

Achieving a New Socio-economic Balance in an Asymmetric Europe

David G Mayes
University of Auckland
Europe Institute

Paper prepared for
The European Rescue of the European Union
The Socio-Economic Malaise of Integration
September 9-10, 2011
León

The third phase of the global financial crisis (GFC) has been focused on the fears of sovereign default in Europe and the attempts that are being made to manage the problem in ways that will not have an unnecessarily severe impact on the real economy. The structure of Economic and Monetary Union (EMU) in the EU has contributed both to the problem and to the difficulty in finding a lasting solution. This experience has revealed fundamental problems in the process of integration and the role of the state. This paper focuses on the nature of the problem and the plausible ways out – not simply to end this phase of the GFC but to provide a sustainable future path for EMU and continuing integration in Europe and elsewhere round the world. The GFC has emphasised the extent of interconnection among economies through globalisation and the advantages of international cooperation and coordination in the avoidance and management of crises.

The common response has been to suggest that either increased integration is required, particularly at the political level or that some countries should leave the euro area. This paper suggests, however, that the original concept was workable, even in the face of shock as large as the GFC, had the agreed rules been applied. It is now more difficult to follow this path, given the poor fiscal discipline of many of the participating countries, but a revised pact, involving not just a more plausible procedure for correcting potential excessive deficits but also a stronger procedure for improving the debt position of all members steadily – the so-called preventative arm – could still work. It is this route which has been chosen in the most recent agreement concluded on 21 July 2011, outlined in the Appendix. As the details are yet to be published and some to be worked out, it is difficult to decide whether this recipe will work. It may well not be enough to handle the problems of the states that are currently in difficulty without either a bailout or a default. The 21 July agreement focused on

Greece, which it stresses is a special case, but clearly the EU has an eye on all of the problems states and the general increases in debt ratios both before and during the GFC.

The pressures from the GFC have affected the role of the state in the euro area in at least 7 obvious ways:

- countries with difficulties in funding their debts have had to seek relief from their partners and the IMF, which has entailed conformity with strict conditions – in common with earlier IMF support
- the other partners have had to offer funding despite a no bail out clause
- countries have proved very susceptible to spillover effects from others in financial markets and have not been able to address these fully on their own, thereby enhancing the degree of cooperation in financial markets
- cross-border banking problems have revealed that cross country cooperation agreements are inadequate and that interests can conflict
- previous means of trying to limit fiscal spillovers in the euro area through the SGP have been inadequate
- the expected problems posed by the single monetary policy for countries in difficulty have been fully borne out.
- the limits of the willingness to pay for other countries' actions has been exposed.

All of these concerns have an impact on economic sovereignty. Whether they represent a loss of sovereignty or whether in any sense the joining of the euro area represents an increase in sovereignty are complex questions to answer. Small countries did not have much sovereignty beforehand and were highly dependent upon the decisions of large countries, the views of financial markets and the shocks to the system that were beyond their control. The degree to which any one country with a specific problem has over the operation of common policies in the euro area is normally almost zero. Until that is they become a threat to the system. Some larger countries, such as France, Spain and Italy, now have more control over their destiny than was the case where in the earlier years of the European Monetary System (EMS) Germany effectively determined the general alignment of policy for its own domestic benefit. Germany consequently must therefore have less sovereignty than before.

The system is not completely lopsided, otherwise small countries would not have joined. If they are not subject to idiosyncratic shocks, they gain through the lower interest rates and greater stability of being part of the wider area – in part from being able to diversify their wealth in the larger euro area and hence provide a greater measure of self-insurance. All

gain from lower transaction costs and reduced barriers but the small have a serious problem in the event of an idiosyncratic downward shock, as illustrated by Ireland (and the Baltic States) in the GFC. Here the trade off between the years of gain and the years of harsh adjustment comes into play. No doubt electors are revisiting the judgements they made before deciding to join the euro area – if they were given a choice that is.

The main issue is that the process is highly asymmetric. Not only is it that the states with the fiscal problems have to make the adjustment themselves to return to prudence but that a downward adjustment is immensely more difficult than an upward one.

The subsequent sections deal in turn with the nature of the predicament the euro area faces; how the system was intended to work; how the fiscal and financial problems might be addressed before concluding. However, the primary concern here is not with solution to the crisis per se but with the implications that the crisis and its likely resolution have for the role of the state.

1 The current predicament

The problem that the euro area faces at present is that a number of countries, Greece, Ireland, Italy, Portugal and Spain (unkindly referred to as the PIIGS in the popular press) have accumulated levels of public sector debt that, in combination with present fiscal deficits, lead lenders to think that they may not be repaid in full. As a result the spreads that most of these countries are being asked to pay on new debt and rolling over the existing debt are such that the burden would be so high that the default that is feared would be triggered. The countries themselves are convinced and have thus far succeeded in persuading both their EU colleagues and the IMF that they can manage to reorganize their budgets in such a way that they can service the debt in the short run and run down the excess so that it is sustainable in the long run. Provided that is that the EU and the IMF offer rates of interest that reflect normal times and not the panic rates that have precipitated the crisis. Even the latest (21 July 2011) agreement over the handling of Greece does not involve writing down any of the debt but a rescheduling.

Offering a plausible commitment involves turning the current budgets from strong deficits into surpluses with a believable prospect that the position will be maintained over the future. Cutting expenditure and raising taxes at a time of difficulty will make the present recession deeper in the short run and it is not surprising that the Greek government for example has opted to meet as much as possible of the shortfall by asset sales. Being members

of the euro area, the troubled countries cannot undertake the usual stimulus to recovery by devaluing their exchange rate and their competitiveness can only be improved by deflation (or inflation clearly less than that of their competitors, which is clearly difficult when inflation levels are near zero).¹

Making all these changes requires a substantial public and political commitment. Not only do the budgetary measures have to be agreed by parliaments but wage bargainers have to agree for wage levels to fall relative to competitors if the outcomes are to be sustainable. It is not surprising therefore that governments have fallen in countries faced with such pressure and that the public is reluctant to accept the austerity involved as they do not feel it is their fault but that of politicians and financial institutions that have allowed them to get into this mess in the first place. In any case such a route to adjustment, especially if applied slowly, runs the risk of progressive difficulty with rising taxes and falling expenditures leading to lower taxable incomes and greater demands on the welfare system. Rapid turnrounds are possible under fixed exchange rates without ramping up debt, as demonstrated by Estonia, but traditionally the exchange rate has formed an important pillar of the recovery from a severe fiscal and financial crisis, as demonstrated by the Nordic countries in the early 1990s and the Asian countries in 1997-8.

The idea behind the EU and the IMF stepping in in the interim is that it gives the countries time to implement the changes and start the recovery so that the longer term future looks feasible to private sector lenders who will then be prepared to lend to these countries at rates of interest that are not crippling. This has been the normal outcome of IMF intervention in the past, although countries quite naturally have not liked the harsh restructuring terms the IMF have imposed. Sometimes it has taken rather longer and subsequent programmes of IMF lending have been required. It has normally been a feature of such lending that it is offered at a rate of interest reasonably close to that which the itself raises the funds hence providing a considerable improvement over what could be obtained in the market. In the present case, up until the 21 July agreement, Greece, Ireland and Portugal were paying penalty rates, thereby making their short run cash flow problems worse. (The reasoning behind this penalty was difficult to understand. If it reflected perceived risk then the other countries should not have been lending in the first place.) While temporary lending programmes are usually only of a size sufficient to finance new debt and debt that comes up for repayment, it is possible to use

¹ Devaluation of course increases the burden of foreign currency debt in domestic currency terms.

the facility to buy back debt in the market at a very substantial discount and hence reduce the nominal value of debt outstanding.

This approach of replacing market lending by EU/IMF lending ‘temporarily’ represents Plan A, although duration of the EU lending in the case of Greece can be as long as 30-40 years. If Plan A cannot be applied, because no convincing budgetary reorganization can be found or agreed, then the alternative is to reduce the amount that the governments have to spend on interest or the repayment of principal to lenders.² If this can be agreed with the lenders then this can be arranged without triggering a default. However, this is not normally possible because of the collective action problem. It would pay some lenders to opt out of the agreement as then they could get repaid under the previous schedule. Collective action clauses exist in some bond contracts in order to make just such reorganizations feasible.³ It is planned for them to become normal practice in EU debt in 2013. The 21 July agreement does include a degree of voluntary rollover by the private sector. It is still being debated at present whether the present reorganization in the case of Greece would be treated as a selective default. Moody’s for example have suggested that it would.

Defaults bring with them other unwelcome consequences as they bring all of the country’s transactions into question at the same time, triggering close out clauses and claims for early repayment, thus bringing the financing system to a halt. This would create a much worse recession and would make it very difficult to raise external finance for quite some while subsequently, until the position of all the debt holders has been worked out.

One of the difficulties that European governments railed against in the 21 July measures over Greece was that ratings agencies made the problems more difficult. This highlights that having a credible proposal is key to the solution. The parties involved may have no problem persuading themselves but it is others they have to convince for market prices and ratings to change. The lack of success in Greece in particular of reining in the problem means that claims that such changes will happen in the future are not very persuasive, particularly given the lack of enthusiasm in the EU for a Plan B that involves

² Buchheit and Gulati (2011) provide a very clear exposition of the range of unattractive options that the other members of the euro area face.

³ Some sort of agreement is required, because there is no court that can compel a particular course of action by a sovereign borrower. Lenders are of course in a strong position as the defaulting country needs such a reorganisation if it is to re-enter financial markets. Drelichman and Voth (2011) show that the history of organised defaults and restarting borrowing is very long by considering the case of Philip II of Spain, who was a serial defaulter in the second half of the sixteenth century.

avoiding default by other member states writing down Greek debt and thereby bearing some of the loss.

The dilemma at present is that the governments of some of the lending countries feel that a default in the future may occur anyway and they are unwilling to step in and take over from private lenders as their own taxpayers will then have to bear some of the loss. However, if there is a default in the short run they will also face losses as some of the lenders to the troubled countries are their banks, which might fail as a consequence, either facing the governments with the need to organize a bailout or with disruption to their own financial systems. It is difficult to have much sympathy for these lenders, as the risks were well-known. Well before the crisis, surprise was expressed at the smallness of the risk premium in the market (Mayes and Virén, 2007).

Furthermore, the ECB is holding many of the bonds and it would need recapitalising by the member governments according to its capital key if there were to be a default.⁴ There is thus no easy way out. Indeed the ECB is now buying debt in the market in an effort to reduce interest rates on Spanish and Italian debt, thus expanding its balance sheet and increasing the potential exposure to loss. However, it is of the view that the market is exaggerating the default risk and that these bonds are still of high quality.

High in governments' minds are the consequences of the insolvency of Lehman Brothers, where world financial markets froze and asset prices fell dramatically as counterparties could not assess who was going to bear the losses, thereby constituting stage two of the GFC. The ECB has also fought very strongly to ensure that it only accepts unimpaired collateral in its operations. As a result the July 21 agreement entails that Greek debt will be effectively underwritten by the euro area.

On this occasion it may be rather easier to sort out who the bondholders are but the extent of the losses will be difficult to establish for a while. Despite the existence of the Paris and London Clubs for sorting out bond writedowns, this process takes time and meanwhile international financial markets would return to distress. Thus the European problems would become problems for everybody. With collective action clauses the process would be smoother.

To quite an extent the euro area countries have already been placing far more of the potential burden on themselves than was the case with the sovereign defaults in the 1980s

⁴ As it is, without a default, the ECB is likely to make a profit on its purchases as it is buying when prices are low and the haircuts large.

(Buchheit and Gulati, 2011). Then the problem was also the over-exposure of banks to the debt. The solution then used was first to roll over the debt and even increase to enable interest payments without default, during the period of IMF lending and restructuring – the Baker Plan. Then, when this proved insufficient, the debt was written down and new longer term bonds issued – Brady bonds. Thus eventually it was the lenders who bore the loss rather than the taxpayers in the lenders' countries but the process was sufficiently drawn out and the loss recognition carefully timed so that it could be borne without a crisis. Clearly, in the present crisis, postponing loss recognition will help the weak banks. However, in the interim interest rates have to be low enough that default is not triggered.

It is important not to place all of the troubled countries in the same basket. Italy's debt for example is largely domestic, it seems likely that Ireland has already put in place a recovery plan that will work unless there is another important downwards shock.⁵ Similarly, while Spain faces substantial economic difficulty, it is not clear that it would be overwhelming. If the problem of possible default only really applies to Greece and perhaps Portugal then these countries are sufficiently small that the rest of the euro area could afford to bail them out – ignoring the moral hazard consequences of doing so – and hence could make a credible commitment that would calm markets. In the same way, allowing the default would have very limited impact on the euro area as a whole, unless markets believed that this would push other larger countries into default as well. Whichever way the process plays out, people do not like the prospect of losses and in crises they become very risk averse and jittery. Solutions have to take this into account however irrational the behaviour might seem.

As the two charts and the table drawn from Marimon (2011) show, in many respects the problem is most worrying for Portugal, as it has not managed to stop its debt from rising over the last decade, expects continuing slow growth rates and has relatively high tax rates. Greece had stabilized but not reduced its debt, while Ireland and Spain were on falling trajectories. The primary balance in Greece has been no worse than that in the euro area as a whole. The problem is the size of debt interest.

The key issues for the states involved are, first, that they are not strong enough to overcome the fears of financial markets. Second, that they have to negotiate agreements with

⁵ Although Ireland's primary problem was the exposure to bank losses through issuing a guarantee, the budget was also out of longer-term sustainability and thus restructuring was required even before adding in that needed to service the markedly increased debt (Whelan, 2011).

each other in order to find an equitable sharing of the burden, as just letting a default happen will be worse.

2 The intended rules

The primary issue for the euro area countries is that they should not have been having these problems at all in the first place. Under the terms of the Maastricht Treaty which laid out the agreement on EMU, to qualify for membership countries the ratio of government debt should not exceed 60 per cent of GDP ‘unless the ratio is sufficiently diminishing and approaching the reference value at a satisfactory pace’. Furthermore, under the terms of the Stability and Growth Pact (SGP) debt positions should have been slowly improving, because not only were governments to avoid excessive deficits amounting to more than 3% of GDP in any year except in the event of a substantial recession but they should have been aiming for a budgetary position that was in balance or in surplus (Breuss and Roeger, 2007). Even with the slower than hoped for rates of growth attained over the period since the third stage of EMU started at the beginning of 1999, this would still have meant that debt ratios should have fallen in most years. As it was, in many countries they crept up (see Table 1).

The reasons have been widely debated (Heipertz and Verdun, 2010), with some blame falling on the SGP itself in that it did not attempt to try express the strategy in terms of cyclically adjusted budgets. However, in part that reflects the underlying problem of fiscal budgeting. The cyclically adjusted position is not known until after the event. There is an inherent tendency for forecasts to be optimistic, where some of any upturn in the growth rate is likely to be attributed to lasting changes – the IT revolution and the ‘new economy’ being an obvious case in point – and some of any downturn to be attributed to one off factors. This generates a fundamental asymmetry in the budgetary process, manifested in the euro area in a tendency to cut tax rates too far when the economy is doing well (Mayes and Virén, 2011). The asymmetry is often referred to as ‘deficit bias’ for which there are many explanations.⁶

In Figure 1 (drawn from Mayes and Virén, 2011) it is clear from the lower left quadrant that fiscal prudence increased substantially in the run up to EMU and has only weakened slightly since the euro area started. Thus while there was only one year in surplus

⁶ Calmfors and Wren-Lewis (2011) offer six: a lack of information, which permits governmental optimism; impatience to get things done; the ability to exploit future generations; electoral competition; the common pool problem – external consequences of budgetary decisions neglected; time inconsistency.

deficits became much smaller for the same position in the economic cycle (shown in the upper left quadrant). Debt ratios had stopped their long rise and begun to turn down, a process that did not end after 1999. It is also clear from the lower right quadrant that the main contributor to the slight worsening in deficits was not expenditure but the decline in revenue. Thus the degree of adjustment required by the euro area as a whole was small and only a modest improvement in fiscal prudence would have led to clearer reduction of the debt ratio in each year. However, it is not just the overall behaviour which matters in this instance but that of the most vulnerable member states.

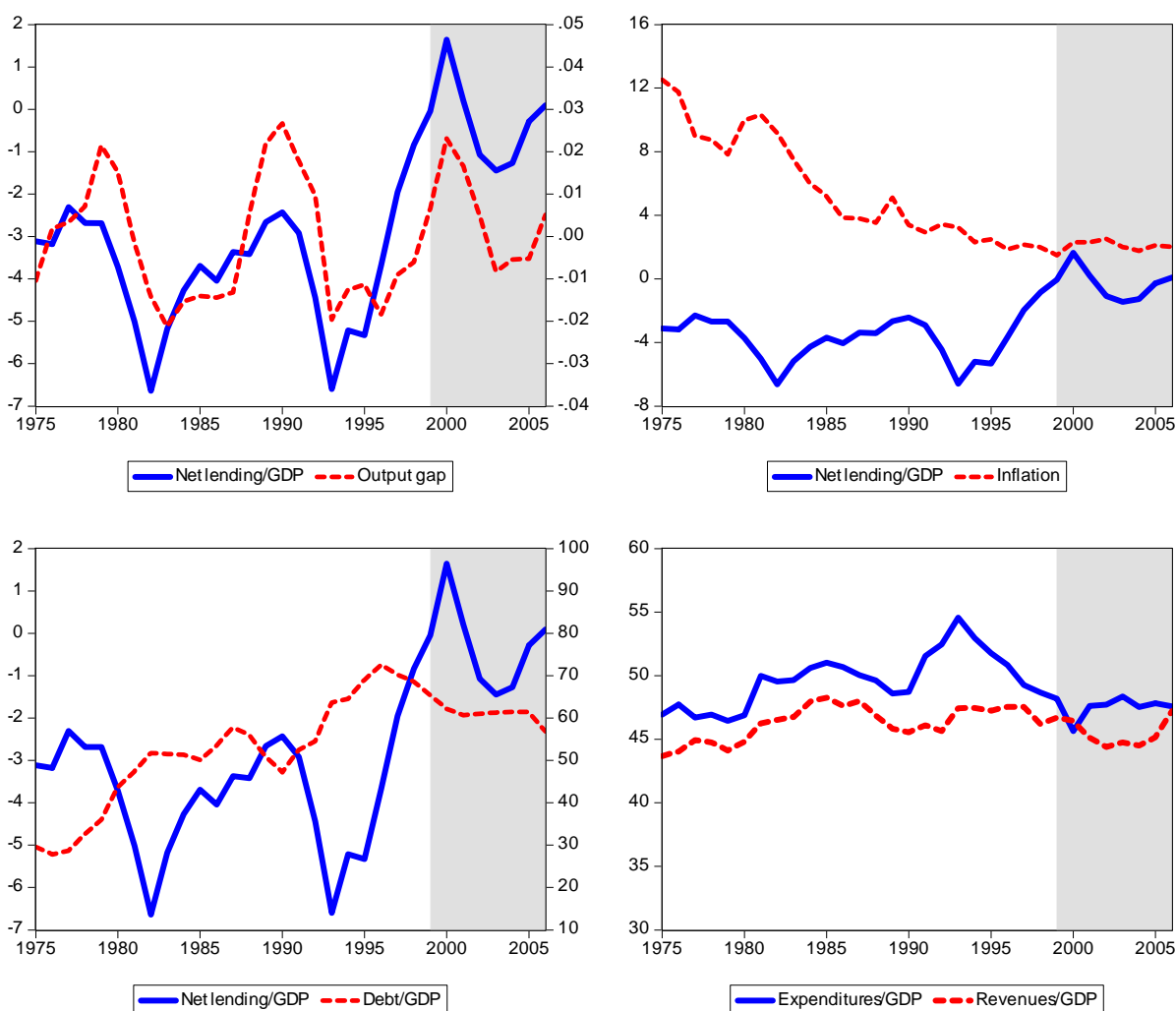


Figure 1 Debt and Fiscal Balance in the Euro Area (medians)

This experience means that the through the cycle setting of the budget should take this inherent bias into account. There are a number of ways this might be accomplished, for example by requiring that the target for improvement be somewhat harsher. However, any rules that are self-imposed are unlikely to get over the forecasting bias unless the computation

is somehow above politics and open to ready verification. Sweden has offered an example of how to do this with its independent Fiscal Policy Council set up in 2007, establishing the budgetary position (Calmfors and Wren-Lewis, 2011). ‘The council assesses the extent to which the Government's fiscal-policy objectives are being achieved. These objectives include long-run sustainability, the budget surplus target, the ceiling on central government expenditure and that fiscal policy is consistent with the cyclical situation of the economy. The council also evaluates whether the development of the economy is in line with healthy long-run growth and sustainable high employment. Additional tasks are to examine the clarity of the Government's budget proposals and to review its economic forecasts and the economic models used to generate them. Finally, the Council should try to stimulate public debate on economic policy.’⁷

In the same way the Office of Budgetary Responsibility in the UK should help reduce the asymmetry.⁸ It is not that the government is compelled to adopt the independent body's views but that it needs to have a very well articulated reason for disregarding them. Seven other EU countries have independent assessments of the budgetary outlook, the Central Plan Bureau being the longest serving, since 1947 (Calmfors and Wren-Lewis, 2011).

In any case the problem is that budgetary forecasts, like any other forecast, even if undertaken with excellent models and principles, will be subject to substantial error. While an independent body may avoid some of the errors of bias, the fact that its forecasts can turn out to be well of the mark may in fact damage its credibility. A body that merely comments on the official projections may retain greater credibility (Calmfors and Wren-Lewis, 2011).

It is somewhat surprising that there is no fiscal equivalent of the fan charts used for monetary policy, nor a strategic approach to reacting to forecasting errors once they are made. In part this is because monetary policy can be altered at regular intervals during the year if necessary, without causing undue disturbance to the economy but short run management of tax rates, VAT being the usually quoted candidate, has never been popular. Trying to do much management of expenditure programmes during the year is also difficult.

⁷ <http://www.finanspolitiskaradet.se/english/swedishfiscalpolicycouncil/abouttheswedishfpc.4.6f04e222115f0dd09ea8000950.html>

⁸ In New Zealand this should already be built into the system, as under the terms of the Fiscal Responsibility Act 1994 the New Zealand Treasury is required to provide impartial – and public – advice for ministers. Although it is of course up to them whether they choose to accept it and they could choose an optimistic stance, as was in fact the case in the run up to the GFC. In practice, however, opposition parties do not feel that they are told enough to make a full appraisal.

The European Semester, while the name might imply a six-monthly review, is an annual process that takes place in the first six months of the year. In any case it is normally argued that sharp changes in tax rates should be avoided and that smoothing is likely to be socially optimal (Leith and Wren-Lewis, 2000). In which case, the transition paths for debt ratios will tend to be slow – emphasising the importance of maintaining adequate cushions below any limiting ratios.

The core problems were, however, twofold. The EU chose to make a very liberal interpretation of the Treaty when deciding on the initial membership of the euro area in 1998, admitting Belgium and Italy who had debt ratios substantially above 60%. This was compounded in 2000 with the admission of Greece. Not only has it now been shown that the statistics were incorrect and that Greece did not qualify but even on the published statistics there has been no other period since the signing of the Maastricht Treaty in 1992 that Greece would have qualified. Despite the rhetoric relating to longer term stability in qualification it was clearly not applied in practice.

Furthermore the euro area abandoned the credibility of the SGP in 2003 when it decided to suspend its operation when France and Germany were found by the Commission to be running excessive deficits.⁹ The weakening of the Pact in 2005 not only increased the chance of excessive deficits but made the suggestion that effective sanctions would be taken against errant members, whether in the form of a non-interest bearing deposit or ultimately a fine of up to 0.5% of GDP, thoroughly unlikely. Had France and Germany been contrite and taken the necessary steps, then it would have been possible to take more credible measures against the debt pressures in other member states. The Commission's conclusions after the ECOFIN Council decided to hold the EDP in abeyance for France and Germany in November 2003 (Council Document 14492/03) summarises the key point clearly 'Only a rule-based system can guarantee that commitments are enforced and that all Member States are treated equally'.

According to Heipertz and Verdun (2010) most countries did not take the medium term objective (MTO) of getting budgets close to balance or in surplus (CTBOIS) seriously. Projections would show this occurring in the future but without a firm programme of how it would be achieved in the event that budgetary outcomes were insufficiently favourable. The argument during the review of the SGP in 2003-2005 emphasised the importance of getting countries facing deficits back to better growth paths. However, the deterrent value of the EDP

⁹ Heipertz and Verdun (2010) provide a very rich description of the debate and the actions of the major players.

stemmed from just the fact that having to tighten fiscal policy when the economy was doing badly would be politically unattractive. Hence it was thought that member states would want to aim the trajectory of their fiscal policy through the cycle such that the chances of an excess deficit were small. To take the example of monetary policy, central banks tighten when the threat of inflation breaching the target becomes unacceptably large – not that simply that inflation is expected to breach the target in the absence of a policy change. In the absence of major shocks central bank projections normally show inflation clearly within the target over the policy horizon.

It is the combination of admitting countries with high debt ratios and managing to do little to ensure their steady reduction which has proved the undoing of the euro area. Adherence to their own rules would have restricted the problems. Of the high deficit countries Belgium made substantial progress despite political difficulties and has thus far managed to weather the GFC despite major problems with two of its largest banks, Dexia and Fortis. The terms of EMU membership in no way prevented member states from improving their debt position if they chose to do so. Finland for example virtually halved its debt ratio from just below 60% of GDP to close to 30% over the period 1997 to 2008.

However, even if the Maastricht criteria had been applied rigorously, they were still open to wide criticism as they did not reflect the prevailing view in economics of the criteria for an Optimum Currency Area (OCA) (Mundell, 1961; Edwards, 2006). The Maastricht criteria were agreed following the work of the Delors Committee in 1989, which, while chaired by Jacques Delors as President of the European Commission, was composed of the central bank governors of the member states and two advisors. This Committee followed, instead, what has been labelled the ‘monetary’ approach to integration, requiring that the members converge to conditions for stability in financial markets both domestically through the long run rate of interest and internationally through the exchange rate and that they converge on an acceptably low inflation rate.

This approach has four main disadvantages. First, by concentrating on inflation it ignored the fact that the member states had very different price levels. Member states with low price levels would expect to see above average inflation as their price levels converged – countries with higher price levels would be likely to adjust far less as lowering price levels is very difficult without a clear recession.

Second, the monetary approach ignores the main concerns of the OCA criteria, namely that countries should not be subject unduly to idiosyncratic shocks that affect just them and not the rest of the area to which they belong and that they should have the necessary

flexibility through labour markets, wages and fiscal policy to respond to any such shocks that did occur.¹⁰ In the event of an idiosyncratic shock, the area-wide monetary will not respond, nor will the exchange rate move. Hence other policies will have to compensate for this rigidity.

This is not an impossibility as most large countries, such as the US, Canada or even Australia, do not meet the OCA criteria in terms of exposure of some parts of the country to idiosyncratic shocks but they do have adequate responses in place to absorb the shocks, whether by people moving away from adversely affected areas or trying to regenerate the local economy. The most important deficit in this need for other sources of flexibility is that there is no significant ability to make fiscal transfers to the adversely affected regions in the euro area. This means that a member state with a problem has to rely far more on its own resources, which makes adjustment much more difficult. However, this was all predictable and the article discusses in the next section the provisions that Finland, within the euro area, and Sweden, outside, have made to have the necessary resources to handle these shocks.

The third issue that was set on one side was that many countries would be able to qualify only occasionally, mainly when they happened to be out of phase with the rest of the euro area. Estonia is a good example. It has become the most recent member of the area at the beginning of 2011. Since it has been a member of the EU it has shown real convergence, with trivial public debt and has normally run a surplus each year. Since it had a currency board based on the euro it has met the criterion of exchange rate convergence automatically. The problem was inflation. As a low income and low price level country it expected higher inflation than that in the lowest three inflating members of the EU much of the time. It only qualified because it was much worse hit by the GFC than most of the EU with a 20% decline

¹⁰ Edwards (2006) suggests there are 10 criteria that should be borne in mind

- Factor mobility, and in particular labour mobility, across the members of the potential union.
- High level of trade in goods across the members of the union.
- Different (or diversified) composition of output and trade across countries.
- Price and wage flexibility across members of the union.
- Similar inflation rates across countries.
- Financial markets should be integrated across countries.
- Absence of “fiscal dominance” in the individual countries.
- Low, and similar, levels of public sector debt in the different countries.
- Similarity (or synchronisation) of external shocks to which the different countries are exposed to.
- Political coordination across countries.

in GDP. The resulting collapse in price pressures meant inflation fell to 0.2% and hence the country qualified.¹¹

While Estonia will no doubt be an excellent member of the EU with the most prudent fiscal policy in the whole area (possibly Finland excepted) and a highly flexible economy (Mayes, 2010) some of the other newer members of the EU and the obvious case of Greece would not necessarily meet the longer term requirements for sustainable membership even though they can (fleeting) meet the Maastricht criteria and be admitted.

Fourth, financial markets adjust on the basis of the likelihood of occurrence not suitability for EMU. Thus the convergence of long term interest rates to the German level only indicated that the countries were expected to join. Now this close relationship between all the members and the most stable countries, primarily Germany, has been broken and signals from the market about individual countries will be of more value.

Interest rate convergence was itself a contributor to the disequilibrium within the euro area as countries that were previously an inflation risk and hence attracted high interest rates got a major gain on entry to Stage 3 through the interest rate reduction.¹² This helped stimulate faster growth. By the same token that the single monetary policy cannot respond to individual country adverse shocks so it is true for these positive shocks. As a result not only do countries grow faster but they experience greater inflation than they would if they had a domestic monetary policy that could respond to domestic pressures. Thus positive as well as negative shocks have disadvantages in EMU although in the former case it takes a lot longer for them to emerge. With a positive shock there is a very clear benefit at the outset with improvements in GDP/head and reductions in unemployment but the downside is that the increasing real wages tend to overshoot, reducing competitiveness and meaning that regaining competitiveness has to be achieved by deflation, at least in relative terms, which is a painful process.

Ireland is perhaps the most important exception to the general picture as it did not start the crisis with a debt problem but encountered a debt problem as a result of the great cost of bailing out its failing banks. In part this was a self-imposed cost as Ireland issued a blanket guarantee in September 2008 thereby protecting all creditors and not just depositors

¹¹ With such low public debt it was quite difficult to come up with a reference ten-year bond rate to compare with the other countries to establish convergence under the interest rate criterion.

¹² One might also argue that some of the interest rate premium was because of default risk, which also fell to near zero on the expectation of EMU membership, because lenders expected that the system would avoid defaults by one means or another.

(Honohan, 2010; Lane, 2010). This has proved hugely expensive and nearly brought the country down as well as the government. Nevertheless, the fact that it does appear possible for Ireland to survive shows that shocks can be absorbed under the euro area system and that it is prior fragility from high debt which brings countries down not the EMU rules per se.

3 Addressing the fiscal problem

There are two levels at which the fiscal issues can be addressed in the EU framework. The first is for the euro area countries to agree a revised preventative arm to the SGP, which members actually adhere to. This is the route chosen in the 21 July 2011 agreement, although the details were not spelled out. However, subsequent discussions suggest that building prudence into the constitution or law and having independent fiscal councils will form part of it. The worsening in the debt position in the euro area is general so a clear downward path in the medium term is required. At present, the members are required to get back inside the excessive deficit procedure by 2013, i.e. to have an actual and projected deficit of less than 3% of GDP by then, although some will clearly not be able to make it by then. Thereafter they need to move at least to balance if they are to start repaying debt. The problem is that the faster they grow, the faster the debt ratio will fall for any given financial balance. On top of that for any given structure of the fiscal system, the faster the growth rate, the higher will be the surplus/lower the deficit. The proposal of introducing mandatory good budgeting principles into the law(constitution) of each member state would help prudence, somewhat along the lines of the balanced budget legislation in many US states (Poterba, 1995; Hou and Smith, 2010).

The second would be to move towards greater fiscal integration. If the EU were more politically integrated then there would probably be a significant EU-level budget that enabled fiscal transfers to be made to states troubled by high debts and adverse shocks. However, one of the reasons that the EU has developed the way it has rather than following the precepts of the McDougall report (1977) which set out how to organize a low cost redistributive system is that this was thought to encourage fiscal laxity – at that stage relating only to Italy although Belgium was building up problems. Fiscal federalism can develop where richer regions accept that those that have lower revenue raising ability or higher costs are not in a position to do anything about it. In the case of the member states with debt problems at present, it is in the main not a question of fiscal capacity or higher burdens from commonly agreed expenditure programmes. Ireland has above average GDP/head and the debt problem has

been caused largely by poor financial policy and a non-sustainable budgetary stance (Honohan, 2011; Lane, 2011). It is difficult to see why fiscal transfers would be thought appropriate in these circumstances. The current arrangement of providing access to loans at near the finest rates and negotiating a plan for recovery is understandable in the circumstances.

While there are many who would like to go down the road of closer economic integration, it is not on the political agenda and would contravene what is labeled as the ‘no bailout clause’ in the Lisbon Treaty. In circumstance where each part of the euro area follows good fiscal standards then it might be possible to consider a measure of fiscal transfers beyond those inherent in the use of structural and cohesion funds. At present inequalities across the EU are to be addressed by co-financed investment projects in both physical and human capital. This approach has proven extremely successful in advancing Ireland from the bottom of the EU GDP per capita rankings when it joined to well above the average before the GFC. Spain, Portugal, Greece, Italy and all the new member states have similarly benefitted extensively. It does not, however, address the problem of short-term asymmetric shocks which heavily affect one area compared to the others.

There is of course a further dimension to either approach, which is to ensure that the costs of a sovereign default for the rest of the euro area and to the country itself are manageable, hence bringing the position in line with defaults by non-federal government entities in the United States.

The conditionality being imposed on the states borrowing from the EFSF follows standard practice in trying to encourage all the facets of the economic system that would lead to greater flexibility, some of which is under the general label of structural reform.

What is required for a successful and sustainable fiscal stance is not simply that debt is low enough but that countries have a sufficient insurance against shocks. The simplest example is the development of a sovereign wealth fund so that should a country find that foreign markets are effectively closed to it, it can nevertheless continue to finance a counter-cyclical deficit through running down assets.¹³ Such financial assets are likely to be much easier to sell than the real assets that are to be sold by Greece. It is only in the event of a broader international crisis that such assets might fall substantially in price and hence make

¹³ The Irish sovereign wealth fund was readily swallowed up by the scale of the crisis but did reduce the need to borrow (Whelan, 2011).

avoiding the need to raise new debt in the crisis impossible. The pension and unemployment buffer funds that exist in Finland and Sweden are a smaller scale example (Mayes, 2009).

Pursuit of fiscal rules on their own are not enough. The UK applied two main rules of the period from 1997 up to the crisis. The first was to limit the debt ratio to 40% of GDP, thereby building in a cushion for shocks, and the second to limit borrowing to investment.¹⁴ Similar such attempts to avoid using debt finance for current expenditure over the course of the cycle have existed elsewhere before, Japan for example. However, the underlying rationale that the investment will bring in future revenues, whether through taxation of increased incomes and activity or user charges, does not always follow as some investment, while socially meritorious, does not generate much in the way of an income flow. Indeed it may well generate increased streams of expenditure. Vulnerability to a shock and to over-optimism about sustainable expenditures in the face of good growth was very clearly illustrated in the UK despite the existence of such rules, with debt approaching 70% of GDP and likely to double over the course of the crisis.

The experience of some of the more distressed euro area countries in the GFC is likely to make some of the new member states who are yet to join the euro more cautious about doing so. The debate is reflected very clearly in that which went on in Finland and Sweden before the euro was introduced (Mayes and Suvanto, 2002). Both countries launched an expert commission of enquiry into the likely outcomes (published as Calmfors et al. (1997) and Pekkarinen et al. (1997) respectively). Both concluded that there was no conclusive evidence one way or the other but Sweden concluded that the sensible route was to delay entry until the country had reduced unemployment to low levels and established sufficient fiscal buffers that they could withstand a severe economic shock. As a result Sweden is still outside as the performance of the economy has been at least as good as that of the euro area and flexibility in the exchange rate has been valuable. Finland on the other hand, which was rather further away from meeting the OCA criteria, argued that membership would force a change in wage setting and other labour market behavior and hence the country should enter at the outset and then adjust rapidly thereafter. Finland's performance has been even better than that of Sweden and it is clear that it has been the beneficiary of two facets of membership: lower interest rates and an initially low exchange rate, leading to good

¹⁴ Having rules with a fixed ratio of debt to GDP only make sense if the taxing capacity remains constant. Large demographic changes can alter the sustainable budget balance considerably. Indeed, Calmfors and Wren-Lewis (2011) argue that there are no good simple rules.

competitiveness. Finland has indeed adjusted, with, until the immediate run up to the crisis, moderation in wage growth and steadily falling unemployment, albeit from very high levels. Finland has also been a model of fiscal rectitude, bringing down its debt from close to 60% of GDP to nearly 30% so that it could withstand a severe shock – which indeed it received in the GFC with a 9% fall in GDP – and establishing buffer funds for both unemployment expenditures and pensions.

Finland thus shows that by following the spirit of the Maastricht rules it is possible to succeed in the euro area, while Sweden shows that fiscal prudence outside and inflation targeting can also lead to a satisfactory outcome, with smaller real losses in the downturn. The key question, therefore, is whether the EU can devise a set of incentives that will be sufficient for states to comply with the new SGP rules.

One problem with the current rules is that they are asymmetric. Countries face constraints on their fiscal actions with the threat of fines in the event of non-compliance but they receive no prizes for prudence. Overall a country that decreases a surplus by €1bn has exactly the same impact on the area's total debt as one that increases its deficit by the same sum. Prudent countries will get some benefits in terms of lower interest rates but once they attain AAA status further gains are rather limited. Hence motivation to improve on not just the minimum required but the general target for longer term debt is limited. It is unlikely that this will be addressed by the new SGP proposals. Indeed the only sorts of ways that this could be implemented would be to give prudent members states some benefit through the EU budget, perhaps in terms of some rebate. A straight piece of symmetry with the idea of interest free deposits in the case of an excessive deficit would be the ability to borrow from the other member states at below the market rate. This does not sound a very likely proposition either.

Secondly it is very difficult to get round the problem that fiscal projections are highly inaccurate as they depend on growth assumptions. Furthermore any attempt to estimate 'through the cycle' measures can only be verified after the event. Hence it will be difficult to get over the inherent bias that falls in the actual rate of growth are viewed as being temporary whereas increases are quickly rationalized as being more permanent. Having an independent assessment, as in Sweden and the UK, may help, whether these are at the national level or performed by the European Commission.

One suggestion which has some appeal¹⁵ is to issue euro area bonds for the first x% of a country's debt. Such bonds would be guaranteed by all the member states. Beyond that all debt would be on national responsibility only. In current circumstances, the more indebted countries would pay a sharp premium on this national debt. This would cut the borrowing costs for states in difficulty without impacting on the interest rates of the most prudent borrowers. If one wanted a strong incentive for prudence, then choosing x to be a fairly low value, such as 30%, would make sense. However, several of the existing member states with AAA ratings have more debt outstanding than that and hence might find that their own borrowing costs rose at the margin. Choosing too high a value would threaten the credit rating of the entire system and would be counterproductive.

Strong arguments have been advanced (Issing, 2011, for example) that debtor countries have a sufficiently strong hold over the rest of the member states because of the strength of the wish to avoid defaults that they will effectively be able to impose costs on the others. This is not immediately clear from the nature of the bargaining that has gone on thus far, including the 21 July Agreement. What has been imposed on the borrowers is at the limit of what is politically achievable, pushing them much further is likely simply to trigger the default. It is not clear what more could be achieved by closer economic integration. Clearly such integration cannot involve harsher restraint on these countries. It would have to offer some attraction to the prudent countries that would actually reduce the pressure on the indebted countries. That is difficult to spell out.

The European Commission (2010) has argued that as well as tackling fiscal imbalances through an enhanced SGP, the EU should consider the emergence of both internal and external imbalances among countries. Thus the Commission would consider the savings and investment and current account balances on an annual basis, as part of the European Semester, with a view to deciding if such imbalances were excessive. In line with the SGP there would be a preventative arm drawing attention to imbalances and encouraging action and a corrective arm where such corrections became mandatory through the agreement of the Council. It is difficult to make such a scheme as transparent and rule bound as the SGP and the idea has been widely criticized (Giavazzi and Spaventa, 2010, for example). Imbalances might be picked up rather better through the process of macro-prudential supervision that has begun with the European Systemic Risk Board. Although such measures are inherently

¹⁵ Although not to the French and German governments according to their 18 August 2011 communiqué <http://www.reuters.com/article/2011/08/21/us-eurozone-germany-schaeuble-idUSTRE77K0SW20110821>

financial and do not relate directly to the real economy, sources of imbalance such as declining competitiveness and rising real exchange rates would be clearly identified. Such a framework would look more deeply at structural and other fundamental features of macroeconomic policy.

Macroprudential supervision at an EU-level is now being addressed through the European Systemic Risk Board but it is not planned to give the ESRB operational tools to alter the behaviour of the member states. Actions will be limited to advice and moral suasion.

It is likely therefore that the EU will continue to operate with what can perhaps be described as a 'fair weather' system. Provided the pressures are not too great, countries will move towards a lower debt burden when the area is growing satisfactorily. But when problems arise they will tend to run deficits through the automatic stabilisers at least, in a way which is not symmetric with periods higher than average growth.

As it is inherent in the asymmetry facing the system that debt is run up much more rapidly than it is run down, this implies an optimistic view of the economic cycle if position is to continue to improve over the longer run. Countries will accept hardship in a crisis but it becomes rapidly difficult to apply this in normal times or for long periods. With the implicit adjustment period for Greece being 30-40 years from the framing of the 21 July agreement this implies considerable strength of will. Efforts for such long periods are not impossible. Germany did not complete the reparations for the first world war until long after the end of the second and the UK's repayment programme of debt to the US accumulated during the second world war took half a century to pay back.

4 Concluding remarks

The various proposals that are being put forward by the EU jointly, such as the 21 July Agreement, and by individual member states, such as the Franco-German proposals of 18 August, are not as yet convincing markets.¹⁶ One of the main reasons is that they are being drip fed and reflect obvious reluctance on the part of the participants. Convincing measures are usually sweeping in character and reflect an observable willingness to do whatever is necessary to address the problem. The initial May 2010 measures with respect to Greece fell

¹⁶ Indeed some remarks, such as the Franco-German statement in Deauville on October 18, 2010 actually made matters worse by making bond holders fear that a compulsory bail in would be imposed at some date in the future (http://www.elysee.fr/president/root/bank_objects/Franco-german_declaration.pdf).

in that category. It was by no means clear at that date that over half a trillion euro would be required to address the problem.

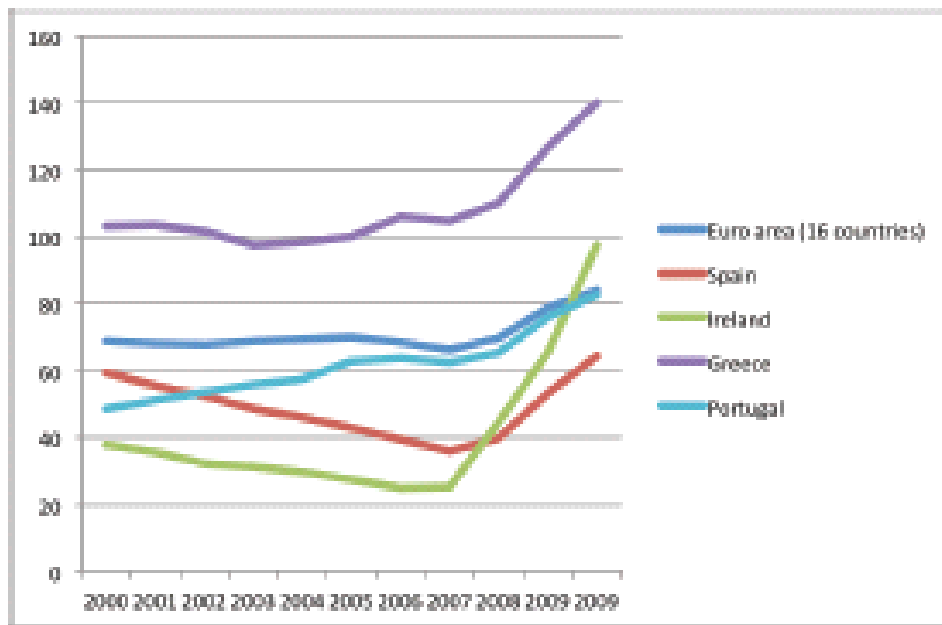
In many respects therefore it is not that the 21 July proposals or likely developments in trying to enforce structural change and fiscal prudence and recovery will not work. It is that outsiders are not convinced that they will happen and be sustained. Insiders are also not convinced, with Finland demanding collateral from Greece for its own contribution to the bail out fund.

In some respects the euro area countries have made the problem worse for themselves by in effect taking so much of the troubled countries' debt onto their own books, either through the official EFSF and EFSM lending or through the purchases of the ECB. Even the IMF debt is potentially a burden for the euro area (either through the ESM or a writedown of the outstanding privately held debt) as the IMF is preferred creditor and hence will get paid out first.

It is thus likely that if current proposals are seen through, the debt position in the euro area countries can return to sustainable levels. Although the intention is to try to rein in deficits by 2013 or more likely by 2015 if growth does not pick up, the downward path for debt ratios could easily take 20 years to achieve. Some form of relatively crude fiscal rules that are easy to monitor and difficult to evade would now doubt help, as would independent fiscal councils to ensure that there is a good public debate and that some of the causes of deficit bias are restrained. The concern is with the extreme cases. However, even if the process should fail at some point for Greece or another heavily stressed country, this will be more a comment on over-enthusiasm for euro area membership in the past than the indication of a fundamentally flawed mechanism for countries starting with a compliant deficit. The fiscal shocks experienced in the global financial crisis are unusual but even so the well prepared countries look able to see themselves through without incurring downgrades from the rating agencies.

The nature of the bail out process over the crisis is, however, more open to question. It appears that there has been a considerable transfer of potential loss from the lenders, who knowingly took it on, to the taxpayer. This reflects a lack of preparedness. But the introduction of collective action clauses in sovereign bonds is likely to offset some of the moral hazard this has caused. The ironic consequence, however, is that raising debt will become more expensive at a time when budgets are already strained.

Figure 2. Government Debt to GDP ratio



Source: Eurostat

Figure 3. Governments Primary Balances



Source: Eurostat

Table 2. Differences in Growth Rates in the Euro Area

	Average										Projections		
	1993–2002	2003	2004	2005	2006	2007	2008	2009	2010		2011	2012	2016
Real GDP													
Advanced Economies	2.8	1.9	3.1	2.7	3.0	2.7	0.2	-3.4	3.0		2.4	2.6	2.4
United States	3.4	2.5	3.6	3.1	2.7	1.9	0.0	-2.6	2.8		2.8	2.9	2.7
Euro Area ¹	2.1	0.8	2.2	1.7	3.1	2.9	0.4	-4.1	1.7		1.6	1.8	1.7
Germany	1.5	-0.2	0.7	0.9	3.6	2.8	0.7	-4.7	3.5		2.5	2.1	1.3
France	2.0	1.1	2.3	2.0	2.4	2.3	0.1	-2.5	1.5		1.6	1.8	2.1
Italy	1.6	0.0	1.5	0.7	2.0	1.5	-1.3	-5.2	1.3		1.1	1.3	1.4
Spain	3.2	3.1	3.3	3.6	4.0	3.6	0.9	-3.7	-0.1		0.8	1.6	1.7
Netherlands	2.9	0.3	2.2	2.0	3.4	3.9	1.9	-3.9	1.7		1.5	1.5	1.8
Belgium	2.3	0.8	3.1	2.0	2.7	2.8	0.8	-2.7	2.0		1.7	1.9	1.9
Austria	2.2	0.8	2.5	2.5	3.6	3.7	2.2	-3.9	2.0		2.4	2.3	1.8
Greece	2.7	5.9	4.4	2.3	5.2	4.3	1.0	-2.0	-4.5		-3.0	1.1	2.9
Portugal	2.7	-0.9	1.6	0.8	1.4	2.4	0.0	-2.5	1.4		-1.5	-0.5	1.2
Finland	3.5	2.0	4.1	2.9	4.4	5.3	0.9	-8.2	3.1		3.1	2.5	2.0
Ireland	7.7	4.4	4.6	6.0	5.3	5.6	-3.5	-7.6	-1.0		0.5	1.9	3.4

Source: IMF World Economic Outlook, April 2011.

Table 1 Euro Area Government Debt/GDP (%)

country	1995	1999	2007	2010
Euro area	72.1	71.6	66.3	85.3
Belgium	130.4	113.7	84.2	96.8
Germany	55.6	60.9	64.9	83.2
Estonia	8.2	6.5	3.7	6.6
Ireland	82.0	48.5	25.0	96.2
Greece	97.0	94.0	105.4	142.8
Spain	63.3	62.3	36.1	60.1
France	55.5	58.9	63.9	81.7
Italy	121.5	113.7	103.6	119.0
Cyprus	51.4	58.9	58.3	60.8
Luxembourg	7.4	6.4	6.7	18.4
Malta	35.3	57.1	62.0	68.0
Netherlands	76.1	61.1	45.3	62.7
Austria	68.3	67.3	60.7	72.3
Portugal	59.2	49.6	68.3	93.0
Slovenia	na	na	23.1	38.0
Slovakia	22.1	47.9	29.6	41.0
Finland	56.6	45.7	35.2	48.4

Source: Eurostat

Appendix – the 21 July 2011 agreement

The agreement set out in the communiqué from the heads of state or government of the euro area (available at http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/123978.pdf) has 7 main ingredients

- 1 a doubling of the size of the funding support programme for Greece from €109bn to €218bn
- 2 an extending of the term of the facility from 7.5years to 30 years with 10 year further transition period
- 3 a reduction in interest rates (also applies to Portugal and Ireland) so that the premium over the EFSF's borrowing rates is not so large
- 4 a voluntary roll over programme by the private sector amounting to €36bn after the cost of credit enhancement by the EFSF (a figure of €106bn up to 2019 is also quoted
- 5 a task force to help Greece make maximum use of the structural funds for economic growth and recovery
- 6 widening of the terms of the EFSF (and ESM) ability to intervene by permitting purchases in the secondary market in exceptional times
- 7 a strengthened preventative arm for the SGP

References

- Buchheit, L.C. and Gulati, M. (2011) 'Greek Debt – the Endgame Scenarios', in F Allen, E.Carletti and G Corsetti (eds) *Life in the Eurozone With or Without Sovereign Default*, pp.83-96, Philadelphia PA: FIC Press.
- Breuss, F and Roeger, W. (2007) 'Sluggish Growth and the SGP Fiscal Rule: Model Simulations', in F Breuss *The Stability and Growth Pact: Experience and Future Aspects*, pp.191-242, Vienna: Springer Verlag.
- Calmfors, L. et al. (1997). *EMU – a Swedish Perspective*, Report of the Calmfors Commission, Dordrecht: Kluwer.
- Calmfors, L. and Wren-Lewis, S. (2011). 'What Should Fiscal Councils Do?', University of Oxford Economics Discussion Paper, no.537.
- Drelichman, M and Voth, H-J. (2011). 'Lending to the Borrower from Hell: Debt and Default in the Age of Philip II', *Economic Journal*, forthcoming.
- Edwards, S. (2006) 'Monetary Unions, External Shocks and Economic Performance', Austrian Nationalbank Working Paper 126.
- European Commission (2010). 'Surveillance of Intra-euro-area Competitiveness and Imbalances', *European Economy*, 1/2010.
- Frankel, J.A. and Rose, A.K. (1998). 'Endogeneity of the Optimum Currency Criteria', *Economic Journal*, vol.108, pp.1009-25.
- Giavazzi, F and Spaventa, L. (2010). 'The European Commission's Proposals: Empty and Useless', VoxEU.org, 14 October. <http://www.voxeu.org/index.php?q=node/5680>
- Heipertz, M. and Verdun, A (2010) *Ruling Europe: The Politics of the Stability and Growth Pact*, Cambridge: Cambridge University Press.
- Honohan, P (2010) 'The Irish Banking Crisis Regulatory and Financial Stability Policy 2003-2008' A Report to the Minister for Finance by the Governor of the Central Bank available at <http://www.bankinquiry.gov.ie/The%20Irish%20Banking%20Crisis%20Regulatory%20and%20Financial%20Stability%20Policy%202003-2008.pdf>
- Hou, Y. and Smith, D.L. (2010). 'Do State Balanced Budget Requirements Matter? Testing Two Explanatory Frameworks', *Public Choice*, vol. 145, pp.57-79.
- Issing, O. (2011) 'Slithering to the Wrong Sort of Union', *Financial Times*, 8 August.
- Lane, P.R. (2010) *The Irish Crisis*, IIS Discussion Paper no.356, Trinity College Dublin.
- Leith, C. and Wren-Lewis, S. (2000). 'Interactions Between Monetary and Fiscal Policy Rules', *Economic Journal*, vol.110, pp.93-108.

- MacDougall, G D A (1977). *Report of the study group on the role of public finance in European integration chaired by Sir Donald MacDougall*, in *Economic and Financial Series*, no. A13, Commission of the European Communities, Brussels April .
- Marimon, R (2011) ‘The Current Situation: the Euro Area, a Crisis of PIGS?’, in F Allen, E.Carletti and G Corsetti (eds) *Life in the Eurozone With or Without Sovereign Default*, pp.1-8, Philadelphia PA: FIC Press.
- Mayes, D G (2009) ‘How Much Have the Financial Crises in the Nordic Countries Helped Them Cope with the Current Financial Turmoil’, *Journal of Common Market Studies*, vol.47 (5), pp. 995-1013
- Mayes, D. G. (2010) *The Microfoundations of Economic Success: The Case of Estonia*, Cheltenham: Edward Elgar.
- Mayes, D G and Suvanto, A. (2002). ‘Beyond the Fringe: Finland and the Choice of Currency’, *Journal of Public Policy*, vol. 22(2), pp.161-82.
- Mayes, D.G. and Virén, M (2007). 'The SGP and the ECB: an exercise in asymmetry', *Journal of Financial Transformation*, vol.19, pp.159-75
- Mayes, D.G. and Virén, M (2011) *Asymmetry and Aggregation in the Euro Area*, London: Routledge.
- Mc Kinnon, R. (2000). ‘Mundell, the Euro and Optimum Currency Areas’, *Journal of Policy Modeling*, vol.22 (3), pp. 311-24.
- Mundell, R. (1961). ‘A Theory of Optimum Currency Areas’, *American Economic Review*, 51, pp. 657-665.
- Pekkarinen, J. et al. (1997) *Finland and EMU*, Helsinki: Prime Minister’s Office (publication 1997/26).
- Poterba, J.M. (1995). ‘Balanced Budget Rules and fiscal Policy: Evidence from the States’, *National Tax Journal*, 48, no.3 (September), pp.329-36
- Schelke, W. (2001). ‘The Optimum Currency Area Approach to European Monetary Integration: Framework of Debate or Dead End?’, *South Bank European Papers* 02/2001.
- Whelan, K. (2011) ‘Ireland’s Sovereign Debt Crisis’, in F Allen, E.Carletti and G Corsetti (eds) *Life in the Eurozone With or Without Sovereign Default*, pp.41-58, Philadelphia PA: FIC Press.