debt-like instruments and equity-like instruments), it is clear that, should the private sector be cut off from external funding along with the sovereign, there would have to be a savage compression of imports and a deep recession for that reason alone.

One mitigating factor is that we are seeing, in the fiscally challenged euro area countries, increasing evidence of high quality private credit trading through the sovereign (that is, obtaining better terms than the sovereign in the credit and capital markets). It is likely that at least some private Greek entities would continue to be able to borrow even after the Greek sovereign defaults. This would mitigate the external contractionary impulse imparted by a sovereign default without, however, eliminating it.

For the world outside Greece, and especially for the remaining EA countries, the key effect of Greek EA exit would be that a taboo was broken, reducing both the credibility of the Greek sovereign and of EMU

## 4.4 Consequences for the remaining euro area and EU member states of a Greek exit

For the world outside Greece, and especially for the remaining euro area member states following a Greek exit, the key insight would be that a taboo was broken with a euro area exit by Greece. The irrevocably fixed conversion rates at which the old Drachma was joined to the euro in 2001 would, de facto, have been revoked. The permanent currency union would have been revealed to be a snowball on a hot stove.

Not only would Greek official credibility be shot, the same thing would happen for the rest of the EA member states in our view. First, monetary union is a two-sided binding commitment. Both sides renege if the accord is broken. Second, Greece would only exit from the euro area if it was driven out by the rest of the euro area member states, with the active cooperation of the ECB. Even though it would be Greece that cuts the umbilical cord, it would be clear for all the world to see that it was the remaining euro area member states and the ECB that forced them to wield the scalpel.

It does not help to say that Greece ought never to have been admitted to the euro area because the authorities during the years leading up to Greek membership in 2001, knowingly falsified the fiscal data to meet the Maastricht criteria for EMU admission, and continued doing so for long afterwards.<sup>6</sup> After all, what Greece did was just an exaggerated version of the deliberate data manipulation, distortion and misrepresentation that allowed the vast majority of the euro area member states to join the EMU, including quite a few from what is now called the core euro area<sup>7</sup>. The preventive arm of the euro area, the Stability and Growth Pact (SGP) which, if it had been enforced would have prevented the Greek situation from arising, was emasculated by Germany and France in 2004, when these two countries were about to be at the receiving end of its enforcement.<sup>8</sup>

Euro area membership is a two-sided commitment. If Greece fails to keep that commitment and exits, the remaining members also and equally fail to keep their commitment. This is not just a morality tale. It has highly practical implications. When Greece can exit, any country can exit. If we look at the austerity fatigue and resistance to structural reform in the rest of the periphery and in quite a few core euro area countries, it is not plausible to argue that the Greek case is completely unique and that its exit creates no precedent. Despite the fact that both Greece's

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<sup>6</sup> In 2004, a European Union report found that the Greek government broke the eurozone's deficit ceiling every year since 1998 to enable it to join the euro area, see <http://www.ft.com/cms/s/0/b30d2798-3740-11d9-a8bb-00000e2511c8.html#ixzz1XmBYVBkM>. Among the actions taken were a large swap deal with an investment bank in 2002 that allowed the Greek government to push part of their liabilities in the future, see e.g. <http://www.spiegel.de/international/europe/0,1518,676634,00.html>. In 2010, the European Commission published a report condemning the Greek government for falsifying data in more recent years, see e.g. <http://www.ft.com/cms/s/0/33b0a48c-ff7e-11de-8f53-00144feabdc0.html#axzz1Xm7nLOxu>

<sup>7</sup> For evidence on systematic bias in data reporting and revisions of fiscal data by EA member countries, see e.g. Beetsma, R, M Giuliadori, and P Wierds (2009), "Planning to Cheat: EU Fiscal Policy in Real Time", *Economic Policy*, 24(60):753-804, Castro, Francisco De, Perez, Javier J. and Rodríguez Vives, Marta, *Fiscal Data Revisions in Europe* (May 13, 2011). ECB Working Paper No. 1342., and Beetsma, R, B Bluhm, M Giuliadori, and P Wierds (2011), "From First-Release to Ex-Post Fiscal Data: Exploring the Sources of Revision Errors in the EU", CEPR Discussion Paper 8413, and Rauch, B., Göttsche, M., Brähler, G. and Engel, S. (2011), *Fact and Fiction in EU-Governmental Economic Data*. *German Economic Review*, 12: 243-255. doi: 10.1111/j.1468-0475.2011.00542.

<sup>8</sup> In 2003, France and Germany broke the deficit ceilings, but the ECOFIN Council suspended the Excessive Deficit procedure and weakened the SGP in 2004, see <http://www.ft.com/cms/s/0/00dd7dd0-4dfb-11d9-9351-00000e2511c8.html#axzz1Xm7nLOxu>

**Other EA periphery sovereigns and their banks will be at risk of funding strikes, banks runs and investor flight**

**A recession in the EA as a whole would be likely**

fiscal situation and its structural, supply-side economic problems are by some margin the most severe in the euro area, Greece's exit would create a powerful and highly visible precedent.

As soon as Greece has exited, we expect the markets will focus on the country or countries most likely to exit next from the euro area. Any non-captive/financially sophisticated owner of a deposit account in that country (or in those countries) will withdraw his deposits from banks in countries deemed at risk - even a small risk - of exit. Any non-captive depositor who fears a non-zero risk of the future introduction of a New Escudo, a New Punt, a New Peseta or a New Lira (to name but the most obvious candidates) would withdraw his deposits from the countries involved at the drop of a hat and deposit them in the handful of countries likely to remain in the euro area no matter what - Germany, Luxembourg, the Netherlands, Austria and Finland. The 'broad periphery' and 'soft core' countries deemed at any risk of exit could of course start issuing deposits under English or New York law in an attempt to stop a deposit run, but even that might not be sufficient. Who wants to have their deposit tied up in litigation for months or years?

Apart from bank runs in every country deemed, by markets and investors, to be even remotely at risk of exit from the euro area, there would be de facto funding strikes by external investors and lenders for borrowers from these countries. Again, putting under foreign law (most likely English or New York) all cross-border (or perhaps even all domestic) financial contracts and instruments could at most mitigate this but would not cure it.

The funding strike and deposit run out of the periphery euro area member states (defined very broadly), would create financial havoc and mostly like cause a financial crisis followed by a deep recession in the euro area broad periphery. The counterparty inflow of deposits and diversion of funding to the 'hard core' euro area and the removal (or at least substantial reduction) of the risk of ECB monetisation of EA sovereign and bank debt would drive up the euro exchange rate. So the remaining euro area members would suffer (at least temporarily) from an uncompetitive exchange rate as well from the spillovers of the financial and economic crises in the broad periphery.

**The EA/EU banking sector is not well-positioned to deal with the spillovers and contagion caused by a Greek EA exit**

**The resulting EA financial crisis would be transmitted to the EA real economy and the rest of the world**

As noted by the new IMF Managing Director, Christine Lagarde (Lagarde (2011) and confirmed by Josef Ackerman (Ackermann (2011, p.14)), the European banking sector is seriously undercapitalised.<sup>9</sup> It would not be well-positioned, in our view, to cope with the spillovers and contagion caused by a Greek exit and the fear of further exits. Ms Lagarde was arm-twisted by the EU political leadership, the ECB and the European regulators into a partial retraction of her EU banking sector capital inadequacy alarm call.<sup>10</sup> However, this only served to draw attention to the obvious truth that despite the three bank stress tests in the EU since October 2009 and despite the capital raising that has gone on since then both to address any weaknesses revealed by these tests and to anticipate the Basel III capital requirements, the EU banking sector as a whole remains significantly undercapitalised even if sovereign debt is carried at face value. In addition, the warning by Ackermann that “... *many European banks would not be able to handle writing down the sovereign bonds they hold on their banking books to market levels...*” (Ackermann (2011), see also IMF (2011, pp. 12 -20)) serves as a reminder of the fact that Europe is faced with a combined sovereign debt crisis in the euro area periphery and a potential banking sector insolvency crisis throughout the EU.

A banking crisis in the euro area and in the EU would most likely result from an exit by Greece from the euro area. The fundamental financial and real economy linkages from the rest of the world to the euro area and the rest of the EU are strong enough to make this a global concern. Adding in self-fulfilling contagion-driven transmission channels means that the IMF should do all it can to prevent a Greek exit in our view.

## **5. Pulling the plug on Troika funding is not the same as expulsion from the euro area**

**We believe it is highly likely that Greece will become clearly and non-fudgeably non-compliant with all three key dimensions of the conditionality of the Troika stabilisation programme**

We believe it is highly likely that Greece will become clearly and non-fudgeably non-compliant with all three key dimensions of the conditionality of the Troika stabilisation programme: the deficit will be overshoot this year by around 2.4% of GDP, structural reform will lag far behind what was promised and privatisation revenues will be paltry and way below target. We also believe that there is a credible threat that the Troika will, in response to such willful non-compliance, stop funding the Greek sovereign through the Greek Loan Facility, the EFSF and IMF loans. This would then lead in short order to a Greek sovereign default and a deep coercive restructuring along the lines discussed in Section 3.

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<sup>9</sup> In Ackermann's words: “The most recent proposals for a mandatory recapitalization of the European banking sector, for example, were hardly helpful and, by the way, materially unjustified. It's obvious, in other words common sense, that many European banks would not be able to handle writing down the sovereign bonds they hold on their banking books to market levels. But that is actually one of the good reasons why politicians had launched assistance measures for states in crisis in the first place. It would be somewhat strange or even worse risk undermining the credibility of these packages, if politicians themselves were to now send out the signal that they do not believe in the success of these measures.” (Ackermann (2011, p. 14).

<sup>10</sup> Ms Lagarde confirmed on September 10 that the Fund was revising its estimates (based on a sovereign debt stress test or scenario analysis) of the loss of tangible equity in European banks, saying the estimated capital losses of €200bn were “tentative” and that the Fund was “in discussions with our European partners to assess the global methodology” until the final estimates are published in a Fund paper released shortly before its annual meetings in a fortnight. Financial Times, Saturday September 10, 2011. See also Reuters <http://www.reuters.com/article/2011/09/10/imf-lagarde-idUSP6E7K500H20110910>

**Even Greek non-compliance may not be followed by EA exit – but private and official sector involvement are a given**

But it need not mean the de-facto expulsion of Greece from the euro area. Following deep but insufficient fiscal austerity and restructuring in Greece, deep coercive restructuring, with both PSI and OSI, is part of the price to be paid for the mistakes made by the Greek sovereign, Greece's private creditors and Troika. Greece's sovereign over-borrowed and the original private creditors of the Greek sovereign made the matching mistake of over-lending. But the European authorities and the IMF also made major errors of judgment in our view. When the Greek programme was designed during the spring of 2010, it should have been clear that the Greek sovereign was insolvent and not just illiquid. We certainly made that point very emphatically (see Buiter (2010a, b)) and so did many others.

**The sensible solution is a speedy deep restructuring Greek sovereign debt, a new fiscal austerity and structural reform programme to put the Greek sovereign on a long-term sustainable fiscal trajectory and make Greece productive and competitive again**

So the sensible solution is that, following a speedy deep restructuring of private and official creditors of the Greek sovereign, a new fiscal austerity and structural reform programme (designed and implemented with the aid of IMF experts) is introduced to put the Greek sovereign on a long-term sustainable fiscal trajectory and to restore the productivity and competitiveness of the Greek economy. As soon as the programme is agreed, the sovereign should be funded again by the official facilities – the Greek Loan Facility, the EFSF and the IMF. Funding of the banks through the Eurosystem ought never to be interrupted unless it is the official intention to turn a crisis for Greece into a calamity for Greece. At the very least, the funding capacity of the Greek ELA ought to be raised to the level required to fund the Greek banks at a reasonable level until normal service can be resumed at the Eurosystem.

**Greek default may result in temporary halt of EFSF/Greek Loan Facility lending – and need for additional fiscal tightening to close remaining funding gaps**

It is conceivable that there would have to be, following a default, at least a temporary halt to IMF/Greek Loan Facility/EFSF funding of the sovereign (and indeed a temporary halt to securities purchases under the SMP by the ECB), but that ECB/Eurosystem/Greek ELA would continue to fund the Greek banking system, accepting newly issued (post-default) Greek sovereign debt as collateral. Preventing a collapse of the Greek banking system is a necessary condition for avoiding the worst-case scenario. If the IMF could decouple itself from the other Troika creditors of the Greek sovereign and could continue to lend following deep restructuring, that would further mitigate the additional fiscal austerity and import compression the Greek economy would face. Opposition from non-European IMF member states could, however, make continued IMF lending to the Greek sovereign problematic in the absence of further lending by the Greek Loan Facility and/or the EFSF.

We believe deep restructuring involving both deep PSI and deep OSI, that is, large NPV losses for both private and official creditors other than possibly the IMF, is a given in the case of Greece; a Greek exit from the euro area is not. For the sake of economic stability and growth in the euro area, the wider European Union and the global economy, we hope that this message is taken to heart by the European authorities.

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## Appendix A-1

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