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Global Economics View

The future of the euro area: fiscal union, break-up or blundering towards a 'you break it you own it Europe'

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- Conventional wisdom suggests that there are only two possible destinations for the euro area: fiscal union or break-up. We suggest a third alternative as the most likely eventual outcome: 'You Break it, You Own it Europe' (YBIYOIE).
- Fiscal federalism, 'Transfer Europe' and uncapped issuance of E-bonds are out of the question for political reasons.
- An EA break-up would be very costly, particularly for weaker, uncompetitive EA countries exiting or left behind – and remains highly unlikely, in our view.
- YBIYOIE consists of the minimum institutional, fiscal and regulatory set-up to ensure survival of the EA, including:
  - i) Large enough liquidity facilities to prevent illiquid but solvent EA sovereigns and banks from being forced into default by a loss of market access.
  - ii) A debt restructuring mechanism for insolvent EA sovereigns.
  - iii) A special resolution regime for EU banks and a Euro-Tarp for cross-border sibanks and other sifis.
- Resolution of the current crises will likely involve some measure of 'Transfer Europe', including bail-outs by the ECB and limited issuance of E-bonds for specific purposes. This is the price of fundamental design defects in the original monetary union.
- But even the resolution of the current crisis will contain significant elements of YBIYOIE, notably private sector burden sharing in the near-inevitable debt restructurings of insolvent EA sovereigns and EU banks.
- Neither elected policymakers nor the ECB have behaved proactively. Both are likely to continue to disappoint repeatedly.
- But the EA has the institutional and political capacity to deal eventually with the current crises and to make the necessary reforms to ensure its long-term survival.

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

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1. Introduction

Conventional wisdom suggests that there are only two destinations for the euro area: Fiscal union or break-up.

We suggest a third alternative to be the eventual outcome: 'You Break it, You Own it Europe'

The continuing sovereign solvency and liquidity crises in the euro area periphery and the closely related banking sector solvency and liquidity crises throughout the European Union (EU) are supportive of the view that the euro area and the EU either have too little Europe or too much Europe, but not the right amount of Europe. This in turn suggests that it makes sense to consider two scenarios for the evolution of the euro area and the European Union that are polar opposites.

The first of these broad scenarios for the future of the euro area is a fiscal union or fiscal pooling for the euro area to complement the monetary union. The polar opposite is a break-up of the euro area (EA). But we will also present a third alternative – 'You break it, You own it Europe' or YBIYOIE, which will comprise the minimum institutional, fiscal and regulatory framework to ensure the long-term survival of the EA.

Fiscal federalism, 'Transfer Europe' and uncapped issuance of E-bonds are out of the question for political reasons

EA break-up would be very costly for all countries involved, but particularly for weaker, uncompetitive EA countries exiting – and remains highly unlikely, in our view

We will argue that fiscal union has its merits, particularly if it comes in the 'fiscal federalism' rather than the 'Transfer Europe' or the 'E-bond' variety, but will not be the direction the EA will take over the medium term, mainly because the appetite for further political integration and in particular for potentially uncapped and open-ended cross-border fiscal transfers is running low both among the EA's electorate, notably in the fiscally strong core EA countries, and among its political elite. We will also argue that we do not expect the EA to break up, both because the political capital invested in the 'European project' remains large and because from an economic perspective an EA break-up would be very costly as well. EA exit by one of the fiscally and competitively weaker economies would be very costly for the exiting country involved. EA exit by the core EA member states would still be very costly for the 'abandoned' EA periphery countries (but likely slightly less costly than EA exit by the weaker EA states) and costly for the exiting countries and for the global economy.

Instead of either of the two polar solutions, we expect the euro area to evolve, in the medium term and in a higgledy-piggledy fashion, towards YBIYOIE.

YBIYOIE consists of the minimum institutional and regulatory set-up to ensure survival of the EA, including:

i) large enough liquidity facilities to prevent illiquid, but solvent EA sovereigns and banks from being forced into default by a loss of market access,

ii) a debt restructuring mechanism for insolvent EA sovereigns,

iii) a special resolution regime for EA banks and a Euro-Tarp for sibanks and other sifis

YBIYOIE stops well short of a full federalist structure. Yet it would remedy the existential shortcomings in the design of the euro area: It comprises i) large enough liquidity facilities to prevent illiquid, but insolvent EA sovereigns and banks from being forced into default by way of a market ambush, ii) a debt restructuring mechanism for insolvent EA sovereigns, iii) a special resolution regime for EA banks and a Euro-Tarp for sibanks and other sifis. One important beneficial consequence of these institutional arrangements is that the legitimacy of the top decision-making bodies of the EU and the EA would be strengthened. This is particularly true in the case of the ECB, which would be able to extricate itself from its unwanted and unwelcome role as provider of quasi-fiscal solvency support to troubled EA sovereigns and banks. A second beneficial consequence of the gradual institutional reform process leading to YBIYOIE is that losses from imprudent behaviour by banks, sovereigns or investors would no longer be socialized – YBIYOIE would only include very limited ex-ante bail-outs or subsidies and would thereby reduce rather than promote future moral hazard.

Resolution of the current crisis will likely involve a significant measure of 'Transfer Europe', including bail-outs by the ECB, as well as limited issuance of E-bonds for specific purposes. This is the price to be paid for fundamental design defects of the monetary union at its inception

But even resolution of the current crisis will contain elements of YBIBOIE, notably private sector burden sharing in the near-inevitable debt restructurings of insolvent EA sovereigns and banks

It may appear rather fanciful to ruminate about the ability to prevent, mitigate or resolve future crises when the outcome of the current one is still in the balance. As regards the resolution of the current EA sovereign and EU banking crises, it will most likely involve a mixture of the fiscal union and the YBIYOIE archetypes of enduring monetary unions – but importantly, no EA break-up. Capped (and possibly time-limited) issuance of E-bonds for specific purposes, such as recapitalizing parts of the EA banking system, continued outright purchases of EA sovereign debt at above-market prices and continued lending against collateral of questionable value to EA banks by the ECB and further partial bail-outs of sovereigns and banks will imply substantial, but limited ex-post fiscal and quasi-fiscal transfers from the core to the periphery of the EA (and also from taxpayers in the core to investors in the core, including sovereign creditors and bank creditors). These transfers will be the price to be paid for the fact that the design of the eurozone was fundamentally incomplete at its inception. But the likes of Germany, the Netherlands, Finland, Austria, Slovakia and Slovenia will push hard both to prevent *future* ex-ante bail-outs and subsidies, and to include a substantial element of YBIYOIE as part of the resolution of the current crisis, insisting on private sector involvement in the near-inevitable debt restructuring of the insolvent EA sovereigns and of insolvent EU banks.

Evolution towards YBIYOIE likely to be haphazard and accompanied by periodic crises

Neither elected policymakers nor the ECB will react proactively, but will continue to disappoint repeatedly, but will do the right thing eventually

Our view: The road ahead will still be rocky. Volatility in financial markets will remain high. EA policymakers and the ECB will not be proactive and will continue to disappoint. Jean-Claude Trichet or his successor, Mario Draghi, will neither guarantee vast amounts of EA bank debt, pre-announce the capping of yields for EA sovereigns, nor take enough of the toxic assets of EA banks off their balance sheets at prices that make today's effectively insolvent banks solvent again. Merkel and Sarkozy will not agree to unlimited E-bond issuance. Progress will generally be preceded by, and indeed dependent on, repeated crises and it will be painfully slow.

The EA has the institutional and political capacity to eventually deal with the current problems and to make the necessary reforms to ensure its long-term survival

There is little doubt in our mind that the eventual configuration of the EA will be much better equipped to prevent and withstand future crises

But make no mistake - the EA does have the institutional and political capacity to take the necessary decisions to deal with the near-term problems and to make the necessary reforms to ensure its long-term survival. Even if fiscal union is out of the question for the foreseeable future, EA break-up does not necessarily follow. On the contrary, once the crucial elements of YBIYOI Europe are in place, there is little doubt that the EA will be in a much stronger position to prevent and withstand further crises than before. Until then, better bring a helmet.

2. The current EA sovereign debt and banking crisis and the different configurations of monetary union

A resolution of the EA sovereign and banking crises requires addressing five issues – preventing future crises requires addressing a further two

Successful solutions to problems tend to share a crucial characteristic: they address the original causes of the problem. In the case of the current EA sovereign and banking crisis, a resolution requires the following ingredients:

1. Addressing the solvency issues in the banking sector of the EU as a whole (periphery EA, core EA and non-EA member states of the EU), including restructuring of the debt of insolvent EU banks and recapitalization of the systemically important ones among them.
2. Restructuring of the debt of insolvent EA periphery sovereigns.
3. Providing access to liquidity for illiquid, but solvent EA sovereigns.
4. Providing access to liquidity for illiquid, but solvent EA banks.
5. Achieving (1) and (2) without triggering a systemic disruption of EA financial markets.

For the prevention of future crises and the longer-term success of Economic and Monetary Union (EMU), two further issues must be addressed.

6. Safeguarding the legitimacy of top EU/EA decision-making bodies, in particular the ECB.

7. Preventing or at least limiting future moral hazard for sovereigns, banks and their creditors.

'One-size fits all' monetary policy and loss of monetary autonomy for individual member states is not at the heart of the EA crisis.

One issue the reader will look for in vain in this list is the need to produce an environment for individual EA countries to become or remain competitive in a monetary union. In contrast to many other commentators on the situation of the EA, we do not share the view that the issues of long-term competitiveness and real economic convergence are tied intimately to the exchange rate regime or the monetary regime. These structural real economy issues have very little to do with the design of institutions, procedures or policies governing monetary policy at the national, intergovernmental or supranational level in the EA.

In our view, the loss of national monetary autonomy at most implies small costs in terms of the ability to carry out macroeconomic stabilization policy in normal times. In a world with floating exchange rates and a high degree of international capital mobility, monetary autonomy may indeed amplify rather than mute undesirable cyclical fluctuations. Provided enough independent fiscal and regulatory instruments are available at the national level, and provided individual member states have the proper governance systems in place at the national level, effective cyclical stabilization and response to asymmetric shocks does not require independent national monetary policies.

There are fiscal and regulatory institutions and policies at the sub-national, national, intergovernmental and supranational levels that can enhance or impede the long-run competitiveness of individual member states and encourage real economic convergence. Monetary and exchange rate institutions and policies (except for damaging instances of deeply flawed institutional design and badly mismanaged policies) are not crucial to cyclical stability and trend growth in the euro area, in the sense that a 17-country EA monetary union with a YBIYOIE set of supporting institutions ought to do at least as well in terms of both cycle and trend as a collection of 17 independently managed national currencies.

The current set-up of the EA is inadequate to deal with the issues identified above – but neither fiscal union nor EA break-up are inevitable

We do agree unreservedly that the current institutional arrangements governing the EA are not well-designed to resolve the afore-listed seven issues. It is therefore not surprising that there are widespread concerns about the prospects of individual EA countries and banks and about the very survival of the EA. In particular, attention has focused on two extreme alternatives that are presented as the only two feasible eventual destinations for the EA (the two alternatives each come in different flavours). To us, this exclusive focus on two polar outcomes reflects a rather simplistic view of the necessary and sufficient components for ensuring the long-term functioning of a monetary union. We present a third alternative – 'You break it, You own it Europe' or YBIYOIE which comprises the minimum institutional, fiscal and regulatory framework to ensure the long-term survival of the EA.

Different variants of fiscal union include fiscal federalism, Transfer Europe, uncapped issuance of E-bonds and (near-) unlimited ECB bail-outs

The first option, fiscal union or Fiscal Pooling, includes both full-fledged fiscal federalism and its primitive sibling, an open-ended, uncapped 'Transfer Europe' with EU or euro area institutions and/or the creditor or donor countries in control of public spending, taxation and privatisation in debtor or beneficiary countries. The wishful thinking solution entertained by part of the bond markets – a 'Transfer Europe' with large-scale E-bond issuance but no quid-pro-quo as regards a significant transfer of fiscal sovereignty to a supranational authority or to the creditor/donor countries – occupies the implausible end of the spectrum of Fiscal Pooling solutions.

Fiscal Pooling also includes the scenario where the ECB – like every central bank, a potential quasi-fiscal entity – absorbs part or all of the losses on the impaired sovereign and bank debt. If these losses exceed the ECB's non-inflationary loss absorption capacity (estimated in Buiter (2010) to be around €3trn under quite plausible assumptions about the future economic environment), the ECB would, under the inflationary monetisation variant of this scenario, be willing to see future inflation rise above its 'below but close to 2 per cent per annum in the medium term' operational benchmark for price stability. We call this scenario 'ECB as Santa Claus' or short, 'Santa ECB'.

Dissolution of the EA could involve exit by the uncompetitive periphery of the EA or by members of the 'core'

The second option is the dissolution of the euro area and a return to national monetary policies. This second option could include as a special case the break-up of the euro area and its succession by a much smaller 'New DM zone' consisting of a handful of member states from core Europe, possibly excluding Italy or even France. This New DM zone would, presumably, have to adopt fiscal federalist or other strong Fiscal Pooling features to be viable.

Exclusive focus on fiscal union and EA break-up results from a simplistic approach to the necessary ingredients of an enduring currency union – which requires very limited ex-ante or ex-post bail-outs and subsidies

Both these extreme options are worth considering, and we shall do so in what follows, but neither represents the most likely medium-term configuration of the EA. They are also almost certainly not the only two possible long-term scenarios. The focus on these two options, especially by commentators from the US and the UK, reflects an inability or unwillingness to think beyond the confines of the modern western-model nation state. It also reveals a rather simplistic approach to the characterization of the ingredients necessary to sustain a permanent monetary union between heterogeneous regions and nations. The only options considered in this perspective tend to be (1) the euro area (or the EU) turning into a conventional federal (multi-)nation state or (2) the euro area/EU breaking up into its conventional nation state constituent components. The EU since its inception in 1957 and the euro area since its creation in 1999 are neither a conventional federal (multi-)nation state nor the type of intergovernmental arrangement that has governed the relationships between sovereign nation states since Peace of Westphalia in 1648.[1]

The EU is a unique set of institutional arrangements that possesses some features of the nation state (a parliament and direct parliamentary elections, a supreme court, a central bank, a permanent bureaucracy and pervasive regulatory powers) but lacks others (no independent supranational revenue raising capacity, a strictly limited supranational borrowing capacity, no supranational executive elected directly or by the European Parliament, and no supranational police force or military apparatus). There is no recent, close analogue to the EU. To view it as a 54-year vacation from the model of the Westphalian nation state – a vacation that is about to come to an end either by dissolving the EU into its constituent Westphalian nation states or by transforming the EU into a conventional Wesphalian federal nation state – is to miss the point completely. If there exists a historical precedent for the EU at all, it can only be the Holy Roman Empire, the realm that existed in Central and Western Europe from 962 CE till 1806 CE. In terms of present-day nation states, the Holy Roman Empire encompassed most of Germany and Austria, the Czech Republic, Switzerland, Liechtenstein, the Netherlands, Belgium and Luxembourg, most of Slovenia, significant parts of eastern France, northern Italy and Western Poland. And the historical distance to this candidate 'precursor' of the EU is so vast that practical lessons for institutional evolution and design today are likely to be few and far between.

[1] Westphalian sovereignty refers to a notion of nation-state sovereignty based on territoriality and the absence of a role for external agents in domestic governance structures. The Peace of Westphalia in 1648 is identified by many international relations scholars as the inception of the modern Western-originated nation state.

We argue that evolution towards 'You Break it, You Own it Europe' is the most likely medium-term outcome

YBIYOIE is the minimum institutional, fiscal and regulatory set-up that effectively addresses fundamental sources of the EA sovereign and banking crisis

In contrast to the 'federalism or bust' school, we argue in what follows that a breakup of the euro area is extremely unlikely and that a move towards full fiscal union or fiscal federalism is effectively out of the question at least for the next couple of decades. Instead, the euro area and the EU are likely to evolve haltingly, intermittently and gradually towards another kind of federal-intergovernmental amalgam: the 'You Break It You Own it Europe'. This inelegant institutional hybrid incorporates some additional fiscal and regulatory integration, but this minimal fiscal and regulatory Europe stops well short of a full federalist structure. Nor is it the kind of large-scale transfer Europe (with or without a meaningful pooling of fiscal sovereignty) dreamt of by the bond markets. We expect to find this kind of YBIYOIE at the end of this crisis and its immediate aftermath.

It is important to keep in mind that the resolution of the current sovereign and banking crises in the euro area and in the EU will not be representative of the blueprint for any new euro area that is likely to emerge as a result of these crises. The reason is that Europe was utterly unprepared, institutionally, politically, ideologically and culturally to handle such fundamental financial and economic crises and the distributional conflicts that they entail. The result has been a succession of panic-driven policy measures and provisional, tentative institutional innovations that often were revised as soon as they had been announced and begun to be implemented. Future euro area crises of this ilk will be resolved more effectively as a result of the social learning that has taken place. For instance, the scale and scope of ex-post 'Transfer Europe' will surely be larger in this sovereign and banking crisis than in future similar crises.

The resolution of the current crisis will involve substantial ex-post bail-outs and subsidies from EU/EA member states and from the ECB to tax-payers of the EA periphery and to creditors of EA sovereigns and banks

In this piece, we will be concerned more with the medium-term institutional configuration than with the nature of the resolution of the current crisis – but we do include some discussion of the latter, too. The resolution of the current crisis will likely see substantial doses of Transfer Europe, E-Bonds and ECB bail-outs as well as of YBIYOIE. Transfer Europe refers not just to the bail-out by the core euro area tax payers of the tax payers in the euro area periphery and of the original (mainly private) creditors of the euro area periphery sovereigns. It also refers to the bailout of EU bank creditors by the tax payers. These can be either the domestic tax payers, when the domestic sovereign is solvent, or foreign tax payers, when the domestic sovereign is insolvent. Limited and capped issuance of E-bonds for specific purposes, such as selective recapitalization of the EA banking sector may well be included in attempts to resolve this crisis.

The exposure of the ECB, to EA banks through its collateralized lending facilities and to EA sovereigns through outright purchases in its Securities Markets Programme (SMP) and through sovereign debt held as collateral as a result of its bank lending facilities, will no doubt rise further. Given the likelihood of future sovereign and bank restructurings and given the exposure that is already likely on the ECB's books at above fair value market valuations, this implies a high likelihood of quasi-fiscal transfers to said periphery tax payers and sovereign creditors. The ex-post bailouts of euro area periphery tax payers, euro area periphery sovereign creditors and EU bank creditors that we have seen thus far, and will see more of as the current crises unfold, will be significant in scale, but still only partial.

Even these partial bailouts will, however, be so unpopular with the voters in the net contributing nations that the future 'You Break it You Own It Europe' will be characterised by negligible ex-ante bail-outs or subsidies. And the popular opposition to the ex-post bail-outs will limit their size also and will imply that 'private sector involvement' or PSI, a key ingredient of YBIYOIE, will be a common feature of the resolution not just of future crises but also of the current one.

The institutions, policies and regulatory regimes that will emerge from the current crises will have been shaped by those that were present during the crises, but will differ from them in significant ways.

3. Fiscal Union for the euro area

There are (at least) four main variants of fiscal union or Fiscal Pooling. We will call them 'Fiscal Federalism', 'Transfer Europe', 'E-Bonds' and 'Santa ECB'

There are (at least) four main variants of fiscal union or Fiscal Pooling. We will call them 'Fiscal Federalism', 'Transfer Europe', 'E-Bonds' and 'Santa ECB'.

3.1. Fiscal federalism: neither necessary nor sufficient for fiscal sustainability

Fiscal federalism involves the creation of a supranational federal EU/EA-wide fiscal authority with significant discretionary revenue sources, power to set spending priorities and independent borrowing powers (the ability to issue E-bonds)

By fiscal federalism, we denote the most far-reaching notion of a fiscal union for Europe: the creation of a supranational federal EU-wide or euro area-wide fiscal authority with significant discretionary revenue sources of its own, with the power to set its own spending priorities and with independent borrowing powers (the ability to issue E-bonds or Euro bonds).

3.1.1. Benefits, potential benefits and shortcomings of fiscal federalism

Benefits could include, for a given amount of debt issuance, better liquidity and lower average default risk and therefore a lower average interest rate on sovereign debt

Fiscal federalism can potentially provide a number of benefits. First, since this arrangement pairs its own spending priorities with borrowing powers and/or other revenues sources, it is seen as a more sustainable, and consequently more durable, arrangement.[2] It is certainly more elegant and easier to understand as it corresponds more closely to the model of a Western nation state that combines monetary and fiscal union.

Stronger fiscal discipline – and therefore a substantial increase change in the solvency of sovereign borrowers – is possible, but not assured

By pooling at the federal level part of the borrowing currently carried out by individual EA member states, issue sizes or frequencies of federal debt issues are likely to be higher than those of any of the individual nation states now, creating a more liquid market and likely reducing funding costs by reducing liquidity premia. This benefit is unlikely to be large in normal times and for the larger EA member states, such as Germany or Italy, but can be substantial during crisis periods or for some of the smaller EA countries. Pooling responsibility for servicing the common, federal EA debt, would also focus attention on the adequately weighted average EA debt level. As Figure 1 shows, although the euro area as a whole does not exactly have stellar fiscal fundamentals, they are certainly not worse, and probably better than those of Japan and the US – two countries which are clearly not paragons of fiscal virtue, but are not subject to the same degree of market pressure as a substantial part of the euro area currently. Since we regard the debt of the euro area as a whole to be sustainable, pooling part of the debt burden should result in a federal risk premium that is substantially lower than the weighted average of the current sovereign risk premia of the 17 euro area member states.

[2] A federal state is a sovereign state formed by a union of partially self-governing states, regions or, in the case under consideration, nation states, united by a central (federal) government. In a federal state, unlike a unitary state, the self-governing status of the constituent states is typically constitutionally entrenched and may not be altered by a unilateral decision of the central government. See Wikipedia http://en.wikipedia.org/wiki/Federation.

Fiscal federalism is neither necessary nor sufficient for tax harmonization, but may make it more likely – and some tax harmonization in the EA may well yield efficiency benefits

If the governments of the individual member states retain the power to issue national debt, the creditworthiness of the national government debt would depend on the relationship between their debt obligations and current and planned future national government outlays and revenues. The national government risk premia would also depend on the likelihood and terms of a bailout by the federal government, should the national government be at risk of defaulting on its debt.

Figure 1. Selected regions – General Government Debt and Balances (% of GDP), 2010

	Gross Debt	Net Debt	Budget Balance	Primary Balance	CAPB
Euro Area	85.0	64.4	-6.1	-3.2	-1.6
EU	79.5	60.8	-6.5	-3.7	-2.0
Japan	220.3	117.5	-9.5	-8.4	-6.4
US	91.6	64.8	-10.6	-8.9	-5.9
Belgium	97.1	81.5	-4.6	-1.3	0.4
France	84.3	74.6	-7.7	-4.8	-3.1
Germany	80.0	53.8	-3.3	-1.1	-0.3
Greece	142.0	142.0	-9.6	-3.2	-3.1
Ireland	96.1	69.4	-32.2	-29.7	-5.7
Italy	119.0	99.6	-4.6	-0.2	1.3
Portugal	83.3	79.1	-7.3	-4.6	-3
Spain	60.1	48.8	-9.2	-7.8	-6.1
Austria	69.9	49.8	-4.1	-1.9	-0.9
Cyprus	61.7		-5.4	-3.1	-2.4
Estonia	6.6	-1.0	0.2	0.4	2.6
Finland	48.4	-56.8	-2.8	-3.2	-0.2
Luxembourg	16.6		-1.7	-1.3	0.5
Malta	67.0		-3.8	-0.6	-0.5
Netherlands	63.7	27.5	-5.2	-3.7	-2.7
Slovakia	42.0		-8.2	-7.0	-5.9
Slovenia	37.2		-5.2	-4.0	-2.7

Note: CAPB – Cyclically Adjusted Primary Balance

Source: Eurostat for Euro Area and EU primary balance and CAPB, IMF WEO for all other measures and CIRA

In addition to the benefits that pooling debt issuance generates, a major potential benefit from fiscal federalism is supposed to accrue from the increase in fiscal discipline in the euro area that would be expected to result from it. However, it is clear that an improvement in overall fiscal discipline does not automatically follow from the introduction of an EA/EU-wide federal fiscal authority. In the worst case scenario all that would happen is that a fiscally unsustainable supranational federal fiscal authority would be superimposed on a layer of 27 (all EU member states) or 17 (all EA member states) national fiscal authorities that would continue to have the same fiscal sustainability problems they currently have.

There is no prima facie reason why a supranational euro area or EU fiscal authority would be more fiscally responsible than the properly weighted average of the current member states. The EU/euro area federal fiscal authority could indeed be less fiscally responsible than the member states. This is certainly the case in the US, where the states have little debt and small deficits while the federal government has a high and rising debt burden and a double digit deficit as a percentage of GDP (and all US states except for Vermont have some kind of balanced budget state constitution). The degree of fiscal discipline at the center will very much depend both on the institutional arrangements that the EU/EA fiscal authority would be subject to, its governance arrangements and other aspects of its accountability.

Figure 2. US - Government Debt and Deficit (% of GDP), 2010

Primary Federal Government Deficit (fiscal year)	7.6
Total Federal Government Deficit (fiscal year)	8.9
Total Federal Government Cyclically-adjusted Deficit (fiscal year)	6.1
Federal Government Gross Debt. (fiscal year)	93.2
State and Local Government Deficit (fiscal year)	1.3

Note: State and Local Government Deficit is 'Total Budget Shortfall' as presented by the Center on Budget and Policy Priorities

Source: OMB, Center on Budget and Policy Priorities and Citi Investment Research and Analysis

Even if the supranational federal fiscal authority of the euro area or the EU were to be fiscally responsible, this does not mean that it will be able to impose fiscal discipline on the individual member states any better than the Stability and Growth Pact could in the past. There are many historical examples of fiscal crises in emerging markets that were caused not by the fiscal irresponsibility of the central government, but by the inability of the central government to impose fiscal discipline on the lower-tier governments (states, provinces or even municipalities). Brazil and Argentina in the 1990s provide well-known instances.[3] Germany's post-World War II history of fiscal federalism has been characterised by repeated profligacy on the part of some of the Länder and multiple bail-outs, even if we exclude the massive resource transfers to the former German Democratic Republic (DDR) since 1990.[4] Indeed, even in some unitary states, the central government has had great difficulty forcing the regional and municipal authorities into fiscal austerity. Spain during the current crisis is an example.

There would also be an efficiency reason for some fiscal federalism of a particular kind. Despite some efforts at harmonizing taxes, individual member states often compete with each other on the terms of the tax rates that they set, as the discussions about corporate tax rates surrounding the Irish EU/IMF bail-out package highlighted very vividly. Such competition is bound to lead to inefficient outcomes and from the perspective of the EA as a whole, there would be a case for harmonizing certain taxes. In particular, efficiency would dictate that factors that are mobile across borders, e.g. capital, should be taxed uniformly, while allowing immobile factors to be taxed differentially. Fiscal federalism is, of course, neither necessary nor sufficient for tax harmonization. Tax harmonization is possible without fiscal federalism, and the current Franco-German initiatives are going down that route. Fiscal federalism is also consistent with national differences in taxes, but it is plausible that fiscal federalism would be associated with more rather than less harmonized tax structures.

3.1.2. Why fiscal federalism will not happen anytime soon: the politics

Opposition by electorates and political elites to further political and fiscal integration in the EA will prevent a substantial move towards fiscal federalism

Whatever the pros and cons of fiscal federalism as a means of imposing fiscal discipline on EU or euro area member states, it is, for the foreseeable future, a political non-starter, for a number of reasons. First, there are procedural difficulties: Moving to fiscal federalism would require a major rewriting of the Treaties, which would have to be ratified by the full national Treaty revision approval procedures, including referenda in Ireland, Denmark, the UK and possibly other countries as well.[5] With the True Finns in the ascendant in Finland, the Freedom Party (PVV) in

[3] See e.g. Rodde (2006, Chapter 8 "The crisis of fiscal federalism in Brazil", pp. 188-225), and Tommassi, Mariano and Sebastián Saiegh (2001).
[4] See e.g. Rodde (2006, Chapter 7, "Fiscal federalism and bailouts in Postwar Germany, pp. 153-187).
[5] The Lisbon Treaty created two different ways for further amendments of the European Union treaties: an ordinary revision procedure which is broadly similar to the procedures used in the past

the Netherlands and strong and growing hostility to top-down further integration in countries as far apart as Slovakia, Slovenia and the Czech Republic on the one hand and France and Ireland on the other hand, fiscal federalism will not even be on the agenda in time for mitigation or resolution of the current euro area crisis. In addition to the grass-roots opposition to further integration, it is also important to note that support for further integration within the EA and the EU is much more limited among the political elites of the EA/EU than used to be the case in the days of the Kohl/Mitterand or Giscard d'Estaing/Helmut Schmidt pair of French and German political leaders.

3.2. Transfer Europe with loss of fiscal sovereignty for beneficiary member states

'Transfer Europe' is an open-ended, uncapped mechanism of transfers or grants from the fiscally strong/responsible to the fiscally weak/irresponsible EU or euro area member states, with creditor or donor countries in control of public spending, taxation and privatisation in the beneficiary countries.

By 'Transfer Europe', we denote fiscal federalism's primitive sibling, an open-ended, uncapped mechanism of transfers or grants from the fiscally strong/responsible to the fiscally weak/irresponsible EU or euro area member states, with creditor or donor countries in control of public spending, taxation and privatisation in the beneficiary countries.

3.2.1. The case for 'Transfer Europe'

It is likely that a bailout of the profligate sovereigns and the (near-) insolvent banks would solve the 'stock problem' or 'debt overhang' problem of the euro area periphery sovereigns and the EU banks – as we noted above, the average debt level of the EA is high, but not unsustainable.

Transfer Europe would solve the 'stock problem' or 'debt overhang' of the EA periphery and may also address the 'flow problem' – and may be possible without a further Treaty change

In addition, putting the fiscal 'hard hats' of core Europe and their handmaidens in the European Commission and the ECB in charge of public spending and tax policy in the euro area periphery member states as a quid pro quo for this bailout, would solve the 'flow problem' or underlying fiscal unsustainability problem of the euro area periphery. We would therefore see an increase in the average level of fiscal discipline in the euro area which should more than make up for the absence of the liquidity benefits that come with a common bond market.

If the bail-out were to occur on terms that are better than what the markets currently price in, the remaining private creditors of the insolvent euro area sovereigns and the insolvent EU banks would also be happy.

A full-fledged Transfer Europe could also slip in through the back door, i.e. without recourse to the full 'ordinary revision procedure' for the EU Treaties, or even without any formal Treaty amendments at all, through *Enhanced Cooperation*, say.

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couple of decades to amend the Treaties (including referenda in some member states) and a simplified revision procedure for revising internal policy and action of the Union, which can be amended by a unanimous decision of the European Council subject to ratification by all member states in the usual manner. A key point is that the ratification by member states 'in the usual manner' need not be the same for revisions under the ordinary revision procedure and those under the simplified procedure. Specifically, as with the Treaty changes creating the ESM that are currently going through the simplified procedure, national referenda tend not to be required in any country.

3.2.2. Why Transfer Europe is unlikely to come, or last

Again, substantial political opposition in donor countries in the EA core should rule out full-fledged Transfer Europe – EA periphery electorates and governments would also reject the surrender of fiscal sovereignty

Open-ended, uncapped transfers from the 'core' to the periphery of the EA coupled with the ceding to the donor countries of control of public spending, taxation and privatisation in debtor or beneficiary countries are highly unlikely to materialise. The existing limited fiscal or quasi-fiscal risk exposures (which could morph into transfers) and perceived likely future transfers have already aroused substantial opposition in donor countries. The putative core euro area donors/net contributors would not be mollified by the surrender of fiscal sovereignty by the periphery. Germany, Finland, the Netherlands, Slovakia and Slovenia and possibly a few other member states would most likely refuse to accede to a Transfer Europe, and would probably walk out of the euro area and the EU if one were introduced through the back door. Even within established nation states in the EU, the willingness of one region to make significant transfers to other regions is not without limit and appears to be diminishing. Rich Catalonia resents transferring resources to poorer autonomous regions in Spain. Rich Flanders is considering breaking up Belgium to get out of supporting poor Wallonia. Northern Italy has a politically vocal separatist movement that wishes to end generations of resource transfers to the Mezzogiorno.

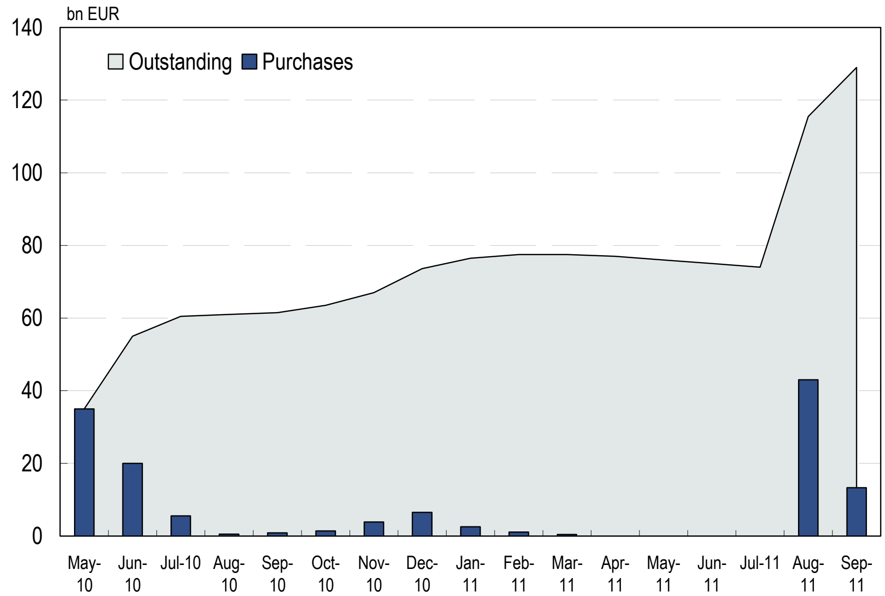
The insolvent sovereigns in the periphery who would be the financial beneficiaries of the 'Transfer Europe cum loss of fiscal sovereignty' solution, would welcome the transfer but refuse to surrender fiscal sovereignty. It would be political death for any government that did so. So an uncapped Transfer Europe with a quid pro quo in the form of loss of national fiscal sovereignty dies a twofold death. With European leaders fully aware of this, we argue that it will not happen.

3.2.3. Why a limited ex-post Transfer Europe is likely

Limited ex-post Transfer Europe, notably by taking losses on EFSF and ECB exposures to EA periphery sovereigns and through ECB exposure to EA banks, is likely, but manageable (though unpopular)

Because Europe entered this sovereign and banking crisis institutionally, politically, culturally and psychologically unprepared, the cleaning up of the mess will involve a limited recourse to the 'Transfer Europe' model of crisis resolution. The existing official EU and euro area creditors to the euro area periphery sovereigns (through the Greek Loan Facility (up to €80bn if fully disbursed), the EFSF (up to €440bn notional, currently up to about €255bn effective), the EFSM (up to €60bn) and the Securities Markets Programme (SMP) of the ECB (standing at €129bn on 5th September 2011)), will eventually take NPV losses on their exposures to these sovereigns.

Figure 3. ECB – SMP Purchases and Total Outstanding (bn EUR), 2010 – 2011



Note: September includes data up until Sep 5, 2011.

Source: ECB and Citi Investment Research and Analysis

The ECB is also likely to take losses on the exposure of the Eurosystem to euro area and EU banks. When (near) insolvent banks offer the Eurosystem as collateral for loans financial instruments issued by or guaranteed by insolvent governments, there is a material risk that the Eurosystem will take a loss at some point. Open Europe (2011) estimated in a publication dated 06/06/2011 the exposure of the ECB/Eurosystem to the wider euro area periphery (Greece, Ireland, Portugal, Spain and Italy) to be around €444bn. Of this, around €190bn was exposure to the Greek state and Greek banks. The value of SMP purchases at the time was around €74bn, so the non-SMP exposure was about €370bn. Clearly, both the borrowing bank and the issuer of the collateral will have to default for the holder of a collateralised loan to take a hit. In addition to the ECB/Eurosystem's exposure to the euro area banks through the regular liquidity and credit facilities, there is a potential exposure through loans extended by the national central banks (NCBs) to banks in their jurisdictions through Emergency Liquidity Assistance (ELA). Although the exposure of the NCB is supposed to be guaranteed by its sovereign, this is of little comfort if the sovereign is insolvent. Since ELA liabilities are Eurosystem liabilities, there is a risk that ELA exposures could become Eurosystem exposures.

The inevitability of a limited ex-post transfer Europe will be politically awkward but, we believe, survivable for the EU and the euro area. We believe it to be survivable for two reasons. First, because the authorities will be able to argue quite plausibly that they were caught unprepared by the crisis and that new institutional arrangements have now been put in place to prevent a recurrence (see Section 5). Second, because there will be material burden sharing by the remaining private sector creditors of the insolvent euro area periphery sovereigns and of the unsecured creditors (including the senior unsecured creditors) of the insolvent EU banks (see section 5 again). The second Greek bailout package of July 21 2011 has created an important precedent for private sector involvement (PSI), that is, NPV losses for holders of impaired sovereign debt. The Irish authorities appear to be keen to extend the now common burden sharing by unsecured subordinated creditors of the Irish banks to the (relatively few) remaining unsecured senior creditors. In Denmark, the authorities have gone further and have, during 2011, imposed haircuts not just on the unsecured subordinated and senior creditors of two very small insolvent Danish banks, but also on deposits over the insured limit. This burden sharing by private creditors of insolvent sovereigns and banks should make the limited Transfer Europe that will inevitably be part of any solution of the current crisis more palatable.

3.3. The E-bond 'solution': Transfer Europe without quid-pro-quo Mark I

By and 'E-Bond solution' we denote de jure or de facto jointly and severally guaranteed issuance of debt or loans by all EU/EA members without a wider pooling of fiscal sovereignty

By an E-bond solution, we denote any issuance of debt or loans that are de jure or de facto jointly and severally guaranteed by the 17 euro area member states or 27 EU area member states without the fiscal sovereignty surrender quid-pro-quo, that is, the pooling of sovereign risk without the pooling of fiscal sovereignty over public spending, taxes and borrowing.

3.3.1. The case for E-bonds

In the near-term, reductions in liquidity and default risk will reduce yields on EA sovereign debt – and markets would surely rally

The benefits of E-bonds are mostly a subset of the benefits of fiscal federalism, as they are centered on the fact that a large(r), and therefore likely highly liquid, common bond market would be created, and that the focus would turn on the average level of government (gross and net) debt in the euro area, rather than on the outliers. The average interest paid on euro area sovereign debt is therefore likely to decrease, due to the fall in liquidity and average sovereign default risk.

But insolvency at the sovereign or banking sector level would not be addressed – and the risk of moral hazard by sovereigns and investors would be increased

But E-bonds risk being no more than a short-term palliative that does not solve the underlying problems of fiscal unsustainability and of insolvent banks that may have grown too large to fail and too large to save. By changing the incentives facing still-independent national fiscal authorities, it could swiftly create more severe fiscal unsustainability problems. A large issue of E-bonds could, of course, get the remaining private creditors of the insolvent euro area sovereigns and the insolvent EU bank off the hook, if the outstanding stocks of bad sovereign and bank debt were to be purchased at prices above fair value. This is no doubt why so many bond holders are clamouring for the large-scale issuance of E-bonds and would almost certainly result in a large market rally. But E-bonds by and of themselves would neither reduce debt levels in the excessively indebted sovereign and banking sectors in the euro area, nor would they do anything to increase fiscal discipline, on average or in the more fiscally distressed euro area periphery countries. Indeed, the reduction in sovereign debt yields for the periphery and the inability of investors to henceforth discriminate between the more prudent and the less prudent fiscal borrowers would likely diminish fiscal consolidation efforts in the periphery and make future crises all the more likely. So E-bonds are not a solution, nor are they the future of the EA.

3.3.2. Precursors to E-bonds

Precursors to E-bonds exist: EIB bonds are nearly E-bonds, the EFSM bonds ARE E-bonds and the ECB could issue E-bonds

E-bonds (aka Eurobonds, EU bonds or euro area bonds) are bonds that are collectively guaranteed by the 27 member states of the EU or the 17 member states of the euro area. Collectively guaranteed means either a joint and several guarantee or the equivalent. It does not include the pro-rata guarantees provided by the euro area governments for the debt issued by the Greek Loan Facility or the European Financial Stability Facility (EFSF), the intergovernmental facility created in 2010 by the 17 member states of the euro area.

3.3.2.1. EIB bonds are close to being E-bonds

The European Investment Bank (EIB), an EU institution dedicated to funding long-term investment projects, has funded itself in the markets by issuing debt. The EIB is rated triple-A by Moody's, Standard and Poor's, and Fitch. At the end of 2009 it had more than €305bn worth of debt outstanding. The words ‘joint and several guarantee’ do not appear in its founding documents and statutes. There is, however, a clear perception in the markets that the support provided by the 27 EU member states (the shareholders of the EIB) would go beyond their contribution of the EIB’s subscribed capital. S&P, for instance writes *“The 'AAA' rating on the European Investment Bank (EIB) is based primarily on the high quality of its assets and the expectation that the bank would receive support from its highly creditworthy member countries, if necessary.”*[6]

This statement by S&P appears to contradict the Protocol defining the role of the EIB, which makes it clear that limited liability applies for the shareholders of the EIB. The Member States are liable only up to the amount of their share of the capital subscribed (currently €232.4bn) and not paid up (paid up capital is just under 5 percent of subscribed capital). The leverage of the EIB is, however, low: loans and guarantees are capped at 2.5 times equity. In addition, the share of a member in the subscribed capital may not be transferred, pledged or attached and the Board of Directors may require payment of the balance of the subscribed capital, to such extent as may be required for the Bank to meet its obligations. EIB bonds are therefore *nearly* E-bonds. We show in Section 6 that, in extremis, the EIB and EIB debt issuance could play a role in stabilising the euro area sovereigns and the EU financial system.

3.3.2.2. EFSM bonds *are* E-bonds

The European Financial Stabilisation Mechanism (EFSM) provides financial assistance to EU Member States in financial difficulties. It reproduces for the EU 27 the basic mechanics of the existing Balance of Payments Regulation for non-euro area Member States, under which the European Commission has committed funds since 2008 in support of Latvia, Hungary and Romania under joint EU-IMF programmes. When the mechanism is activated, it allows the Commission to borrow in financial markets on behalf of the Union under an implicit EU budget guarantee. The Commission then on-lends the proceeds to the beneficiary Member State. The EU budget guarantees the repayment of the bonds in case of default by the borrower. The size of the EU budget in 2011 is €127bn. The size of the EFSM facility is currently capped at €60bn. Raising this ceiling would require qualified majority support of the 27 EU member states.

Borrowings by the EU under the EFSM are direct and unconditional obligations of the EU and guaranteed jointly and severally by the 27 Member States. Should a beneficiary country default, the debt service will be drawn from the budget of the European Union. EU Member States are legally obliged, according to the EU Treaty, to ensure that the budget always has sufficient funds to meet the EU’s obligations. For this purpose the Commission may draw on all Member States. Thus investors are only exposed to the credit risk of the EU, not to that of the beneficiary of loans funded.

[6] Standard &Poor’s Global Credit Portal, RatingsDirect, European Investment Bank, 11 October 2010.

3.3.2.3. The ECB could issue E-bonds

Among the liabilities on the balance sheet of the Eurosystem is an item called "Debt certificates issued". The ECB describes them as follows: *"Debt certificates issued are discount paper, which could be issued on an ad hoc basis with the aim of absorbing liquidity. The initial balance reflects paper issued by euro area NCBs during Stage Two. In future, such debt certificates, if any, will be issued by the ECB through euro area NCBs, with a maturity of less than twelve months."*[7]

The amount outstanding currently is zero. Debt certificates issued are ECB bills with a maturity of less than 12 months. There is nothing in the Treaties or Protocols to stop the ECB issuing long-term bonds, bills and notes. Indeed, until there is a federal fiscal authority in the euro area or until jointly and severally guaranteed debt is issued routinely by the euro area sovereigns, the ECB would be the logical entity to establish a risk-free Euro benchmark by issuing euro-denominated bills, bonds and notes at all maturities.

Because the ECB is the only issuer of legal tender in the euro area, it will always be able to meet any euro-denominated financial obligations. There is default risk attached to ECB euro-denominated non-monetary liabilities (including term deposits, bills, bonds notes and debt certificates) only if the ECB does not wish to issue or create the additional legal tender (to 'print money'). In that case, the holder of ECB non-monetary liabilities would have recourse to the loss-absorbing liabilities of the ECB, its capital.

There is no statement in the Treaty or Protocols obliging the shareholders of the ECB (the 27 national central banks (NCBs) of the ESCB (in practice the 17 NCBs of the Eurosystem) to replenish the capital of the ECB if the losses of the ECB were to exceed its capital.[8] Nor is there any statement obliging the national governments to recapitalise their NCBs, if necessary, to enable these NCBs to recapitalise the ECB. The ECB infers these obligations from the fact the Treaty assigns the ECB certain tasks and asserts that the ECB shall be independent in the performance of these tasks. If the adequate performance of these tasks requires additional capital, then the member state governments have to come up with it. Effectively the ECB asserts that its non-monetary debt is a joint and several liability of the member states. Regardless, the fact that the ECB, because of its ability to create legal tender at will, can always service its non-monetary debt if it chooses to do so, makes the ECB non-monetary debt 'better than' joint and several guaranteed debt, that is, better than E-bonds.

3.3.3. Invalid reasons why large-scale issuance of E-bonds will not happen

The European Treaties do not rule out E-bond issuance.

It is sometimes argued that E-bonds are not possible under the current legal framework for the European Union and the Euro Area. This debate is very reminiscent of similar discussions regarding the legal possibility of carrying out bail-outs of financially distressed EA countries through the EFSF or ESM.

[7] http://www.ecb.int/press/pr/date/1999/html/pr990105_1.en.html

[8] Article 33.2. of PROTOCOL (No 4) ON THE STATUTE OF THE EUROPEAN SYSTEM OF CENTRAL BANKS AND OF THE EUROPEAN CENTRAL BANK says only: "In the event of a loss incurred by the ECB, the shortfall may be offset against the general reserve fund of the ECB and, if necessary, following a decision by the Governing Council, against the monetary income of the relevant financial year in proportion and up to the amounts allocated to the national central banks in accordance with Article 32.5."

The basis for these concerns lies in a casual (mis)reading of *Article 125* of the Consolidated version of the Treaty on the Functioning of the European Union (TFEU), sometimes misleading referred to as a 'No bail-out clause'. A further misreading of *Article 123* of the TFEU may have added to the confusion or deliberate or accidental obfuscation as well.

There is no 'no bail-out clause'. The relevant parts of the EU Treaties leave openings wide enough to put few effective constraints on the ability of EA member states to lend support to other member states.

To make this point clear, we reproduce the relevant articles below –note that we have changed the order of the three articles.

2.3.3.1. "Article 125 (ex Article 103 TEC)

1. The Union shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of any Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project. A Member State shall not be liable for or assume the commitments of central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of another Member State, without prejudice to mutual financial guarantees for the joint execution of a specific project.

2. The Council, on a proposal from the Commission and after consulting the European Parliament, may, as required, specify definitions for the application of the prohibitions referred to in Articles 123 and 124 and in this Article."

2.3.3.2. "Article 123 (ex Article 101 TEC)

1. Overdraft facilities or any other type of credit facility with the European Central Bank or with the central banks of the Member States (hereinafter referred to as 'national central banks') in favour of Union institutions, bodies, offices or agencies, central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of Member States shall be prohibited, as shall the purchase directly from them by the European Central Bank or national central banks of debt instruments.

2. Paragraph 1 shall not apply to publicly owned credit institutions which, in the context of the supply of reserves by central banks, shall be given the same treatment by national central banks and the European Central Bank as private credit institutions."

2.3.3.3. "Article 124 (ex Article 102 TEC)

Any measure, not based on prudential considerations, establishing privileged access by Union institutions, bodies, offices or agencies, central governments, regional, local or other public authorities, other bodies governed by public law, or public undertakings of Member States to financial institutions, shall be prohibited."

2.3.3.4. What the Articles do and do not rule out

Article 125.1 states that neither the EU nor the individual member *states are liable for or can assume the commitments or public undertakings of any other member state, "... without prejudice to mutual financial guarantees for the joint execution of a specific project."* This means that mutual financial guarantees for the joint execution of a specific project are permitted. Furthermore, 'specific project' is nowhere defined, and Article 125.2 specifically permits the Council (of EU Heads of State and Heads of Government or Hoshogs) to define any undefined terms in whatever way it wants. The defining issue is therefore: what is a 'specific project'? How about: "A Project to Reinforce Sovereign Debt Sustainability in the euro area"? Or: "A Project to Recapitalise Systemically Important EU Banks?" Anything can be deemed or declared a 'specific project'. 'Project' becomes 'purpose' and 'specific' becomes 'clearly defined'.

There are those who go even further and argue that Article 125.1 rules out only the situation where the EU or individual member states are involuntarily or against their wishes made liable for or required to assume the commitments of other member states. The voluntary assumption of joint liability and the voluntary extension of guarantees are, in this interpretation, not ruled out. We consider this interpretation to be a bridge too far, but are happy to leave the issue for the lawyers and the European Court of Justice to decide. The "specific project" exception presents an opening wide enough to drive a coach and horses through the so-called no-bailout clause.

Article 123.1 prohibits the ECB and the euro area member states central banks from lending to governments or to purchase their debt in the primary market. Again, this does not amount to a prohibition of the funding of national governments in the euro area by the ECB/Eurosystem, potentially in an uncapped and open-ended manner, because the purchase of government securities in the secondary markets is allowed. The Securities Markets Programme is a practical expression of this.

Article 124 prohibits the EU and national governments from raiding financial institutions in their jurisdictions, unless this were warranted by "prudential considerations". The Treaty neither defines what 'prudential considerations' are nor who or which body shall make the relevant determination. It is another example of a Treaty article that appears tough on a superficial reading but turns out to be shot through with holes when scrutinised more closely.

2.3.3.5. The Role of the German Constitutional Court

The German Constitutional Court on September 7, 2011 ruled that German participation in the first Greek bail-out and the EFSF does not violate the German constitution – and only imposed that further substantial support measures need to be agreed with the budget committee of the German parliament

The German Constitutional Court ruled on September 7, 2011 on whether the German participation in the first Greek bail-out and the EFSF is consistent with the German Basic Law (or German Constitution). We always thought it unlikely that, whatever the technical legal merits of the case, the German Constitutional Court would want to go down in history as the entity that destroyed the European Union. And the Court duly complied. It ruled that the German participation in the first Greek bailout and the EFSF do not have to be rolled back.

The case before the German Constitutional Court concerned the interpretation of the various 'no bailout' Articles in the Treaty.[9] The Court ruled that Germany's participation in the rescue measures had not violated parliament's right to control spending of taxpayer money, and that it did not give a rubber-stamp to the chancellor's office.

The court also noted, however, that its rulings "should not be misinterpreted as a constitutional blank cheque for further rescue packages." It said that "the government is obligated in the cases of large expenditures to obtain the approval of the parliamentary budgetary committee" – a rather manageable nuisance and certainly much less burdensome than having to obtain the approval of the Bundestag.

[9] The plaintiffs argue that the Greek bail-out and the EFSF violate their right to property and their right to vote, the latter based on violating the 'principle of democracy' and the budgetary sovereignty of the German parliament (http://www.bundesverfassungsgericht.de/pressemitteilungen/bvg11-037.html)

Even in the case that the German Constitutional Court had mandated a roll-back of German participation, this would hardly have been the end of the matter, on procedural grounds.[10] It is clear that the fate of the EA will not be decided in the courtrooms.

3.3.4. Why large-scale E-bond issuance will not happen

Even large-scale E-bond issuance would do nothing, at least directly, to address the solvency issues in the EA banking and sovereign sector and would encourage future irresponsible behaviour by EA sovereigns, banks and investors

What will prevent the uncapped, large-scale issuance, however, will be political opposition in the core EA countries that would incur most of the risk exposure

The case against E-bonds is (at least) twofold.

First, large-scale E-bond issuance would, even though it is technically and legally possible today, do nothing to address existing solvency problems of the EA periphery sovereigns and the EU banks if the proceeds of the issuance are used to buy debt issued by (near) insolvent sovereigns and banks. Only if the E-bond issuance finances grants or transfer payments to these sovereigns or banks will their solvency improve. Grant, transfer or subsidy elements can of course be presented as debt purchases if the price paid exceeds fair value.

Second, it would worsen the dysfunctional political and regulatory processes that caused the fiscal unsustainability and the banking sector problems in the first place. By socializing the costs of poor public and private investing and spending decisions, it would increase the likelihood and severity of future sovereign and banking crises by reducing the penalty for reckless lending to and borrowing by euro area sovereigns and EU banks. Moral hazard cannot be addressed effectively once the crisis is over, because once the crisis is over, the political forces favouring structural and institutional reform of budgetary processes and financial regulation and supervision will be once again powerless against the lobbying power and regulatory capture capacity of vested interests, special interests and well-organised and well-funded lobbies. The only time to address moral hazard and create radically different incentive structures for governments and financial institutions is during a crisis.

Capped E-bond issuance proposals like the one by Delpla and von Weizsäcker, (2010, 2011), which would have euro area member states issuing jointly and severally guaranteed debt ('blue bonds') up to 60 percent of its annual GDP (the gross general government debt limit of the Stability and Growth Pact), with debt beyond that amount strictly for the account of the member state only ('red bonds') are still subject to the two shortcomings of doing nothing to address sovereign and banking sector solvency and of being moral hazard incubators for the future. The blue bond/red bond proposal does not help resolve the current crisis because all euro area periphery governments (as well as most of the large core euro area and EU governments) already have debt burdens well in excess of 60 percent of GDP (see Figure 1). It creates moral hazard because there is nothing to constrain a fiscally improvident sovereign from borrowing excessively on its own account (beyond the 60 percent blue bond limit) and then to throw itself again on the mercy of one's more provident fellow euro area governments. There are no new incentives to act in a fiscally responsible manner, nor is there any meaningful loss of public spending and tax authority imposed on a government that goes beyond the 60

[10] The reason is that many legal experts argue that the German Constitutional Court has not followed proper procedure in this case. Specifically, the German Constitutional Court has not sought the opinion of the European Court of Justice before coming to its final determination. National courts of final appeal, which includes the German Constitutional Court, are bound to refer a question of EU law when one is addressed in a national law case, to the European Court of Justice for an opinion. It is then for the national court (in this case the German Constitutional Court) to apply the ECJ's interpretation to the facts of the case. The German Constitution requires Germany to respect the EU Treaties. Because the interpretation of the EU Treaties is a question of EU law, the German Constitutional Court ought to have sought an opinion from the ECJ before coming to a final decision in the national constitutional law case before it (Stone Sweet (2004,2010)).

percent benchmark. Furthermore, if past and present experience is any guide, there is little reason to suspect that, should the EA member states find themselves in a similar situation as today, with instead of today's GIIPS (Greece, Ireland, Italy, Portugal, Spain) bonds the center of attention, the future red bonds, one would have to look very hard for a reason why the other member countries would react differently from today.

In and of itself, the fact that large-scale E-bond issuance would be disastrous for longer-term fiscal and financial stability is not sufficient to preclude it from happening. A further reason why E-bonds are not a great idea and the main reason why we do not expect to see E-bond issuance except on a rather limited scale and for specific purposes, is the same reason we believe that other manifestations of an open-ended and uncapped Transfer Europe are not on the cards. It would be politically unacceptable to the electorates of the core EU or core euro area member states that would have to accept the risk exposures inherent in E-bond issuance. These electorates are vocal in their opposition to what they consider to be an unfair and therefore unacceptable open-ended and uncapped commitment to subsidize the fiscally irresponsible nations in the euro area. German policymakers, notably Chancellor Merkel have also repeatedly affirmed their opposition to the introduction of E-bonds in the near-term. [11]

In countries like Ireland (and, outside the EU but inside the European Economic Area, Iceland) similar vocal and strong popular opposition to bailing out the unsecured creditors of the banks (other than the insured depositors) can be heard. Political parties or political movements led by mavericks attuned to the popular (and populist) mood are making it impossible to engage in large-scale E-bond issuance to bail out either the private creditors of the insolvent sovereigns or the unsecured creditors of the insolvent banks.

3.3.5 Could a subset of the euro area or EU member states issue E-bond?

E-bond issuance by a subset of EA countries that excludes Germany is an idea whose time will never come, or at least not for a very long time

Recognising that Germany is highly unlikely to go ahead with large E-bond issuance, it has been proposed that a way to get around a German veto would be for a number of EA member states to issue E-bonds without German participation.[12] While we consider such action to be technically and legally possible – based on the possibility of 'Enhanced Cooperation' discussed in more detail in section 6 -, without German participation, an E-bond would be a damp squib. The only triple-A rated euro area sovereign that might conceivably we willing to join such a venture would be France, and even that is doubtful if German opposition remains determined. Thus far in any case, France has only supported the eventual future use of E-bonds as part of a wider set of reforms including significant encroachment on national fiscal autonomy and sovereignty. Smaller euro area triple-A rated sovereigns, including the Netherlands and Finland would not be interested in joining. In our view, this is an idea whose time will likely never come.

[11] See e.g. http://www.businessweek.com/news/2011-08-22/merkel-says-she-ll-resist-market-pressure-on-euro-bonds.html

[12] Such a veto is likely with the present German coalition government. Following the general elections in Germany in 2013 (or in the case of an early election should the present coalition fall), a coalition that includes either the SDP or the Greens (or both) is quite likely. Both the SDP and the Greens look quite favourably on the issuance of E-bonds.

3.3.6. Limited E-bond issuance for specific purposes is likely

A limited issue of E-bonds, in particular for specific purposes, will likely be part of the resolution of the current crisis

One example would be to make the guarantees of the EFSF joint and several instead of pro-rata and thereby raise its effective lending capacity

Another example would be a substantial increase in the EFSM

Both a large-scale one-off issue of E-bonds and an arrangement resulting in an open-ended and potentially uncapped issuance of E-bonds like the blue bond/red bond proposal are, in our view, out of the question. A single issue large enough to retire the outstanding marketable debt of the narrow periphery member states of the euro area (Greece, Ireland and Portugal - around €650bn) plus that of the broad periphery member states (Spain (around €615bn) and Italy (around €1,650bn)) would add up to little less than €3trillion. Although technically and financially feasible, this would certainly not be feasible without the open-ended surrender of fiscal sovereignty by the euro area member states, and quite likely not even then. Recapitalising the (near) insolvent euro area banks would, of course, require far fewer resources if the debt of the euro area periphery sovereigns were retired at prices in excess of fair value, but could easily add several hundreds of billions of euro to the size of the Grand E-bond issue that would clear the deck (albeit only temporarily and with the promise of much larger future bailouts to come because of the massive moral hazard involved in such an operation).

But strictly limited issuance of E-bonds for well-defined purposes would in all likelihood be politically feasible.

For instance, the proposed increase in the effective lending capacity of the EFSF to €440bn in September or October 2011 requires guarantees and paid-in capital of up to €780bn because of the perceived need to achieve a triple-A rating for the EFSF. Making the guarantees that support the EFSF joint and several instead of pro-rata (in proportion to the euro area member states' capital shares in the ECB), would raise the effective lending capacity of the enhanced EFSF to €780bn.

The lending capacity of the EFSM could be increased from its paltry current level of €60bn. And the ECB could sterilise future purchases of sovereign debt under the SMP through the issuance of ECB bonds and bills rather than through the one-week term deposits used so far.

We therefore expect the selective and limited issuance of E-bonds in years to come, but not the uncapped and open-ended pooling of sovereign risk in the euro area without a quid pro quo in terms of an uncapped and open-ended loss of fiscal sovereignty for the financial beneficiary governments that others advocate and/or expect.

3.4. Transfer Europe without quid-pro-quo Mark II: The ECB as quasi-fiscal Santa Claus

A fourth 'solution' would involve the large-scale purchases of EA periphery sovereign and bank debt by the ECB

The fourth alternative regime for fiscal pooling in the Eurozone involves the large-scale acquisition of euro area periphery debt and bank debt by the ECB. In principle, this alternative is a subset of the previous variant discussed, namely a (quasi)fiscal pooling arrangement without directly imposing oversight or otherwise transferring sovereignty over spending decisions from recipient countries to creditor countries or institutions.

3.4.1. The case for an ECB bail-out

The ECB has infinite loss absorption capacity in euros and a very large *non-inflationary* loss-absorption capacity

The loss absorption capacity of the ECB in euros is potentially infinite, as it literally prints the stuff, i.e. it has the monopoly of the issuance of legal tender and it creates the monetary base which includes both currency and short-term deposits by eligible financial institutions with the central bank. It therefore does not face a tight 'capacity' problem in the way that the EFSF or individual EA member countries face. Its unconstrained loss absorption capacity is completely disconnected from conventional notions of capital and equity.

3.4.2. Invalid reasons for why an ECB bail-out cannot work

An 'ECB solution' does not necessarily imply fudging of the ECB's price stability mandate

Potentially infinite money creation is clearly inflationary, but as we have argued before (Buiter (2010b) and Buiter (2011)), even the non-inflationary loss absorption capacity of the ECB/Eurosystem – assuming that its money creation will not exceed the level consistent with the ECB's price stability mandate –is likely in the range of €3 trillion. Since we take the ECB's commitment to price stability seriously, we regard these €3 trillion rather than infinity as the right constraint on the institution's potential contribution to the resolution of the euro area's sovereign and banking crises. It means that if the ECB were to suffer losses as large as €3 trillion on its holdings of assets purchased outright and on its collateralized loans, it could continue to pay its bills without having to create money in amounts that would drive inflation above two percent per annum.

ECB solvency is a non-issue, for more than one (or two, or three) reasons

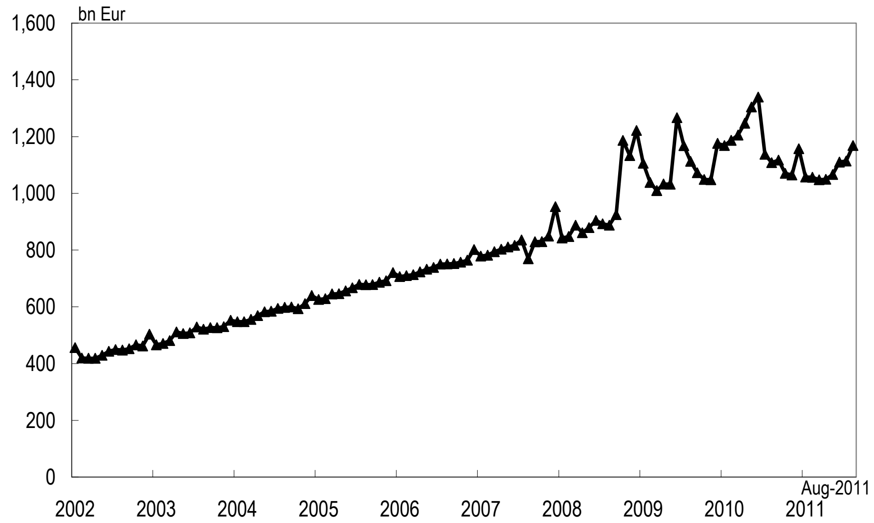
Related concerns about the ECB's 'solvency' or capital position are equally misplaced. As we already noted, the unconstrained loss absorption capacity of the ECB is hardly related to conventional notions of capital and equity, and the same applies for the non-inflationary loss absorption capacity. In this context, the following points should further be noted:

i) the ECB is not subject to any regulatory capital requirements

ii) the regulatory capital of the Eurosystem, i.e. of the ECB and the NCBs in the euro area, is €81bn, much above the capital of the ECB alone. In addition, the consolidated balance sheet of the Eurosystem shows 317bn in the revaluation reserve which could be converted into regulatory capital relatively easily.

iii) The ECB can 'sterilise' even large amounts of purchases. First, in periods of high market stress and risk aversion, demand for central bank reserves or other safe assets by eligible counterparties rises, as these institutions become more reluctant to lend out excess funds to other financial institutions, non-financial corporates or households. This higher demand for central bank reserves applies both to those (short-term) reserves included under the definition of 'Monetary Base' and longer-term reserves when those are offered (see Figure 4). Second, should demand for central bank reserves fall short of the amount desired by the ECB, the ECB can always raise the interest rate it pays on its deposits and/or extend the maturity or change other attributes of the liabilities it issues to make these more attractive to depositors.

Figure 4. Euro Area – Monetary Base (bn EUR), 2002-2011



Note: Sum of banknotes in circulation, current accounts and deposit facility balances of eligible credit institutions at the central bank. Coins are omitted.

Source: Citi Investment Research and Analysis

iv) Should the ECB not be able to sterilize its outright purchases, this would, under current economic conditions of declining EA growth, rising excess capacity and declining inflationary pressures, not exactly spell doom for the euro area any more than QE does for the US or Japan.

That ECB solvency is a 'non-issue' does not mean that there will be no recapitalization. The ECB may well request a capital injection from the EA member states/NCBs, just as it did in December 2010, but such a capital increase should be seen in the context of the 'Game of Chicken' between the ECB and the National Treasuries, and/or because potentially negative (regulatory) equity for a central bank looks untidy.

3.4.3. Why 'Santa ECB' will not happen

The ECB does not welcome any significant quasi-fiscal role, including outright purchases of EA sovereign debt at prices above fair value or lending to banks that offer as collateral sovereign debt valued above fair value

Other constraints than the fear of monetisation leading to inflation in excess of what the ECB deems consistent with price stability are, however, preventing the ECB from waving, say, €3 trillion worth of euro notes or other ECB/Eurosystem liabilities in the air while shouting: "come and get them". The ECB takes the separation between monetary and fiscal policy seriously. The only quasi-fiscal role it accepts is the one inherent in the fact that its immediate dividend-receiving shareholders are the national central banks (NCBs) of the euro area and that it will therefore, over time, pay out as dividends to the NCBs the profits made as a by-product of the pursuit of its price stability mandate. From the NCBs, these ECB profits flow through to the member states' Treasuries and thus to their tax payers and the public expenditure beneficiaries.

Although outright purchases of the debt of insolvent or potentially insolvent sovereigns at inflated prices, or lending to (near) insolvent banks offering as collateral debt instruments issued or guaranteed by (near) insolvent sovereigns, are consistent with satisfying the price stability mandate of the ECB if the right mix of monetary and non-monetary financing is adopted, these actions do amount to quasi-fiscal operations. The NPV of future seigniorage will be redistributed over time and it will be redistributed from all members of the eurozone to the creditors of the sovereigns or banks receiving ECB bail-outs and/or to the tax payers in the (near) insolvent member states that might, but for the ECB's interventions, have faced more severe fiscal austerity.

ECB credibility and legitimacy is certainly an asset worth safeguarding

What is more, the 'ECB solution' does little or nothing to address sovereign and banking sector insolvency and encourages future moral hazard

There are clearly good reasons for the ECB to be reluctant to be drawn into the fiscal morass. As the guardian of a 'fiat' currency, the credibility of the ECB is clearly key though we suspect that drawing lines that shall not be crossed (such as in the case of outright sovereign debt purchases of the debt of EA sovereigns), only to be crossed soon afterwards is not the most expeditious strategy for supporting the long-term credibility of the ECB. But that credibility is certainly worth safeguarding. A second, important argument against ECB bail-outs parallels the reasons against an E-bond 'solution' – that it is not a solution. Continued ECB purchases at best do little to address near-term solvency in the EA sovereign and banking sectors.[13] And the long-term cost in encouraging reckless behaviour by sovereigns, banks and investors would be large.

3.4.4. The 'Game of Chicken' will continue and the exposure of the ECB to EA sovereigns and banks will continue to rise

ECB will almost surely incur losses on its exposure to EA periphery sovereigns (through its outright purchases or lending facilities)

Its exposure is likely to rise as the 'Game of Chicken' continues between the ECB and national Treasuries of the EA over whether the ECB or the fiscal facilities (EFSF, EFSM and Greek Loan facility) take on additional exposure to the EA periphery sovereigns

It is in the shadow land of the distribution of the NPV of present and future non-inflationary seigniorage (quasi-fiscal resources), that the ECB is engaged in an at times quite bitter dispute with the fiscal authorities of the euro area, and especially with the fiscal authorities of the core euro area member states. It is these that would, if the ECB were to refuse to take on larger exposures to (near) insolvent sovereigns and (near) insolvent banks, have to come up with additional explicit fiscal resources to prevent disorderly sovereign and banking defaults. This 'game of chicken' does not have an absolute winner. However, the fact that the ECB/Eurosystem now has an exposure of €129bn to the sovereigns of the five euro area periphery nations through outright purchases of sovereign debt under the SMP (in addition to the €59bn worth of covered bond exposure remaining from the pre-June 2010 phase of the financial crisis) demonstrates that the ECB/Eurosystem can be pushed to act as lender of last resort, market maker of last resort and solvency gap filler of last resort for sovereigns and the banking sector if and when the fiscal authorities are incapable of acting. The further exposure to the euro area sovereigns and banking system (estimated by Open Europe at €370bn in June 2011) only serves to emphasize the vulnerability of the ECB to the following implicit threat: nothing but the ECB/Eurosystem stands between us and possibly multiple disorderly sovereign defaults and an EU-wide banking crisis.

The weakness of the political leadership in the euro area vis-a-vis an increasingly Transfer-Europe resistant electorate strengthens the hands of the core euro area finance ministers in their argument with the ECB about who will take on the exposure to the (near) insolvent sovereigns and banks.[14] Fundamentally, it should not matter whether there is an explicit fiscal exposure through the various fiscal facilities (Greek Loan Facility, EFSF, EFSM) or whether there is a quasi-fiscal exposure through the ECB/Eurosystem. But the explicitly fiscal exposure is transparent and immediately politically contestable. The quasi-fiscal exposure

[13] ECB bond purchases at above-fair prices on the secondary market can reduce yields on the primary market for sovereigns and therefore reduce their interest expense (relative to the counterfactual without ECB support). Such ECB bond purchases at above-fair prices may reduce the costs of capital and therefore solvency of banks by raising the value of sovereign debt held by the banks.

[14] This is a straightforward application of Putnam (1988) and the theory of two-level games, based originally on ideas developed by Schelling (1960).

through the ECB is opaque - at least two ‘veils’ removed from the tax payers. There is no doubt that the political leadership in the euro area much prefer to have the ECB holding the baby.

We expect that, as a result of these considerations, the ECB will end up taking on a larger exposure to the (near) insolvent sovereigns and banks, and that it will end up suffering larger losses as a result. It will not be pushed into making its entire NPV of non-inflationary seigniorage available for a resolution of the immediate crises, but it will end up doing much more than it feels comfortable with and it could end up getting stuck with losses of multiple hundreds of billions of euros. The ECB has fought back and is continuing to do so, against this unwanted enhancement of its quasi-fiscal role. A recent minor victory has been the decision by the Council to require the EFSF to guarantee the Greek sovereign debt that may be offered as collateral by banks (mainly Greek banks) to the Eurosystem during the period when the Greek sovereign will be in (selective) default. Earlier victories included the ECB demanding that Ireland and Portugal accept Troika programmes as preconditions for continued ECB funding of Irish and Portuguese banks, and the ECB dissuading the Irish sovereign from imposing burden sharing on the senior unsecured creditors of the Irish banks, again using continued funding of the Irish banks by the Eurosystem and the Irish ELA as a bargaining chip.

4. Breakup scenarios for the euro area

We consider EA break-up neither desirable, nor likely – but we cannot rule it out entirely

Two canonical models for EA break-up are exit by one or more uncompetitive EA countries or exit by one or more of the donor/creditor countries

A discussion of breakup scenarios for the Euro area should distinguish carefully between positive and normative arguments. “Is a breakup likely?” is not the same question as “is a break-up desirable for some or all of the countries involved?”. We consider a breakup highly unlikely and also highly undesirable for all countries involved.

A breakup of the Euro area is highly unlikely but not impossible. More deeply integrated political entities have collapsed ‘from the inside’, that is, not as a result of external conflict. The Soviet Union collapsed in 1991, after 74 years as a federal state. The USA has been a federal republic with a strong central government since 1788. But in 1861, after 73 years of federal nationhood, armed force and a civil war were necessary to reverse the secession of the Confederate States of America. So the word ‘impossible’ should never be used when predicting the course of history.

There are two canonical models for a Euro area breakup. The first is for one or more highly indebted, uncompetitive countries in the periphery to walk out. Greece is the most often mentioned candidate. The other is for one or more of the solvent and more internationally competitive core Euro area countries to walk out. Germany is the most frequently mentioned example. We will consider the likelihood of these two cases in turn, after we discuss the procedural aspects of EA exit.[15]

[15] We have discussed the likelihood and desirability of EA break-up before, see Global Economics View - Sovereign Debt Problems in Advanced Industrial Countries and Global Economics View - The Debt of Nations

4.1. How to leave the euro area

Article 50 of the Lisbon Treaty lays out the procedure for leaving the EU – there are no provisions for leaving the EA without leaving the EU

Article 50 of the Treaty on European Union and the Treaty on the Functioning of the European Union contain provisions for a member state to leave the EU voluntarily. The article is worth quoting in full:

"Article 50

1. Any Member State may decide to withdraw from the Union in accordance with its own constitutional requirements.

2. A Member State which decides to withdraw shall notify the European Council of its intention. In the light of the guidelines provided by the European Council, the Union shall negotiate and conclude an agreement with that State, setting out the arrangements for its withdrawal, taking account of the framework for its future relationship with the Union. That agreement shall be negotiated in accordance with Article 218(3) of the Treaty on the Functioning of the European Union. It shall be concluded on behalf of the Union by the Council, acting by a qualified majority, after obtaining the consent of the European Parliament.

3. The Treaties shall cease to apply to the State in question from the date of entry into force of the withdrawal agreement or, failing that, two years after the notification referred to in paragraph 2, unless the European Council, in agreement with the Member State concerned, unanimously decides to extend this period.

4. For the purposes of paragraphs 2 and 3, the member of the European Council or of the Council representing the withdrawing Member State shall not participate in the discussions of the European Council or Council or in decisions concerning it.

A qualified majority shall be defined in accordance with Article 238(3)(b) of the Treaty on the Functioning of the European Union.

5. If a State which has withdrawn from the Union asks to rejoin, its request shall be subject to the procedure referred to in Article 49."

The details of the exit process are unclear, but what *is* clear is that EU/EA exit will be lengthy, messy or likely both

A number of key points emerge: First, Article 50 refers to the procedure for leaving the EU, not the EA only. There is nothing in the Treaty at all on the possibility of or procedure for leaving the EA. The prevailing interpretation of the Treaties is that it is only possible for a country to leave the Euro area if it also leaves the EU. The reason is that for all EU member states except the UK and Denmark, full membership of the Economic and Monetary Union (EMU) is part of the 'acquis' of EU membership. Once a member state becomes a full EMU member ('adopts the euro'), it cannot leave the Euro area without also leaving the EU (see Athanassiou (2009)).

Second, the process of EU (again, not EA) exit is supposed to be negotiated and will take time though it is not clear exactly how long it would take. The process may be completed as soon as the European Council agrees with qualified majority. Failing that, exit will take effect (in the sense that the European Treaties will cease to apply to the member state applying for exit) two years after the initial application to withdraw. The European Council and the applicant may even decide to unanimously extend this 'cooling off period' of two years.

So the base case should be that EA exit without simultaneous withdrawal from the EU is not possible.

Treaties can change, but the process of Treaty change itself is long and arduous

A unilateral exit without respect for proper procedure cannot be ruled out, but is likely to be even more disruptive to all concerned

Of course, the European treaties are not fixed for eternity. In the event that a reasonable consensus developed that the euro area would be better off without one or more of the existing member states, some momentum may develop to amend the Treaty to allow EA exit without a departure from the EU. But Treaty changes are far from simple, as recent experience shows. Referenda are necessary in a number of EA countries and a few more may opt to have referenda in the event of further substantial changes to the Treaty.

A way may even be a found to interpret existing Treaty clauses creatively to allow a member state to leave the EA while remaining in the EU, without amending the Treaty. Is it really too farfetched to entertain the possibility that just the clear and definitive wish of a member country to leave the euro area might be enough to convince the other member states to go along with it exiting the euro area while remaining a member of the EU?

Finally, should one member state be determined to leave the eurozone and the EU, but find itself unable to garner sufficient support or even just acquiescence by the other members of the euro area, it could simply decide to renege on its commitments as member of the EA and EU unilaterally, perhaps not even waiting for the EU exit negotiations to run their course. Although following such provocative behaviour, the other member states would be highly likely to wish to hold the departing member state to account, the scope for retaliation and punishment would seem to be limited. It is not conceivable that force would be used to prevent or undo an unlawful defection. After all, the most important original force behind European integration was the memory of two recent World Wars and the belief that economic and political integration would make armed conflict in the future less likely than it was in the past. It does seem inevitable, however, that a confrontational unilateral EA exit would imply an EU exit at the same time.

Whatever the details of the modalities of an EA exit, it would likely be a drawn-out and messy affair. The scenario of a Euro area member state taking a vacation from the euro for, say, a couple of years, temporarily adopting its own currency, achieving a sharp depreciation in the value of its currency and then rejoining the Euro area at this much more competitive exchange rate, is most unlikely to be on the menu. The country in question would have to re-apply for EU membership again and, if this application were to be successful, would have to meet the Maastricht Criteria for Euro area membership again, as noted under point (5) of Article 50. It would be very unlikely to be able to count on much goodwill towards it on the part of the countries that remained in the EA. And the members of the 'core' would quite likely try to apply even stronger EA membership criteria than the original Maastricht criteria and be more alert to potential fudges that have permitted EA entry in the past.

4.2. Can an EA country be expelled?

There are no provisions for expelling a country from the EA (or the EU)

But an EA country could be pushed in more subtle ways – e.g. if the ECB stopped funding its banks

Hurdles for imposing sanctions on EU countries based on Article 7 are high – and we do not expect them to be applied anytime soon

The Treaty on European Union and the Treaty on the Functioning of the European Union do not contain provisions for a member state to be expelled from the Euro area or indeed from the EU.

Although it is not possible for a country to be expelled from the Euro area or from the EU, it may of course be possible for 16 Euro area member states and/or 26 EU member states and/or the ECB to collectively make life so difficult and unpleasant for the 17th Euro area member state (and 27th EU member state), that the best course of action for the victim would be to leave.

A refusal by the ECB to continue to fund the Greek banks by accepting Greek sovereign or sovereign guaranteed debt as collateral at the Eurosystem and to permit the use of Emergency Liquidity Assistance (ELA) by the Greek NCB were the

Greek sovereign to default on its debt, could have been a possible breaking point of this kind. A face saving solution for the ECB was found, however, when as noted earlier, it was decided on 21 July 2011, that following its enhancement and enlargement sometime in late September 2011 and the end of the year, the EFSF would guarantee Greek sovereign debt offered as collateral to the Eurosystem during the period(s) that the Greek sovereign would be in default.

Article 7 of the TFEU also lays down the procedures for imposing sanctions on member states that violate the fundamental objectives and values of the EU (specified in Article 2 of the TFEU).

"Article 7 (ex Article 7 TEU)

1. On a reasoned proposal by one third of the Member States, by the European Parliament or by the European Commission, the Council, acting by a majority of four fifths of its members after obtaining the consent of the European Parliament, may determine that there is a clear risk of a serious breach by a Member State of the values referred to in Article 2. Before making such a determination, the Council shall hear the Member State in question and may address recommendations to it, acting in accordance with the same procedure.

The Council shall regularly verify that the grounds on which such a determination was made continue to apply.

2. The European Council, acting by unanimity on a proposal by one third of the Member States or by the Commission and after obtaining the consent of the European Parliament, may determine the existence of a serious and persistent breach by a Member State of the values referred to in Article 2, after inviting the Member State in question to submit its observations.

3. Where a determination under paragraph 2 has been made, the Council, acting by a qualified majority, may decide to suspend certain of the rights deriving from the application of the Treaties to the Member State in question, including the voting rights of the representative of the government of that Member State in the Council. In doing so, the Council shall take into account the possible consequences of such a suspension on the rights and obligations of natural and legal persons.

The obligations of the Member State in question under this Treaty shall in any case continue to be binding on that State.

4.The Council, acting by a qualified majority, may decide subsequently to vary or revoke measures taken under paragraph 3 in response to changes in the situation which led to their being imposed.

5. The voting arrangements applying to the European Parliament, the European Council and the Council for the purposes of this Article are laid down in Article 354 of the Treaty on the Functioning of the European Union."

The principles in Article 2 referred to under point (1) are rather grand and vague.[16] A case for imposing sanctions on struggling members of the euro area periphery based on violating these principles appears almost inconceivable. Article 3 (formerly Article 2 in the predecessor of the Lisbon Treaty) lists a range of somewhat more tangible aims and principles. [17] It would not be difficult in principle to interpret some of the recent developments in the EA periphery as violating some of the principles listed in Article 3, notably the promotion of 'economic, social and territorial cohesion, and solidarity among Member States'. But Articles 2, 3, and 7the articles are very vague – even by the rather unambitious standards of EU Treaties – on both the types of offenses that would merit action and the penalties awarded. Paragraph 3 of Article 7 above mentions suspending *"rights deriving from the application of the Treaties to the Member State in question"*, but the only explicit right mentioned is *"the voting rights of the representative of the government of that Member State in the Council."* There is, to our knowledge, no precedent for invoking Article 7 during the existence of the EA. That does not mean that – in a more confrontational environment – such proceedings would never take place. But the hurdles for imposing sanctions, including the need to obtain large majorities among the EU member states and among the members of the European Parliament in favour of imposing the sanctions and the likely high degree of reluctance among European policymakers to open the pandora's box of sanctions on member states suggests that the prospect of penalties serious enough to induce a eurozone member state to seek EA exit is currently remote indeed.

[16] "Article 2 (ex Article 2 TEU)

The Union is founded on the values of respect for human dignity, freedom, democracy, equality, the rule of law and respect for human rights, including the rights of persons belonging to minorities. These values are common to the Member States in a society in which pluralism, non-discrimination, tolerance, justice, solidarity and equality between women and men prevail.

[17] "Article 3 (ex Article 2 TEU)

1. The Union's aim is to promote peace, its values and the well-being of its peoples.

2. The Union shall offer its citizens an area of freedom, security and justice without internal frontiers, in which the free movement of persons is ensured in conjunction with appropriate measures with respect to external border controls, asylum, immigration and the prevention and combating of crime.

3. The Union shall establish an internal market. It shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment. It shall promote scientific and technological advance.

It shall combat social exclusion and discrimination, and shall promote social justice and protection, equality between women and men, solidarity between generations and protection of the rights of the child.

It shall promote economic, social and territorial cohesion, and solidarity among Member States.

It shall respect its rich cultural and linguistic diversity, and shall ensure that Europe's cultural heritage is safeguarded and enhanced.

4. The Union shall establish an economic and monetary union whose currency is the euro.

5. In its relations with the wider world, the Union shall uphold and promote its values and interests and contribute to the protection of its citizens. It shall contribute to peace, security, the sustainable development of the Earth, solidarity and mutual respect among peoples, free and fair trade, eradication of poverty and the protection of human rights, in particular the rights of the child, as well as to the strict observance and the development of international law, including respect for the principles of the United Nations Charter.

6. The Union shall pursue its objectives by appropriate means commensurate with the competences which are conferred upon it in the Treaties."

4.3. Default does not imply devaluation or EA exit

Default and devaluation should be distinguished carefully – default while staying in the EA is possible (and in some cases likely) and no more complex or damaging than default following exit

Historically, default on external debt by developing countries and emerging markets has often been associated with a devaluation of the currency. However, as we have stressed before, default is possible while remaining in the EA. In fact, the buy-back proposal that forms part of the second bail-out package for the Greek sovereign agreed at the EU Emergency Summit on July 21 would imply that the Greek sovereign would be rated in 'selective default' by S&P. Default has its own costs and benefits that should be carefully distinguished from those of EA exit. We remain of the opinion that the sovereigns of Greece, Ireland and Portugal are insolvent. We therefore consider favourably a targeted approach to restructure the excessive levels of sovereign debt in these countries. We recognise that write-downs of the sovereign debts for these three countries sufficient to restore government solvency, coupled with the high degree of exposure of their domestic banking systems to the sovereign would imply a need to recapitalise the banking systems of these countries. With capital unavailable from market sources, the sources of new bank equity would be swaps of bank debt into equity, domestic tax payer support and support from the EA-wide tax payers through the Troika facilities. Debt relief for sovereigns in these countries, coupled with bank debt restructuring and bank recapitalisation from other sources, and with the necessary structural reforms may well be a catalyst for stronger growth prospects in the future. By contrast, we are firmly of the opinion that the costs of EA exit outweigh the benefits for any subset of the EA member states.

4.4. Exit by a fiscally and competitively weak nation

Exit by a weak, uncompetitive member of the EA would be lengthy and very costly – and the benefits to the exiting nation will be very limited at best and dwarfed by the costs

We already noted one important characteristic of EA exit: it will not be fast. It would likely be negotiated and it would take time. It would therefore be widely anticipated and this fact will further increase the costs of EA exit, which in any case are numerous and high. The benefit, on the other hand, is singular: a more competitive exchange rate. We consider this benefit to be largely illusory, or at least not to last long.

4.4.1. Cost of exit by a 'weak' nation

4.4.1.1. Bank runs and investor flights

EA exit would be anticipated and associated with a massive bank run and investor flight

As soon as news of a prospective exit by a country – we use Greece as an example - were to leak and become common knowledge, there would be a massive bank run on that country's banks. Deposit flight, which is already taking place in the euro area periphery, would further accelerate and encompass both domestic and the few remaining foreign creditors. The reason is that the markets would, correctly, in our view, assume, that as soon as Greece was out of the euro area and a new currency, the New Drachma, say, introduced, this new currency would lose between 30 and 50 percent of its value vis-a-vis the euro. In addition most pre-existing contracts under Greek law (including deposits and the more than 90 percent of Greek sovereign debt issued under Greek law) would likely be redenominated into New Drachma. Such currency redenomination would almost always represent an act of default and a credit event, but the only recourse for aggrieved parties would be under Greek law, which would have been changed to extinguish the claims of the losers. Anticipating a large capital loss on all euro-denominated contracts written and financial instruments issued under Greek law, depositors and other creditors would exit from these instruments. Prior to exit every would-be borrower would want to issue debt denominated in euro under Greek law, in the hope and expectation of having it redenominated and devalued in due course. The Greek banking system would collapse even before Greece had left the monetary union. The costs from falls in asset prices, a run on the banking system (and disruption of bank lending) would fall mainly on the exiting countries. The main impact on the remaining Euro area member states would be through the counterpart inflow of deposits. Also, the foreign counterparties to cross-border contracts under Greek law denominated in euro could be adversely affected.

It would also be extremely hard for any Greek party to obtain new funding in the period when exit has become widely anticipated but has not yet happened. Of course, obtaining private funding has not exactly been easy recently in any case, but even the continuing support by the ECB would likely be in question.

Once the 'taboo' of exit from the euro area had been broken for the first time, the markets and investors everywhere would attach subjective probabilities to other exits by fiscally and competitively weak member states, followed by a redenomination of contracts and financial instruments under domestic law and by a sharp depreciation or devaluation of the new post-exit currency. Bank runs from countries viewed as a risk of exit into those countries expected to remain EA member could create major financial stress for a weak member states. All euro-denominated funding under domestic law would become prohibitively expensive and the expectation of redenomination followed by a sharp depreciation would cause would be lenders or investors to demand interest premia to cover these prospective risks. This particularly dangerous form of market contagion could end up driving the afflicted countries out of the EA – an example of a self-fulfilling prophesy.

4.4.1.2. Sudden currency mismatch in assets and liabilities

Even non-financial companies with cross-border liabilities (and assets) are likely to experience serious disruption

In our example, where Greece has exited, the New Drachma has been introduced and has promptly lost, say, 40 percent of its value vis-a-vis the euro, there would then remain a significant number of euro denominated contracts and financial instruments involving Greek businesses, Greek households and the Greek sovereign that would not be governed by Greek law. These contracts and financial instruments would either remain denominated in euro or, if they were redenominated in New Drachma, would give the counterparties recourse to the defaulting entity in courts outside Greece. If euro-denominated contracts and instruments not under Greek law remained euro-denominated, private portfolios would become massively unbalanced as regards currency denomination, with some contracts and instruments losing value sharply in terms of the euro while others remain unchanged. There would be widespread dislocation, default and bankruptcy not just in the Greek financial sector but for any Greek entity with a serious financial balance sheet. Banking sector collapse would be followed by a collapse of the rest of the financial sector and by most cross-border Greek enterprises.

If contracts and instruments not under Greek law were redenominated in New Drachma, the parties involved would be tied up in foreign courts for years. Everyone except the lawyers would lose. Clearly, the foreign parties to cross-border contracts not under Greek law would be adversely affected by counterparty default or by costly and protracted legal disputes. The damage would, however, be most serious for Greece.

4.4.1.3. Public debt

EA exit will likely imply sovereign default either outright or by redenomination of the public debt into the new currency

If the authorities did not redenominate into New Drachma the more than 90 percent of Greek public debt issued under Greek law, the real public debt burden would increase if the depreciation of the nominal exchange rate of the New Drachma also depreciated the real exchange rate. The solvency gap of the sovereign would increase. If, as we believe, any improvement in real competitiveness caused by a depreciation of the nominal exchange rate would be short-lived, leaving the Euro area would have no lasting impact on the solvency of the government. The Greek sovereign would, of course, lose the financial support from the Greek Loan Facility and, after the second Greek bailout package was activated, also that from the EFSF and, after the middle of 2013, from the ESM.

Of course, the expectation is that Greek EA exit would be accompanied by default of the Greek sovereign. In fact, many see EA exit, misleadingly in our view, as somehow facilitating Greek sovereign debt default. In any case, the increase in the real burden of public debt, should it not be redenominated, would likely be very short-lived – until default and write-down reduce the debt burden to more manageable proportions..

If the authorities were to redenominate the more than 90 percent of Greek public debt issued under Greek law into New Drachma, they could, of course achieve a major reduction in the effective public debt burden through a significant depreciation of the New Drachma. Such a redenomination would, however, be a ratings default and a credit event, just as surely as a haircut on public debt that remained denominated in euro would be. From the point of view of the cost and denefits of defaulting on the public debt, there is no advantage to leaving the euro area.

Figure 5. Selected Countries – External Transactions and Stocks 2010

	Current Account Balance	Primary Current Account Balance	Gross International Liabilities	Net International Investment Position	Gross External Debt
	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP
Belgium	1.2	-0.6	393	85	na
France	-2.1	-3.6	272	-11	199
Germany	5.3	3.9	216	42	157
Greece	-10.4	-6.6	195	-96	180
Ireland	-0.7	18.2	1730	-98	1048
Italy	-3.5	-2.9	144	-25	118
Japan	3.6	1.1	70	57	48
Portugal	-9.9	-5.3	300	-109	231
Spain	-4.5	-2.5	217	-87	165
UK	-2.5	-5.1	661	-14	na
US	-3.2	-4.3	155	-17	99
Hungary	1.6	7.7	296	-117	161

Notes: Primary Current Account Balance is computed as the sum of net exports of goods and services and net transfers divided by nominal GDP.

Sources: IMF WEO October 2010 (GDP), IMF IFS (Gross International Liabilities and Net International Investment Position), Joint External Debt Hub (Gross External Debt), IMF BOPS (Net Exports of Goods and Services and Transfers) and Citi Investment Research and Analysis

A default on the public debt through redenomination into New Drachma, followed by a sharp depreciation of the New Drachma would likely take place in a confrontational setting. It would not be a ‘consensual restructuring’. The Greek sovereign would likely be cut off from external funding and so would many Greek private entities. If the Greek government had to balance its primary budget and if the Greek nation had to do likewise (run a balanced external primary account) there would have to be a severe compression in domestic demand on top of a GDP contraction that has already lasted for almost 3 years.

Even after the Greek sovereign regained access post-default to the international financial markets, it would likely pay much higher nominal and real interest rates than it would have as a continuing member of the Euro area following a similar default and debt write down. Not only would nominal interest rates on New Drachma-denominated sovereign debt reflect expected inflation and expected exchange rate depreciation, there would likely be inflation risk and exchange rate depreciation risk premia as well. Larger illiquidity premia would also be likely, and default risk premia would be unlikely to be lower than they would have been had Greece remained in the Euro area, despite the re-acquired capacity to impose both the anticipated and the unanticipated inflation tax. Leaving the Euro area would mean reneging on a supposedly irrevocable commitment and would result in a lasting stigma on the Greek sovereign which would be viewed as an entity for which contracts and commitments count for little. It is quite likely that to access the international markets, the Greek sovereign would have to borrow in hard currencies like the US dollar or, ironically but more likely, the euro.

4.4.1.4. Cost of introducing a new national currency

There are one-off set-up costs from introducing a new currency, but they are unlikely to sway the argument.

Introducing a new currency involves a one-off set up cost. These are partly the cost of introducing new notes and coins and the associated ‘vending machine costs’. There are also the costs of switching to a different numeraire in contracts and payments. For wholesale financial transactions these costs are likely to be small, but for millions of households and small businesses, the cost of changing the numeraire for invoicing, accounting, auditing etc. can be non-trivial. Greece had a decade to plan for the introduction of the euro. It might only have months to prepare for the introduction of the New Drachma.

Some attempts were made at the beginning of the preparations for EMU to estimate the costs of introducing a new currency. The European Commission (1990) produced a report, ‘One Market One Money, on the costs and benefits of monetary union in which it did not even bother to produce a numerical estimate of the real resource costs of introducing a new currency. The issue has been revisited in the UK since then (see Britain in Europe (2000) and House of Commons (2000)), but without producing more convincing estimates of these costs. All one can say is that, whatever they are, they are unlikely to sway the argument.

4.4.1.5. Other procedural consequences of EU exit

If EA exit is associated with EU exit, it would imply loss of EU structural and cohesion funds.

If Euro area exit indeed implies EU exit (as implied by the prevailing legal interpretation), Greece would lose access to EU structural and cohesion funds and, more importantly, would lose access to the important economic and social safety valve of free labour mobility throughout the EU. It could try to renegotiate something like European Economic Area membership, but this might well take years.

4.4.1.6. Keeping the euro for financial contracts?

Keeping the euro for financial contracts while using the new currency for current transactions is very unlikely to be successful.

The main argument in favour of an unproductive, inefficient and internationally uncompetitive country like Greece leaving the Euro area is that a sharply weaker New Drachma would bring about a transformation in the international competitive condition of the country. We discuss and reject this argument in Section 4.4.2 below, but even proponents of Greece leaving the Euro area recognise that, whatever the merits of leaving would be from the point of view of current transactions (especially the hoped-for impact on the relative prices of domestic and foreign goods and services, on relative wages and relative unit labour costs and on profitability in the exportable and import-competing sectors), adopting a new national currency would have disastrous consequences through balance sheet and funding channels.

Would it be possible for Greece to introduce the New Drachma for current transactions (wage contracts and price contracts for currently produced goods and services), while keeping the euro as the numeraire, store of value and means of payment for financial transactions? Those who favour such as solution point to the example of the former East Germany. Following unification with West Germany in 1990, East German wage and price contracts were converted into DM at an exchange rate of 2 East German Marks for 1 DM, but savings and deposit account balances were, up to some limit, converted at an exchange rate of 1 East Mark for 1 DM.

The reason this worked for East Germany was that this was a former communist economy with only a rudimentary financial sector. The only financial instruments of any significance open to households were deposit accounts and saving accounts.

Greece, on the other hand, is a developed capitalist economy where there would be an unlimited supply of talent for transforming current transactions into financial transactions or vice versa. Those familiar with leads and lags in import and export receipts as means for avoiding capital controls will recognise the avoidance and evasion possibilities created by multiple currencies for different types of transactions. Is a wage contract with a one-year duration a current transaction or a sequence of a monthly contract for the spot delivery of labour services and 11 monthly forward contracts for the future delivery of labour services? It simply would not work.

4.4.1.7 Introducing the New Drachma as a complementary or parallel currency while remaining a euro area member

If the aim was to devalue the currency while remaining a member of the EA, there are ways to introduce a national currency as a numeraire, unit of account or invoicing currency for new contracts, while maintaining the euro as the sole legal tender

A euro area member state (Greece again, for illustrative purposes) that wishes to devalue or depreciate its currency while remaining a member of the Euro area could achieve both objectives if it were to introduce its own currency (the New Drachma) as the numéraire, unit of account or invoicing currency for all new contracts under Greek law, including new bank deposits, new financial instruments and new wage and price contracts, while maintaining the euro (that is, euro notes and coins) as the sole legal tender. All pre-existing euro-denominated contracts and financial instruments under Greek law would be grandfathered, but all new contracts and financial instruments under Greek law would have to be denominated in New Drachma. Payments could be made with grandfathered euro-denominated deposits or with new deposits denominated in New Drachma or in euro notes – which would remain legal tender. There would be no New Drachma-denominated notes and coins, so as not to violate the Treaty-assigned monopoly role of euro notes as legal tender in EA member states.

Monetary policy in Greece could be conducted either through the New Drachma refi rate (the short risk-free nominal New Drachma interest rate) or by managing the exchange rate of the New Drachma vis-a-vis the euro. Clearly, with Greece remaining a member of the euro area, there could be no restrictions on capital flows between Greece and the rest of the euro area. With reasonably technically efficient financial markets, the standard 'no-arbitrage' and other equilibrium conditions will link euro interest rates (set in Frankfurt at the very short end), New Drachma interest rates (set in Athens if the Greek monetary authorities pursue an interest rate management policy with a market-determined interest rate), the spot exchange rate, forward exchange rate and expected future spot exchange rate between the euro and the New Drachma.

The one-period interest rate on euro-denominated risk-free bonds $i^{€}_{t,t+1}$, the one-period interest rate on New Drachma-denominated risk-free bonds, $i_{t,t+1}$, the spot exchange rate S_t (number of New Drachma per euro) and the one-period forward exchange rate $F_{t,t+1}$ would be related through the familiar covered interest parity relationship:

$$1+i^{€}_{t,t+1} = \frac{S_t}{F_{t,t+1}}(1+i_{t,t+1}) \qquad (1)$$

If $E_t S_{t+1}$ is the expectation this period of next period's spot exchange rate and $\pi_{t,t+1}$ reflects the exchange rate risk premium, then

$$F_{t,t+1} = E_t S_{t+1} + \pi_{t,t+1} \qquad (2)$$

where (2) is non-vacuous only if we have some theory of the risk-premium and an independent way of measuring it – otherwise (2) simply is the *definition* of the risk premium. Assume for simplicity of exposition that the risk premium is exogenous and constant. In that case (1) and (2) imply

$$S_t = \left(\frac{1+i^*_{t,t+1}}{1+i_{t,t+1}}\right) E_t S_{t+1} + \left(\frac{1+i^*_{t,t+1}}{1+i_{t,t+1}}\right) \pi_{t,t+1} \quad (3)$$

Note that a *higher* value of S_t means a weaker New Drachma relative to the euro. Equation (3) says that the current level of the spot exchange rate of the New Drachma depends, other things being equal, positively on the currently expected value of next period's spot exchange rate, positively on difference between the current euro interest rate and the current New Drachma interest rate, and positively on the risk premium. Iterating the relationship in (3) forward repeatedly, we find that the New Drachma's current external value will be weaker the higher the expected cumulative differential between euro and New Drachma interest rates, the weaker the expected long-run value of the currency (the New Drachma) $E_t S_\infty$ and the higher the cumulative expected risk premia.

If the policy makers in Greece and the markets expect that, at some future point , $t+W$, the New Drachma will be locked again into an irrevocably fixed parity with the euro, $\overline{S}$, then $E_t S_{t+i} = \overline{S} \text{ for all } i \geq W$. By reducing the sequence of current and future expected interest rates between t and $t+W$ relative to the sequence of euro interest rates, the Greek authorities can reduce the external value of the New Drachma. Indeed, since there is no New Drachma coin and currency, there is no zero lower bound on New Drachma nominal interest rates. It would be possible to weaken the New Drachma substantially.

A proposal along these lines has been made by Schuster and Kennedy (2011). The logic and formal structure of their proposal is identical to the one used by Buiter (2005, 2007, 2009, 2010a) in a number of studies about ways to unbundle the numéraire and medium of exchange/means of payment functions of money. In this approach either the monetary authorities manage the exchange rate between the numéraire (here the New Drachma) and the ultimate means of payment/legal tender (here the euro), or this exchange rate can be market-determined. The short risk-free nominal interest rate on New Drachma bonds (or the New Drachma refi rate) can then be used to target stability for the New Drachma price level or some other notion of macroeconomic stability. The focus of Buiter's papers is quite different from that of Schuster and Kennedy – it concerns ways of eliminating the zero lower bound on the short nominal rate of interest, something that adds to the proposal of Schuster and Kennedy, but is not central to it.

The Greek central bank (the Bank of Greece) would, as part of the Eurosystem, have euro denominated liabilities (mainly euro notes and euro-denominated bank reserves (current account deposits with the central bank held by eligible counterparties) and euro-denominated assets. The Central Bank of Greece would also have, for its own account, that is, not for the account of the Eurosystem, New Drachma denominated liabilities (New Drachma-denominated current account deposits of commercial banks (reserves) held with the central bank) and New Drachma-denominated assets. The New Drachma-denominated part of the Bank of Greece's balance sheet would look rather like the current emergency liquidity assistance facility or ELA (except for the current ELA being denominated in euro).

One potential weakness in the Schuster-Kennedy and Buiter approaches is the assumption (implicit in Schuster-Kennedy and explicit in Buiter), that the authorities in Greece can determine what the numeraire used in wage and price contracts is. If despite the introduction of the New Drachma for bank accounts and other financial instruments, workers and firms continue to bargain over and set wages and prices of goods and services in terms of euro rather than New Drachma, the parallel currency is irrelevant to the performance of the Greek economy.

Historically, the numeraire, unit of account or invoicing currency is the outcome of decentralised collective choice processes. The authorities may determine what legal tender is, but firms, households and workers jointly evolve the numeraire or numeraires used in price and wage setting. The authorities can certainly encourage the use of the New Drachma rather than the euro as numeraire. (Remember, euro notes remain the sole legal tender and a retail means of payment and store of value). They could require tax returns to be submitted in New Drachma and encourage the payment of taxes using New Drachma accounts. They could demand that all government contracts be invoiced in New Drachma. They could even legislate that new contracts under Greek law can only be legally enforced if they are invoiced in New Drachma.

Historically, with rather few esoteric exceptions, the unit of account has also been the unit of the dominant means of payment and of the legal tender. The Schuster-Kennedy and Buiter proposals unbundle the numeraire and the means of payment. It could work, but there is very little historical experience to draw on.

Finally, even if the complementary or parallel currency approach is both compatible with the Treaty and workable, in the sense that new Greek wage and price contracts are specified in terms of New Drachma, this would only give the Greek authorities a handle on the *nominal* exchange rate. Competitiveness is about *real* exchange rates, that is, nominal exchange rates adjusted for or corrected for differences in domestic and foreign relative price levels or relative unit labour costs. Even if, empirically, real and nominal exchange rates often move together for long periods of time, one ignores the difference between the two at one's peril. Using the nominal exchange rate as an instrument to pursue a lasting competitive advantage is bound to end in tears. We elaborate on this in the next subsection.

4.4.2. Exit from the Euro area, competitiveness and the two Keynesian fallacies

The competitiveness argument for EA exit by an uncompetitive EA member rests on two misconceptions

The first is that a (large) nominal depreciation of the currency will necessarily result in a persistent improvement in competitiveness

The second is that a market-determined exchange rate in a world with a high degree of international capital mobility will behave like a policy instrument wielded by an omniscient and benevolent central planner

One common strand in the argument that a breakup of the Euro area is likely and indeed desirable for the periphery countries rests on the simple Keynesian fallacy that a sharp depreciation or devaluation of the external value of the currency is a necessary and perhaps even a sufficient condition for achieving a transformation from a low productivity, inefficient, internationally uncompetitive economy to a productive, efficient and internationally competitive economy.

This fallacy rests on two deeper misconceptions. The first is the elementary confusion of real and nominal exchange rates, or of real and nominal wages. The second is the belief that a market-determined exchange rate in a world with a high degree of international capital mobility will behave like a policy instrument wielded by an omniscient and benevolent central planner.

4.4.2.1. Nominal exchange rate depreciation and real competitiveness gains

As regards the likelihood that a sharp depreciation (if the exchange rate is market-driven) or devaluation (if the exchange rate is managed) of the New Drachma would result in a significant and persistent improvement in real competitiveness we can be brief. There is no evidence we are aware of that Greek wage setting and/or the determination of Greek nominal non-wage input costs is characterised by significant and persistent nominal rigidities. There are parables of the usefulness of the nominal exchange rate as a coordination device for decentralised wage bargaining. For instance, in a world where relative wages matter in addition to the level of real wages, and where there is a medium-sized number oligopolistic labour unions, each individual union may be reluctant to agree to cut its contract wage to achieve a cut in the real wage of its members, even if every union agrees this makes sense if everyone were to do so. Not wanting their members to lose out relative to members of other unions, each union will accept a cut in money wages only if it can be sure that the others will follow suit. A depreciation/devaluation of the nominal exchange rate and an associated increase in the general price level, may be a useful coordinating device under such circumstances, as it would cut real wages all round with each union holding its nominal contract wage constant. This coordination story does not seem relevant to Greece. Effectively, Greece has two large unions, one for the private sector (GSEE) and one for the public sector (ADEDY). Coordination is but a phone call, SMS or Tweet away.

It is our view that, without simultaneous deep structural changes in the legal (sometimes constitutional) and regulatory determinants of the balance of bargaining power in labour and product markets, without the removal of barriers to entry in the private service sectors and without the privatisation of a vast array of inefficient (majority) state-owned enterprises, a sharp depreciation/devaluation of the New Drachma would go through the nominal wage and other nominal domestic cost structure like a dose of salts. Following a sharp bout of inflation, the same uncompetitive real equilibrium would be restored.

Often in emerging market crises since World War II, a collapse of the nominal value of the currency and a sharp depreciation of the real exchange rate have been part of the restoration of economic health following years, sometimes decades of accretion of uncompetitive practices, products, processes and procedures. The nominal and real exchange rate depreciations come about following often severe fiscal, banking and exchange rate crises during and following which the balance of political and economic power shifted dramatically. To attribute the improvement in competitiveness at the end of these traumatic economic, political and social upheavals is to confuse the tail and the dog. The nominal exchange rate level had become unsustainable and had to be corrected. The real exchange rate/relative unit labour cost position had become unsustainable and had to change. To conclude from this that a sharp nominal depreciation is necessary or even necessary and sufficient to achieve a lasting competitive improvement for the Greek economy, when the deep structural reforms and the collapse of the political and social arrangements that support the widespread uncompetitive, inefficient and unproductive practices have barely begun is to mis-identify the causal mechanisms involved. The examples of Germany during the first decade of this century and of Latvia since 2008 demonstrate at the very least that nominal exchange rate depreciation is not necessary for achieving a significant and lasting improvement in relative productivity and efficiency, that is, in real competitiveness.

If the aggressive use of nominal exchange rate depreciation were an effective means to achieve an improvement in a country's international competitive position, Zimbabwe in the years just before its de-facto dollarisation would have been the most competitive economy in the world.

4.4.2.2. The exchange rate is neither a useful policy instrument nor a macroeconomic stability enhancing part of the transmission mechanism

The argument that a country that has its own currency has an important advantage in addressing major structural imbalances is even more implausible than the argument that national monetary sovereignty provides a nation with a useful cyclical stabilization tool – an effective instrument for addressing transitory asymmetric shocks. Even the desirability of monetary sovereignty and exchange rate flexibility for cyclical stabilisation purposes is, in our view, at least overstated and probably completely incorrect. We have argued before that a small open economy with a floating exchange rate and a very high degree of international capital mobility is better off as a member of a larger currency union, even if it is faced with asymmetric shocks (Buiter 1999a, b, 2000, 2008a).

There is no evidence to support the view that a floating exchange rate under conditions of high international capital mobility is an effective shock-absorber or a buffer that permits necessary changes in international relative costs and prices to be achieved through costless changes in the nominal exchange rate rather than through painful changes in relative domestic and foreign nominal costs and prices.

Quite the contrary. Even when domestic money costs and prices are sticky, a floating exchange rate is, when capital is highly mobile, more likely to be a source of extraneous noise, excess short-term volatility and persistent medium-term misalignments of competitiveness than a means to achieve necessary international relative cost and price changes at minimal cost. The reason is that, far from being set at a level that puts international relative prices of goods, services and factors of production at their fundamental values, the exchange rate is determined/set proximately in asset markets. Like most other financial markets, the market for foreign exchange is - even when it is technically efficient in the sense of characterised by low transactions costs and few opportunities for profitable arbitrage - a highly inefficient pricing mechanism from the perspective of allocative efficiency. It reflects not just fundamentals (or people's view of fundamentals) but also the fears, phobias, hopes, moods and impulses that can drive foreign exchange traders and their principals. Like most markets, bubbles, sudden mood swings from euphoria to despondency, from irrational exuberance to unwarranted depression, herding behaviour and bandwagon effects are the rule, not the exception. Safe haven demands for Swiss currency have rendered much of Swiss production of tradable goods and services uncompetitive, in the end forcing the authorities to introduce a highly unconvential cap on the external value of the Swiss Franc relative to the euro, enforced though open-ended uncapped euro purchases if necessary. Risk-on/risk-off swings can cause persistent misalignments between the US dollar, the Swiss franc and the Yen on the one hand and a range of emerging market currencies on the other hand.

Thus, a floating exchange rate under high international capital mobility is far from performing like an automatic stabilizer. It is even further from being an effective policy instrument. It is an outcome of uncontrolled and uncontrollable processes, many of which we do not understand and cannot predict. Even in a rather closed continent-sized economy like the United States or the Euro area, monetary policy works with lags that are often long and always variable and uncertain. In a small open economy like Greece, where much of the transmission of monetary policy would be through the exchange rate if it were to leave the Euro area and adopt its own currency, the uncertainty about the timing, the magnitude and sometimes even the direction of the effects of monetary policy and other shocks on the exchange rate and other variables of interest is such that independent monetary policy is likely to be a curse, not a blessing. By remaining in a larger monetary union and thus reducing the exposure of the real economy to the vagaries of the foreign exchange market, the macroeconomic stability of the Greek economy will be enhanced.

In our view, the cost-benefit analysis of exiting the Euro area for Greece is unambiguous: leaving would be disastrous for Greece. If the social choice mechanism of Greece produces rational results, Greece would remain a member of the Euro area. Collective choice is not always rational, however, and it is certainly possible to visualise circumstances under which an extreme nationalist and populist Greek government could cut off its nose to spite its face by leaving the euro area and the EU in a red haze. We do consider such an outcome to be highly unlikely, however. Also, if one or more of the fiscally and competitively weak countries in the Euro area periphery were to leave the Euro area, this would not threaten the continued existence of the euro. Indeed, the euro would be likely to strengthen following the exit of one or more of the weaker member states.

4.5. Costs and Exit by a fiscally and competitively strong member state

Exit by one or more fiscally and competitively strong member of the EA would also be costly both for the exiting country and those remaining in the EA

Costs for the exiting country involve one-off set-up costs, losses from a less competitive exchange rate and losses on holdings of euro-denominated assets in the countries remaining in the EA

Why would a fiscally and competitively strong member state, Germany, say, wish to leave the Euro area? The only reason would be an attempt by the rest of the Euro area (or the EU) to establish an open-ended, uncapped Transfer Europe 'through the back door'. A Transfer Europe of any kind (with or without a quid-pro-quo as regards the surrender of fiscal sovereignty by the financial beneficiaries) could not happen against Germany's wishes through a Treaty revision, as this requires the unanimous approval by all EU member states.

If Germany were to exit, it probably would not exit alone. The cost to Germany would depend on how many existing Euro area and EU member states would join it in a new monetary union. If more of the existing Euro are and EU member states exit with Germany and recreate the EU and the Euro area with a new currency, the Thaler, say, the lower the financial disruption for all concerned.

If Germany were to leave the Euro area, even if it took most of the existing Euro area member states with it (weighted by population and GDP), the leavers would in all likelihood have to leave the name and the other attributes of the euro behind. This could be awkward, as the ECB is headquartered in Germany, but no doubt a solution would be found.

The Thaler would likely strengthen vis-à-vis the euro,because the euro area would now consist exclusively of fiscally and competitively weak countries – it would be the periphery currency. There would therefore not be any risk of a bank run for Germany. Quite the opposite, there would most likely be a rush of money into German bank deposits, in anticipation of their redenomination into Thaler and the subsequent appreciation of the Thaler. There could, however, be a bank run on the banks in the periphery, as depositors move their funds into out banks in countries that will form the periphery euro area following the departure of Germany.

German investors' holdings of financial instruments denominated in euro issued under periphery EA member states' laws would not be redenominated in Thaler but would remain euro-denominated. This would imply capital losses (measured in Thaler) for these German investors – mainly banks, pension funds and insurance companies.

The financial cost of a German exit to third parties (private and public investors from countries that are not members of the EA today) would be severe, because their euro exposures would lose value dramatically. Worse would be to come, because there would be nothing to keep the periphery euro area together. The periphery euro area would probably break up into a collection of individual periphery national currencies areas. The euro might cease to exist. What would happen to the value of euro-denominated instruments held by investors outside the euro area is anyone's guess, but it is unlikely to be pretty.

Following a German exit, the cost of a sudden currency mismatch in private portfolios would be qualitatively the same as in the case of Greece leaving. Presumably, euro-denominated contracts and instruments under German law (and under the law of other members of the Thaler area) would be redenominated in Thaler while euro-denominated contracts and instruments under the laws of the continuing (periphery) Euro area members would remain denominated in euro.

New public debt issued by the Thaler area member states would undoubtedly become a safe haven, so sovereign funding problems of the kind that Greece would encounter if it left, would not be on the cards. The cost of introducing a new currency and a new numeraire would be the same as for any new currency.

As noted earlier, the external value of the Thaler would likely appreciate sharply, as the risk of the new Thaler area central bank being forced into inflationary monetization of public debt and deficits would have been removed. It is indeed likely that the Thaler would enjoy safe-haven currency status alongside the US dollar. This sharp appreciation of the Thaler would imply a temporary loss of competitiveness for the new Thaler area, until a combination of monetary easing (and associated Thaler effective exchange rate depreciation) and lower Thaler wages and other Thaler costs restore competitiveness.

Under the prevailing interpreation of the Treaty, departure from the EA also implies EU exit also for stronger countries. However, if enough of the core EA members were to leave together, they could re-establish the EU in all but name for themselves and for those EU members always outside the EA that might prefer to be in a de-facto EU with the core EA member states to being in the de jure EU with the periphery EA member states.

4.6. Cost of 'losing Europe'

The effects of European integration on even the every-day life of European citizens are large and mostly positive – despite the polls suggesting EU fatigue in many member states

The main reason why an exit from the Euro area is highly unlikely either by the fiscally and competitively weak or by the fiscally and competitively strong member states, is that in the 54 years of its existence the EU has become inextricably intertwined with virtually every aspect of financial, economic, social and political life in the member states. The judgments of the European Court of Justice have a greater impact on the everyday life of EU citizens than the judgments of their national courts of highest appeal. Most of the regulations governing the lives of businesses and households throughout the EU are EU regulations or national transpositions of EU regulations. Because exiting the Euro area means also exiting the EU, the odds on this happening are very low indeed.

It is probably correct that the EU and its predecessors (the European Economic Community, the European Community etc.) have always been enterprises driven by the European political elites, not by the mass of the people in the member states. But when and where were the politics that matter ever a reflection of the 'popular will'? Poll after poll shows that the majority of the British public favours the reintroduction of capital punishment for at least some crimes. Every time the issue comes up before the UK Parliament, it is voted down overwhelmingly. The answer to the question "Who loves Brussels?" is probably that very few do. But you would get a very similar answer if you asked the question "Who loves Rome?" in much of Italy, "Who loves Amsterdam/the Hague?" in the Netherlands or even "Who loves London?" in the UK. As reported by the Sunday Telegraph newspaper on 26 November 2006, an ICM opinion poll for The Sunday Telegraph had found that 52 percent of Scots polled favoured independence for Scotland, while 59 percent of the English polled wanted Scotland to go it alone.[18] Separatist movements have a material chance of achieving their objectives over the next decade or so in several EU member states, including the Belgium, Spain and the UK. Nationalism in Europe clearly is in a state of flux. The awkward hybrid that is the EU may well turn out to have greater staying power than some of its constituent multi-nation member states.

5. The You Break It You Own It Europe scenario

We consider the likely medium-term configuration of the EA to be 'You break it, You own it Europe' – an EA with only very limited bail-outs of insolvent sovereigns (their tax payers and beneficiaries of public spending) and of the creditors of insolvent sovereigns and banks

Having ruled out as unlikely both a move towards fiscal union and a breakup of the Euro area and the EU, we now propose that the most likely outcome of the current crises is a sequence of higgledy-piggledy reforms leading to a version of what we have called a 'You Break it You Own it' Europe. This is a European Union in which insolvency of a sovereign is settled between the taxpayers of that sovereign and its creditors, without any ex-ante permanent financial support (grants, transfers or subsidies) from any other nation's taxpayers. Likewise, threatening insolvency of systemically important banks ('sibanks') and other systemically important financial institutions or 'sifis' is first visited on these institutions' unsecured junior and senior creditors. Their claims are written off or converted into equity before any taxpayer money goes in.

The agreement between European leaders in July permits us to discern the outline of things to come. The imminent ratings default of Greece sets an important precedent. We expect Greece to move into and out of ratings default several more times before solvency is restored, with a cumulative net present value (NPV) loss to creditors of between 65 and 80 per cent. Some of these future restructurings may

[18] http://www.telegraph.co.uk/news/uknews/1535193/Britain-wants-UK-break-up-poll-shows.html

well be coercive. They would in that case be likely to constitute credit events too, triggering CDS written on the Greek sovereign debt.

5.1 An SDRM for the Euro area

YBIYOIE would include:

1) **a sovereign debt restructuring mechanism for the EA**
2) **A Special Resolution Regimes and a Eurotarp for cross-border sibanks and other sifis**
3) **Taking the ECB out of the quasi-fiscal support game**
4) **Adequate liquidity support for sovereigns deemed solvent**

We expect that other Euro area sovereigns, most likely Portugal and Ireland, will experience ratings defaults. The new European Stability Mechanism (ESM) that will replace the European Financial Stability Facility after the middle of 2013, will have a sovereign default resolution mechanism or sovereign debt restructuring mechanism (SDRM) as an integral part of its design. For sovereigns deemed insolvent, debt restructuring will be a pre-condition for access to ESM funds. Few details are available about the SDRM that will be created as part of the ESM. The actual methods chosen for resolving sovereign insolvencies in the Euro area periphery between now and the middle of 2013 may give us pointers as to the likely future shape of the SDRM.

We already know that the SDRM will be in part contractual and market-based. Collective action clauses (CACs) that will facilitate future sovereign debt restructurings by minimizing holdout risk are planned to be mandatory for all Euro area sovereign debt issued after the middle of 2013. But to minimise the risk of contagion and the cost of protracted negotiations between private creditors and sovereign debtors, the SDRM will also have to have a statutory component, including the ability of the body in charge of the SDRM (which will presumably consist of representatives from the Eurogroup of finance ministers of the EA member states, from the European Commission and from the ECB (and possibly from the IMF as well) to impose a solution on all parties involved in a sovereign debt restructuring should a stalemate threaten.

Private sector creditors will, in future sovereign debt crises, bear most of the burden of sovereign debt restructuring. Private sector involvement (PSI), so far on a limited and supposedly voluntary basis, is already formally on the map for Greece. Although we expect that before the current sovereign debt crises in the Euro area periphery are resolved, there will be deep coercive debt restructurings for Greece and other periphery sovereigns (because without such measures it seems inconceivable their debt burdens can be lowered to solvency-consistent levels) we also expect a significant measure of ex-post Transfer Europe as part of the resolution of the current crises. We argued in Sections 2 and 3, that the Greek Loan Facility, the EFSF, the EFSM and the ECB (and, after the middle of 2013, the ESM), will incur material NPV losses on their exposures to the insolvent sovereigns of the periphery. This one-time partial ex-post Transfer Europe is the price for the continent's political and institutional lack of readiness. No doubt the ministers of finance of the Eurogroup will continue their game of 'chicken' with the ECB about who (the explicitly fiscal facilities like the Greek Loan Facility, the EFSF, EFSM and ESM, or the quasi-fiscal facility represented by the ECB/Eurosystem) will officially record on their books the Euro area tax payers' exposures and, ultimately, losses. It is important that there be a full political accounting for these losses, regardless of whether the Facilities or the ECB/Eurosystem bears them.

5.2. Special Resolution Regimes and a Eurotarp for sibanks and other sifis

Equally important as the future SDRM for resolving sovereign insolvencies will be the arrangements that are being created for dealing with threated insolvencies by systemically important banks and other financial institutions (especially insurance companies). The European Commission has been working since at least 2009 on proposals for creating special resolution regimes for banks in all 27 EU member states. Currently only the UK, Denmark, Germany and Ireland have full-fledged SDRs, with powers exceeding those of the FDIC in the US. These national SRRs would permit the appropriate national resolution authority to restructure the assets and liabilities of pre-insolvent banks at the speed of crises (over a weekend or even overnight), while keeping the restructured entities alive and capable of performing their vital intermediation functions. Unsecured debt, subordinate and senior, can be written down or converted into equity under these regimes, without having to put the institutions into the normal corporate insolvency regimes.

The European Commission was expected to present concrete proposals for an EU-wide system of national SRRs for banks in September 2011. Because of the highly fragile state of the banking system in Europe at the beginning of September, the presentation of these proposals may be postponed till October 2011. These proposals will then be turned into EU law by the European Parliament, followed by the transposition of the EU legal requirements into national laws, regulations and rules.

Arrangements for handling cross-border sibanks and other sifis will also be created according to an early blueprint released by the European Commission. (European Commission (2011); see also European Commission (2010a,b) and BIS (2010)). These include one EU regulator for cross-border Sifis (an enhanced version of the EBA, possibly), a cross-border sibank and sifi resolution regime (a European Resolution Authority or ERA), an EU 'Tarp' as recapitaliser of last resort for sibanks and other sifis and an EU-wide deposit insurance regime.

The agreement of July 21, 2011 will give the EFSF (and later the ESM) the ability to assist the recapitalisation of banks by lending to governments that are not under a Troika programme, with the governments using the proceeds from these loans to recapitalise their banks. The Greek Loan Facility and the EFSF had already provided capital to banks via their sovereigns, but only for countries under a Troika programme. We believe it to be desirable that the EFSF or some other dedicated fund be able to recapitalise sibanks and other sifis directly, without going through the sovereigns. Europe needs a TARP.[19] An EU-level TARP might also be able to purchase bank liabilities other than equity.

5.3. Taking the ECB out of the quasi-fiscal support game

Central banks, even if they have the resources to do so, ought not to engage in quasi-fiscal activities (providing grants or subsidies and redistributing income and wealth) other than what is technically unavoidable given their macroeconomic stability objectives. The reason is that the resources of the central bank are taxpayers' money. They should be accounted for in the normal way and prioritised as explicit taxes, transfers and subsidies through parliamentary procedures and open and transparent government budgets. These redistributive actions ought not to be taken by central banks, especially when these central banks can avoid proper scrutiny of and accountability for their quasi-fiscal actions by hiding behind the cloak of central bank independence which they were granted to set interest rates.

When central banks engage in large scale quasi-fiscal transfers, they politicise themselves. This can undermine their independence even in those areas where such independence may make sense, as in the setting of interest rates. The

[19] A proposal to permit the EFSF to recapitalise banks directly, without going through the sovereign in whose jurisdiction the bank is incorporated/headquartered was made in Buiter (2010a).

independence of the ECB makes it substantively unaccountable for the use of trillions worth of tax payers money. The ECB ought to be given as little discretion as possible as to how these resources are used, except for the unavoidable resource implications of the interest rate decisions taken in the pursuit of the price stability mandate.

One simple measure that goes a long way towards taking the ECB out of the quasi-fiscal game is to require that all financial instruments held outright by the ECB (and by the rest of the Eurosystem in its monetary policy implementation role) or accepted by the ECB (and by the rest of the Eurosystem) as collateral for lending to eligible counterparties, must either achieve a certain minimum credit rating by each of the three leading rating agencies or must be guaranteed jointly and severally by the Euro area member states. The minimum benchmark for securities the ECB/Eurosystem can take an exposure to without a joint and several guarantee from the Euro area sovereigns should, in our view, be no lower than the lowest investment grade rating. Higher minimum standards, including AAA, can certainly be argued for. This takes the ECB/Eurosystem out of the credit risk game and restricts its role to the provision of liquidity rather than filling the solvency gaps of (near) insolvent sovereigns and banks.

We have moved some distance into this direction by getting the HosHogs (Heads of State/Heads of Governments) to agree that the EFSF would guarantee the Greek sovereign debt offered as collateral to the Eurosystem during the period(s) when the Greek sovereign will be in default. It is, however, still a long way from taking the SMP and collateralised loan operations of the ECB/Eurosystem out of the quasi-fiscal domain. For the sake of the ECB, it is important that such a measure be implemented as soon as possible, as its very legitimacy is put at risk by the quasi-fiscal role it is forced to play by the Eurogroup.

5.4. Adequate liquidity support for sovereigns

Adequate liquidity support will be provided to illiquid but most likely solvent sovereigns. Sovereigns are like banks, in that, even when fundamentally solvent, they are always at risk of a 'run' that could precipitate a default. Their assets (the NPV of future taxes and the NPV of future spending cuts) are long-term and highly illiquid. Their liabilities are often short-term.

Like banks, sovereigns therefore need a lender of last resort (LLR) and market maker of last resort (MMLR) to prevent fundamentally sovereigns from being pushed into default by a self-fulfilling, fear-of-default-driven denial of market funding. For domestic currency-denominated liabilities, this LLR/MMLR is normally the national central bank. In the euro area, some combination of the EFSF (enlarged to at least €2,500bn) and the ECB will be needed. Until October 2011 at the earliest (quite possibly not until the end of 2011), the EFSF has neither the tools nor the financial resources to provide liquidity to sovereigns. Following the planned enhancement and enlargement of the EFSF, the tools will be there: the EFSF and later the ESM will be able to buy sovereign debt outright in both the primary and secondary markets, and they also will be able to provide precautionary financial support (through credit lines) to sovereigns that are not under Troika programmes. However, the size of the EFSF (€440bn) is still laughably inadequate.

If the markets truly reject Italy or Spain, as they threatened to do before the ECB reactivated the SMP, nothing except the ECB re-opening the Securities Markets programme and buying (or standing ready to buy) Spanish and Italian sovereign debt in a potentially open-ended and uncapped way, stands between these sovereigns and the risk of multiple, fundamentally unwarranted defaults – a disaster that probably would destroy the Euro area.

We do not expect much from strengthening the preventive arm of Euro area fiscal sustainability management. The enhanced Stability and Growth Pact will still be a paper tiger, although the paper may be a bit sturdier because proposals by the European Commission to impose sanctions on fiscally misbehaving member states will under the revised Stability and Growth Pact, be implemented unless they are rejected by a qualified majority of the Council. Until now they had to be supported by a qualified majority to be implemented. The strongest incentives for preventing unsustainability are the certainty of pain and, should unsustainability occur, the absence of a bail-out. The institutions to make a no-bail-out rule credible have to be in place.

So the EU and the euro area look set to blunder higgledy-piggledy into a future that fits its unique nature as neither a nation state nor an intergovernmental arrangement but something with features of both. There will have to be a minimal fiscal and regulatory Europe, as outlined in this Section, but the minimal fiscal Europe should fall well short of even the lightest variety of transfer Europe.

6. Plausible and Possible Additional Institutional Arrangements for the You Break It You Own It Europe

There are a number of plausible and possible additional institutional arrangements for YBIYOIE, including

i) making the EFSF an eligible counterparty of the ECB/Eurosystem

ii) raiding the resources of the European Investment Bank

iii) Enhanced Cooperation

There are three plausible additional institutional innovations that could be part of the minimal fiscal Europe inherent in the You Break It You Own It Europe. The first would be funding the EFSF/ESM through the ECB. The second would involve using the financial resources of the European Investment Bank as a stop gap source of funding to supplement the EFSF, until the latter can be increased to a reasonable size – say €1 trillion by the end of 2011, and then successive half-yearly increments of €500bn, until the €2.5 trillion benchmark is reached. The third involves using Enhanced Cooperation to eliminate the veto power of small member states over sensible proposals.

6.1. Making the EFSF an eligible counterparty of the ECB/Eurosystem

It is key to keep two aspects of the EFSF's funding capacity separate: these are maximal size and speed. Even if the upper bound on the effective funding capacity of the EFSF (currently around €255bn) is raised, by October 2011 at the earliest, to €440bn or perhaps an even larger number, it is key that the EFSF, if it is to take over from the ECB the LLR and MMLR roles for Euro area sovereigns, be able to intervene at the speed of crises. That means either that the EFSF prefunds its future lending operations on a large scale, or that it be able to obtain loans from the ECB or sell its debt to the ECB without delay on a scale limited only by its effective funding limit. A proposal to turn the EFSF into an eligible counterparty of the ECB for the purpose of allowing the EFSF to obtain collateralised loans from the ECB/Eurosystem were made in Buiter (2010a) and have been revived recently by Daniel Gros (2011).

6.2. Raiding the resources of the European Investment Bank

The European Investment Bank (EIB) is an EU institution with considerable financial resources at its disposal. It could, if circumstances were dire enough, be diverted from its original purpose - development banking - to act as a conduit for financial support for Euro area sovereigns and EU banks or even to provide such financial support with its own resources. The Treaty-based statement of the role of the EIB is vague enough to cover virtually any use of its funds.

Article 309 (Consolidated Treaty on the Functioning of the European Union, ex Article 267 TEC) states:

"The task of the European Investment Bank shall be to contribute, by having recourse to the capital market and utilising its own resources, to the balanced and steady development of the internal market in the interest of the Union. For this purpose the Bank shall, operating on a non-profit- making basis, grant loans and give guarantees which facilitate the financing of the following projects in all sectors of the economy:

(a) projects for developing less-developed regions;

(b) projects for modernising or converting undertakings or for developing fresh activities called for by the establishment or functioning of the internal market, where these projects are of such a size or nature that they cannot be entirely financed by the various means available in the individual Member States;

(c) projects of common interest to several Member States which are of such a size or nature that they cannot be entirely financed by the various means available in the individual Member States."

Moving from (a) to (c), and remembering that a project can be anything that the Council of Hoshogs defines to be a project, it is apparent that, in a pinch, the entire financial firepower of the EIB could be brought to bear on the defense of the European financial sector or the euro area sovereigns.

The EIB has considerable financial clout. Its subscribed capital is €232.4 bn, of which just under 5 percent is paid in. The EIB Group's Financial Report 2010 states that, as of 31 December 2010, the EIB on-balance-sheet assets were €419.8 bn, its subscribed capital €232.4 bn, its paid in capital €11.6 bn, its reserves €26.4 bn and profits for the financial year attributable to equity holders €2.1bn.[20] In addition it had €792.5bn worth of off-balance sheet exposures.[21] Article 15.5 of the Protocol on the EIB gives the limit on the size of the loans and guarantees that can be extended by the EIB: *"The aggregate amount outstanding at any time of loans and guarantees granted by the Bank shall not exceed 250 % of its subscribed capital, reserves, non-allocated provisions and profit and loss account surplus. ..."* . Article 4.3 states that the Board of Governors of the EIB (Ministers designated by each of the 27 Member States, usually Finance Ministers) may, acting unanimously, decide to increase the subscribed capital. This does not require any national parliamentary or other national political approval processes. Any €1 increment in the subscribed capital of the EIB can be leveraged into a €2.5 increment in EIB loans and guarantees. This

[20] EIB Group, Financial Report 2010, p. 30-31, http://www.eib.org/about/publications/annual-report-2010-financial.htm

[21] EIB Group, Financial Report 2010, p. 32, http://www.eib.org/about/publications/annual-report-2010-financial.htm

could provide, if all else fails, a powerful stand-by source of funding for EU banks and Euro area sovereigns frozen out of the markets.

On May 7, 2009 the ECB announced that the EIB would become an eligible counterparty in the Eurosystem's monetary policy operations on 8 July 2009. This means that the EIB now has access to the Eurosystem's open market operations and standing facilities through the Banque centrale du Luxembourg under the same conditions as any other counterparty. Note that the EIB is not a deposit-taking institution. It was designed to be a development bank. The timing of its transformation into an eligible counterparty for the ECB (just after the Lehman crisis) suggests that the European authorities were keen to extend the set of institutional vehicles through which official Europe could draw on the liquidity resources of the ECB/Eurosystem. Extending this to the EFSF (and, after the middle of 2013) to the ESM, would be a natural way to augment the liquidity firepower of the Euro area authorities, as we argued in the previous subsection.

6.3. Enhanced cooperation

As pointed out in Buiter (2011), even if not all 17 Euro Area member states ratify the enhanced and enlarged EFSF later this year, an enhanced and enlarged EFSF can still be created, if necessary, by the 'coalition of the willing' through *Enhanced Cooperation*. Enhanced Cooperation is an EU procedure where a minimum of nine EU member states are allowed to establish advanced integration or cooperation in an area within EU structures but without the other members being involved. The arrangements cannot violate the Treaty, of course, and they must be open to any EU member wishing to join. Although as of March 2011, Enhanced Cooperation had only been used in the fields of divorce law and patents, but it seems purpose-made for overcoming the problem of a small Euro area member state vetoing EFSF enhancement or enlargement.[22]

This case could soon apply to Finland for the second Greek bail-out package which will be carried out under the umbrella of the EFSF.

The recent decision by Finland to request cash collateral for its share of the guarantees needed to fund the second Greek bailout is clearly a non-starter, because it would undermine the ability of the Euro area member states to provide effective financial support to any other member state. If the Greek sovereign had cash collateral to post against the guarantees provided by the 14 Euro area member states that are supposed contribute to the second Greek bail-out, it probably wouldn't have needed the second bail out in the first place. In addition, the Netherlands, Austria, Slovakia and Slovenia have made it clear that if Finland succeeds in getting cash collateral for its contribution to the second Greek bailout, they too will demand such cash collateral. So either Finland will give in and provide its guarantee without cash collateral (but perhaps with a face-saving offer as collateral of something illiquid, impossible to value and of dubious perfectibility as security), or Finland insists on receiving cash collateral, in which case it should be excluded from the club of contributors to the second Greek bailout. This bailout can then proceed without Finland (responsible for about 1.8 percent of the total guarantee) under Enhanced Cooperation.

[22] EFSF support can likely proceed without unanimity without appealing to 'Enhanced Cooperation', if the dissenting member can simply 'step out' of providing its share of the support measures.

7. Conclusion

Europe blunders and Europe stumbles, but it never stays down

We do not expect that the EA will evolve towards a fiscal union. We also do not expect EA break-up.

Instead, we expect the EA to put in place the minimum institutional, regulatory and fiscal set-up to ensure the long-term survival of the monetary union – what we call 'You Break it, You Own it Europe'. In this European Union and Euro Area, insolvency of a sovereign is settled between the taxpayers of that sovereign and its creditors, without any ex-ante permanent financial support (grants, transfers or subsidies) from any other nation's taxpayers. Likewise, threatening insolvency of systemically important banks ('sibanks') and other systemically important financial institutions or 'sifis' is first visited on these institutions' unsecured junior and senior creditors.

Progress towards YBIYOIE will not be fast. Agreement needs to be found domestically in EA member countries and between the member states. Laws have to be written or rewritten and institutions will have to be built. Resolution of the current crisis will take up much of the EA political and institutional capacity in the near-term. Policymakers will not take the most direct route to YBIYOIE. The periodic crises that we expect until a full resolution of the EA sovereign and banking crisis will trigger responses according to what is most opportune at that time, rather than in the long-term interest of the EA. But even resolution of the current crisis will involve substantial further private sector burden sharing which we expect to be a major element of YBIYOIE.

Europe blunders and Europe stumbles, but it never stays down. This unique hybrid between a federation of nation states and an intergovernmental alliance will likely use the current crises the way it has used all past crises: to emerge stronger and more capable of dealing with future challenges and crises.

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Notes

Notes

Appendix A-1

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