The Potential Role of the Region in Managing Financial Crises in the
European Union’s Small Open Economies
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Introduction

The financial crisis which began in late 2007 precipitated a rapid decline in the world’s most advanced economy, had knock-on effects for the volume and value of trade in the emerging economies, and induced a large shock to the currency zone of the world’s largest economic bloc. Three years on and the impact of this crisis is still being felt as the global economy experiences an anaemic recovery and the ensuing fiscal crisis casts a long shadow over the economic welfare of many nations.

“What is to be Done?” is a famous essay by the Soviet leader Lenin in addressing where the Russian Revolution should go to next. International and national economic policy makers, especially in the European Union (EU), have asked a similar question as the consequences of the crisis are played out in the real and financial economies of the afflicted nations. There have been numerous accounts and publications examining the causes of the crisis and the possible remedies to address weaknesses in the financial system and its regulation (Budd, 2011, Griffiths-Jones, 2004.; Hutter and Dodd, 2009; Lawson, 2009 Ormerod, 2010, Tett, 2010, Walby, 2010 Wolf 2009, among many others).

There appears to be a deep cleavage, however, between those observers who see the crisis as being caused by market failure and those who view it as a manifestation of the crisis tendencies in the economic and financial system (Minsky, 1993, Brenner, 2002, Schiller, 2003 Kolb, 2009). These differences are not so discrete, as they have interacted at various stages in the cycle of the crisis. In some accounts, the prevailing ethos that banks were too large to fail inhibited central banks and financial regulators from intervening at a sufficiently early stage (Sorkin, 2010).
In others, financial innovation had created a monster whose appetite for greater and greater returns could not be satiated (Krugman, 2008).

In a sense, these are rather epiphenomenal assessments, that overlooked the importance of the fundamental phenomena at play between speculation, mania and crashes, to borrow from the title of Charles Kindleberger’s classic book (Kindleberger, 1978). What did happen was a combination of events, in which the underlying imbalances between the trade surplus and deficit nations undermined an economic development path based on cheap and easy access to credit. In other words, the symbiotic nature of the relationship between economic growth and credit creation became seriously imbalanced. (Demirgüç-Kunt and Detragiache, 1998, Arestis et al, 2002, Arestis, 2005).

Many of these arguments about the impact of financial crises have been revisited and they are reviewed in this paper but in looking to ensure the economic and financial system against future shocks, many of the debates have focused a little too much on regulatory reform per se. What this paper does is to contribute to the discussion about the appropriate institutions and their territorial purview that could develop in order to embed regulatory reforms in the governance of the financial system. In particular, and in the light of the current crisis of the Eurozone, the role of the region in intermediating between the institutions of credit creation and the performance of the real economy.

It begins with an overview of the crisis and its causes drawing on the stage model of the post-Keynesian economist Hyman Minsky. It then examines how the financial crisis shifted to a fiscal crisis in large parts of the international economy. The paper then refers to the concept multi-level governance in order to examine the flaws in the economic governance of the European Union. In this part of the paper the design fault line in the Eurozone, in particular, is used as a case study to explore the potential extension of this concept to economic governance. By reflecting on the
‘fiscal dominoes’ (at the time of writing) of the Eurozone’s peripheral economies, a number of prognostications and speculations are made.

1. **Conditions and Anatomy of the Financial Crisis**

There are basic conditions that appear to be common for financial crises. In recent history three combined factors seem to have been in play (Budd, op.cit).

1. A large trade deficit;
2. A large fiscal deficit, which is mainly funded externally, and;
3. A very overvalued currency.

Given that these have been characteristics of the world’s largest economy and one which has acted as the global consumer of large resort, it is hardly surprising that the latest crisis began in the United States in late 2007. Laying the blame at the feet of US policy makers and financial market participants, however, underestimates the degree of integration of global financial markets. Such a response also overlooks the significant changes in the world economy, particularly the rapid rise of the emerging economies. This combination has created a heady brew whose intoxicants have led to a series of outcomes that collectively have been responsible for the sobering outcomes we are still facing today (Tarr, 2010).

These ingredients include, *inter alia*, firstly, global imbalances between creditor and debtor nations reinforced that the role of the US as the consumer of last resort in fuelling global demand. Secondly, the growth in global demand was underpinned by large external and internal deficits of the US funded by countries with large trade surpluses, for example China, who purchased private and public US$ denominated assets. Thirdly, the imbalances in the world economy created commodity and other asset booms, as financial institutions sought to exploit the rising demand for natural resources in the emerging markets. Finally, a global deflationary environment brought about the expansion in the supply of goods produced in the emerging economies which lowered the cost of capital and
encouraged financial institutions to seek higher investment returns from riskier assets.

The scale of the crisis can be seen in a number of figures below, but the scale of the commodities boom can be seen in Figure 1 below that graphically displays the boom and volatility on metals prices traded on the world’s largest base metal exchange, the London Metals Exchange (LME):

Figure 1: LME Cash Prices (2006 = 100)

Overarching these ingredients, the shift in the relationship between the real and financial economies in the last three decades, encompassed in the soubriquet of ‘financialisation’ that further exacerbated imbalances in the world economy. Indeed it can be argued that an exercise in financialisation, in the world’s largest single economy, became the blue touch paper that once lit triggered a very large explosion. This touch paper was the sub-prime mortgage market, in which those without the necessary income or assets were encouraged to borrow beyond their means to apparently benefit from continuously rising house prices.

The sub-prime crisis came about because of investment banks and other financial institutions using innovative products and processes to re-structure the
returns and risk on a variety of assets. At the heart of this is the process of securitisation which allows classes of financial assets to be bundled and unbundled into different ones.

The US sub-prime mortgage provides an example of how this works and the conditions that undermined it and ultimately the global financial system. The low cost of capital encouraged financial institutions to seek higher returns on their assets. Consequently, in a low interest rate environment they sought to enlarge the market for a range of financial assets. The US housing boom, replicated in a number of European economies, provided the means to exploit these opportunities. Figure 2 below sets out the rudiments of this situation.

**Figure 2: From Local to Global Financial Crisis**

source: Financial Times (2009)

It seems to have been assumed that the business cycle had been conquered in respect of the housing market, in that prices would keep rising. As a result, more risky loans were extended to households who became known as NINJAs (no income, non jobs or assets). It was assumed by the lenders that the capital gains arising from continuous rises in house prices would cover the mortgage principal and
interest payments. The mortgages granted to this group was then bundled and sold on to Wall Street banks, who created Structured Investment Vehicles (SIVs), for example Collaterized Debt Obligations (CDOs) to sell on to other financial institutions, including hedge funds. These investment vehicles were also the mechanism whereby the very high risk of default on the NINJA loans was transformed into lower risk assets. This was because the risk originator became the well known Wall Street investment banks (for example, Goldman Sachs, Morgan Stanley and Lehman Brothers), aided and abetted by the financial instruments being highest credit scores (AAA) by the risk rating agencies, the biggest three of which are Fitch Ratings, Moody’s, and Standard and Poors (S&P). Furthermore, as the number of NINJA households seeking mortgages declined, synthetic CDOs were created in order to sustain the sub-prime market. (Lewis, 2011).

Essentially, lower credit rated assets (for example, BBB sub-prime mortgages) became AAA rated when pooled through the vehicle of CDOs. The viability of any CDO depended on its structure, rather than the value of the underlying loans. The income received from CDOs follow a waterfall principle, that is, the highest rated tranches are paid out first, with lower quality tranches receiving subject income flows. It estimated that the behaviour of credit rating agencies accounted only for a 5% fall in US house prices (Kolb, op.cit). However, the rather incestuous relationship between the agencies and the institutions that issued CDOs resulted in these institutions seeking to leverage the credit ratings of the sub-prime based CDOs off one another. They did this by adding or removing loans of various quality and then going between the agencies until they met the minimum standards for AAA rating.

What this activity points to is the manner in which innovation in financial services, based on the mechanism of structured products, exploits two basic principles of financial markets: maturity transformation and risk transformation. The former is a process by which short-term and long-term financial assets and liabilities
are matched. This is related to the term structure of interest rates and thus what is known as the yield curve. The first refers to the range of interest rates attached to assets of different duration. For example, Treasury Bills are normally 3 months, and the longest normally 50 years with a range of assets of different maturities between. The yield curve maps the total returns (gains or losses from selling assets plus interest payments) of the asset in question. If the yield curve is downward sloping, it is worth borrowing long (interest rates are lower in the longer term) and lending short. The opposite applies if the yield curve is upward sloping.

The latter refers to the way in which the risk characteristics of different asset classes can be transformed, by the use of innovative financial instruments commonly known as derivatives. For example, if I believe that interest rates will rise in the future, then I may be willing to swap an asset that offers a variable interest rate attached to it with someone who has a fixed interest rate and who believes that interest rates will drop. This expectation depends on a change in the risk expectations of the counter-parties to the swap. (For a fuller discussion of these two principles, see: Parr and Budd (2000)).

The degree to which these two principles were exploited is a main ingredient in the heady brew of the financial crisis, but the behaviour of the credit agencies is also a powerful intoxicant. The ‘big three’ effectively act as an oligopoly, receiving a large proportion of their income from fees from financial institutions, so there is a tendency to wish to be granted the highest credit rating to sustain business. Moreover, a symbiotic relationship has tended to develop between the largest investment banks, in particular US-based ones. There is also evidence of rating agencies using their power to influence the creditworthiness of financial institutions which did not buy their services. The Financial Crisis Inquiry Commission (FCIC) set up in the US to investigate the causes of the 2007 crisis pulled no punches in respect of the behaviour of credit rating agencies:
The three credit rating agencies were key enablers of the financial meltdown. The mortgage-related securities at the heart of the crisis could not have been marketed and sold without their seal of approval. Investors relied on them, often blindly. In some cases, they were obligated to use them, or regulatory capital standards were hinged on them. This crisis could not have happened without the rating agencies. Their ratings helped the market soar and their downgrades through 2007 and 2008 wreaked havoc across markets and firms” (FCIC 2011; 3).

These comments will not go unnoticed in the small open economies on the periphery of the European Union (EU), facing sovereign debt crises, the consequences of which are discussed below. The outcomes of the factors discussed above are manifested in Figure 2 below which shows the impact of the crisis on the world’s leading stock exchanges.

**Figure 2: Performance of Leading International Stock Exchanges**

![Figure 2: Performance of Leading International Stock Exchanges](source: various and own calculation)

The case of the sub-prime market is used as an exemplar of the conditions which give rise to financial crises. Many of these conditions appear endemic to market economies with well developed financial systems. The post-Keynesian
economist, Hyman Minsky, set out the general conditions through his stage model of financial crises to take account of the most recent one (op.cit). This model is set out in Table 1 below. What is called the ‘Minsky Moment’ occurs between stages three and four when speculative mania turns to panic. But, perhaps more importantly the subsequent stages presage the events by which a financial crisis turns to a fiscal crisis and back into a potential banking crisis, particularly in the Eurozone system. These issues are explored in the next section.

2. From Financial to Fiscal Crisis and back again?

Section 1 detailed the ‘Black Swan’ moment of the US sub-prime mortgage market in order to exemplify how this became amplified into a near global crisis. The supporting conditions for this particular crisis are not significantly from those laid out in Hyman Minsky’s stage model of financial crises. There are some other conditions which helped precipitate the most recent crisis, whose contagion has infected sovereign debt markets. The subsequent focus on total public debt and budget deficits, particularly in some eurozone Member States, had suppressed the reappearance of what is essentially another banking crisis.

These conditions include, but not exclusively, changes in the regulatory environment in which financial deregulation encouraged the greater integration of owner-occupier housing into financial assets markets (for example, the Building Society Act of 1986 in the UK). Accompanying this change was far greater encouragement to expand home ownership in a number of the advanced economies. Other regulatory changes created perverse outcomes and distorted incentives, including the introduction of ‘fair value’ accounting. The development of the Basel II rules to manage the capital-asset ratios of banks actually had the effect of increasing banks abilities to create riskier Tier II capital, through the subterfuge of
Table 1: Hyman Minsky’s Stage Model of Financial Crises

<table>
<thead>
<tr>
<th>Stage</th>
<th>Conditions</th>
<th>Commentary</th>
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<tr>
<td>1</td>
<td><strong>Displacement:</strong> An external shock leads to profitable opportunities in one sector leading to a boom, for example the dot.com and commodities booms.</td>
<td>In the aftermath of the collapse of the dot.com boom, the US Federal Reserve lowered interest rates significantly to avoid a recession but in doing so stimulated a boom in newer and riskier financial assets.</td>
</tr>
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<td>2</td>
<td><strong>Boom</strong> Expansion in the money supply leading to rapid expansion of channels of credit, which in turn create opportunities for speculative investment</td>
<td>This policy response accompanied by loose monetary policy and by accommodating regulatory changes (international accounting and capital-asset ratio rules) created the conditions for searching for new profitable opportunities.</td>
</tr>
<tr>
<td>3</td>
<td><strong>Over-trading:</strong> Over-trading in financial assets created by over-borrowing, and over-investment.</td>
<td>A world deflationary environment, the rise of emerging markets and the search for higher returns created incentives to invest in hitherto unnoticed markets (for example, sub-prime housing) using financial innovation to exploit them and generate large scale trading in them.</td>
</tr>
<tr>
<td>4</td>
<td><strong>Revelution:</strong> The perception that the top of market has been reached leads to a large and rapid selling of assets which creates a stampede and mania leads to crisis and panic.</td>
<td>Once the underlying income flows from these markets dried up and the risk exposure of the structured financial products were shown to be significant a cascade of selling set in and in the absence of new NINJAs to sell mortgages, mania swiftly turned to panic.</td>
</tr>
<tr>
<td>5</td>
<td><strong>Tranquillity:</strong> The lender of last resort role of central banks and government policy of monetary easing creates the perception that the crisis can be managed.</td>
<td>The belated intervention of the Group of Twenty (G20) leading economies and a number of measures and support worth 29% of world GDP in 2008 prices initially suggested that the crisis could be managed.</td>
</tr>
<tr>
<td>6</td>
<td><strong>Retribution</strong> The “fictional” markets created among the financial institutions themselves through new instruments (SIVs etc) are in free-fall. This leads to a blame game aimed at central banks, as exercising their lender of last resort function and the power of financial regulators rapidly reaches its limits. The financial system descends into chaos as the new instruments unravel because the underlying assets are found to be close to worthless.</td>
<td>The true scale of the exposure of the financial system and institutions led to a regulatory sleight of hand whereby investment banks also became retail banks to enable state support and the bankruptcy of high profile investment turns a credit crunch into a near global financial crisis.</td>
</tr>
<tr>
<td>7</td>
<td><strong>Revisionism</strong> The ideology is promoted that it is not market irrationality but “big government” distorting market behaviour, creating the potential inflationary impulse of rise in budget deficits and national debts as the state underwrites the losses incurred in the system. The financial institutions at the heart of the crisis seek to return to “business as usual”.</td>
<td>A global financial crisis is averted by state intervention and support leverages up public debt and deficits to unparalleled amounts and creates the conditions for a fiscal crisis, as market participants reinforced by the credit agencies support the economics of austerity in pursuit of re-establishing market norms in re-building their balance sheets, and rewards to shareholders and internal stakeholders.</td>
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appearing to build up Tier 1 capital which is more liquid and thus seemingly less risky. Consequently, tighter rules are being developed under the Basel III proposals, but not without pressure from financial institutions seeking to maintain “business as usual”.

The models to measure the risk of default used by financial institutions and international policy making institutions were not capable of measuring ‘tail events’, that relate to uncertainty rather than risk distributions\(^1\). In spite of the interventions of governments and international institutions to re-regulate the financial system, these supporting conditions have not disappeared. Furthermore, attention is now on using the economics and politics of austerity to limit the discretion of the state to provide the bases of reforming and re-regulating the financial system in order to re-balance many of the world’s economies. As a result, the financial crisis has engendered a fiscal crisis, the treatment of which appears to be worse than the cure in an increasing number of small open economies.

The purpose of this paper is not is investigate the causes of the current crisis in the Eurozone, rather it is to use an assessment of this crisis to provide a context for the arguments that are advanced. The fundamental cause of the fiscal crisis in the Eurozone and its spillover effects into the rest of the EU is the design flaw in the Eurozone system itself. That is, it is not an Optimal Currency Area (OCA) because it does not have a system of internal fiscal transfers to compensate for the relative immobility of factors of production across national and sub-national regions in the Eurozone. Central to the debates and accompanying literature about the viability of monetary unions, as OCAs, is the need for adequate fiscal tools to compensate for the immobility of capital and labour (Mundell, 1961)

These tools are essential if adjustment is to be made for asymmetric shocks. For example, the Asian crisis of 1997 created excess capacity in the automobile industry. The sudden drop in global demand fed back into the demand and supply characteristics of the industry in the EU and as a consequence impacted on the
economic performance of the regions in which it operates. Clearly, within the Eurozone the effects of this kind shock will not be regionally symmetrical, as been powerfully demonstrated in the peripheral economies of the EU, following the external shock of the 2007 financial crisis.

The use of fiscal tools is constrained by the rules of the Maastricht Treaty that laid down monetary and fiscal rules for entry into the single currency area. The latter included maximum budget deficits and total public debt as a proportion of Gross Domestic Product (GDP). These are underpinned by the Stability and Growth Pact (SGP) was introduced as part of the third stage of EMU in January 1999. It was drawn up to buttress Eurozone membership conditions of the Maastricht Treaty, in particular the avoidance of “excessive” fiscal deficits. The fixation with excessive deficits occurs because of the essential view of the ECB and EU policy makers that fiscal policy is subordinate to monetary policy because it has no effect on real variables, such as output, employment among others (Arestis and Sawyer, 1999). In contrast, the Maastricht conditions have been described as ‘economic nonsense (Buiter, 1992).

Although a number of soft constraints were added to these hard policy ones, following the Lisbon Agenda and its variable implementation, the institutional dimension of separating monetary policy, operated independently at an EU-wide level, and fiscal policy remaining in the hands of national authorities. (Budd, 2007) The deflationary bias written into the Maastricht Treaty and the SGP prohibits any fiscal activism to ameliorate regional imbalances and inhibits the Eurozone becoming an OCA: the sine qua non of the single currency. What is apparent is the lack of institutional harmonisation between the conduct of EU macroeconomic policy, undertaken at the level of the ECB and the Economic and Financial Affairs Council (ECOFIN) and that of other EC agencies concerned with regional development, harmonisation and evaluation. The separation of monetary and fiscal policy, making national fiscal policies subordinate to continental-wide monetary policy creates a
further cleavage between the real and nominal economy (Arestis, McCauley and Sawyer, 1999).

At the heart of the matter, is the issue of how the transmission of a uniform monetary policy to the existing regions of the Eurozone. In the same way that the derogation of exchange rate management to EU institutions has relegated participating Members States to regional status, so the sub-national regions’ ability to adjust to asymmetrical shocks, whether sectoral or indigenous has been weakened. That is, monetary policy is set at the supra-nation level, whilst fiscal policy (which has to conform to the Maastricht rules) is operated at national levels. Therefore, the consequences of setting Eurozone-wide interest rates will impact on regions differently and cut across national boundaries. In this context, setting optimal interest rates is technically challenging, but as has been shown by recent events, may make the management of fiscal crises of the peripheral economies worse by locking them into a form of semi-permanent deflationary path dependence (De Grauwe, 2010).

The mistaken responses of the governments in some of these peripheral Member States and the collective state interventions forced a number of previously public surplus countries into deficit. The cumulative causation of higher and higher funding costs, has been accompanied by and economic policy hysteresis that only has only been temporarily relieved by a variety of discrete measures, including joint International Monetary Fund (IMF)/European Union (EU)/European Central Bank (ECB) bailouts of Greece, Ireland and Portugal, with implications for Spain in the short-term and for the whole of the eurozone in the medium. The scale of the problem is displayed in the spread of 10 year bond yields for the fiscally stressed Eurozone economies.

Yields on bonds are the total returns (capital gains and losses plus interest payments). It clearly demonstrates the link between the financial crisis and the subsequent fiscal crisis as divergence between the EU’s core economy and the
periphery grew. The divergence has widened during 2010 and 2011 as can be seen in Figure 4 below shows the scale and scope of the problem (European Commission, 2011). There is a seemingly direct connection between the original causes of the 2007 financial crisis and the current fiscal one. What connects the 2007 financial crisis and the subsequent fiscal crisis is the role of risk-management financial instruments and the credit rating agencies. In the former case, CDOs enabled high risk assets to be transformed into lower ones. One of the financial instruments which is central to the EU fiscal crisis are Credit Default Swaps (CDS). These are instruments that allow investors to purchase insurance against default on financial assets that they have invested in and enables them to manage credit risk. Like any financial asset there is a secondary market in them which determines the price at any one time. The spreads on CDSs issued against Eurozone sovereign debt can be seen in Figure 5 below.

Credit risk is that form of risk associated with the loss of the principal sum advanced to a lender or the income stream flowing from this contractual obligation.
There are three types of credit risk:

1. **Default risk**: the probability that the issuer of a bond will not make the agreed interest payments or the principal loan at the date the bond matures (re-payment date)

2. **Credit spread risk**: This is the probability that the market value of a bond’s price will decline compared to other similar bonds;

3. **Downgrade risk**: Is the probability that the credit rating agencies will downgrade a bond.

All three combined into a heady brew of increasing potency following the financial crisis. The subsequent deterioration in the fiscal positions of states was due to the high cost of rescue packages, the introduction of discretionary fiscal stimuli and the operation of automatic stabilisers (welfare payment and unemployment insurance etc) threatened the sustainability of public finances.

All the peripheral economies of the EU became exposed, although the causes of this exposure did vary. Essentially in the lead up to the financial crisis, the
creation credit flowed into speculative and riskier asset classes, for example commercial and residential real estate in Ireland and Spain. Furthermore, the sovereign bond markets of the periphery was funded by a number of banks in the core economies, with French ones estimated to account for 40% of the exposure to Greek sovereign bond markets (IMF, 2011). The fiscal consequences of this speculative behaviour and accompanying mania can be seen in Figure 6 below.

**Figure 6: Government Bond Yields and CDS Premia**

[Graph showing government bond yields and CDS premia over German Bunds]

Source: Barrios et al (2009)

This figure shows data from the end of July 2009, but the position has considerably worsened since then. In the case of the most fiscally-stressed EU Member State, Greece, both the yields and spreads on its government bonds have been rising significantly over the last two years. Consequently, the spread on the CDS’s issued against this form of asset signals the scale of risk premia needed for investors to continue to buy their sovereign bonds. The CDS spread on Greek 10 year bonds over similar German Bunds rose by 500 basis points (bps) from April to June 2011, reaching around 1500 bps with those for Ireland rising by 157 bps to
around 850 bps and Portugal 199 bps to approximately the same figure. Ten year Greek bonds were yielding 16.9% in June 2001 (Bloomberg, 2011).

The paradox is that the very banks that were rescued from the financial crisis by international state intervention are the ones that are most exposed to the possibility of default on the sovereign loans they made to the EU’s periphery. A detailed examination of the events and consequences of the last two years is not the purpose here but it points to a deeper malaise. Given the fundamental flaw in the design of the Eurozone system in respect of the asymmetrical transmission of monetary policy and with no formal system of intra-Eurozone fiscal transfers, there appears to be no straightforward way out of this malaise. The rising CDS premia of the periphery over the core, suggests the only way to lift the straw from the camel’s bank is either to let certain EU Member State banks fail or re-structure the whole Eurozone system, both of which outcomes could threaten the EU banking system and has consequent negative spillovers for the global financial system. The vicious circle of financial to fiscal crisis and back again nearly seems complete. What is to be done is an almost impossible question to answer. But, what is apparent is the lack of a more comprehensive institutional form of economic governance at multiple levels and territorial scales.

The next section looks at the potential role of the region in reshaping the economic and financial governance of the EU as it impacts on its small open economies. In particular, how the new financial intuitional landscape after the financial crisis might be extended into a sub-national form of governance that may mitigate the impact of future crises, and contribute more to risk management processes and institutions than formerly.

4. Prospects for Regionally intermediated Economic Governance

The economist Tony Thirlwall perceptively summarised the regional problem at the heart of the Eurozone system as:
Research on regional disparities across Europe shows that what happens to regional differences in living standards and unemployment depends largely on what happens to the relative performance of individual countries. In other words, movements in regional convergence/divergence have much more to do with what is happening to growth performance between countries than what is happening to regional performance within countries. If the interest rate and the exchange rate are no longer available to address country-specific shocks, regional disparities across Europe as a whole will automatically widen. Shocks to countries also have asymmetric effects on regions. The poorer the country, the greater the asymmetric shock to regions is likely to be because labour migration cannot be regarded as an automatic safety valve for regions and countries of high unemployment.. (Thirlwall, 2003; 6).

The external shock of the financial crisis and the ongoing impact of the fiscal crisis has shown that the fundamental design flaw in the Eurozone system has exposed it to potential collapse. The asymmetry in the economic governance of the Eurozone, itself, appears to be reinforced by another kind. That is, membership of the Eurozone seems to benefit small open economies at the time of entry and on the upswing of the economic cycle, but is costly to them when faced with large external shocks. In subordinating exchange rate and interest policy to a Union-level authority, a large number of economies with different capacities, capabilities and path dependencies are effectively ceding control over their external competitiveness. In the absence of exchange rate management and an EU-wide system of fiscal transfers, a small open economy has to engage in an internal devaluation in order achieve internal and external balance.

Internal devaluation appears to be an euphemism for deflation by cutting output and employment, and in the current circumstance will undermine the sustainability of the public finances even further, as public expenditure cuts and tax rises reduce output and employment further. There are two issues that the financial and fiscal crises have exposed in the small open economies of the EU and Eurozone that are connected. One is the relative productivity of Member States and
the other is relative convergence of prices and output per head; in essence the relative competitiveness of the constituent economies.

In order for the Eurozone to be considered an optimal currency area, a system of fiscal equalisation would need to be introduced. In doing so, a greater degree of regional integration can be anticipated and the overall potential of the real economy enhanced. Yet, the commitment to fiscal restraint and rigidities inhibits this prospect. Fiscal equalisation implies re-distributing tax revenues and public expenditure to achieve balance in the economic capacities of Member States and their regions, taking account of different structures, institutions, path dependencies and the depth of “institutional embeddedness” (Amin and Thrift, 1995, Martin and Sunley, 2006). Rules for fiscal discipline are uniform and ignore degrees of regional difference and specialisation. In being universally applied, they are likely to exacerbate any asymmetric shocks among particular regions and sectors. German manufacturing output per person-hour of work was up 36 per cent over 1998-2007; while the corresponding gain was only 19.8 per cent for Greece, 17.9 per cent for Portugal, 15.2 per cent for Spain and 6.6 per cent for Italy. (EUROSTAT, 2011) Relative unit labour costs have also tended to diverge between the core and peripheral economies, as shown in Figure 7 below.

In a currency union, a convergence process is assumed in that as newer members join their GDP per head and prices levels should converge on the union average. The Eurozone, however experienced early convergence, followed by greater divergence, as membership expanded (Martin, Gardiner and Tyler, 2005). The arrival of a large external shock, followed by the consequences of the economics and politics of austerity (imposed by fiscal discipline) has generated greater divergence between the real economies of the core and periphery.
Figure 7: Relative Unit Labour Costs in the Germany and the Eurozone periphery (2000 = 100)

Source: European Central Bank (2011)

The issue about variability in the external competitiveness in relation to the current policy of fiscal austerity is crucial and amply demonstrated in Figure 8 below.

Figure 8: 10-year Sovereign Bond Yields and expected Current Account Deficits

Source: Barrios et al (2009)
This figure relates the risk of fiscal default to current account deficit to GDP ratios of various Eurozone Member States. In effect, this figure shows the impact of the financial crisis on real external performance through the vehicle of the ensuing fiscal crisis.

In the absence of a Eurozone fiscal authority (equivalent to the ECB), however, a number of difficulties arise. These include the operation of automatic stabilisers and implementation lags in the operation of fiscal policy in each Member State (Bayoumi and Masson, 1998). For the real economy other problems arise, for example, interest rates that may be appropriate to the cost of capital in Baden-Wurtemburg or Emilia-Romagna may not be appropriate in Nord-Pas-Calais or Mecklenburg. At the same time, in many of the Members States that lack comprehensive systems of fiscal decentralisation, including local and regional government bond markets, there will be more constraints on using fiscal policy to deal with regional shocks and adjustment.

A regional fiscal equalisation system essentially consists of two components, an insurance one and a re-distributive one. The former acts to insure against the effects of temporary external shocks. The latter seeks to offset permanent regional income disparities and act as an internal re-distributive device (von Hagen 1992). This distinction has been generally accepted in studies of regional insurance system, undertaken in the 1990s. Most of the evidence on the differential impact of a federal insurance system is drawn from the United States and Canada (Macdougall et al 1977, Sala-i-Martin and Sachs 1991). This evidence confirms that there is significant fiscal insurance against asymmetric shocks in the US although there is some disagreement about the size of this (see von Hagen and Hammond, 1998). The evidence also suggests that the insurance is of a smaller magnitude than the income re-distributive effect. These systems are often used as comparative cases for establishing EU-wide systems. The crucial issue to be resolved is that there is no clear-cut evidence about the importance of federal insurance in federal compared to
unitary states. However, in the case of the German system, there is a high degree of inter-regional and regional-federal negotiation and the relative shares of different tax revenues has changed over time (Stehn and Fedelino, 2009).

Details of three systems of fiscal federalism that influence thinking within in the EU are given in Table 2 below. As can be seen from their various strengths and weaknesses, there is not a straightforward match to the Eurozone situation. One of the challenges facing policy makers is the degree to which the inclusion of a system of fiscal federalism to manage regional shocks will enable the Eurozone to develop into an OCA. This appears to be pertinent in the light of the SGP and its limitations in that a number of commentators have reviewed that the case for Euro-area system of fiscal federalism at the regional scale is ambiguous (Fatas, 1998, Kletzer and von Hagen, 2000). Moreover they have suggested that the fiscal discipline imposed by the SGP, in combination with EU cohesion programmes and other transfer payments from the EU to Member States undermines the case of a regional fiscal equalisation system.

At the heart of this claim is that asymmetric shocks are necessarily transitory so that elaborate sub-national systems of transfers may produce distortions and perverse incentives for participating regions (European Commission, 1997). Others may take a more critical perspective and suggested reforms to the SGP and fiscal co-ordination in the EU more generally (Begg and Schelkle, 2004, Begg, Hodson and Maher, 2003). The most damming conclusion is provided by Buiter in a two part summary:

1. ‘The Pact imposes external constraints on national fiscal autonomy to prevent sustainability issues that have no clear cross-border externalities associated with them that can be addressed through debt and deficit limits.'
<table>
<thead>
<tr>
<th>Country</th>
<th>System Basics</th>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Eurozone applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>US</strong></td>
<td>No formal system but a number of federal-state conditional transfers and fiscal equalisation between state and local levels. As such represents a <em>de facto</em> system</td>
<td>Seeks to distribute resources to achieve standardisation at appropriate levels of government</td>
<td>State-based system taxes and grants subject to political changes and no incentive to create efficient taxes and grants.</td>
<td>Yes but disputes over the relative contribution of insurance and redistributive elements of system</td>
</tr>
<tr>
<td><strong>Canada</strong></td>
<td>Elaborate horizontal fiscal equalisation system. Objective is to equalise the tax capacity of the poorest provinces. Block grant covering health and social programmes redistributed from federal to provincial level to ensure a national standard.</td>
<td>Constitutionally based system that attempts to standardise resources within a complex and geographically large federation</td>
<td>Asymmetric treatment of provinces with three not receiving equalisation payments and unequal compensation in the others The problem of the taxation of natural resources which are taxed at provincial levels. Taxed away at 100% equalisation so that there is an incentive for resource-rich provinces to under-price tax contributions to federal system and/or not exploit new resources</td>
<td>Yes and low level of vertical fiscal insurance may accord with lack of commitment to higher EU budget and transfers from core to periphery. Lack of needs element may make system open to constant negotiation in Brussels over differing needs in EU regions</td>
</tr>
<tr>
<td><strong>Germany</strong></td>
<td>Revenue sharing from different forms of taxation between national and sub-national governmental jurisdictions</td>
<td>Constitutionally based system with stronger redistributive element than insurance element. High degree of transparency and accountability</td>
<td>Little impact on reducing GDP per capita variations and scale of re-distribution insufficient to close the absolute regional gap because of limits of on re-distribution thresholds. Disincentive built in to different regions to performance above economic trend Federal Constitutional Court</td>
<td>Yes but weaknesses of system and limited impact on asymmetric shocks, suggests that Euro-area and possible EU-wide would be sub-optimal. The difficulties posed by unification also suggest that new EU Member States wishing to joining the Euro-Area may experience distortions if this system was applied</td>
</tr>
</tbody>
</table>

Source: various and own calculations
2. The Pact is strictly one-country-at-a-time, which means that E(M)U-wide stabilization and fiscal-monetary policy mix issues cannot be addressed.’ (Buiter, 2006, 688).

In one sense, these debates have been overtaken by events, although there is little doubt that they will be returned in the future. It can be argued that the rescue packages undertaken by the EU Member States and the joint EU/IMF/ECB fiscal bailouts for Greece, Ireland and Portugal represent a de facto fiscal equalisation system. It can also be argued that the institutions established in the EU to manage future financial crises. These include:

- **European Securities and Markets Authority (ESMA):**
- **European Banking Authority (EBA);** and
- **European Insurance and Occupational Pensions Authority (EIOPA).** These legislative changes are underwritten by two bodies:
  - **European Systemic Risk Board (ESRB)** which will monitor and assess risks to the stability of the financial system as a whole. The objective of this body is to provide early warning of systemic risks and make appropriate recommendations to deal with these risks.
  - **European System of Financial Supervisors (ESFS)** will supervise individual financial institutions and consist of a network of national financial supervisors working in tandem with the (ESMA).

A number of commentators have observed that much of the current fiscal crisis in the peripheral economies could be better managed if EU-level bonds could be issued to be swapped with their sovereign debt, thereby reducing the yield spread and CDS premia between core and periphery. Furthermore, that the current European Financial Stability Facility (EFSF), agreed by all 27 Members States in May 2010, should be developed as a putative European Budgetary Office. The mechanism grants financial assistance to a Member State in difficulties or seriously threatened
with severe difficulties caused by exceptional occurrences beyond its control. Such an institution could also effectively act as an EU-wide credit agency, that would underwrite but also prescribe the scale and scope of debt issuance, as well as influence the orderly operations of secondary markets in EU sovereign debt.

Although an important starting point, it along with the new financial management institutions operate at EU-levels. This institutional path dependency is one of the forms of asymmetry that EU policy makers seem loathe to address. The CDS premia also cover the local and regional bond markets in Eurozone Member States, so there is an effective EU lock-in of any sub-national discretion in managing the regional and sectoral impacts of large external shocks. Yet, the fiscal equalisation system in Germany, Finanzausgleichgesetze, is partly underpinned by the ability of the Länder to issue bonds, whose credit rating is one of the highest for sub-sovereign bond markets, despite recent budgetary pressures on four of the Länder (Schulz, A. and Wolf, G.B. 2008).

One could argue that the strength of the German economy and the commitment of its Federal government to fiscal discipline is the reason for high ratings. Yet, the logic of an EU Budgetary Office opens up the possibility of developing more harmonised and comprehensive sub-sovereign bond market on the whole of the Eurozone system. The establishment of fiscal federalism at a regional would de facto and de jure establish the institutional means in which the differential impact of future large external shocks is managed and be the basis of some risk management system. The challenge is to integrate the bailiwicks of EU policy making into a more coherent and consistent form of multi-level economic governance. Listening to the recent public pronouncements of EU regional and cohesion policy makers, one could be forgiven for thinking that the financial crisis had not occurred and that the fiscal crisis does not really impact on questions of regional distribution. (European Commission 2010).
Concluding Remarks

The analysis and debates about the financial crisis that began in late 2007 still rage on as does its impact, particularly in the EU and its Eurozone system. There appears to be one inevitable lesson from economic and financial history that fiscal crises always follow financial ones (Budd, 2011). Part of the problem of the current policy response to the fiscal crisis is that EU level policy making is directed at managing a liquidity crisis. That is, managing the potential impact on the banking system as a result of the possibility of default on sovereign debt. Yet, the fundamental challenge is to manage a solvency crisis in the peripheral economies.

These events and challenges have exposed the fundamental flaw in the design of the Eurozone of having no system of fiscal transfers to compensate for the immobility of capital and labour across its national boundaries. The asymmetrical impact on the sectors and regions of the constituent economies could not be managed because of the asymmetry between the twin components of macroeconomic policy: fiscal and monetary policy. This tends to reinforce a policy hysteresis which is matched by an institutional hysteresis that is also asymmetrical in nature.

It seems to be increasingly clear that a system of multi-level economic governance is needed to manage the sub-national and national impact of external shocks. Part of that governance would be the introduction of a system of fiscal federalism, the logic of which would develop the Eurozone system as an OCA, that would be more robust and sustainable than the current arrangements. The concept of multi-level governance was developed from a study EU cohesion policy in which its was defined as “a system of continuous negotiation among nested governments at several territorial tiers” (Marks, 1993; 392) and described how “supranational, national, regional, and local governments are enmeshed in territorially overarching policy networks” (op.cit; 402-403). A simple definition suggests that:
Multi-level governance characterizes the changing relationships between actors situated at different territorial levels and from public, private and voluntary sectors. Most specifically, multi-level governance crosses the traditionally separate domains of domestic and international politics to highlight the increasingly blurred distinction between these domains in the context of European integration. (Bache, 2005, 5).

Although, the fashion for this concept may have faded somewhat, its utility in respect of developing the role of the region in managing financial crises is one that should not be overlooked. At present the budgetary management (including bond markets) at sub-national levels is variable, but their fiscal liabilities are subordinate to national levels and ultimately the constraints of Eurozone membership. As such, political representatives are agents rather than intermediaries of EU and Eurozone system of economic governance. Developing a multi-level system, that embeds fiscal federalism may enhance the role of the region and its representatives as trustees of economic governance and processes of risk management that may mitigate the impact of future crises, than the record to date. This speculation may make a contribution to research agendas that seek to integrate different policy domains into systems and processes of economic governance in complex territorial entities, for example the European Union.
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End Notes

1 Paper presented to the annual meeting, Small Open Economies and the Financial Crisis, of the Urban and Regional Economics Study Group 6th and 7th January 2011 Open University London Regional Centre, UK.

2 Financialisation is the term that encompasses what appears to be the development of a financial mode of production during the last 30 years in the world economy. That is banking and financial capital dominating the trajectory and development of the world’s economies (see, Andersson, T. Haslam C. Lee E. and Tsitsianis N. (2008) for details.

3 CDOs are financial instruments that are issued backed by the collateral of fixed income payments from loans and bonds (including mortgages). They have multiple tranches which correspond to different levels of risk, with “senior” tranches: (those who are the first in line as creditors in the event of default) having the lowest risk.

4 These refer to public debt instruments but equally applies to corporate bonds, although these tend to be of shorter duration. There are perpetual assets which have no expiry date.

5 One of the most well-known examples is Hannover-Rae, a German insurance company that was offered a ‘free rating’ by Moody’s in 2005. When it refused, Moody’s downgraded its bond to junk and $175m was wiped off it value.

6 The DAX is the German index; The Dow-Jones Index is one of the main US indices; FTSE is the Financial Times Stock Exchange Index covering London; whilst the Nikkei is the Japanese based index

7 A Black Swan moment is a term invented by Taleb Nassem to encompass an unexpected event and is used as a critique of the verification process within logical positivism. That is, the hypothesis that all swans are white because the first 100 swans are white but what happens when the next swan is black. Taleb used this as the title of his book on risk in which he cites the 9/11 attack on the World Trade Centre in New York as an example of a Black Swan moment (Taleb, 2007).

8 The International Accounting Standards Board (IASB) sought to use the principle of ‘marking to market’ to value assets and liabilities of financial institutions. That is, what current price they would command in the market. The other notable outcome of this change has resulted in a crisis in pensions markets and an end to many final salary schemes.

9 The Basel rules refer to the location of the Bank of International Settlements (BIS), the central banker of all banks and who developed and enforces these rules.

10 Tail events are effectively the same as Black Swan events. That is, events outside the range at which probabilities can be measured to assess risk.

11 For example in Ireland the 100% guarantee of the liabilities of commercial banks, notwithstanding, the exposure of banking systems on different Member States suggest that protecting their liabilities appears to have been a major driver in the continuation of the fiscal crisis.

12 A basis point of 0.01% so that 100 basis points equals 1%

13 A Bund is German government bond