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Preface

The origins of this book lie in an invitation from Institut de Recherches Économiques Fiscales (I.R.E.F.) in 2011 to write a book on the "European economic crisis". The feeling in the IREF, which I shared, was that, while there were several good books and academic papers written about the current recession most of these were written with the USA in mind and primarily concerned with analysing what went, and was, wrong with the US economy. There was, however, very little which examined the European experience - particularly in terms of its peripheral countries which have manifested the most extreme symptoms of the crisis - in terms of where, and how, growth and prosperity in Europe began to unravel and what it might do towards resuming normal business. This book is intended to fill this gap.

In writing about these matters I have adopted three perspectives. First, this book is more about issues than about detailing the experiences individual countries. Towards this end, I examine four aspects of the crisis which have dominated the debate about recessionary Europe: (i) the *housing crisis*, stemming from feverish building activity and house purchase, and culminating in the "housing bubble" bursting; (ii) the *banking crisis*, stemming from injudicious lending and culminating in banks being forced to "deleverage" as the wholesale money market refused them "roll overs" on their loans; (iii) the *sovereign debt crisis*, stemming, in the main, from governments having to assume responsibility for private sector debts, and culminating in certain countries (Greece, Ireland, Portugal) having to be "bailed out" in view of their unsustainable levels of public debt; (iv) the *austerity crisis*, stemming from attempts to reduce the level of government borrowing by cutting expenditure, and culminating in economic pain and misery being inflicted on the populations of countries that were placed under the supervision of the "Troika" comprising the European Union, the European Central Bank, and the International Monetary Fund.

Second, as an academic, I could not help but take a "scholarly" approach to discussing these issues. Consequently, the book tries to place the four themes of housing, banking, sovereign debt, and austerity in the context of the economic literature, both in terms of theory and in terms of the empirical evidence. However, balancing this, I have tried to write in an accessible style, moving through the various chapters at a fairly brisk pace. Those readers who, quite understandably, are nervous about picking up weighty tomes on worthy topics can approach this book without trepidation: it is neither weighty nor a tome! It is my hope that *all* readers will find in these pages a serious but succinct, coherent but comprehensive, account of the main issues that underpin our present economic crisis.

Third, this book has a central thesis. It begins by observing – in common with other commentators – that today's economic crisis in Europe is mistakenly viewed as a sovereign debt crisis. In fact, the sovereign debt crisis we see in Europe today is a

derivative of private sector overspending which existed long before the present recession began in 2008. This overspending flew “below the radar” because the European Monetary Union’s single currency regime had no automatic signals for warning of private sector overspending. The EMU’s regulatory framework, enshrined in the Growth and Stability Pact, made no provision for private sector excess but severely proscribed public deficits. Consequently, it was only when private overspending mutated into public deficits and sovereign debt that warning bells began to ring.

Therein lies the major fault of the euro: it is an economic system essentially run by bureaucrats, regulators, and lawyers and, thereby, lacks many of the automatic warning systems and adjustment mechanisms that countries with sovereign currencies take for granted. Imposing a single currency on an economically heterogeneous group of countries is not the cleverest of ideas. The viability of the euro requires a surrender of national sovereignty by some countries and an exercise in pan-European generosity by others: the more that the countries of the EMU are prepared to bow to a central European authority, the better the chances of the euro surviving. The danger is that the have-nots will despair at an imposed austerity with no end in sight; the haves will weary of an imposed generosity towards countries which are culturally feckless and profligate; and any of the countries may find the gradual erosion of sovereignty sufficiently offensive to want to leave. The subsequent pages amplify and develop this argument.

In writing this book I am grateful to Institut de Recherches Économiques Fiscales for supporting this work and to Vidya Borooah, Enrico Colombatto, Jean-Philippe Delsol, Anastasios Katos, Pierre Salmon, and George Tridimas for reading and commenting on the manuscript. Needless to say, I am entirely responsible for the views expressed in this book, however flawed and misguided they might be!

Vani K. Borooah
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Chapter 1
Introduction

On the eve of the First World War, the British statesman, Sir Edward Grey offered this gloomy prognostication: "The lamps are going out all over Europe. We shall not see them lit again in our time". The slaughter of the 1914-18 War is the greatest carnage that Europe has known in over a hundred years: on the Allied side, 5 million soldiers, comprising 52% of enlisted men - and, on the Central Powers side, 8.5 million soldiers, comprising 57% of enlisted men - were killed.[1] Since then Europe has known two *economic* carnages which destroyed lives without necessarily taking them. One of them is the Great Depression of the 1930s. The other is the Great Recession that began in 2008 and, at the moment of writing, continues with no end in sight. This book details the causes and consequences of the current crisis by exploring four themes, which constitute the book's four core chapters, and which lie at the heart of the Europe's economic crisis:

I. The *housing bubble* in Spain and Ireland which, when it inevitably burst, wrecked their economies.
II. The *banking crisis* which led to a blurring of the distinction between private and public debt and opened the door to the public financing of private debt.
III. The *sovereign debt crisis* which was partly the result of government taking on responsibility for banking debt but partly also the consequence of national governments being able to borrow freely under the fiction that their debt was underwritten by the collective guarantee of the European Monetary Union (EMU).
IV. The implementation of *austerity and structural reform* in the countries that suffered the ignominy of being bailed out – Greece, Ireland, and Portugal - by the Troika consisting of the European Union (EU), the European Central Bank (ECB), and the International Monetary Fund (IMF).

The past two decades have been for Europe both the best of times and the worst of times: the period 1997-2007 was a period of European prosperity; since 2008, Europe has only known economic misery. At the turn of the last century, and in the early years of the 21st, Europe prospered. The prosperity embraced the countries of Europe that are today seen as its "problem" countries - Greece, Ireland, Portugal, Spain, and Italy - and, indeed was particularly marked in several of these countries (as shown in Figure 1.1 which displays growth rates in real GDP over the period 1997-2011 in a selection of European countries).

Ireland grew at an annual rate of 11.5% in 1997, 10.9% in 1999 and, for nine of the 11 years in the period 1997-2007, its growth rate did not fall below 5%. Spain and Greece grew steadily at around 4% for the entire 1997-2007 period. Portugal and Italy had less successful growth experiences over 1997-2007: both countries have been struggling since 2002 when their growth rates fell below 1% and neither has succeeded in staging a convincing recovery since that year.

[1] http://www.historylearningsite.co.uk/FWWcasualties.htm

In 2008, the economies of these five countries - and more generally, of most countries in Europe - crashed and their tale of woe has continued into 2012. Irish real GDP, which grew at an average rate of 5.5% over 1986-1996, and by 5.6% in 2007, contracted by 3.6% in 2008, by a further 7.6% in 2009, and has since continued to gently decline. Greek has experienced three (four, if one includes 2012) straight years of recession. Italian real GDP contracted by 1.3% in 2008 and by 5.2% in 2009 before resuming slow growth. Portugal, which, like Italy, had been struggling since 2002, slowed to zero growth in 2008 and contracted by 2.5% in terms of real GDP in 2009. Spanish real GDP grew by less than 1% in 2008 before contracting by 3.7% in 2008 and by 0.1% in 2009.

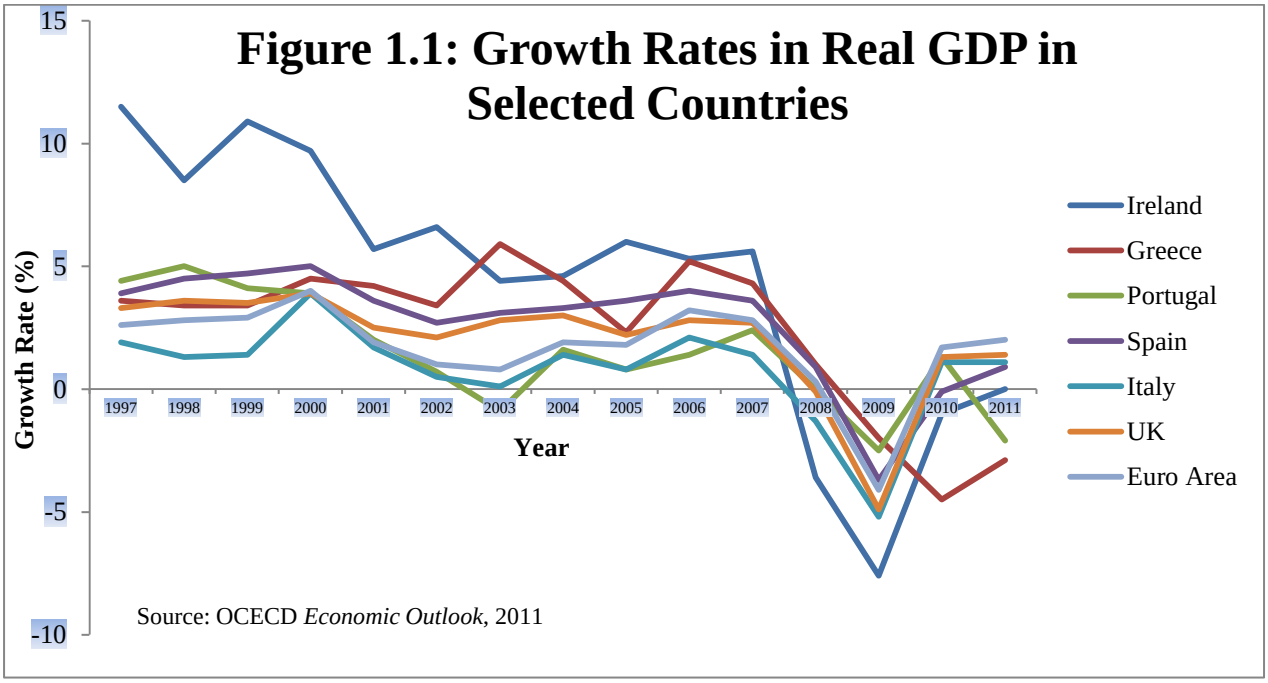

Table 1.1: Growth Rates (%) in Real GDP in Selected Countries, 2007-2010

	2007	2008	2009	2010	2011
Greece	4.3	1.0	-2.0	-4.5	-2.9
Ireland	5.6	-3.6	-7.6	-1.0	0.0
Portugal	2.4	0.0	-2.5	1.3	-2.1
Spain	3.6	0.9	-3.7	-0.1	0.9
Italy	1.4	-1.3	-5.2	1.2	1.1
France	2.3	0.1	-2.7	1.4	2.2
Germany	2.8	0.7	-4.7	3.5	3.4
UK	2.7	-0.1	-4.9	1.3	1.4

Source: OCECD *Economic Outlook*, 2011

Table 1.1 sets out the growth experiences of Europe's "problem" countries alongside those of some other countries, for the period 2007-2011. The similarity between the growth experiences of the problem countries (above the line in Table 1.1) and Europe's economic powerhouse, Germany, is that all their economies contracted in 2009 with real GDP in Germany falling by more than it did in Greece and Spain. The difference is that while the

economies of the "problem" countries contracted even further (or, at best, stuttered along at low rates of growth), Germany posted strong real GDP growth in 2010 and 2011. Germany was unique in its speed of recovery: France and the UK, which also contracted severely in 2008, have failed to recover at anything resembling Germany's speed; indeed, in this respect, their recessionary experience is not dissimilar to that of the "problem" group. Although the succession of economic catastrophes that have afflicted several European countries since 2008 have several proximate causes, the two that were common to many countries were firstly, the availability of easy credit and, secondly, the adoption of the single currency – the euro – which was born on 1 January 1999 with 11 member countries who, collectively, constituted the EMU.

Easy Money

Although the discussion of government deficits and debt focuses on Greece, Ireland, Portugal, Spain, and Italy, it should not be forgotten that it is a near-universal problem affecting several countries outside this group of "problem" countries. For example, notwithstanding today's very public criticism of tax-avoidance behaviour in Greece and the profligacy of its government, government revenue as a percentage of GDP is higher in Greece compared to the USA and the UK (39.1%, 30.9%, and 36.6%, respectively, in 2010) with the result that, as Table 1.2 shows, the *overall* fiscal balance in 2011 was the same in Greece as in the UK and the USA (respectively, -8.0%, -8.5 %, and -9.6%) and Greece's primary balance in 2010 and 2011 was healthier than that of the UK or the USA. For these reasons, Niall Ferguson writes that the "idiosyncrasies of the euro area crisis should not distract us from the general nature of the fiscal crisis that is now afflicting most Western countries".[2]

Table 1.2: General Government Balance as Percent of GDP

	2006		2007		2008		2009		2010		2011	
	OV	PM	OV	PM	OV	PM	OV	PM	OV	PM	OV	PM
Greece	-6.1	-1.5	-6.7	-2.0	-9.8	-4.8	-15.5	-10.3	-10.4	-4.9	-8.0	-1.3
Ireland	2.9	3.9	0.1	0.8	-7.3	-6.5	-14.2	-12.4	-32.0	-28.9	-10.3	-6.8
Portugal	-0.4	2.2	-3.1	-0.4	-3.5	-0.7	-10.1	-7.4	-9.1	-6.3	-5.9	-1.9
Italy	-3.3	1.1	-1.5	3.3	-2.7	2.2	-5.3	-1.0	-4.5	-0.3	-4.0	0.5
Spain	2.0	3.3	1.9	3.0	-4.1	-3.1	-11.1	-9.9	-9.2	-7.8	-6.1	-4.4
UK	-2.6	-1.1	-2.7	-1.1	-4.9	-3.3	-10.3	-8.5	-10.2	-7.7	-8.5	-5.6
USA	-2.0	-0.1	-2.7	-0.7	-6.5	-4.5	-12.8	-10.9	-10.3	-8.4	-9.6	-8.0

OV is overall balance, including all expenditure; **PM** is primary balance defined as overall balance less interest payments
Source: IMF, *Fiscal Monitor*, September 2011, Statistical Tables 1 and 2.

The source of the West's "indebtedness problem", both private and sovereign, is the trade imbalance that has existed for some time between the world's supplier nations - China, Germany, Middle-East oil states - and the world's purchaser countries - the USA and the countries of Western Europe. In a nutshell, supplier countries accumulated financial surpluses which they then ploughed back into the financial systems of the purchaser countries. The Chinese used their growing foreign exchange reserves to buy US Treasury bills and the deposits of German savers were channelled by their banks into lending to banks in other

[2] Niall Ferguson, "A Greek Crisis is coming to America", *Financial Times*, 10 February 2010.

European countries and to other European governments. The upshot was that banks in the USA and the Western Europe found themselves in possession of vast amounts of "wholesale" money, acquired from foreign suppliers, to lend on to their customers and which, simultaneously, freed them from the shackles of their traditional reliance on the deposits of their domestic savers. Not only was money plentiful, it was also cheap: the bursting of the dot-com bubble in 2000 meant that interest rates were kept low in a bid to revive recession-hit economies. This happy combination of circumstances meant that banks were prepared to lend and customers were prepared to borrow.

The question for banks, however, was one of where to direct their loans? In his book, *Boomerang*, Michael Lewis[3] remarked that:

> The credit wasn't just money, it was temptation. It offered entire societies the chance to reveal aspects of their characters they could not normally afford to indulge. Entire countries were told [by their banks], "The lights are out, you can do whatever you want to do and no one will ever know".

As Lewis goes on to observe in his book, people in different countries made different choices. The Americans, the British, and the Irish - in whom the culture of home ownership ran deep - chose to spend on property; Icelanders chose to buy foreign assets; the Greeks to expand their public sector in terms of employment, wages, and pensions. But, whatever, their choices, they all drank deeply from the well of plenty.

The Euro

The EMU, underpinned by the common currency of the euro, came to being on 1 January 1999, as a club of 11 member countries (Belgium, Germany, Ireland, Spain, France, Italy, Luxembourg, Netherlands, Austria, Portugal, and Finland) and, in the subsequent 13years, acquired a further six members to comprise, today, a group of 17 countries.[4] The conditions for membership were set out in the Maastricht Treaty of 1992 and the process of monitoring and enforcement of these conditions, after the monetary union had been formed, was enshrined in the Stability and Growth Pact (SGP) of 1997. Both are discussed in some detail in chapter 4. These 17 countries are a subset of the European Union which contains a further 10 countries: these, by virtue of retaining their national currencies, are part of the EU but not of the EMU.[5] The adoption of a single currency had two obvious consequences.

First, instead of a plethora of different national currencies - whose values against each other were determined by exchange rates (for example, three Irish pounds for a German mark) - a single currency, the euro, would prevail in each of the 17 countries of the EMU. Consequently, while prior to joining the EMU countries could alter the value of their currencies *vis-à -vis* each other, this policy instrument of currency appreciation or depreciation (which is an important means of affecting competitiveness) was no longer

[3] Michael Lewis, *Boomerang: The Meltdown Tour*, London: Penguin Books, 2011.
[4] Greece joined on1 January 2001, Slovenia on 1 January 2007, Cyprus and Malta on 1 January 2008, Slovakia on 1 January 2009, and Estonia on 1 January 2011.
[5] Bulgaria, Czech Republic, Denmark, Hungary, Latvia, Lithuania, Poland, Romania, Sweden, the UK.

available after they had joined the EMU. Since there was a single exchange rate between the euro and other currencies, which was determined by the foreign trade performance of the euro area in its entirety relative to the rest of the world, and because the euro area's foreign trade performance was dominated by Germany's exporting powerhouse, the euro was likely to be overvalued in respect of the smaller countries. This kept their exports at levels below what they might have been with a weaker currency.

Second, prior to joining the EMU, each country could set its *monetary policy* (by adjusting its money supply), to yield an interest rate best suited to its needs, independently of the monetary policy set by other countries. Post-EMU, there was to be a single interest rate across all the EMU countries and the appropriate level of this rate, and the monetary policy required to achieve it, would be determined by the European Central Bank which would take account of prevailing economic conditions *over the entire euro area* (and which might not be appropriate to the specific needs of any individual country).[6] Before the current recession, some countries like Ireland, which were booming, could have done with higher interest rates to choke demand while other low-growth countries like Portugal needed low interest rates to stimulate demand.

The upshot of having a single interest and exchange rate for the euro area was that post-EMU, *fiscal policy* was the only (macroeconomic) policy instrument available to national governments. Placing the burden of adjustment on fiscal policy meant that a country could only improve its competitive position through "internal devaluation" – a process of economic contraction, implemented through tax hikes and cuts in public expenditure, to raise unemployment and lower wages and prices. At the same time, by restricting the scale of national budgetary deficits through the Growth and Stability Pact, the scope for expansionary fiscal policy was severely restricted – countries which ought to have been spending their way out of recession were obliged by the terms of the Pact to restrict their public expenditure.

Competition between currencies, as with competition in general, makes market participants aware of the strengths and weaknesses of their competitors and, in the process, enables them to establish an appropriate competitive strategy. A country's competitive position is encapsulated by its unit costs of production - expressed in foreign currency (say, $) and usually approximated by unit labour costs (expressed in the domestic currency, say £) × (£/$) exchange rate - relative to its competitors.[7] In order to claw back competitiveness, it needs to exercise *real* wage restraint, so that *nominal* wages fall relative to productivity growth and/or depreciate its overvalued exchange rate. Exchange rate depreciation also reduces real wages but indirectly, through stealth, by raising the prices of imports and, thereby, the domestic price level. Thus, currency depreciation softens the economic costs

[6] Although these rates were supposed to differ between countries, taking account of their risks of default, this never happened.

[7] The UK price level in $ is: $\frac{UK\ wage}{UK\ productivity} \times E_{\$}^{£}$ where $E_{\$}^{£}$ is the exchange rate (the price of a $). So, the growth in the price of UK produced products in the USA is: UK nominal wage growth - UK productivity + %exchange rate change

associated with an adjustment of wages and prices though, of course, it cannot solve the *structural* problems associated with poor competitiveness. Countries can, therefore, choose the mix of wage restraint, productivity growth, and exchange rate depreciation which best suits their needs. A single currency takes away the last option and places the entire onus of adjustment on nominal wages and efficiency.

However, a single currency is more pernicious than a fixed exchange rate regime (like, for example the gold standard) which also robs a country of the freedom to adjust its exchange rate. Under a fixed exchange rate regime an uncompetitive country will sell assets to finance its consumption and will go bankrupt under the weight of its debt if it does not. Long before that event, however, remedial action would have been forced upon it through deflation: either falling real income would lead to a sharp reduction in imports and induce a correction of its current account problems or it would undertake, of its own volition, the reforms it should have undertaken earlier but did not. Samuel Johnson famously remarked that "when a man is about to be hanged, it concentrates his mind wonderfully".[8] In this vein, the Indian government, contrary to all previous form, undertook the historic economic reforms of 1990, which opened up the Indian economy to competition, and thereby transformed its prospects, only when Indian foreign-exchange reserves had dwindled to a low of $2.2 billion with less than 15 days' cover against annual imports.

The problem with a single currency is that a country is not even aware that it is on the gallows until it feels the noose tighten around its neck and, by then, it is too late. There is no mechanism within the single currency framework to *autonomously* induce a balance of payments correction. The economic system that buttresses the single currency is essentially bureaucratic and legalistic, enshrined in treaties and pact. There is plenty of head masterly finger-wagging enjoining good behaviour, and threatening dire punishment for bad behaviour, but there are no (economic) incentives to do the right thing and plenty of incentives to do the wrong thing. Indeed, the current crisis, which appeared to come as a surprise to policy makers, had been flagged for years by unsustainable levels of expenditure in several countries as manifest in their large current account deficits. However, the current account balance did not feature as a problem in the Stability and Growth Pact, which underpinned the single currency, and so countries did not need to bother about it.

Did the single currency offer incentives to overspend? The answer to that must be yes. First, the tough anti-inflationary stance of the ECB caused inflationary expectations to fall and this led to sharp declines in nominal interest rates in countries like Greece, Ireland, Italy, and Spain where, earlier, expectations of high inflation had kept interest rates high. This, in conjunction with a ready availability of bank funds, triggered a sharp rise in borrowing in these countries by households and by governments and caused severe balance of payments deficits. Second, the system for settling inter-country transactions within the EMU was such that national central banks did not deal with one another but only with the ECB. This is discussed in some detail in chapter 4. Suffice it to say here that by taking the bilateral

[8] James Boswell, *Life of Johnson* (entry for 19 September 1777).

settlement of accounts between national central banks out of the equation it constituted, in effect, *central bank funding of external deficits*.

Third, the ECB followed rules for money creation which established a dangerous nexus between banks and public debt. The ECB has, since its founding, used repurchase operations as a major tool of monetary policy. In practice, as Boone and Johnson (2011) note, this meant that the nearly 8,000 banks in the EMU countries could buy the sovereign debt of any euro area country and present it to their national central banks, acting on behalf of the ECB, as collateral for new finance. Banks made a tidy profit on the difference between the interest received on sovereign debt and the interest paid to the ECB. There was, therefore, an appetite for sovereign debt on the part of banks and, since all countries sheltered under the EMU's roof carried the imprimatur of the ECB, one country's debt was as good any others. The web of interdependency created by the single currency meant that the failure of a Member State to meet its debt obligations would pose *systemic risks* by creating problems for the EMU in this entirety and, therefore, that the market assumption was that *no country would be allowed to fail*. Consequently, smaller countries within the EMU now enjoyed an ease of access to bond markets they could never have imagined earlier with their national currencies and some of them, Greece in particular, were keen to take advantage of this by expanding debt-financed public expenditure.

Fourth, in order to meet the increased demand for expenditure by the private sector, banks within the EMU vastly expanded their lending by issuing short-term bonds to fund long-term loans. Investors were prepared to buy these bonds because they assumed that the sovereign debt that banks held as assets would, under ECB rules, give them easy access to ECB funds in the event of mishap. Banks, too, believed they would be bailed out by the ECB if their investments soured and this, as detailed in the next chapter, made them careless in evaluating the quality of their investments. The upshot of this was that the operation of the single currency created a *moral hazard regime* in which banks and government were locked in a tight embrace and which offered both parties strong incentives to act without taking "due care".

Bail-outs

A bailout is defined as an act of giving financial assistance to save a failing business or economy from bankruptcy. The moral hazard regime, described above, ended when investors came to realise that not all banks and not all countries were alike: some banks were more likely to have made a mess of their investments and some governments were more likely to default on their loans than others. A corollary of this realisation was that banks in trouble were being refused a "roll-over" on their short term loans and over-indebted governments were charged such punitive rates of interest that, in effect, they were denied market access to funds. Consequently, they needed to be bailed out.

These bail outs as they affected the three countries involved - Greece, Ireland, and Portugal - are detailed in chapter 4 and summarised here. In February 2010, Greece received a bail-out of €80 billion from the ECB and the IMF. Further bailouts have meant that, to date,

a total of €110 billion has been agreed to cover Greece's needs for the next three years: €30 billion for 2010 followed by €40 billion for 2011 and 2012 each.[9] The conditions attached to the bailout are severe and include austerity measures to cut expenditure and raise revenue, the sale of public assets, and also structural economic reforms.

Greece was followed by Ireland. In September 2010 the Irish government's support for Ireland's banks had raised the public deficit to 32% of GDP and by October markets were sufficiently alarmed to raise the interest rate on Irish government bonds to over 7%. By November the game was up and the Irish government had to seek a €85 billion bail-out from the European Central Bank (ECB) and the International Monetary Fund (IMF), of which €17.5 billion would come out of its own pension funds. This bail-out came with conditions attached: there was to be a four-year austerity plan involving deep cuts in public spending and public-sector jobs, a lower minimum wage and higher taxes and, most importantly, a substantial recapitalisation of its banks.

Ireland was followed by Portugal. In May 2011, Portugal's caretaker Prime Minister, Jose Socrates, announced that Portugal had agreed terms for financial assistance from the EU and the IMF worth €78 billion (including €12 billion in support of its banks). Under the terms of the agreement, Portugal would cut its deficit to 5.9% of GDP in 2011, followed by reductions to 4.5% in 2012 and 3% in 2013. In so doing, Portugal, like Greece and Italy, would *inter alia* cut its public sector wage bill by freezing wages and employment; reduce state pensions; and increase sales taxes. However, unlike Greece, which could not repay debt, and Ireland, which took on the debt of its banks, Portugal's problems were caused by a government which could not get its austerity measures through Parliament and, so, had to resign. It was the political limbo of a country without a government that raised borrowing costs for Portugal to the point where it could not cover its borrowing on the bond market and, consequently, was forced to seek a bail-out.[10]

The Future of the Euro

So where that does that leave the euro? Many of the problems associated with the single currency that have been set out in this book (and by other commentators elsewhere) could have been foreseen but they were not partly because the architects of the euro *did not want to anticipate them* and so averted their eyes from the euro's weaknesses. Their reluctance to anticipate its problems stemmed from the fact that the single currency project,

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[9] In April 2010, EU officials judged that the Greek deficit was 13.6% of GDP and not, as estimated by the Greek government in 2009, 6-8%. In consequence, yields on 10-year Greek government bonds rose to 8.6% in May, almost triple the rate on German federal government bonds (bunds).

[10] Measures to reduce the government deficit were not confined to the three EMU countries that were bailed out. Latvia has undergone the most savage bout of deficit reduction: with austerity launched during the 2009 recession, its economy has shrunk by a quarter with unemployment tripling to 21% in 2010. Austerity was, and is, the centrepiece of UK budgets since the Conservative-Liberal coalition government was formed in May 2010. The fact that Italian government 10-year bond yields crossed the 7% "alarm threshold" towards the end of 2011 led the new Prime Minister, Mario Monti, to announce a series of austerity measures in December 2011 representing €20 billion of savings till 2014.

which was to fundamentally and irrevocably change the economic structure of Europe, was motivated more by dubious politics than by sound economics. The founding of the European Economic Community in 1957 was predicated on the noblest of motives - a desire to avoid the prospects of German revanchism and Communist hegemony meant that Europe had to provide a third way based on debate and discussion, underpinned by reasonableness. However, when at that time the "European Project" had the choice between embracing a *classical liberal* vision (with its emphasis on autonomy and competition at all levels) or a *socialist centralised* vision (which envisaged political and economic union culminating in a United States of Europe) it chose the latter.[11]

As the *Economist* newspaper expressed it: "The euro and its independent central bank are elite projects *par excellence*. The high priests of Europe's political class handed down the edict that Europe needed its own currency."[12] This vision regarded the use of a single currency as essential for instilling a sense of unity and belonging among the people of Europe. As importantly, it would enhance Europe's role in world affairs by equipping it with a currency which would rival, perhaps even eclipse, the dollar in international trade and finance.[13] And although Germany was wedded to the Deutschmark, it was persuaded to renounce it in favour of the euro on three counts. Firstly, by being promised an easy passage towards the reunification of East and West Germany. Secondly, through being assured that the European Central Bank, with its intolerance of inflation, would be created in the spirit of the *Bundesbank* and that the new currency would, therefore, possess all the muscularity of the Deutschmark. Thirdly, through the realisation that the new currency would offer Germany a more competitive exchange rate than the Deutsch Mark.

Recent events show, however, that the single currency has failed on both fronts. Europe is more divided today than it was at any time since World War II. The euro has pitted Northern against Southern Europe, Greece against Germany, and the "periphery" against the "core". It has imposed a bureaucratic, centrist vision of Europe, underpinned by regulation and legality, on a heterogeneous group of countries which, arguably, needed instead the space and freedom to devise national solutions for national problems. Far from learning from its mistakes, the favourite EU solution to a fresh economic problem is yet another treaty embodying yet more regulation and demanding yet more conformity. In its latest manifestation, The *Treaty of Stability, Coordination and Governance*, there was a further tightening of fiscal discipline. The reliance on regulation and command is a concomitant of the fact that the single currency does not embody incentives which will lead to an autonomous correction of imbalances.

In the international sphere it is so far from rivalling the dollar that it was dismissed very recently by an eminent economist as "the little currency that couldn't [hack it]".[14] Countries like the UK and Denmark - which signed the Maastricht Treaty but opted out the single currency partly in anticipation of its problems and partly from a reluctance to submit to

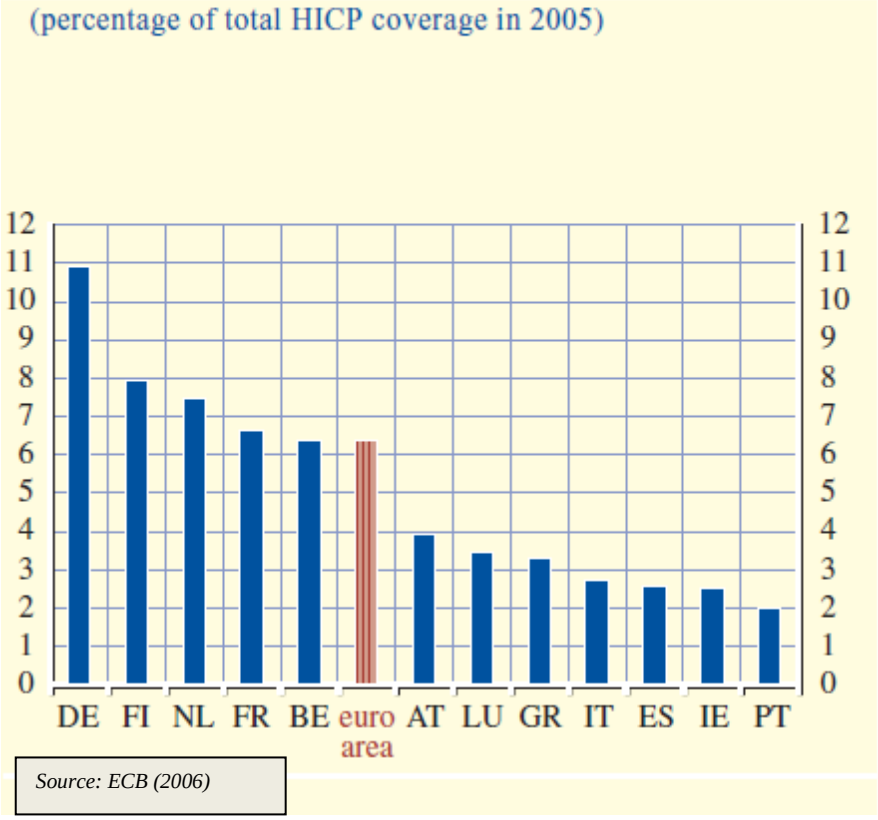
[11] See Bagus (2011) for a detailed discussion of the two visions.
[12] The Economist, *Special Report on the Europe and its Currency*, 12 November 2011.
[13] See Feldstein (2012).
[14] Feldstein (2012).

the authority of unelected "euro-bureaucrats" - congratulate themselves on their prescience. By closing their ears to the siren call of the euro they have escaped the clutches of an economic system essentially run by bureaucrats, regulators, and lawyers.

Chapter 2
Housing

A feature of the current recession is the housing bubble that preceded it in three European countries all possessing a strong culture of owner-occupation: Spain, Ireland, and the United Kingdom. All three countries have very small private rented sectors and high home ownership rates, defined as the proportion of the total number of residential units in the country that are owner-occupied. The home ownership rate was 78% in Spain (2002), 83% in Ireland (2002), and 69% in the UK (2002); in contrast, it was only, 42% in Germany (2002), 49% in the Netherlands (2000), and 55% in France (2000).[15] Figure 2.1, below, shows the share of rent expenditure in the Harmonised Index of Consumer Prices (HCIP) for Euro Area countries. This share was less than 3% for Ireland (IE) and Spain (ES), compared to a Euro Area average of over 6% and a high of 11% for Germany (DE).

Figure 2.1: Share of Rent Expenditure in the HCIP in Euro Area Countries

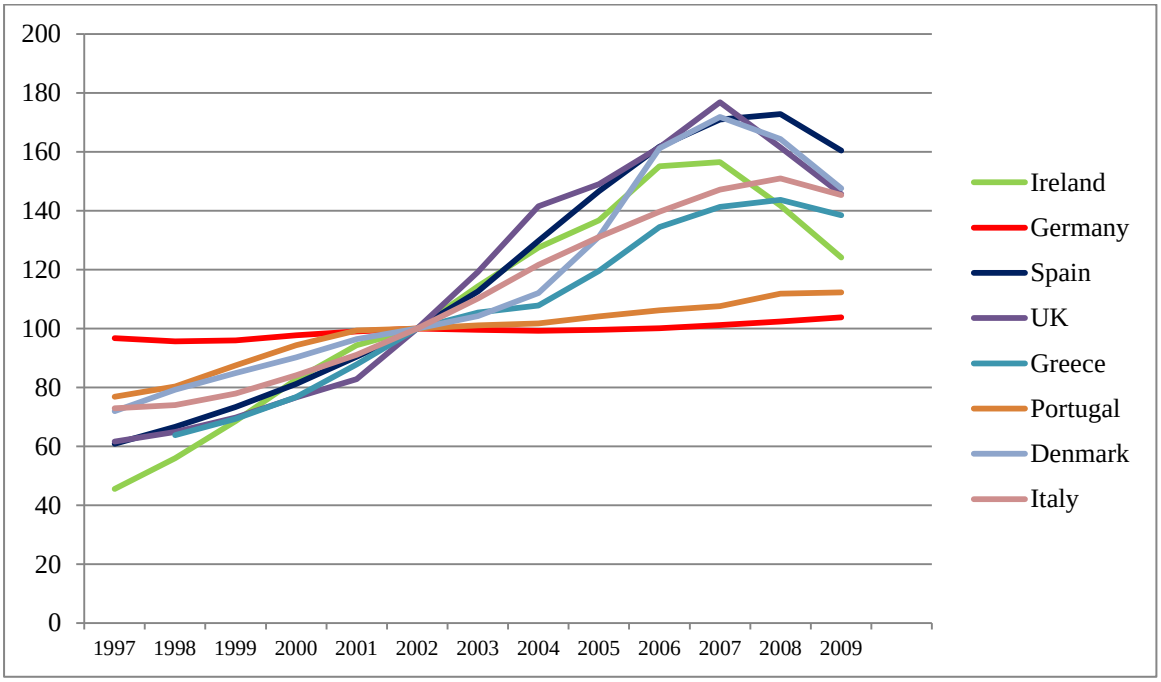


As Figure 2.2, below, shows, house prices in Spain, Ireland, Greece and the UK rose sharply between 1997-2007 before falling, in all four countries, in 2008 and 2009. By contrast, house prices in Germany have hardly changed since 1997 and - unlike Spain, Ireland, and the UK - Portugal, too, has experienced low house price inflation.

[15] http://en.wikipedia.org/wiki/List_of_countries_by_home_ownership_rate

It would be a mistake to think that the property bubble which existed from 1997-2007, and which burst in 2008 and 2009, was confined to a few "problem" countries. As Figure 2.1 shows, house prices in Denmark rose sharply between 1997 and 2007 (indeed, faster than in Ireland) and fell precipitously in 2008 (indeed, by more than in Spain). Yet, unlike Ireland and Spain, Denmark was unscarred by the rise and fall of its housing market.[16]

Figure 2.2: House Prices in Selected Countries: 1997-2009 (2002=100)



Source: Financial Times

A feature of the trajectory of house prices for European countries is its volatility (or lack of). In some countries, house prices hover around a central value; in others, they deviate considerably from it. In order to obtain a summary measure of house price volatility in different European countries, Gini coefficients[17] were computed for different countries using data from the Financial Times database on European housing prices (2002=100 for all countries) [18] and these coefficients are displayed in Table 2.1, below. The largest degrees of house price volatility were in the UK (Gini=0.196), Spain (0.194), and Ireland (0.187) and the smallest degrees were in Germany (0.013) and Portugal (0.056).

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[16] Other Scandinavian countries - Sweden, Norway, and Finland - also experienced a boom and slump in house prices.

[17] The Gini coefficient for house prices in country *X* over the period *t=1...T*, is defined as:

$G_X = \frac{1}{2T^2\mu}\sum_{i=1}^{T}\sum_{j=1}^{T}|P_i - P_j|$, where P_i and P_j are, respectively, prices in periods *i* and *j*. In other words, the Gini coefficient is computed as half the mean of the difference in house prices between pairs of observations, divided by the average price (μ). So, *G=0.45* implies that the *difference in prices between two years chosen at random* will be 90 percent of the average price.

[18] Financial Times, European House Price Guide, http://www.ft.com/cms/s/0/1dd8c5b6-51a8-11dd-a97c-000077b07658.html#axzz1gM1e0N5N. Figure 2.1 is derived from these data.

Table 2.1: Gini Coefficients for House Prices, 1997-2009, Selected Countries

	Germany	Denmark	Norway	Sweden	Greece	Ireland	Italy	Portugal	Spain	UK
Gini	0.013	0.161	0.158	0.167	0.146	0.187	0.146	0.056	0.194	0.196

Volatility in house prices matters to the building industry because houses are built on a speculative basis with builders recouping their outlay only after the finished houses have found buyers. Since there is typically a time lag between the decision to start a house and its completion, builders have to base their decision about the number of houses to start on circumstances they expect to prevail in the future; in the main, these will revolve around expectations of future prices. The greater the volatility in prices, the greater the likelihood that these expectations will be falsified with the result that builders will have built either too few or too many houses.

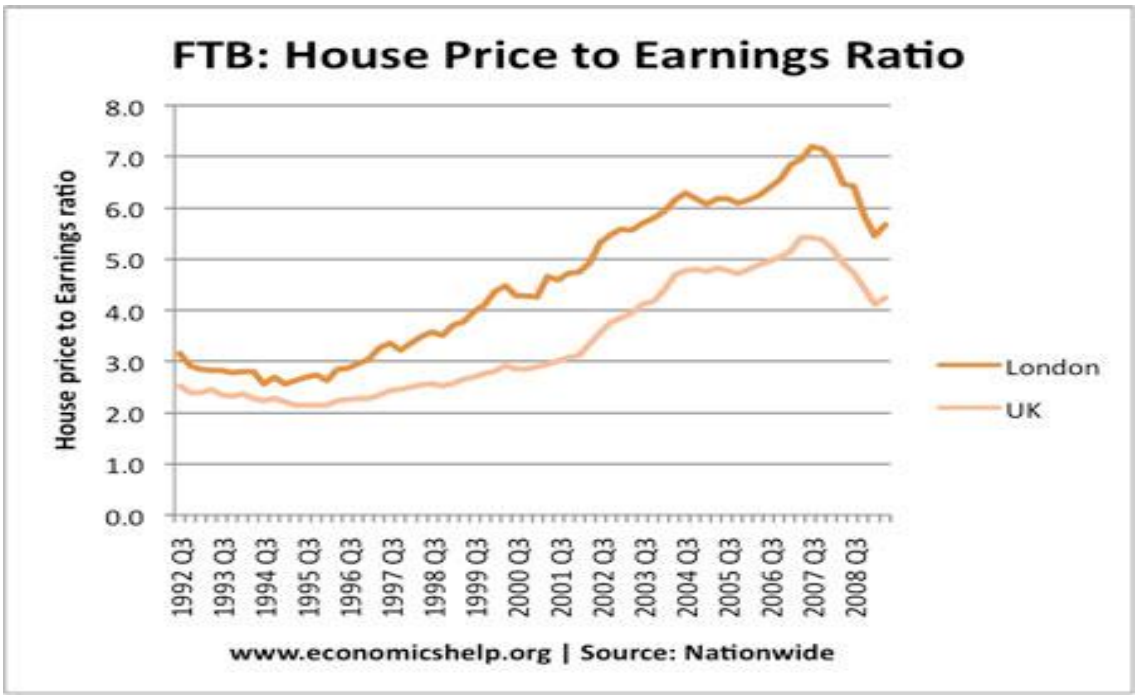
Housing Fundamentals: Income and Demography

Against this background, an important question is why house prices rose so sharply in certain countries, in spite of the fact that they did not experience any significant change in the "fundamental" factors underpinning housing demand. The role of such factors in determining house prices have been analysed by Girourard (2006) and by the European Central Bank (2006). These factors may be separated into *non-financial* (house prices, current and expected, income growth, demographic developments) and *financial* (price and availability of credit).

Household income and house prices together determine "housing affordability". A crude measure of "housing affordability" is the ratio of house prices to income: as this ratio rises, housing becomes less affordable.[19] On this measure, according to ECB (2006) calculations, housing affordability in the euro area fell continuously between 1998 and 2002. Consequently, one can rule out rising incomes, making houses more affordable, as a source of housing demand and, therefore, of rising house prices.[20] Figure 2.3, below, shows, the price-to-income ratio of first time buyers in the UK and in the London area: this rose, for the UK, from a low of 2.1 in 1995 to 5.4 in 2007 and, for London, from 2.8 in 1995 to 7.2 in 2007.

[19] More sophisticated measures enquire about the percent of median income required to occupy the median housing unit, both sold and rented.
[20] For example,

Figure 2.3: House Price to Earnings Ratio for First Time Buyers: UK and London



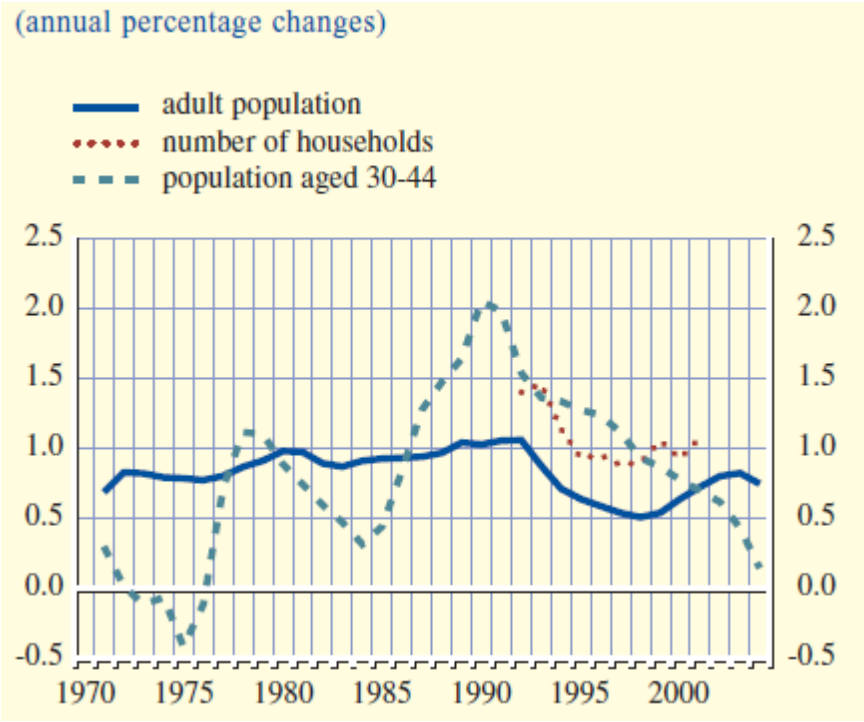
Another source of housing demand is population growth. A particular aspect of population growth that affects housing demand is that of household formation: when a person, or persons, decides to establish a separate household, instead of remaining as part of an existing household, he/she/they immediate become a fresh source of housing demand. There has been a structural shift in Europe towards smaller households as the rate of growth of households has outstripped adult population growth (see Figure 2.4, below).

However, "headship rates" (that is, the proportion of people in an age cohort who are heads of households) varies considerably across countries. Figure 2.5, from Conefrey and Fitzgerald (2009), shows that for every age cohort, the proportion of persons who were heads of households in Ireland (2006) was less than that in Germany (1991) and the UK (1992) though the difference is most marked at the younger age cohorts. A similar situation prevails in Spain: Choroszewicz and Wolff (2010) report that over 50% of persons aged 18-34 in Spain lived with their parents (see Figure 2.6, below).

This is reflected in the fact that the number of *occupied* dwellings per 1,000 of the adult population in Ireland, Portugal, and Spain was considerably lower than that in other countries, even though the *total* of dwellings did not display such differences. For example, as Table 2.2 shows, Ireland had the same number of dwellings (per 1,000 adults) as the UK but 13% fewer occupied dwellings (per 1,000 adults): 478 compared to 551 occupied dwellings in the UK. This suggests that there is an unmet demand for housing in Ireland: if headship rates in Ireland were similar to Germany or the UK it would have many more occupied dwellings per 1,000 adults and one of the reasons that headship rates are low in

Ireland (and Spain and Portugal) is that, because of high prices, young people cannot move away from home.

Figure 2.4: Adult Population, Population Aged 30-44, and Number of Households



Source: ECB (2006)

Table 2.2: Dwellings per 1000 adults, 2001

	Total Dwellings	Occupied Dwellings	Occupancy Rate (%)
Denmark	621	595	96
Estonia	599	521	87
France	634	526	83
Germany	599		
Hungary	519	475	92
Ireland (2006)	574	478	83
Netherlands		534	
Poland	454	421	93
Portugal	634	448	71
Spain	655	444	68
UK	575	551	96

Source: Conefrey and Fitzgerald (2006)

Figure 2.5: Comparative Headship Rates

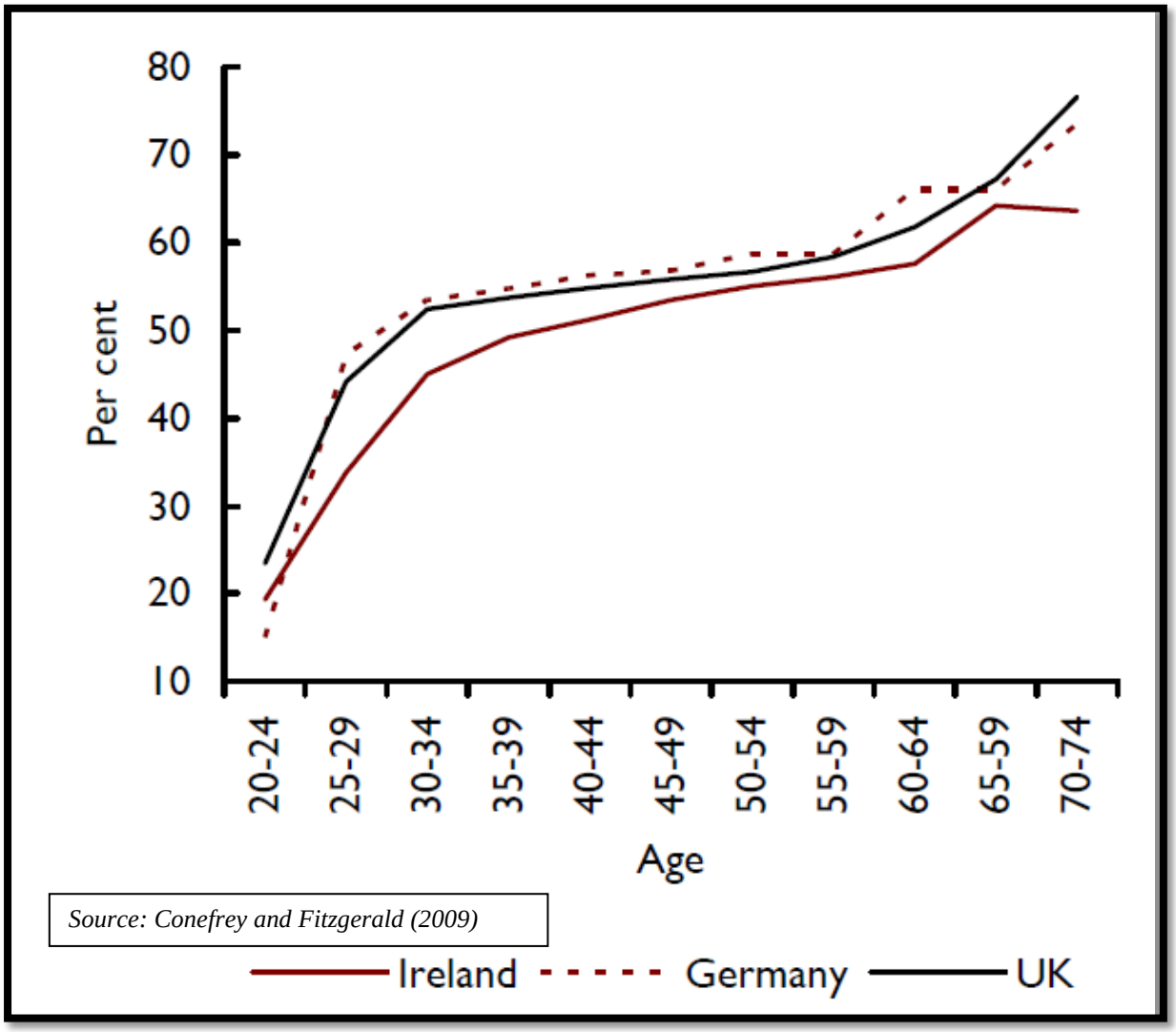
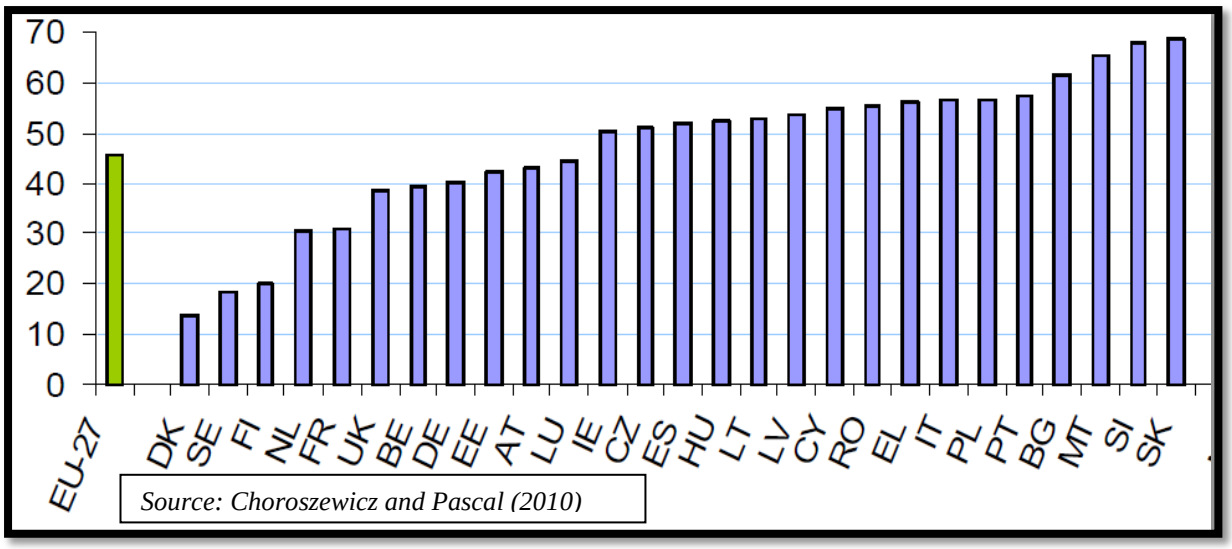


Figure 2.6: Share of Young Adults Aged 18-34 Living with Their Parent(s): 2008

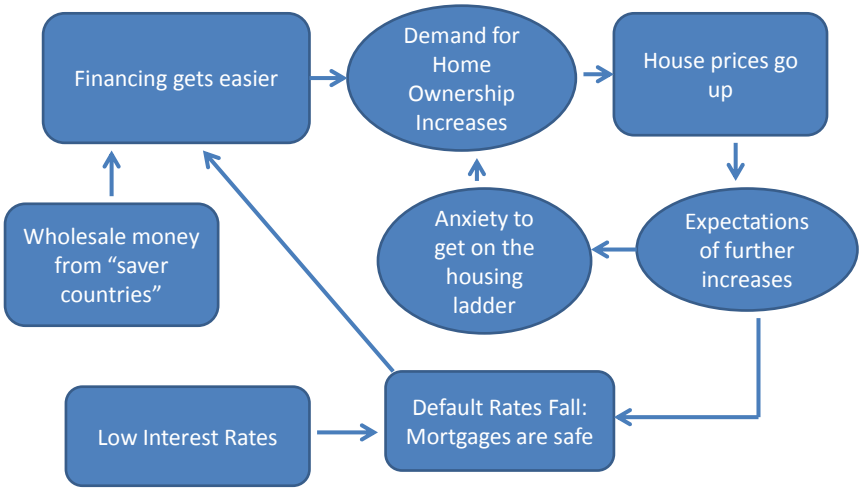


Source: Choroszewicz and Pascal (2010)

However, high (and escalating) prices reduce the user cost of housing. The user cost of housing is the cost of consuming housing services for one period (say, a year). It comprises two terms: the interest paid (if the house was bought using borrowed funds) or foregone (if the house was bought using equity); the capital gain from holding the asset for a year.[21] If credit is readily available, the interest rate is low and, because of expectations that house prices will continue to rise, the user cost of capital is even lower (sometimes, even, negative), then buyers will rush to buy houses even if the house-price to income ratio is low (that is, affordability is low). Indeed, some of the rush to buy houses may be because affordability, though low, is expected to deteriorate further as house prices continue to pull away from incomes. This is precisely the dynamic of a bubble: investors' "animal spirits" make them rush to place a foot on the housing ladder lest tomorrow house price inflation makes the rungs too high to reach.

[21] There is also a depreciation element which, in the case of long-lived assets like housing, is likely to be small.

Figure: 2.7 The Dynamic of a House Price Bubble



Housing Fundamentals: Finance

The easy availability of finance on favourable terms makes home purchase available to people who, in a different period, would not have been considered for a home loan. Joining the Euro on 1st January 1999 meant interest rates fell for most of the joining countries. Figure 2.8 compares interest rates in Euro Area countries with EU countries not in the Euro Area. Interest rates in Ireland, Spain, and Portugal fell from 7.2%, 8.7%, and 8.6% in 1996 to the Euro Area rate of 4% in 1999. EU countries outside the Euro area had interest rates considerably above the Euro Area rate: in 2000, compared to the Euro Area rate of 5.75%, Central Bank rates in Hungary, Lithuania, Latvia, and the UK were, respectively, 13.75%, 7.67%, 6%, and 6%.

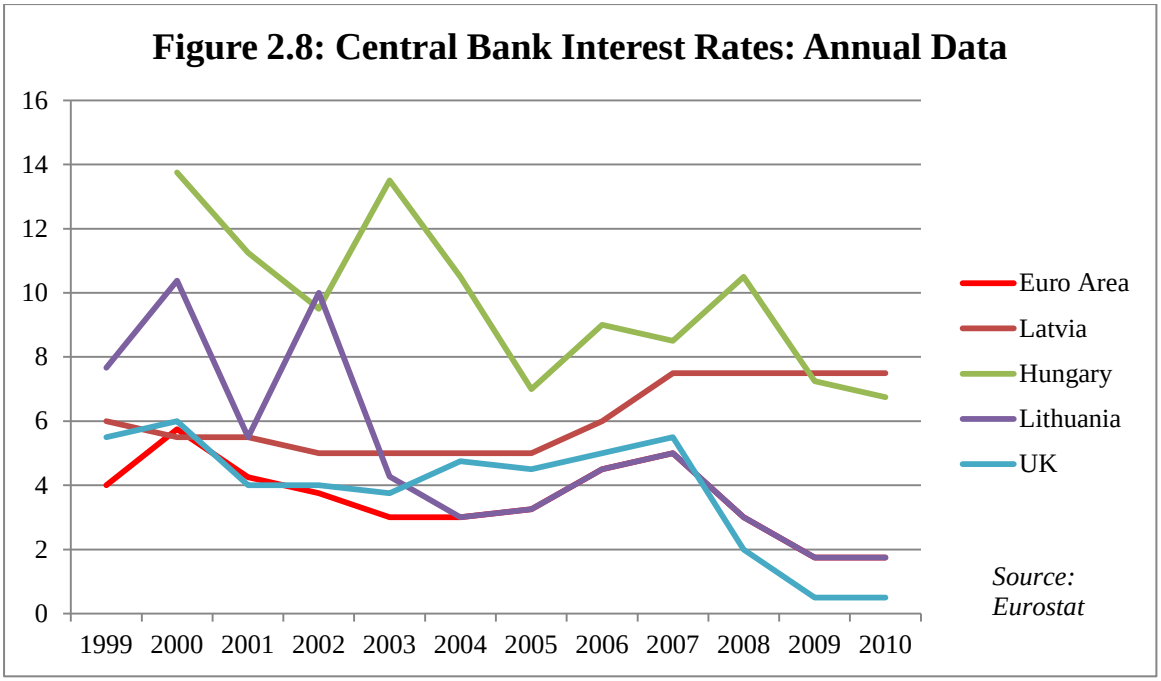
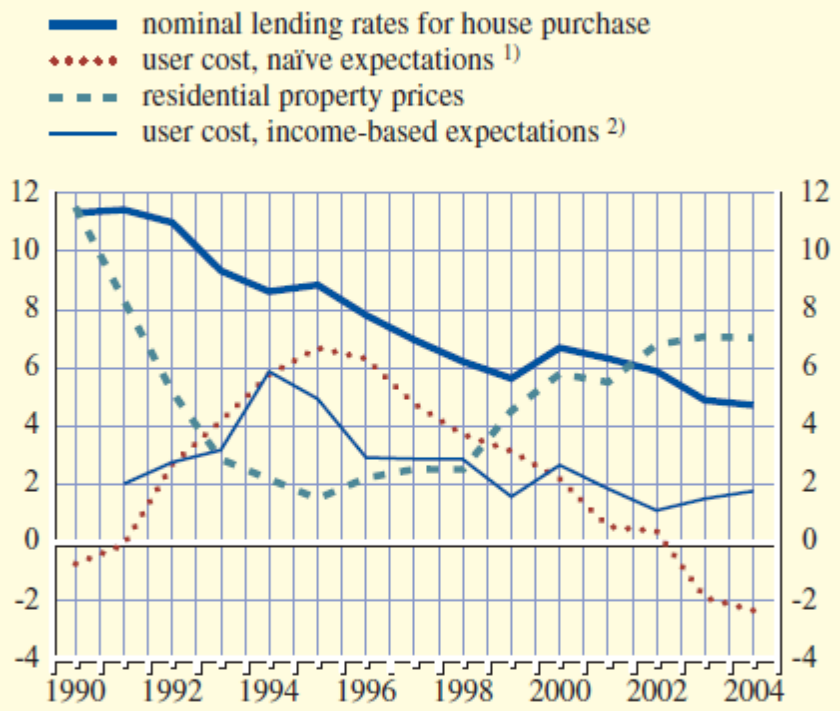


Figure 2.9 shows that not only did interest rates fall in the Euro Area but that the user cost of housing fell even faster. In addition, banks' lending standards for house purchase were considerably relaxed after 2002. This was computed as the difference between responding to an ECB banking survey claiming that bank lending for house purchase had "tightened " and those saying that it had "eased": the smaller this difference, the greater the ease of getting a mortgage. Figure 2.10 shows the evolution of banks' credit standards and loans for house purchase in 2002-2005: as lending standards were relaxed, the growth in home loans soared. The final piece of evidence relating financial developments to rising house prices is provided by Figure 2.11 which shows that growth in mortgage lending and rise in house prices were positively related between 1999 and 2004.

Figure 2.9: Residential Property Prices and user Cost of Capital

(percentage points; annual percentage changes)

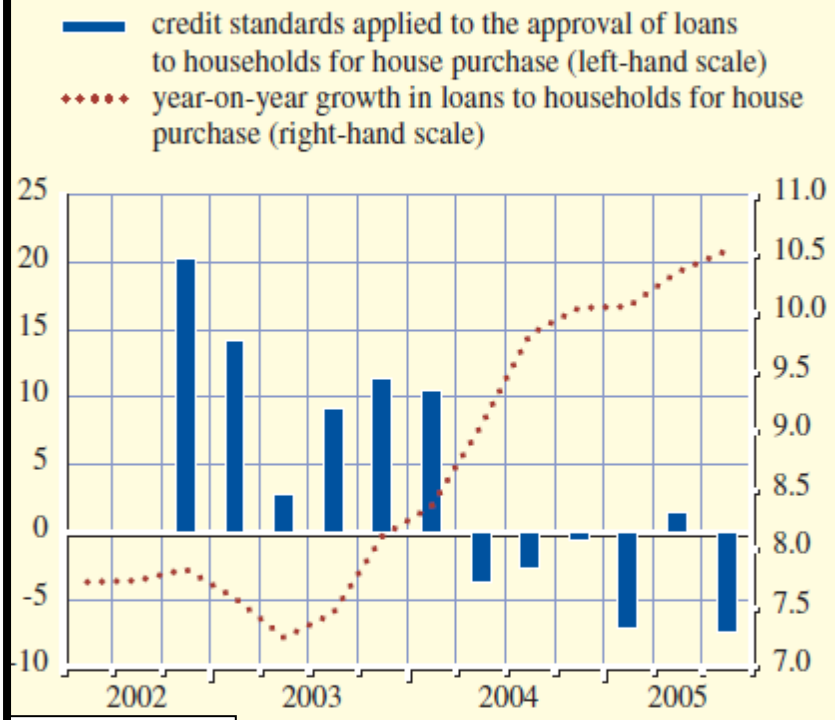


Sources: ECB and ECB calculations based on national data.
1) Households form expectations of house price increases by simply extrapolating last year's house price increases.
2) House price expectations are based on an extrapolation of last year's disposable income growth.

Source: ECB (2006)

Figure 2.10: Banks' Credit Standards and Loans for House Purchase

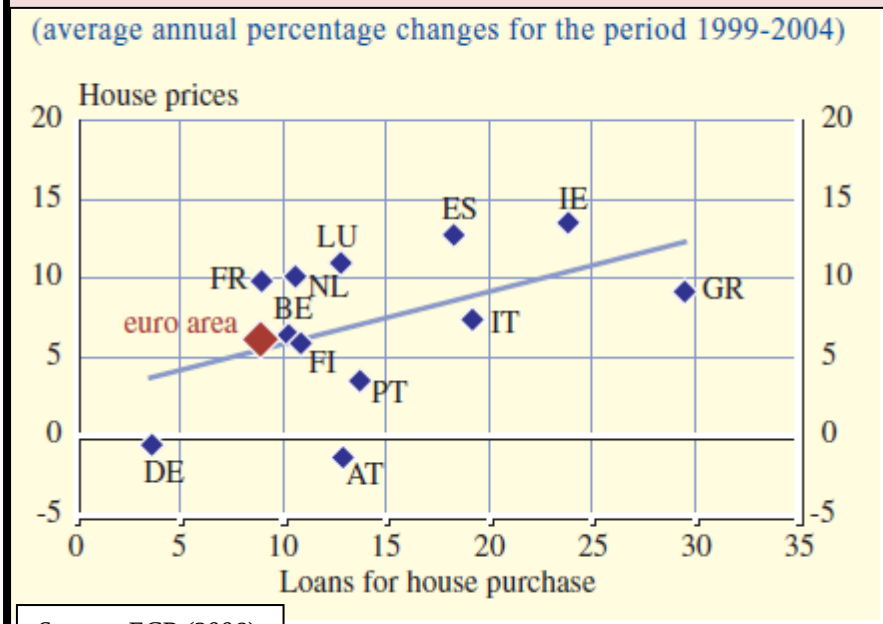
(net percentages; annual percentage changes)



Source: ECB (2006)

Note: The net percentage for the question on credit standards in the bank lending survey for the euro area is defined as the difference between the sum of the percentages for "tightened considerably" and "tightened somewhat" and the sum of the percentages for "eased somewhat" and "eased considerably".

Figure 2.11: Growth in House Prices and Mortgage Lending, 1999-2004



Source: ECB (2006)

Bursting the Housing Bubble

The housing bubble, as argued above, was built on cheap and easily available home mortgages which, combined with expectations of continually rising prices, led to a buying frenzy. People saw buying a house (or, indeed, houses) as a good, safe, investment which, by yielding high returns, would provide for a multitude of expenditure contingencies: school fees, holidays, new cars, income in old age. In consequence, several buyers over-stretched themselves financially to take advantage of the investment opportunities afforded by the housing market. In 2010, the total value of outstanding mortgages in Ireland was €110 billion yielding a mortgage liability-to-disposable income ratio of 132%.[22] Only the UK had a comparable ratio (133%); the mortgage liability of US households was only 96% of disposable income and that of German households was even lower at 67%.[23] Consequently, it took only a small rise in interest rates, from 3% in 2004 to 5% in 2007, to cause some mortgage holders to default, to frighten off new buyers and, in general, to reverse the entire process by sending house prices into decline

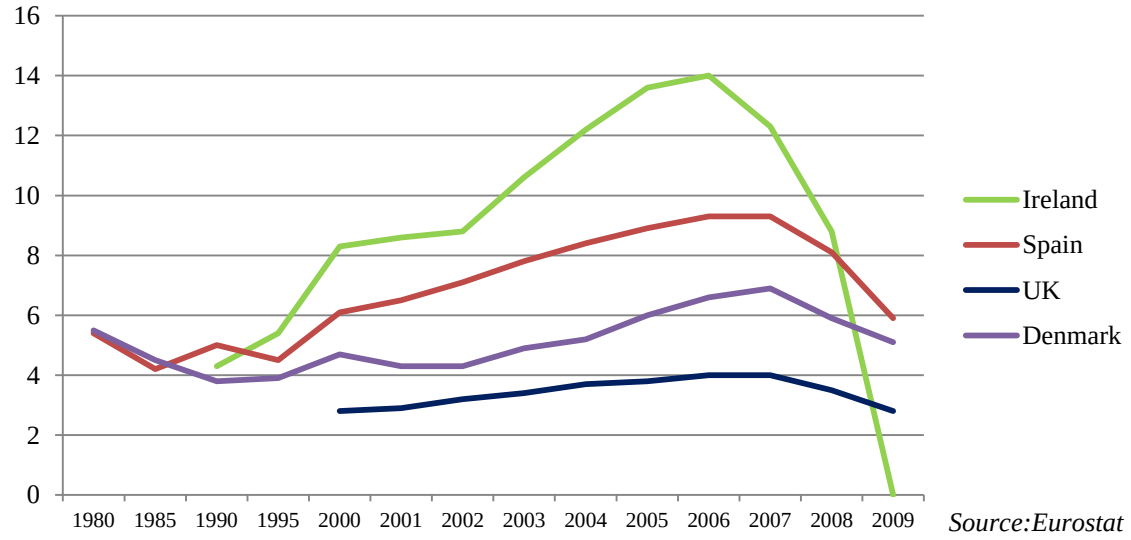
However, although several countries - Ireland, Spain, the UK, and Denmark - saw their housing markets rise and fall in 2000-2009, it was only the Irish and, to a lesser extent, the Spanish economies that were significantly affected by the housing boom and, subsequent, bust. The unemployment rate in Ireland rose from 4.6% in 2007 to 13.7% in 2010 while, in Spain, it rose from 8.5% in 2006 to 20.1% in 2010. On the other hand, unemployment rates

[22] Oireachtas Library and Research Service (2010). The total indebtedness of Irish households was €147 billion, yielding a debt-to-disposable income ratio of 176.
[23] OECD *Economic Outlook*, May 2011, Annex Table 58.

in the UK and Denmark - the other housing boom and bust countries - rose between these years from, respectively, 5.4% to 7.8% and from 3.9% to 7.4%.

The reason for this asymmetric effect of the housing boom on the economies of these countries is to be found in supply side responses. In Ireland and in Spain builders responded to the demand for housing by building new houses.[24] Figure 2.12 shows that in 2006, Gross Fixed Residential Capital Formation was 14% of GDP in Ireland (up from 8% in 2000) and 9% of GDP in Spain (up from 6% in 2000). In contrast, the proportions of Residential Capital Formation in the GDP of the UK and of Denmark were only 4% and 7%, respectively, in 2006 (up from, respectively, 2.8% and 4.7% in 2000). Consequently, the housing boom *restructured* the Irish and Spanish economies, in a way that it did not the UK and Danish economies, by diverting resources - skills and labour - from other sectors into construction which now, thanks to the buoyant demand for housing, offered higher wages compared to other parts of the economy. The numbers employed in construction in Ireland quadrupled, from 35.2 thousand in 2001 to 147, 000 in 2010, while in Spain employment in construction increased by 48%, from 1.95 million in 2001 to 2.89 million in 2007.[25] Consequently, when boom turned slump, Ireland especially - given its record as an exporting country - found it difficult to cope: high wages had eroded competitiveness and the shift of workers, from other sectors, into construction had eroded past skills.

Figure 2.12: Gross Fixed Residential Capital Formation as % GDP (current prices)



Source:Eurostat

[24] A high proportion of new homes built in Spain was to satisfy foreign (and domestic) demand for holiday homes: such homes are almost a third of the total Spanish stock; in Ireland, however, holiday homes are around 15% of total stock (Conefrey and Fitzgerald, 2010).

[25] *Eurostat*. For the UK, employment in construction increased from 1.39 million in 2001 to 1.43 million in 2008 while in Denmark the increase was from 184,000 in 2001 to 207,000 in 2007

Housing Downturn in Ireland: Consequences

The downturn in the housing market has had severe consequences for the Irish economy. It has sent the economy into a deep recession, with per-capita GDP falling by 16% from €36,900 in 2007 to €31,100 in 2010 accompanied by a corresponding rise in the unemployment rate from 4.6% in 2007 to 13.7% in 2010.[26]

The sudden and sharp rise in the unemployment rate, following the downturn in the housing market, has left many households in Ireland facing difficulties with their mortgage. With a mortgage debt of €110 billion[27], Irish households carry a mortgage debt of €13,200 for every €10,000 of disposable income. If one defines "mortgages in arrears" as mortgages on which payments have not been made for 91 days, then 3.6% of residential owner-occupier mortgages (28,600 out of 792,893) were in arrears (though, on more stringent definitions, this figure could be as high as 9.8%[28]), and these invited formal demands for payment followed by court applications for repossession.

A fallout from mortgage default - which was but a particular instance of bad loans made by Irish banks against property - is that mortgages have become difficult to obtain. The number of new mortgages issued by Irish banks has fallen from 203,953 in 2006 to 45,818 in 2009 and the number of mortgages to first time buyers in 2009 (12,684) was one-third of the number in 2006 (37,064). Particularly badly hit are second-time buyers (number of mortgages down from by 79% from 45,585 in 2006 to 9,395 in 2009) and buy-to-let investors (number of mortgages down from by 78% from 26,565 in 2006 to 5,774 in 2009).[29] Until mortgage lending recovers, there is little prospect of recovery in the housing market.

However, there is new mood of caution among lenders and regulators which makes it unlikely that, even after the present crisis in bank liquidity has passed, mortgages will be issued again in the cavalier manner of a few years ago. The UK's Financial Service Authority (FSA) has recently made a set of recommendations for lending practices which are likely to become the industry's standard in the UK and elsewhere (FSA, 2011). In particular, self-certification of income will become a thing of the past and lenders will be forced to verify the income of every prospective borrower; stricter affordability tests will mean that an assessment of whether the borrower can afford the loan will be made on the basis of cash flow and not on the prospect of rising house prices; borrowers will be "stress tested" to see whether they could afford their repayments in the face of interest rate rises; interest-only mortgages would be granted only under circumstances where the buyer has a repayment arrangement in place.

A particularly worrying feature of mortgage debt is that a large amount of it was not used to buy houses at all. In the UK, equity extraction to fund non-housing purchases

[26] *Eurostat* and OECD *Economic Outlook*, May 2011.
[27] This is the value of outstanding owner-occupier residential mortgages on banks' balance sheets. If this figre is adjusted to include the value of securitised mortgages, it rises to €147.6 billion (Oireachtas Library and Research Service, 2010)
[28] Weston (2009).
[29] Figures from Oireachtas Library and Research Service (2010), Table 1.

amounted to roughly half of funds raised through mortgages in the past five years. Although we do not possess comparable information for Ireland, 74% of those remortgaging their homes in Northern Ireland - representing the highest proportion in the UK - used the opportunity to withdraw equity. Re-mortgagers who extracted large amounts of equity from their homes may be in negative equity for reasons which have less to do with the fall in their house value and more to do with extravagance in non-housing expenditure. FSA (2010) estimates that nearly half of re-mortgagers in the UK may be, what it terms, "mortgage prisoners" - locked into their homes and unable to move. If the UK experience is replicated in Ireland then, considering, that 15% of all new mortgages between 2005 and 2009 were re-mortgages (105,594 out of 719,434), there could be nearly 53,000 "mortgage prisoners" in Ireland in addition to the 28,600 borrowers who were more than three months in arrears.

A second consequence for the Irish economy is that the downturn left builders with a large stock of unsold houses at various stages of completion leading to a recent, but now ubiquitous, feature of the Irish landscape: "ghost estates". Following the collapse of the housing market in Ireland over 2007-08, "ghost estates" - housing developments in which only a small proportion of the total number of houses on the development are occupied - have become a feature of its landscape. The term, first coined by McWilliams (2009) has become a legacy of Ireland's housing boom that turned to bust, scarifying its landscape and providing a visible and painful reminder of how high the Irish economy rose, and how far it fell.

Although the topic of ghost estates features prominently in Ireland's national post-mortem of "where did it all go wrong?" the phenomenon itself has attracted surprisingly little analytical attention. Kitchin *et. al.* (2010) were among the first to attempt a count of ghost estates by defining such estates as those where half or more of the properties were either vacant or under construction. On this basis, they identified 620 ghost estates in Ireland which had been developed since 2005, with 80% of houses on these being either vacant or under-construction. Nor is the phenomenon of ghost estates confined to Ireland. Over a decade, land developers in Spain built hundreds of thousands of units, about 800,000 in 2007 alone. Developments sprang up on the outskirts of cities ready to welcome many of the four million immigrants who had settled in Spain, many employed in construction. Most of these units have never sold, and though they were finished just three years ago, they are already falling into disrepair.[30]

The issue of regulatory failure is often raised in the context of the unchecked lending by Ireland's banks to its construction industry. Kitchin *et. al.* (2010) raise an equally important, though relatively neglected, issue of regulatory failure in planning policy, the zoning of land, and the granting of planning permission. They argue that, in a housing boom, land planners should act to restrain the enthusiasm of builders and developers which, if unfettered, could lead to grossly excessive construction. The problem was that planners in Ireland failed to do so: like the banking regulator, they were swept along by a tide of pro-

[30] See Mike Shedlock, http://www.businessinsider.com/spains-banks-are-about-to-get-crushed-by-the-countrys-real-estate-mess-2010-12

growth, laissez-faire rhetoric about the Celtic Tiger into sanctioning activities which, with hindsight, they should not have allowed. A number of local authorities did not "heed good planning guidelines...conduct sensible demographic profiling of potential demand...or take account of the fact that much of the land [which was] zoned lacked essential services like water and sewerage". Planning failure of this nature meant that, during the boom years, property supply in Ireland was entirely disconnected with property demand: for example, between 2006 and 2009, 2,945 houses were built in Leitrim County when only 595 new homes would have sufficed to accommodate its population growth.[31]

The third, and most serious, consequence of the crash in Ireland's housing market is that it reduced Ireland's banks to near-bankruptcy as the large amounts of loans made to builders and developers, when times were good, began to sour. This, in turn, prompted the Irish government to assume responsibility for *all* bank liabilities - where these included not just its deposits from retail customers but also its liabilities to all its bond holders - thereby converting, at a stroke, Ireland's banking crisis into a sovereign debt crisis. These two areas - banking and sovereign debt - are the subject of subsequent chapters.

[31] Paul Henley, BBC News, 30 April 2010, http://news.bbc.co.uk/1/hi/world/europe/8653949.stm

Appendix on Mortgage Securitisation

Loans to home buyers had the potential to profitably absorb a large amount of funds but the problem here was that credit-worthy home buyers ("prime borrowers") - those whose stable jobs and good credit records ensured prompt and regular repayments on their mortgages - were in short supply. There were a large number of people who would have liked to have owned their own homes but whose economic circumstances - a loose attachment to the labour market with interrupted work histories and/or a record of credit default - made this impossible. In the circumstances, lending them money entailed an unacceptable measure of risk though, of course, in the (purely hypothetical) absence of this risk they would have constituted a large, profitable, and hitherto untapped, investment opportunity.

Financial innovation eliminated the risk of making home loans to "sub-prime" borrowers by bundling mortgages made to customers of different "risk-types" to create mortgage backed securities termed "collateralised debt obligations" (CDO): until 2004 subprime mortgages were less than 10% of all mortgages; in 2004 they rose to nearly 20% of all mortgages and remained there through the 2005-2006 peak of the US housing boom. [32]

This bundling achieved three purposes. *First*, it made mortgages marketable. Now borrower and bank were no longer tied to each other in a marriage that only ended when the loan had been paid off. Long before that event, the bank could sell the mortgage, which was now a small part of a CDO, to investment banks who, in turn, could unleash these CDOs on the bond market where they would be bought by investors like pension funds and sovereign wealth funds. The sale of these securities was facilitated by the AAA ratings they were awarded by the ratings agencies. *Second*, it attempted to offset the risk of loans made to sub-prime customers with loans made to safe customers - although a CDO would contain some defaulters, there would be a sufficient flow of regular payments to guarantee a steady income to such investments. *Third*, it allowed the CDOs to be sliced into tranches representing different levels of risk, with the least risky tranche, containing the safest mortgages, paying the lowest interest rate and the most risky tranche, with sub-prime mortgages, commanding the highest rates.

Financial innovation (in the form of mortgage-backed securities) allied to marketing innovation (in the form of teaser mortgages, interest-only mortgages, loans based on self-certified income or "liar loans") drove the expansion in mortgage lending in the USA.[33] Elsewhere too, in countries like Ireland and Britain (where home ownership was an important aspiration) and Spain (where ownership of second homes by foreigners was the crucial factor) there was a large expansion in home loans. Unlike the USA, this occurred in the context of a conventional lender-borrower relationship; however, now, compared to past practice, Irish and British lenders, in seeking profitable investments from their expanded supply of funds, began applying far less stringent conditions in approving home loans: deposits were greatly reduced if not waived; income was self-certified, and the loan-income ratio was inflated far above previous levels.

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[32] See Tett (2009) for an account of how a group of bankers associated with J.P. Morgan developed "collateralised debt obligations" and "credit default swaps".

[33] See Andrews (2009) for an illuminating account of the variety of marketing ploys used in selling mortgages in the USA.

Chapter 3
Banking

In 1340, Edward III, King of England, defaulted on his debts to the two great banking families of Florence – the Bardi and the Peruzzi – thereby reducing these families to bankruptcy: the Peruzzi in 1343 and the Bardi in 1346.[34] As with the Bardi and the Peruzzi in Florence at the beginning of the 14th century so, at the beginning of the 21st, with Lehman Brothers in the USA, the Northern Rock Bank in Britain, and the Anglo Irish Bank in Ireland: defaulting borrowers caused their bankruptcy and, in turn, their bankruptcy led their countries' economies to tremble and to totter. The difference between the intervening centuries was that Edward III ran up debts in pursuit of a long war with France while defaulters of the 21st century were more into bricks and mortar.

It is often tempting, when one is in the midst of a crisis, to focus exclusively on the situation at hand without reference to similar events that might have occurred in the past; indeed, a (unwarranted) belief in the uniqueness of the present – "this time it is different" - often acts as a barrier to learning from the past. In their magisterial quantitative history of financial crises, Reinhart and Rogoff (2009) examine the experiences of sixty six countries, over more than eight hundred years to demonstrate the endemic nature of financial crises. In the context of banking crises, which is the subject of this chapter, Reinhart and Rogoff (2009) show that Europe has known 112 such crises since 1800, and 26 since 1945 (Table 3.1 below).[35] In the context of sovereign default on external debt (the subject of chapter 4), only a handful of countries – Australia, Canada, Denmark, New Zealand, Thailand, and the United States – have managed to avoid sovereign default on external debt.

Table 3.1: Number of Banking Crises in Europe

Country	Since 1800	Since 1945
Austria	3	1
Belgium	10	1
Denmark	10	1
Finland	5	1
France	15	1
Germany	8	2
Greece	2	1
Hungary	2	2
Italy	11	1
The Netherlands	4	1
Norway	6	1
Poland	1	1
Portugal	5	0
Romania	1	1
Russia	2	2
Spain	8	2
Sweden	5	1
Turkey	2	2
United Kingdom	12	4
Total	**112**	**26**

Source: Reinhart and Rogoff (2009), Table 10.4, p. 152.

[34] Cipolla (1982).

[35] Reinhart and Rogoff (2009) define a "banking crisis" as one of two types of events: (i) bank runs that lead to the closure, merger, or takeover by the government of one or more financial institutions and (ii) in the absence of bank runs, the closure, merger, or takeover by the government of an important financial institution (due to its financial distress) that marks a sequence of similar outcomes for other financial institutions.

Maturity Transformation and Irrational Exuberance

All of this begs the question of what is a bank? In the most basic terms, banks are institutions that perform "banking activities"; fundamentally, banking activities consist of financial intermediation whereby banks accept deposits (borrow) from customers and lend to investors. In so doing, banks engage in *maturity transformation*: they borrow short, but lend long. This means that their borrowing is in the form of deposits which can be withdrawn at demand or at short notice, or in the form of short term loans from other financial institutions. Their lending is of longer maturity; for example, a loan to a construction company to develop a housing estate, the loan to be repaid when the houses are built and sold. This exposes them to the risk of *creditor anxiety*: if a bank's customers rush to withdraw their money, worried that they might be very shortly be denied access to it, or if its creditors – anxious that they may not be repaid – refuse to roll over their loans, then a bank may have difficulty honouring its liabilities *even if it is solvent* (that is, the total value of its assets exceeds that of its liabilities). The reason is that since many of its assets will be highly illiquid they can only be sold on highly unfavourable terms if the bank were required to meet its liabilities in an emergency. Table 3.2, below, provides an example of a bank's balance sheet:

Table 3.2: Stylised Bank Balance Sheet

Assets	Liabilities
Cash & Central Bank balances	Loans from other banks
Customer Loans (mortgages, overdrafts, corporate loans, SME loans etc.)	Customer deposits (current accounts, savings accounts)
Loans to other banks	Debt (short-term/long-term; secured/unsecured; senior/subordinated)
Debt and Equity Investments	Other liabilities
Other Assets	Equity

The factor that eases the tension inherent in "maturity transformation", namely, converting short-term liabilities into long-term assets is *confidence*. Depositors who place their savings with banks, and financial institutions who lend to banks are not worried about their money because they have confidence in the ability of banks to invest wisely. On the basis of this creditor confidence, the bank is able to *leverage*, that is to create an asset edifice whose value is a multiple of the bank's equity base, because it is secure in the knowledge that the vast bulk of the deposits it has accepted will remain intact on its books and that its debt to other institutions will be routinely rolled over.

In the context of the basic banking principle of making money by "borrowing to lend", raising the amount of leverage increases a bank's profits; consequently it is pertinent to enquire about the maximum leverage (profits) that a bank can achieve. The *implicit* maximum is provided by borrowing conditions governing repurchase agreements ("repos") under which the borrowing bank sells a security to a lender at a price below the market price on the understanding that it (the borrower) will buy back the security from the lender at a specified date and price. The amount by which the security price is below the market price is

known as the "haircut": for example, if £94 can be borrowed against a security whose current price is £100, then the haircut is 4%. The haircut then determines the maximum leverage possible: for example, the maximum leverage associated with a haircut of 4% is 25 so that, at a maximum, total assets can be 25 times equity.[36] The haircut will depend on market conditions so that benign conditions will be associated with small haircuts while more turbulent times may see the haircut increase: for example, the hair cut on corporate bonds at the height of the financial crisis in March 2008 was 10% whereas the typical pre-crisis haircut on such securities was 5% (Shin, 2009).[37]

A situation such as that described above is sustainable into the future if it were not for the fact that a prolonged period of economic upturn engenders "irrational exuberance" – a heighted state of speculative fervour - in market participants. [38] This leads all economic agents (lenders, private borrowers, government) to overextend themselves by taking on excessive debt, conscious only of the profits to be made from increased lending and borrowing - and, for governments, of the electoral benefits of additional spending and reduced taxation; all are heedless of the dangers of carrying excessive debt in the downturn that inevitably follows.

Shiller (2005) observes that "the boom years of the 1990s created a business atmosphere akin to a gold rush and led many people to distort their business decisions". During this period people invested in assets – shares, property – as though it was inevitable that their prices would rise inexorably. Most investors viewed the stock market (and, up to, two years ago, the property market) as a force of nature without considering that the "price level is driven by a self-fulfilling prophecy based on similar hunches held by other investors and reinforced by the news media" (Shiller, 2005). Irrational exuberance was the psychological basis for a *speculative bubble*: "a situation in which news of price increases spurs investor enthusiasm which spreads by psychological contagion from person to person" drawing in an increasing number of investors motivated "partly by envy of others' successes and partly by a gambler's excitement" and sustained by the warmth of the herd and the comfort of being part of "received wisdom". A consequence of this is that, as Reinhart and Rogoff (2009) observe, "many players in the global financial system dig a debt hole far larger than they can reasonably expect to escape from" (p. xxxiii).

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[36] A haircut of 4% means a £100 security will fetch $94; the £94 will fetch £94×0.94 which, in turn, will fetch £94×$(0.94)^2$ yielding, in total, an amount 94/0.04 for a leverage of 25.

[37] Another factor affecting the computation of leverage is the definition of the equity base of which assets are a multiple. The three commonly used definitions are *common equity* (ordinary shares with voting power); *shareholder equity* (ordinary shares plus preference shares where the holders of the latter, while not having voting rights, are senior to ordinary share holders in the event of the bank's liquidation; and *total equity* which is shareholder equity plus "subordinated" debt, a class of debt senior to share holders but junior to depositors.

[38] The term *irrational exuberance* was first used by Alan Greenspan, chairman of the Federal Reserve Board in Washington, used in a black-tie dinner speech entitled "The Challenge of Central Banking in a Democratic Society" before the American Enterprise Institute at the Washington Hilton Hotel December 5, 1996. He asked "But how do we know when irrational exuberance has unduly escalated asset values, which then become subject to unexpected and prolonged contractions as they have in Japan over the past decade?" and went on to downplay the importance of asset price bubbles by answering his own question: "We as central bankers need not be concerned if a collapsing financial asset bubble does not threaten to impair the real economy, its production, jobs and price stability."

The Foundations of Crisis

This behaviour lays the foundations of a banking crisis. When the speculative bubble bursts, asset prices crash and people default on their bank loans. As the proportion of bad loans on the bank's balance sheet rises, the value of its assets falls. Depositors grow anxious about the safety of their deposits and the bank's creditors are reluctant to roll over their loans. In consequence, the bank may have to sell assets to meet its liabilities and if these, mostly illiquid assets, are sold at "fire sale prices" its problems are compounded. As it deleverages, by reducing the value of its assets, it may face either a *liquidity* problem or an *insolvency* problem. With a liquidity problem the value of its assets is more than sufficient to meet its liabilities (it has positive equity); it is just that it does not have the necessary "cash" on hand to do so. In such a situation, the central bank, acting as the *lender of last resort*, can bail it out by providing the necessary cash support until the bank is back on its feet.

If, however, the bank's assets are insufficient to meet its liabilities then it faces an insolvency problem and to solve this requires more than a temporary cash injection. The possibilities are that the bank is declared insolvent (Lehman brothers), seeks an injection of equity to stay afloat (Barclays from Abu Dhabi), or is taken over by the government (Northern Rock in the Britain and Anglo Irish in Ireland). The problem with allowing a bank to become insolvent is one of *systemic risk*. In most sectors of the economy the failure of one firm does not jeopardise other firms in the sector; however, there is a very real danger that the failure of a major financial institution can adversely affect the rest of the economy. This capacity of the failure of a single institution to have adverse consequences for the rest of the economy is termed *systemic risk* and it is for this reason that governments go to inordinate lengths – far in excess of what they might do for a non-financial company in similar circumstances – to prevent bank insolvency.

The channels through which systemic risk operates have been set out by the UK's Independent Commission for Banking (UKICB, 2010). Firstly, if a bank has liquidity problems and sells assets (say, houses) in a "fire sale" this could depress asset (house) prices and adversely affect the balance sheets of other banks who also have these assets on their books. Secondly, a lack of depositor confidence in a particular bank may spread to other banks and affect the entire banking system. Consequently, banks may be vulnerable to the contagion effects of a bank run even if they, themselves, are solvent.

Lastly, in times of crisis, inter-bank linkages can cause shocks to ripple through the system. Inter-bank lending – whereby banks lend to each other large sums of money short-term – is an efficient way of economising on liquidity since banks not making immediate use of their money can earn income from it by lending "at call" or "overnight" to other banks in need of liquidity; inter-bank lending thus has the effect of increasing the pool of liquidity available to the banking system. However, these linkages, which oil the banking system in times of normalcy, could cause the entire system to freeze in terms of crisis: if a substantial proportion of loans made by Bank A default, then this might raise fears about its capacity to repay loans it has taken from Bank B, C, and D and threaten to bring them down. In response, banks scale back their inter-bank lending thereby reducing the availability of inter-bank funds

and prompting all banks to reduce their lending activities. Since a great deal of economic activity is carried out with bank funding – particularly with respect to small and medium enterprises (SMEs) – reduced lending sends recessionary ripples throughout the economy. It is for these reasons that important financial institutions are seen as "too big to fail" and are referred to as "Systemic Important Financial Institutions" (SIFIs).

Moral Hazard

Being a SIFI – and, more relevantly, knowing that one is a SIFI – raises *moral hazard* problems with respect to the financial sector. Institutions which are "too big to fail" would be inclined to excessive risk-taking since they know that, in the event of an adverse outcome, they would be bailed out by a government concerned about the systemic effect of their failure. Mervyn King, the Governor of the Bank of England, said in a speech in Edinburgh on 20 October 2009 that "the belief that appropriate regulation can ensure that speculative activities do not result in failures is a delusion," adding: "it is hard to see how the existence of institutions that are 'too important to fail' is consistent with their being in the private sector" and concluding that the support handed out by the Government had "created possibly the biggest moral hazard in history".[39]

Another possible source of moral hazard is *deposit guarantee*. Demirgüç-Kunt and Detragiache (1998, 2005) argue that the presence of an explicit deposit guarantee scheme tends to increase the likelihood of systemic banking problems. Such schemes may reduce the likelihood of bank runs by reassuring depositors that their money was safe but, in freeing banks from the fear of banking panics, it creates a moral hazard problem by effectively removing a major constraint on excessive risk-taking on the part of banks.[40]

In general, moral hazard is a greater problem in liberalised financial systems, which offer greater opportunities for risk-taking, and in countries with weaker regulatory controls. One of the reasons that there were no banking crises during the turbulent period of the 1970s was the fact that banks were tightly regulated. Thus the issue of bank regulation and supervision is of *prima facie* importance in explaining the propensity to banking crises. After analysing measures of supervision and regulation, Barth *et. al.* (2004) concluded regulatory and supervisory practices that forced the accurate disclosure of information, empowered private sector monitoring of banks, and provided incentives to private agents to exercise corporate control fostered better bank performance and stability.

Macroeconomic Events and Banking Crises

In addition to institutional factors, macroeconomic turbulence, particularly as it relates to exchange rate movements, also play an important role in causing banking crises. Indeed, the causes of many of the banking crises that occurred in the past three decades can be traced to the greater volatility of the global economy since the 1980s. For example, in the Nordic banking crisis in the early 1990s, deregulation expanded both the opportunities and

[39] The Telegraph, http://www.telegraph.co.uk/finance/economics/6389906/Mervyn-King-bail-outs-created-biggest-moral-hazard-in-history.html (accessed on 9/01/12).
[40] See also Kane (1989) and Akerlof *et. al.* (2003).

capabilities of lenders and borrowers to take risks. However, as Drees and Pazarbasioglu (1998) argue, it was the expansionary macroeconomic environment which provided the *incentive* to take risks: the removal of direct controls on lending and restrictions on foreign exchange led to an eagerness to lend by banks who now had access to new funding sources; this eagerness was matched by borrowers' - whose access to credit had hitherto been rationed - appetite for credit. The result was a credit boom, rapidly escalating asset prices, and an increasingly overheated economy. The banking crisis arose when a collapse of asset prices and the onset of a severe recession caused bank balance sheets to deteriorate sharply: in Norway, banks' losses on loans rose from 0.7% of total loans in 1987 to 6% in 1991 while in Finland the rise was from 0.5% in 1989 to 4.7% in 1991 (Drees and Pazarbasioglu, 1998). In Mexico, the devaluation of the peso December 1994, in the context of dollar-denominated debt, caused financial crisis (Edwards and Veigh, 1997); in Thailand, an investment boom in property funded by dollar-denominated debt preceded falling asset prices and the devaluation of the *baht* on 30 June 1997 (Kaufman *et. al.*, 1999).

The connection between macroeconomic events – particularly currency crises – and banking crises led Kaminsky and Reinhart (1999) to examine a number of episodes of currency and banking crises (currency, 76, and banking, 26) in twenty industrial and emerging countries between 1970 and 1995. Their study focused on the phenomenon of the "twin crises," namely the simultaneous occurrence of currency and banking crises. From this they concluded that periods of high international capital mobility have repeatedly produced international banking crises.[41] In eighteen of the twenty six banking crises they studied, the financial sector had been liberalised in the five years (or less) preceding the banking crisis.[42]

Global Liquidity

A related, but more focused, issue is that of surges in external capital inflows into a country and the role that such "capital flow bonanzas" play in banking crises. Inter-linked markets offer several advantages, not least being that transactions in a country no longer depend upon local funds but can, instead, draw upon global capital. As Rajan (2005) points out, a world rate of interest is close to reality with capital flowing to where returns are most attractive. As a consequence of international capital mobility, the correlation between saving and investment rates with regions has fallen from 0.6 in 1970-1996 to 0.4 in 1997-2004.[43] Reinhart and Reinhart (2008) describe the process as one which begins with a country catching the attention of international investors with the consequence that capital flows into the country and its asset prices rise.

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[41] Kaminsky and Reinhart (1999) also compared the behaviour of fifteen macroeconomic variables in the 24 months preceding and following a banking crisis with the corresponding values in normal times. In the months preceding a crisis, monetary growth and interest rates (both lending and deposit rates) were above normal, suggesting a high level of demand for money and credit. Among external balance indicators, export growth appeared below trend (with an appreciating real exchange rate) prior to a banking crisis. Lastly, real output growth was below trend about eight months before the peak of the banking crisis, suggesting that banking crises were preceded by a cyclical downturn.

[42] More formally, if $P(B)$ is the *unconditional* probability of a banking crisis, and $P(B|L)$ is the *conditional* probability of a banking crisis, given that financial liberalisation has occurred, Kaminsky and Reinhart (1999) showed that $P(B|L)>P(B)$; specifically, according to their calculations, $P(B|L)=14\%-16\%$ while $P(B)=8\%$.

[43] IMF, *World Economic Outlook*, 2005.

However, international liquidity has its downside. The rise in asset prices, engendered by capital inflows, triggers a credit expansion and the equity base of bank assets becomes progressively flimsier. Unfortunately, capital inflow episodes often end abruptly as other countries appear on investors' radar and the current favourite is discarded.[44] Asset prices fall, borrowers default on their bank loans and a banking crisis results. In this context, Reinhart and Reinhart (2008) show that, compared to the unconditional probability of a banking crisis, the probability of a banking crisis, *given a capital flow bonanza*, is considerably higher.[45]

Notwithstanding the risk that banks' greater reliance on market liquidity makes their balance sheets more vulnerable,[46] over the past decade there has been an increasing tendency on the part of banks to fund their investment activities through borrowing from the wholesale money market compared to funding from retail deposits. Table 3.3 shows that, in several countries in Europe, retail deposits comprised less than half of total liabilities and Figures 3.1 and 3.2 show that, for 662 banks considered in their entirety, the ratio of non-deposit liabilities to total liabilities rose sharply after 2003. Using the Lehman Brothers bankruptcy on 15 September 2008 as a control event, Raddatz (2010) shows that banks which, before the Lehman bankruptcy, had a high level of dependence on wholesale funding experienced a larger decline in returns compared to banks with a low level of dependence (Figure 3.2). This result was valid even after controlling for country characteristics such as coverage of deposit insurance, amount of international reserves, and the quality of financial regulation...

These observations raise the question of why banks accept wholesale funds and finance long term illiquid projects with such volatile funds. There are two reasons why they do so. First, the availability of these funds allows new banks to enter the market easily without having to compete for deposits with more established institutions. For example, the Northern Rock Bank in Britain, which was formed in 1997 from the Northern Rock Building Society, relied on wholesale money to compete in the mortgage market: more than 75% of its funding came from wholesale markets and, in the first six months of 2007, approximately one in every five new mortgages in the UK was issued by Northern Rock.[47]

The second reason why banks have become so reliant on wholesale funds is not dissimilar to the one that George Mallory offered for attempting Everest: "because it's there!" The foundation for the cross-country movement in wholesale funds is the "carry trade" – the practice of borrowing cheaply in one currency to invest in another. The carry trade is one of the principal ways that debtor countries like the USA have been able to recycle their deficits: "surplus countries have historically offered their citizens lower short-term interest rates than deficit countries and this has encouraged these citizens to seek higher returns – and, therefore,

[44] Calvo (1998) offers a view of why inflows of capital come to a "sudden stop" in the context of self-fulfilling prophecies: a slow-down in inflows leads to bankruptcies, fall in output, and a constriction of credit lines; these events then rebound on other firms and more bankruptcies result bringing the confidence of international investors to a juddering halt.
[45] 18.4% versus 13.2% for sixty-six country sample, 1960-2007 (see Reinhart and Rogoff, 2009, Table 10.7, p. 158).
[46] Rajan (2005), Demirgüç-Kunt and Huizinga (2009).
[47] Building Societies Association, http://www.bsa.org.uk/policy/policyissues/consumerrelations/nrock.htm

investment risk elsewhere".[48] Today it is estimated that the carry trade is worth $1,000 billion. Figure 3.3 shows the rise in global liquidity since 2000 in terms of GDP-weighted M2 (notes and coins and current deposits, all time-related deposits, savings deposits, and non-institutional money-market funds) and reserve money for the euro Area, Japan, UK, and USA.[49] Figure 3.4 shows capital flows to 41 open emerging and advanced economies, disaggregated into the four main categories of capital flows: this shows that aggregate FDI flows are steady and portfolio equity flows are small in net terms; however, banking sector flows display the typical pro-cyclical pattern of surging during a boom, only to change direction and flow out when the sector deleverages.[50]

The fact that banks drink deeply from the pool of global liquidity also has the tacit approval of their countries' governments who often view capital inflows, and the economic expansion that results, as a sign of international approval of the government's policies and regard it as a permanent, rather than a transitory, phenomenon.[51] At the same time, those who express doubt about the wisdom of such expansion are excoriated for "talking down the country".[52] Consequently, as Rajan (2005) observes, "governments mistake a cyclical phenomenon for a secular trend and initiate a plethora of long term projects on that basis, only to be forced to liquidate them when the cycle turns". The political approval of the economic expansion engendered by capital inflows is likely to be particularly warm, and the pressure on regulators to adopt a light-touch approach to be particularly high, when money flows into electorally rewarding areas like housing.

There are few slogans more popular with politicians than those which relate to housing. Phrases like "affordable housing for all", "every household a home owner", and "get our country building" roll off the tongues of politicians with easy mellifluence. Political folklore would have it that promises based on clichés such as these appeal to the multitude who would like to buy their first house, to the many who want to move to a better house or to renovate their present home and, indeed, to the thousands, perhaps millions, of voters who desire to be part of their country's "ownership society". Even though the bursting of a housing bubble caused the biggest recession of modern times, the British Prime Minister, David Cameron, promised on 21 November 211 that "we will restart the housing market and get Britain building again" through ministers intervening to kick-start some of 130,000 building projects estimated to have been approved but delayed by funding problems.[53] Rajan (2010) argues that "Politicians love to have banks expand housing credit, for credit achieves many goals at the same time. It pushes up housing prices, makes households feel wealthier, and allows them to finance more consumption. It creates more profits and jobs in the financial sector as well as in real estate brokerage and housing construction". Viewed in these

[48] Gillian Tett and Peter Garnham, "Carried Away", Financial Times, 30 April 2010.
[49] See BIS (2011) for a detailed discussion of the concept and measurement of "global liquidity".
[50] The downturn in 2008Q4 is particularly striking.
[51] "The boom is getting boomier", as Bertie Ahern, the Irish Taoiseach (Prime Minister) declared at the height of the Irish boom in 2005.
[52] The same Bertie Ahern said about the economist Morgan Kelly, a leading critic of the Irish boom: "Sitting on the sidelines, cribbing and moaning is a lost opportunity. I don't know how people who engage in that don't commit suicide because frankly the only thing that motivates me is being able to actively change something".
[53] http://www.bbc.co.uk/news/uk-politics-15810966 accessed 18 January 2012.

terms, credit, and particularly housing loans, is the opium of the electorate, the palliative which enables governments to win re-election without having to do anything substantive for voters.

The seeds of the current financial crisis were, therefore, sown in the early years of the new millennium when growth in global liquidity, and a consequent expansion in banks' balance sheets, abetted by loose monetary policy and light-touch regulation which encouraged - or, at least, did not discourage - risk taking, financial innovation in the form of the securitisation of assets which expanded trading opportunities, and lastly, the poor judgement of rating agencies in pronouncing mis-priced assets and high risk securities to be safe investments. From the summer of 2007 onwards, losses on securities backed by sub-prime mortgages in the USA shook the financial system: inter-bank lending declined in the face of uncertainty about the worth of collateral in a forced sale, banks deleveraged, lending declined and the USA and Europe experienced, and continues to do so, the most severe recession since the Great Depression. The next part of this chapter examines how these events unfolded in a selection of countries in Europe.

Table 3.3: Use of non-Deposit Sources by Banks in Different Countries*

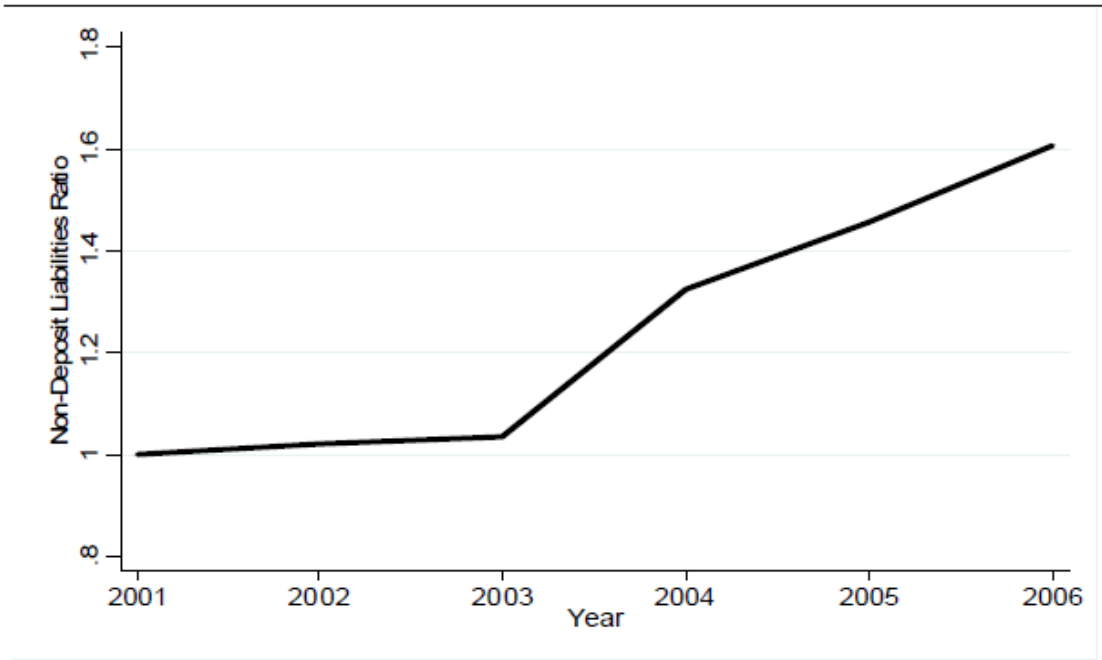
Country	Number of Banks	Mean Ratio of Retail Deposits to Liabilities
Austria	7	0.51
Belgium	2	0.36
Denmark	35	0.64
France	33	0.23
Germany	31	0.35
Ireland	4	0.40
Italy	29	0.39
Portugal	5	0.57
Spain	10	0.58
UK	21	0.32

*As at June 30, 2007

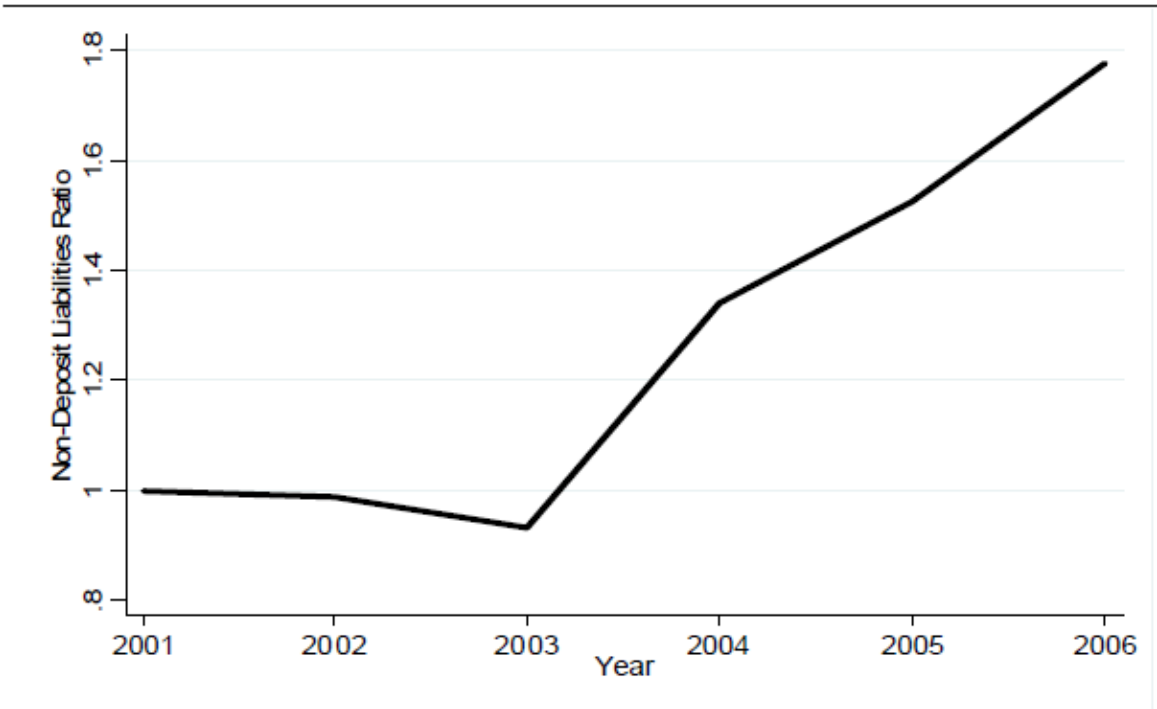
Source: Raddatz (2010).

Figure 3.1: Increased Reliance on Whole Sale Banking

Panel A - All banks.

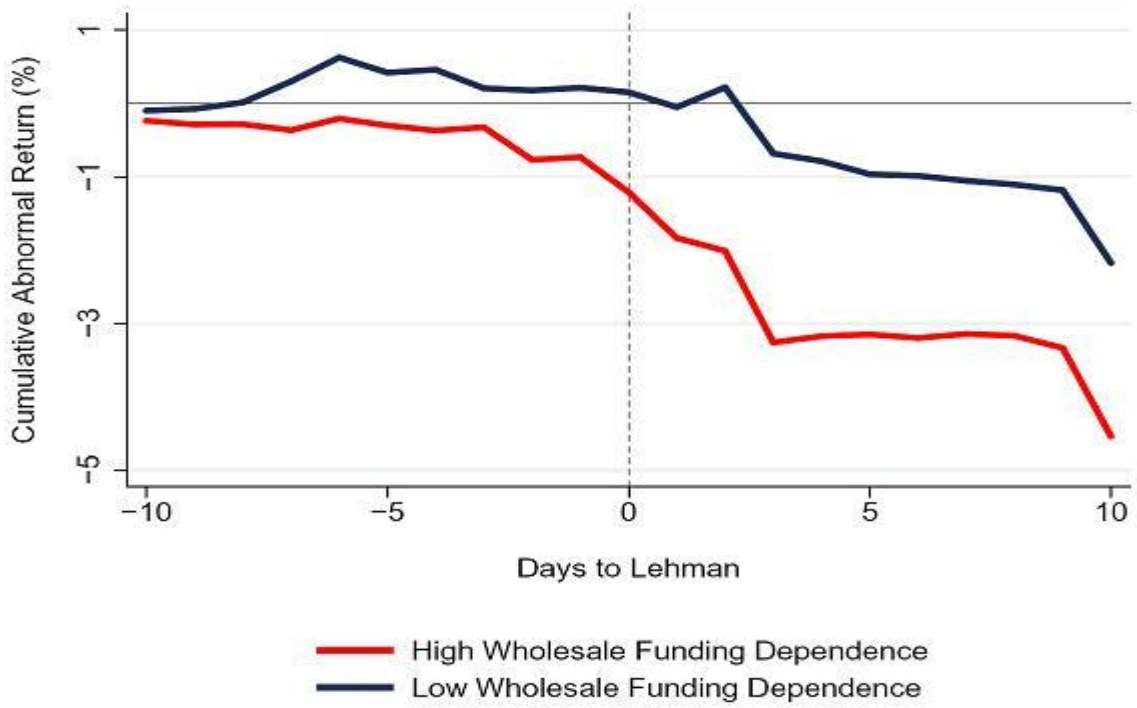


Panel B - Commercial banks.



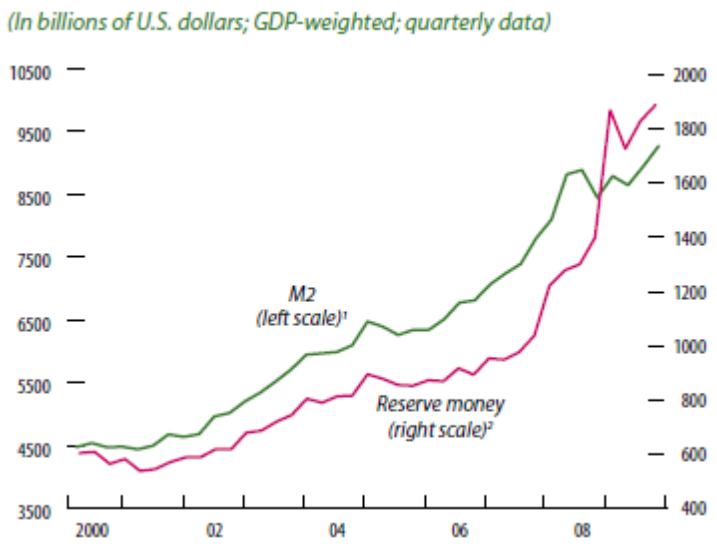
All average rates are a faction of the 2001 rate.
Source: Raddatz (2010).

Figure 3.2: Banks with high and low wholesale dependence



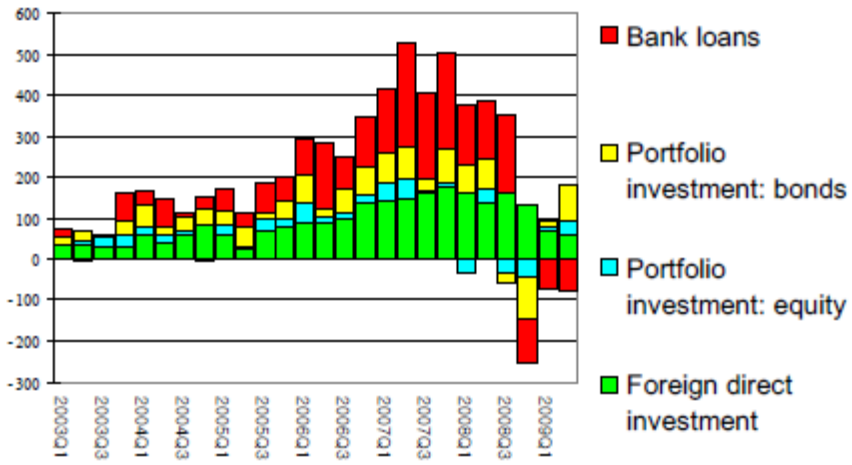
Source: Raddatz (2010).

Figure 3.3: Global Liquidity



Source: IMF Global Financial stability Report, April 2010, p. 120

Figure 3.4: Categories of Capital flows to 41 Emerging and Advanced Countries



Source: IMF Global Financial stability Report, April 2010, p. 123

Swedish Banks and the Baltic States

The three Baltic states of Estonia, Latvia, and Lithuania - which, after gaining their independence from Soviet hegemony in 1991, joined the EU in 2004 - embarked on a series of structural reforms in 2000 aimed at liberalising their economies. The European Bank of Reconstruction and Development (EBRD) *structural index* reform lists nine areas of reform: large-scale privatisation, small-scale privatisation, enterprise restructuring, price liberalisation, trade and foreign exchange, competition policy, banking reform, non-bank financial institutions, and institutional reform (EBRD, 1994, 2010). A country's performance, with respect to each area, is scored from 1 (lowest) to 4+ (highest); the EDB, in its annual *Transition Report*, charts the progress of the Central and Eastern European (CEE) countries - which include the Baltic countries - with respect to structural reform (and, of course, several other economic indicators).

Figures 3.5-3.7 show the performances of, respectively, Estonia, Latvia, and Lithuania with respect to each of these areas of reform. Taking the three countries in their entirety, the main focus of reform has been in the areas of price and trade liberalisation: all three countries achieve the maximum CEE score for both areas. In terms of reform, Estonia has, however, gone further than either Latvia and Lithuania: it achieves the maximum CEE country score for all nine areas (Figure 3.5) while Latvia and Lithuania have underperformed, with respect to the CEE maximum, in terms of enterprise restructuring and competition policy (figure 3.6 and 3.7). By improving their competitiveness through these reforms, the three countries enjoyed the highest rates of economic growth in the EU between 2000 and 2007: compared to an EU(27) average GDP growth rate of 3.3% in 2006, annual GDP growth rates were 10.1% in Estonia, 11.2% in Latvia and 7.6% in Lithuania.[54]

A large proportion of the credit sustaining the boom was provided by subsidiaries of Swedish banks operating in the Baltic States. Since the late 1990s, the two Swedish banks, SEB and Swedbank, had been buying stakes in local banks and, by 2005, they were majority shareholders. The local banks in the Baltic States thus became fully incorporated subsidiaries of the relevant parent bank and the funding of these subsidiaries became heavily reliant on loans from the parent bank: as a consequence, as Figure 3.8 shows, the loans-to-deposit ratios of banks in the Baltic States were very high compared to ratios in other countries (BIC, 2010).

A common feature of reform in all three countries was they pegged their respective currencies - *kroon* (Estonia), *lats* (Latvia), and *litas* (Lithuania) - to the euro.[55] One reason for this was that all three countries were scarred by their inflationary experience of the early 1990s when high rates of inflation in Russia spread to the Baltic States. In this context, pegged exchange rates were seen as imposing a cost discipline on the domestic economy: loss of competitiveness at home could not be "adjusted for" by external devaluation. However, low interest rates in the euro area, combined with a ready supply of credit from banks which had access to funds from their parent bank and were not constrained by domestic deposits,

[54] Eurostat.
[55] Estonia joined the European Monetary Union on 14 January, 2011; Lithuania and Latvia are expected to join in January 2014.

triggered a credit boom in which citizens of the three countries borrowed *in euros* to fund asset purchases (see Figure 3.9, below).

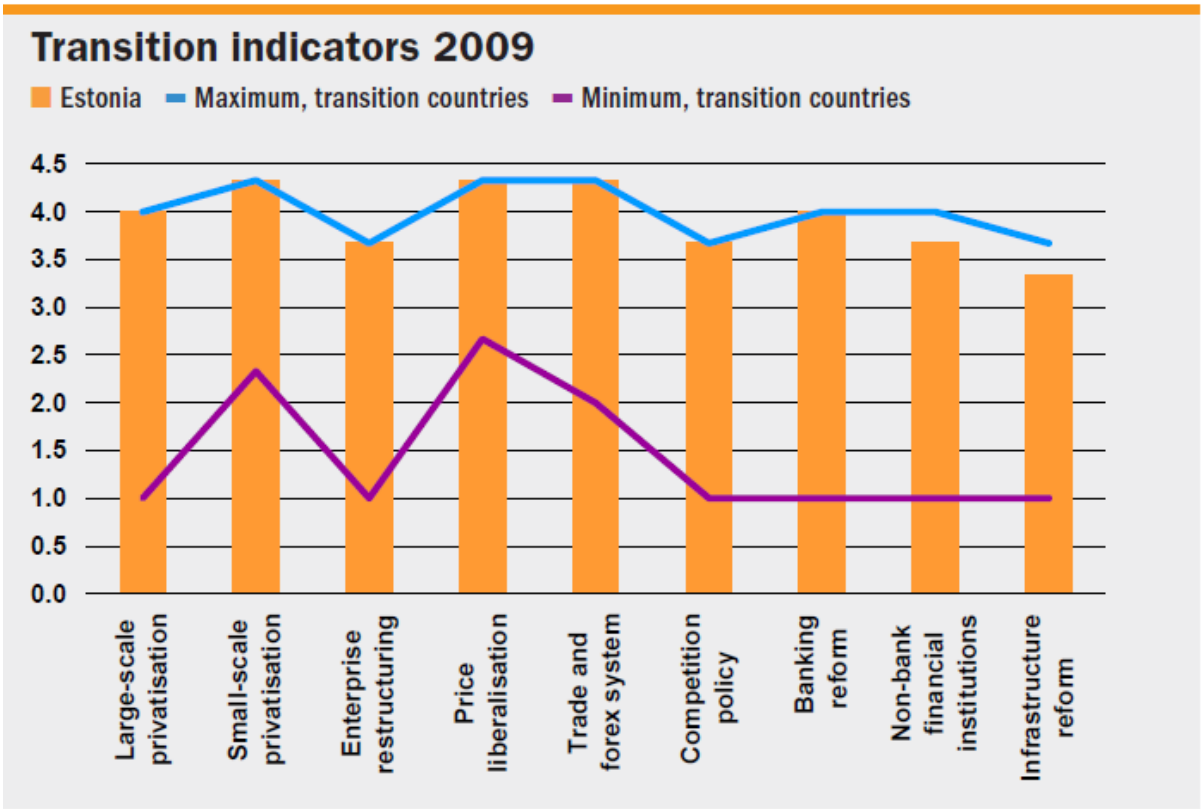
When the global financial crisis caused the credit bubble in the Baltic States burst, the fall in income was of epic proportions: in 2009, real GDP fell by 14% in Estonia, 18% in Latvia, and 15% in Lithuania (*Eurostat*). Erixson (2010) suggests that this spectacular crash was not due to some fundamental flaw with the "Baltic model" of development but rather because "too many political leaders in the Baltic region became complacent. With real growth figures in the 8-10 percent region, it became easy neglect the maintenance of sound economic policy and the need to gear up competitiveness". Inflation rates went up sharply in all three countries in the two years prior to the crisis and, in 2007, the current account deficit, as a percentage of GDP, was over 15% in Estonia, over 20% in Latvia, and over 14% in Lithuania (EBRD, 2009).

This left the three countries with two policy options to improve competitiveness: they could opt to devalue their currencies (external devaluation) or to undertake a massive deflation by reducing wages (internal devaluation). The first option was ruled out since it would have called into question the credibility of their aspiration of joining the European Monetary Union while also resurrecting memories of past hyper-inflation. As a consequence, the Baltic countries have embarked on a process of severe deflation. Between 2007 and 2010, the unemployment rate rose: from 5% to 14% in Estonia; from 6% to 19% in Latvia; and from 4% to 18% in Lithuania. In Latvia and Lithuania, the government deficit which in 2007 was less than 1% of GDP, rose to nearly 10% of GDP in 2009 and, in Estonia, a surplus of 2.5% of GDP was converted into a 2% deficit by 2009 (*Eurostat*).

The scale of economic misery in the three Baltic States has impacted on Swedish banks which suffered big losses after expanding aggressively across the Baltic region. Swedbank's (whose exposure to the Baltic States accounted for 6% of its loan book) share price fell by 18%, and SEB (with a Baltic exposure of 12%) shares fell by 12%, in June 2009.[56] As a consequence, mirroring the actions of bank everywhere in a recession, Swedish banks have reined in credit prompting the Latvian Prime Minister to warn: "The abrupt stopping of credit is a very problematic issue...of course you can say that Latvians were borrowing irresponsibly but to borrow irresponsibly you need someone to lend irresponsibly...we had very easy credit in a very overheated economy, now we have almost no credit in a very deep recession."[57]

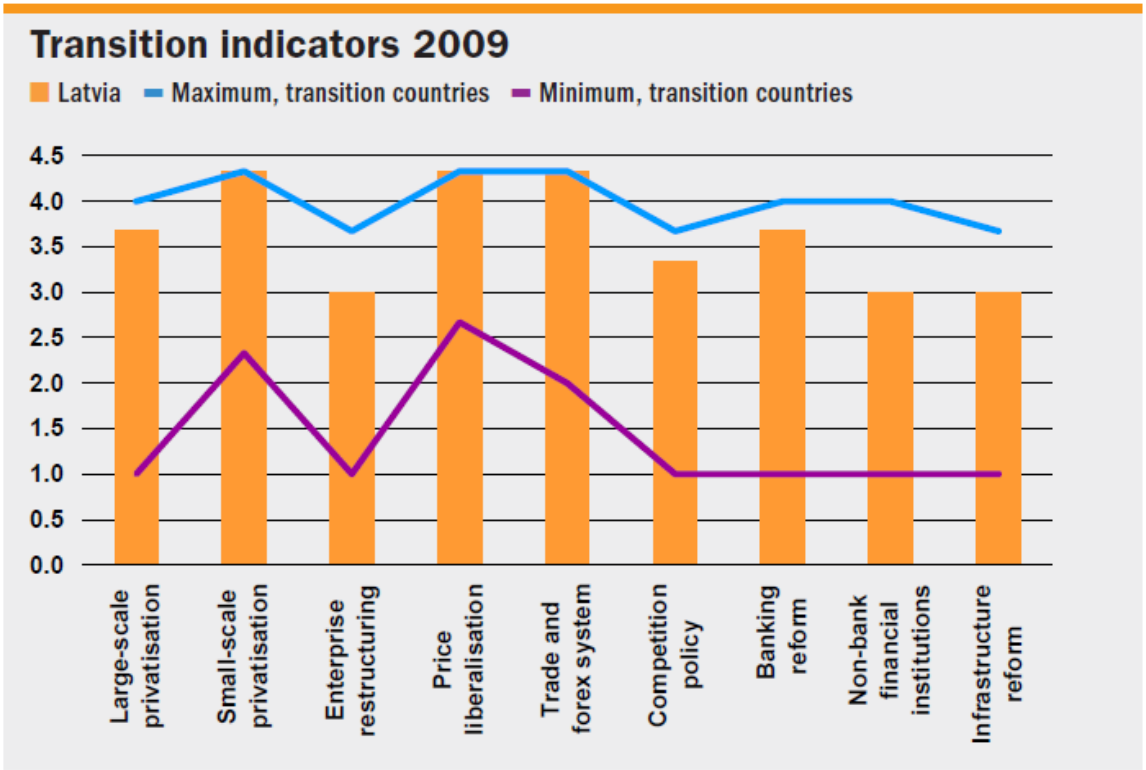
[56] Johanna Cassels, "Swedish bank feel Latvian fallout", *Financial Times*, 6 June 2009, http://www.ft.com/cms/s/0/b9135140-51b6-11de-b986-00144feabdc0.html#axzz1kSfLEw1h (accessed 25 January 2012).
[57] Andrew Ward, "Latvia issues warnings to Swedish banks", *Financial Times*, 22 December 2009 http://www.ft.com/cms/s/0/bceac44a-ef3d-11de-86c4-00144feab49a.html#axzz1kSfLEw1h (accessed 25 January 2012)

Figure 3.5 Structural Reforms in Estonia, 2009



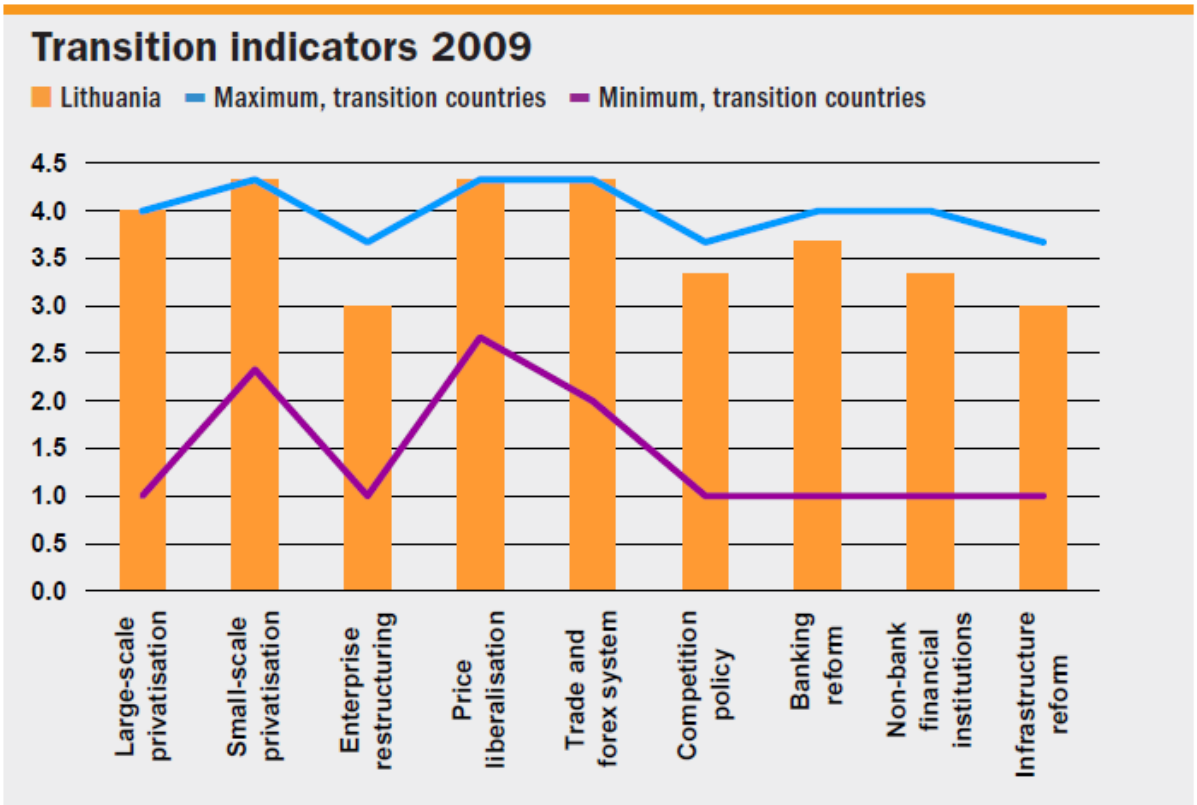
Source: EBRD (2009)

Figure 3.6 Structural Reforms in Latvia, 2009



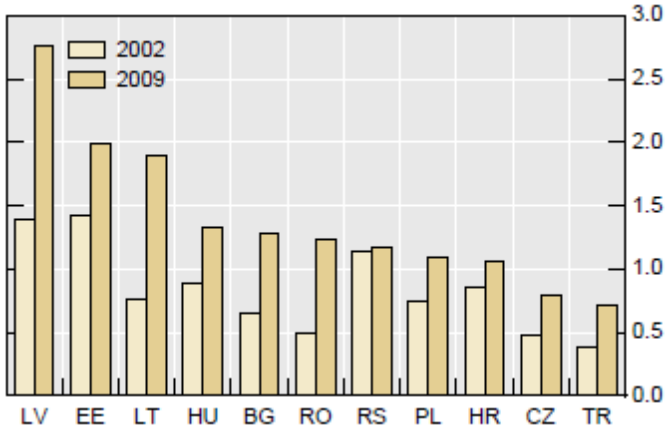
Source: EBRD (2009)

Figure 3.7 Structural Reforms in Lithuania, 2009



Source: EBRD (2009)

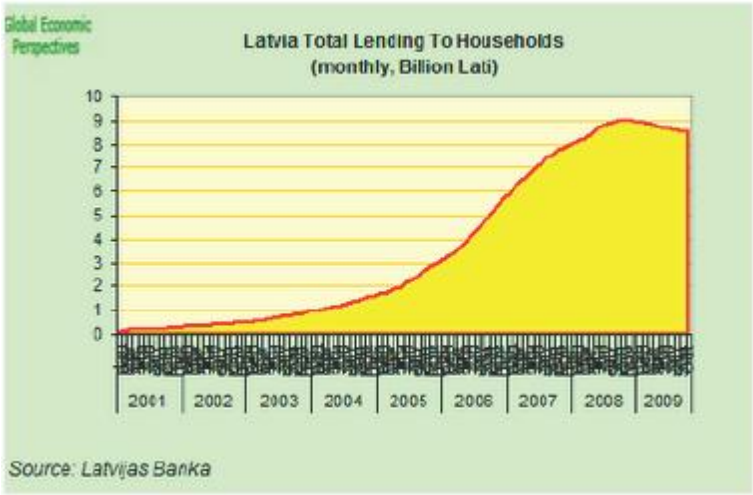
Figure 3.8: Loan-to-Deposit Ratios in Baltic States and other Selected Countries



BG = Bulgaria; CZ = Czech Republic; EE = Estonia; HR = Croatia; HU = Hungary; LT = Lithuania; LV = Latvia; PL = Poland; RO = Romania; RS = Serbia; TR = Turkey.

Source: BIS, 2010

Figure 3.9: Total Lending to Households in Latvia



British Bank Failures

The first intimations of a crisis in British banking were provided in the early months of 2007 when liquidity in the market for short-term asset-backed commercial paper began to dry up in the wake of the US sub-prime crisis which was characterised by mortgage defaults, reductions in the prices of mortgage-backed securities, and increases in the cost of insuring of these securities against default (OECD, 2008). On 9 August 2007, the London Inter-Bank Offered Rate (LIBOR) increased significantly. The LIBOR is a daily reference rate for inter-bank borrowing of unsecured funds in the London wholesale market and its rise effectively froze the market for inter-bank lending. [58]

The first casualty of this freeze was the Northern Rock bank. This bank, which had been formed in June 1998 through the merger of two building societies[59], was unusual among British banks in its heavy reliance on nonretail funding with retail deposits constituting only 23% of its liabilities in June 2007. This reliance was the outcome of its ambitious expansion, from its inception to its moment of crisis in June 2007. Over this decade, Northern Rock's assets grew at an annualised rate of 23.2% (from £17.4 billion in June 1998 to £113.5 billion in June 2007) and, in June 2007, it was the fifth largest bank in the UK by mortgage assets. This rapid rate of expansion meant that its retail deposits were no longer an adequate source of funding and it had to look elsewhere to fund its operations. This was provided by securitised notes and other forms of nonretail funding: as a consequence, the proportion of its liabilities emanating from retail deposits fell from 60% in June 1998, to 23% in June 2007 (Figure 3.10).

Although this reliance on nonretail funding by Northern Bank reflected the general trend in British banking (up from 27.8% of total liabilities in December 2000 to 47.8% in

[58] The LIBOR is set by a consortium of banks and published by the British Bankers Association each day between 11 and 11.45am.
[59] The Northern Counties Permanent Building Society (established in 1850) and the Rock Building Society (established in 1865).

December 2007), what set Northern Rock apart from other British banks was the *scale* of its reliance (Shin, 2009). This meant that although Northern Rock dealt only with prime borrowers, and had a solid asset book without any sub-prime mortgages, it was particularly hard hit by a general scaling back of inter-bank lending following the US sub-prime crisis. It was, therefore, creditor retrenchment rather than – as is more usual with bank crises - imprudent lending that forced Northern Rock on 13 September 2007 to seek Bank of England emergency support which culminated in it being nationalised on 21 February 2008.

The next casualty of Britain's banking crisis was the Royal Bank of Scotland (RBS) though here, unlike Northern Rock, its collapse was due to imprudent risk-taking rather than to excessive reliance on nonretail funding. Under Basel III, the largest systemically important banks (of which RBS was one) were required to hold 9.5% common equity tier 1 capital in normal times in order to operate without any restrictions on dividends and other distributions. In addition, the Basel III regime increased risk weights for some assets and changed the definition of core capital to ensure that it included only capital resources available to absorb losses on a going concern basis. In its entirety, Basel III imposed considerably more capital stringency on banks compared to Basel II. Calculations by the UK Financial Services Authority showed that the RBS's common equity tier 1 ratio under Basel III would have been only 1.97% far short of the required 9.5% (FSA, 2011). Even under the less demanding requirements of Basel II, the RBS with a published tier 1 ratio of 7.3% (in excess of the 4% required by Basel II), was, up to December 2007, one of the most lightly capitalised of UK banks (Figures 3.11 and 3.12). This reflected a deliberate policy of, in the RBS CEO's words, of "capital efficiency" (FSA, 2011).

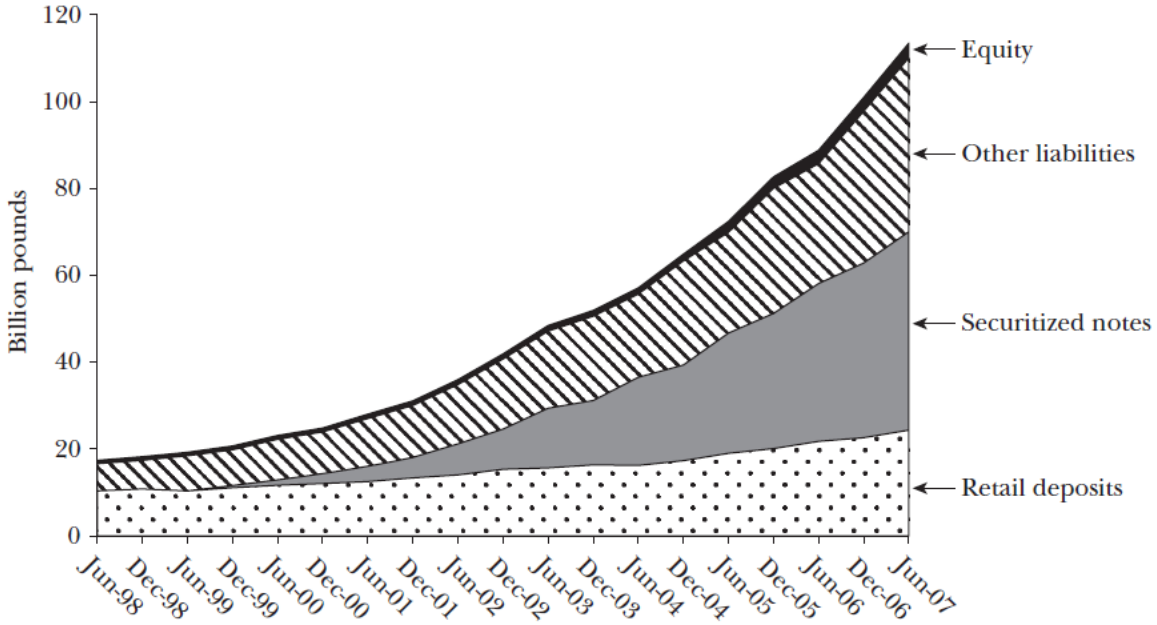
The problem arose when RBS (as part of a consortium comprising Santander and Fortis) beat Barclays Bank to acquire the Dutch bank ABN Amro for £49 billion.[60] This deal, finalised in October 2007 and funded through debt rather than equity, pushed RBS's tier 1 capital ratio below its own internal requirement of 5.25%. The acquisition, in the words of FSA (2011, p. 39), "significantly increased RBS's exposure to risky asset categories, reduced an already relatively low capital ratio, increased potential liquidity strains and, because of RBS's role as the consortium leader and consolidator, created additional potential and perceived risks. RBS's decision to proceed with this acquisition was made on the basis of due diligence which was inadequate in scope and depth given the nature and scale of the acquisition and the major risks involved". It added that "the FSA's overall supervisor response to the acquisition was also inadequate".

In October 2008, RBS failed. In order to address its capital inadequacy, RBS attempted on 13 October 2008 to raise £20 billion through equity sales: £15 billion of ordinary shares and £5 billion of preference shares. However, only 0.24% of the rights issue of £15 billion was subscribed. In the wake of this spectacular failure to raise capital, which would have pushed it into insolvency, the RBS received an injection of £20 billion from the UK Government's £50 billion *Bank Recapitalisation Fund*, announced on 8 October 2008, the purpose of this Fund being to allow the UK government to underwrite ordinary shares and

[60] The Barclays bid was £10 billion less.

to buy preference shares in distressed banks.[61] At the same time, another ill-starred banking merger - that between HBOS and Lloyd's TSB - was required to raise £17 billion from the Fund, half in preference shares and half in ordinary shares.[62]

Figure 3.10: The Changing Composition of Northern Rock's Liabilities, 1998-2007



Source: Shin (2009)

Figure 3.11: UK Banks' Total Capital Ratios

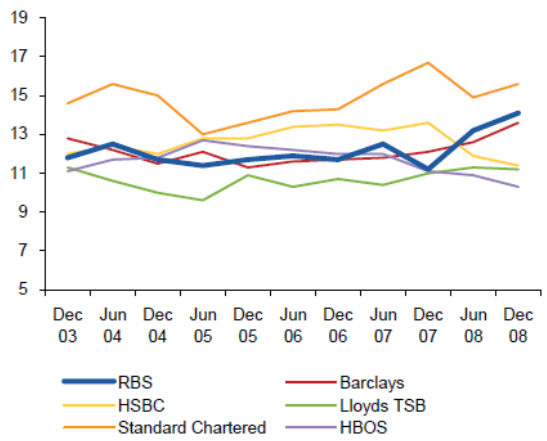
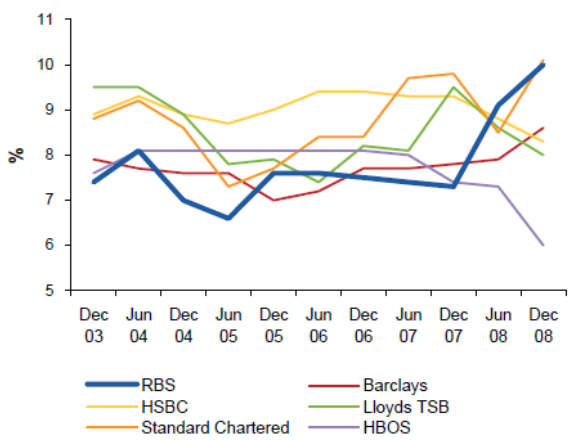


Figure 3.12: UK Banks' Tier 1 Capital Ratios



Source FSA(2011)

[61] The British scheme differed from the USA's Troubled Assets Relief Programme (TARP) in that the former sought to buy equity in banks while the latter sought to buy banks' troubled mortgage-backed securities. There was also to be a £200 billion *Special Liquidity Scheme*, operated by the Bank of England, to provide short-term loans to British banks as well as £250 billion for underwriting any eligible lending between British banks.
[62] The use of the Fund was spurned by HSBC, Standard Charted, and Barclays who preferred to raise capital from the market. Barclays, controversially, had raised £3.7 billion from the Qatar Investment Authority in July 2008.

Irish Bank Failures

The bank that most symbolises the rise and fall of the Irish banking system is Anglo Irish Bank and its (now infamous) ex-CEO, Séan Fitzpatrick. In that sense, Anglo Irish is the Irish counterpart of the UK's Royal Bank of Scotland and its ex-CEO Fred Goodwin. Formed in 1963, Anglo Irish emerged by the mid-1990s, under the stewardship of Séan Fitzpatrick who was appointed CEO in 1987, as a bank which specialised in loans to property developers in Ireland but also in the USA. By 2004, Anglo Irish had become the 10th fastest growing bank in Europe and in 2007 it recorded an annual profit of €1 billion. These spectacular achievements alongside the growing market share of Anglo Irish were not lost on its major competitors and other Irish banks plunged into the inviting waters of property loans.[63] The concentration of loans in property can be seen, in retrospect, as one of the vulnerabilities of the Irish banking system since it left it cruelly exposed in the wake of the property collapse. Although Anglo Irish and the Irish Nationwide Building Society were the most culpable in this respect (in 2006, nearly 80% of Anglo Irish loans were against commercial property) such loans became (as Figure 3.13, below shows) an ingrained feature of the banking system.

Figure 3.14 shows the total assets and the growth rate in assets of six Irish banks over the period 1999-2008. As Honohan (2009) points out, a very simple test of whether a bank is exposed to excessive risk is provided by the growth rate of its assets, with a rate of 20% providing a trigger for regulatory correction. Yet, Anglo Irish crossed this threshold in eight of the nine years in 1999-2008 with an average growth rate of 36%. This excessive growth was dangerous, not just for Anglo Irish, but for the banking sector in its entirety as its competitors invested their resources and energies in catching up. The increase in the market share of Anglo Irish, in the total assets of these six banks, from 3% in 1999 to 18% in 2008 was, according to Honohan (2009) "certainly an important influence inducing other banks to relax lending terms to avoid losing even more market share" (p. 217). As a consequence, credit to the private sector by Irish banks grew by nearly 30% per year in 2004, 2005, and 2006 (Regling and Watson, 2010).

As with Northern Rock in Britain, and with the subsidiaries of Swedish banks in the Baltic countries, the scaling up of bank lending in Ireland was only made possible through foreign borrowing by Irish banks: if lending by Irish banks had been constrained by their retail deposits, such an increase would not have been feasible. Foreign funding was the consequence of two factors: first, following Ireland's entry into the EMU, there was an increase in the availability of cross-border bank funding without foreign exchange risks; second, there was the growing presence of foreign (especially UK-based) banks in Ireland attempting to take advantage of Ireland's property boom. Figure 3.14, from Honohan (2009) shows the stock of net foreign borrowing of Irish banks rising from 10% of GDP in 1999 to over 60% of GDP by 2008. As a consequence of these factors, the loan to deposit ratio of Irish banks, as Regling and Watson (2010) point out, was considerably higher than that of

[63] Nyberg (2011) pointed out that "Anglo and to a much lesser extent Irish National Building Society (INBS) are important for the wider crisis because they were both seen as highly profitable institutions to which other Irish banks should aspire. As other banks tried to match the profitability of Anglo in particular, their behaviour gradually, and even at times unintentionally, became similar".

comparable euro area economies (Figure 3.16). The increased supply of funds to Irish banks was accompanied by a loosening of conditions under which they made loans against property - for example, there was sharp rise in loan-to-value (LTV) ratios with two-thirds of loans made in 2006 to first-time buyers having a LTV in excess of 90%.

Even in the halcyon days of the property boom in Ireland, Kelly (2007) warned about the Irish banking system's fragility but his cautionary words were almost routinely dismissed as "talking down the country". He pointed out that while lending to construction and development comprised only 8% of Irish bank lending in 2000, by 2007 it had risen to 28%; by September 2007, lending to builders and developers stood at €100 billion (roughly the value of public deposits with retail banks) and, in the past twelve months, had increased by €20 billion (twice the market value of Bank of Ireland shares) - "effectively, the Irish banking system has taken all its shareholders' equity, with a substantial chunk of its depositors' cash on top, and handed it to over to builders and property speculators". He went on to draw attention to the mutually profitable relationship between banks and builders: banks provided builders with lines of credit at above wholesale rates and builders repaid the loans after they sold their properties which, given the housing frenzy in Ireland at the time, *they were able to do before these had even been built*.

This cosy state of affairs came to an end with the bursting of the housing bubble; people stopped buying new houses in the anticipation that builders would further reduce prices, leaving those who were foolish enough to buy in negative equity. The knock on effect of a sharp decline in new housing sales - Kelly (2007) reported a Dublin estate agent as having sold only 100 units in 2007 compared to more than 3,000 in 2006 - meant that builders were unable to service their debt and this, in turn, led to large bank losses. Honohan (2009) put it succinctly when he wrote that "although international pressures contributed to the timing, intensity, and the depth of the Irish banking crisis, the underlying cause of the problem was domestic and classic: too much mortgage lending (financed by heavy foreign borrowing by banks) into an unsustainable housing price and construction boom." In contrast to the USA, where the mortgage-driven banking crisis was related to the new financial technology of collateralised debt obligations and credit default swaps, the property-driven Irish banking crisis was based on traditional lending methods, just scaled up several times over past lending levels, the scaling up being facilitated by the ready availability of foreign funding.

The crisis bubbled to the surface when, in the final week of September 2008, one of the banks (reputedly Anglo Irish) failed to turn over its foreign borrowing. Although other banks had not experienced similar difficulties it was judged that it would only be a matter of time before they did. To restore confidence in Ireland's banking system, the government announced on 30 September 2008 a guarantee on the liabilities - deposits plus sums owing to senior bond holders - of the six Irish banks.[64] The total cost of this guarantee, made under the

[64] The six banks were: Anglo Irish, Bank of Ireland, Allied Irish, Educational Building Society, Irish Life and Permanent, and Irish Nationwide Building Society.

Eligible Liabilities Guarantee (ELG) Scheme, was estimated by Fitzgerald and Kearney (2011) at £113 billion.[65]

The second prong in the government's strategy was to set up, in April 2009, a National Assets Management Agency (NAMA) which would take property development loans off the balance sheets of banks and, after applying a suitable "haircut", replace these with low risk, marketable government bonds. The original book value of these loans was €77 billion but their market value was only €47 billion; in addition, many of these loans were non-performing since the debtors were unable to service them.[66] By replacing these loans with government bonds, banks could ease their liquidity problems by now having suitable collateral for European Central Bank (ECB) "repo" loans. The replacement would occur at the "long-term economic value of these assets" (estimated at €54 billion) rather than their market value (€47 billion). Fitzgerald and Kearney (2011) estimate the value of these bonds, up to 2011, at €29 billion. However, since they were housed in a special purpose vehicle, they did not appear on the government's accounts.

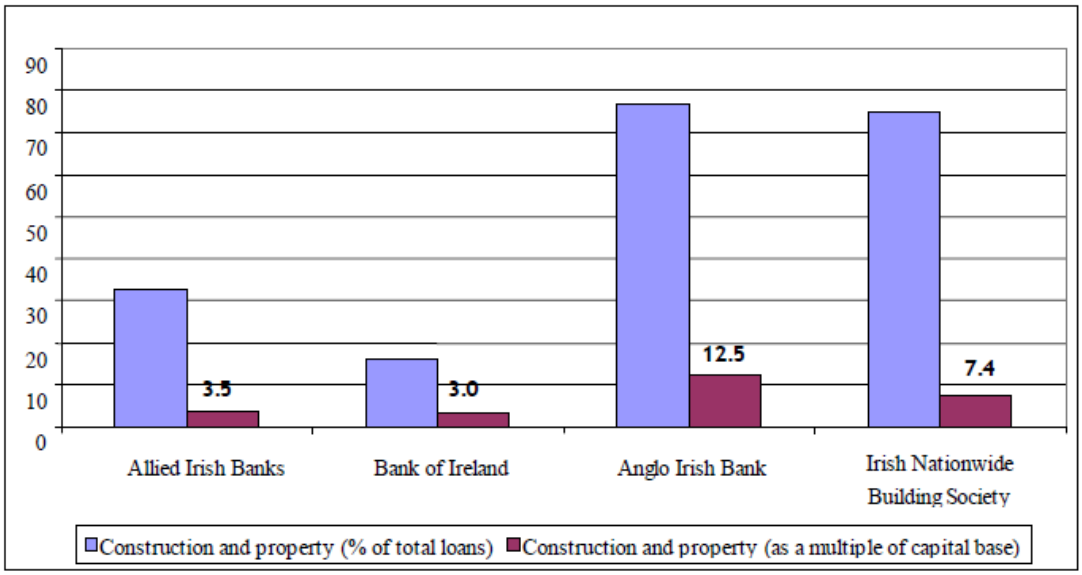
It was recognised, nonetheless, that while easing banks' liquidity problems, NAMA might create solvency problems for them since, by taking significant losses on their loans, their balance sheets would be adversely affected. In these circumstances the government would be prepared to inject capital into banks, but only by taking an equity stake. The third prong of the Irish government's strategy towards repairing its banking structure was, therefore, to recapitalise six banks - Anglo Irish, Bank of Ireland, Allied Irish, Educational Building Society, Irish Life and Permanent, and the Irish Nationwide Building Society. After five rounds of recapitalisation, the total cost of bailing out the Irish banking system stands at £63 billion, the latest tranche of £17 billion being provided by the State in July 2011 in response to results from the Central Bank of Ireland's stress tests on Irish banks. [67]

[65] The ELG scheme "provides for an unconditional and irrevocable State guarantee for certain eligible liabilities (including deposits) of up to five years in maturity incurred by participating institutions." The eligible liabilities were senior unsecured certificates of deposit, senior unsecured commercial paper, and other senior unsecured bonds and notes. The original Scheme, which ran till 31 December 2011, was renewed on that date.

[66] A haircut of 35% was applied to the Bank of Ireland's transfer of 12 billion of assets to NAMA while a more severe haircut of 43% was applied to Allied Irish (Carey and Coffey, 2010)

[67] See Fitzgerald and Kearney (2011). The Central Bank stress tests required an additional €24 billion but, after taking account of private asset injections and asset sales, the State was required to put in only €17 billion. The €63 billion - which is £28 billion over the €35 billion provision that the EU-IMF bailout of November 2010 made for banks - represents the addition to Irish public debt that was the result of recapitalising its banking sector.

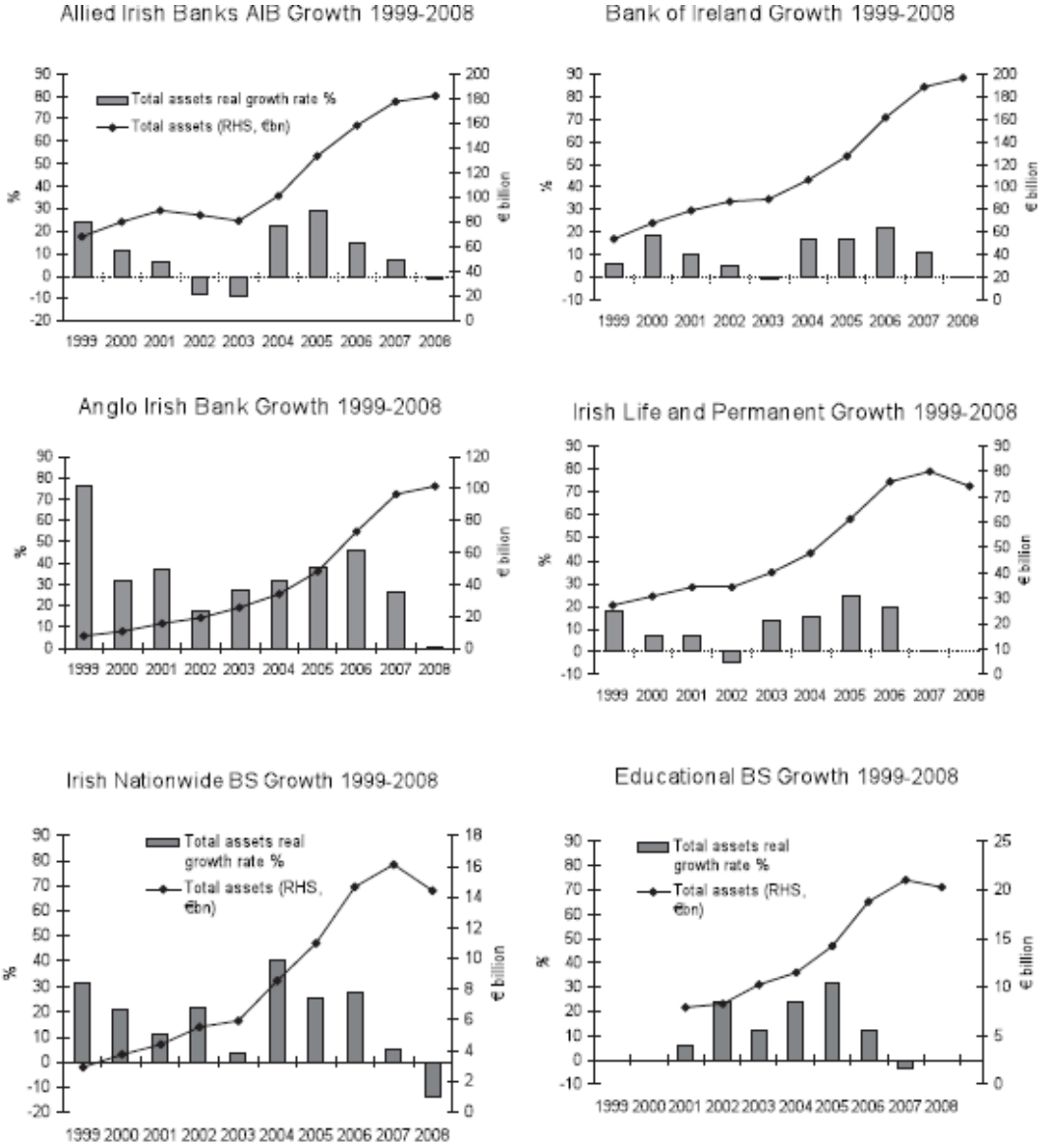
Figure 3.13: Loans for construction and property (excluding residential mortgages) in Ireland, 2006



*Data exclude residential mortgages and can thus be taken as representing the exposure of banks to commercial property in a broad sense.

Source: Regling and Watson (2010)

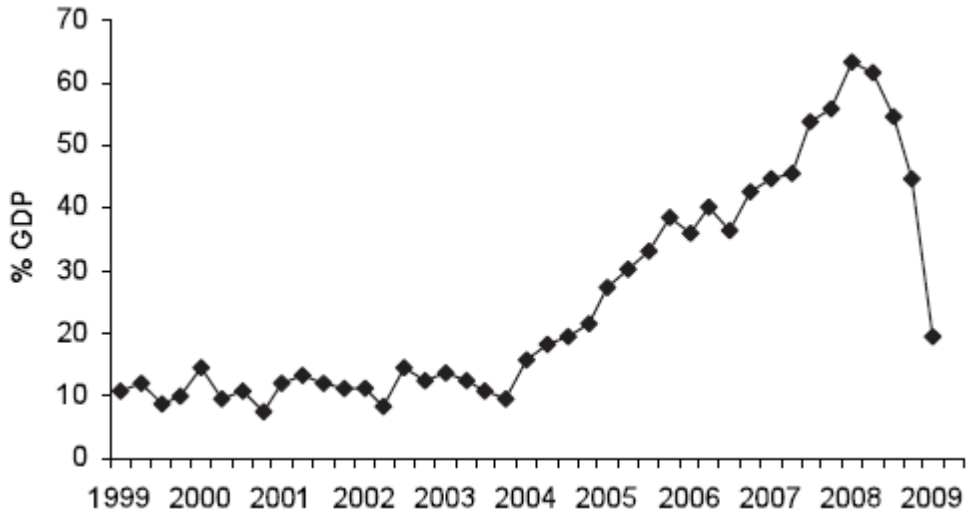
Figure 3.14: Growth Rates of Six Irish Banks, 1999-2008



Line: Total assets at end of each accounting year € billion (RHS).
Bar: Percentage real growth rate (LHS).

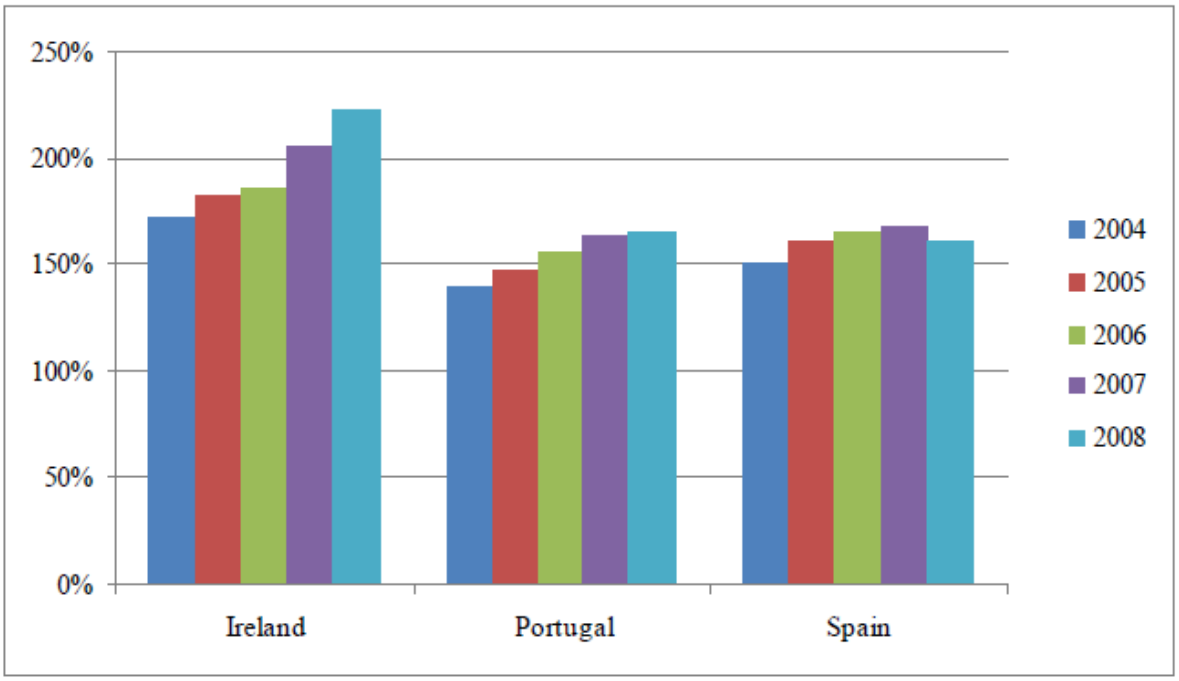
Source Honohan (2009)

Figure 3.15: Net Borrowing of Irish Banks from Abroad (Stock)



Source: Honohan (2009)

Figure 3.16: Loan to Deposit Ratios for the Irish, Portuguese, and Spanish banking systems



Source: Regling and Watson (2010).

Chapter 4
Sovereign Debt

The economist Paul Krugman, in a recent column in the *New York Times*, wrote that "when people [in Washington D.C.] talk about deficits and debt, by and large they have no idea what they're talking about - and people who talk the most understand the least".[68] Krugman's ire was directed particularly against those who regarded the debt of sovereign governments (hereafter, *sovereign debt* or, equivalently, *public debt*, or *government debt*) as no different from the debt owed by households. As with households who have difficulty repaying a loan that is too large relative to their income, so with governments - "deficit worriers portray a future in which we are impoverished by the need to pay back money we've been borrowing".

Krugman's optimism about public debt was based partly upon the post-war experience of the USA. At the end of World War II, and in consequence of it, the USA had debt which was over 100% of its Gross Domestic Product (GDP). However, by 1960, the United States debt-GDP ratio had fallen to 55%. Not only did the ratio fall, the fall was relatively painless. First, economic growth averaging 4% per year over the period generated large tax revenues. Second, low interest rates meant that the cost of servicing debt was relatively small. Third, most of the debt of the United States government was *owed* its citizens and taxpayers (domestic debt) who simultaneously also *owned* the debt through their holdings of government bonds and securities: thus, the post-war debt of the USA represented money that it largely owed itself; the debt didn't make the United States poorer and, in particular, it did not prevent it from enjoying a large and sustained economic boom.

It is precisely because these conditions do not apply to Europe today that "deficit worriers" hold sway and policy prescriptions for heavily indebted European countries place heavy emphasis on "austerity", "fiscal discipline" and - through devising and implementing "money-saving reforms" - the general overhaul of State finances. We set out below the scale of Europe's debt problem before detailing the ways in which the context of European sovereign debt differs from that of the USA in the golden years of post-World War II prosperity. A corollary of these differences is that one cannot be as dismissive of European "deficit worriers" as Krugman is about their US counterparts. But are European policy makers (or, at least, those that matter), in their anxiety that countries should shed their debt obesity with the greatest possible haste, in danger of starving their patients to death? Or, at least, so weakening them that their leaner bodies never recover the vigour and energy they once enjoyed? This chapter attempts to answer these, and related, questions.

Europe's Sovereign Debt: The Scale of the Problem

Against an average debt to GDP ratio for the Euro area of 85.1% in 2010, the five most indebted countries in the area in were*: Greece* (debt to GDP ratio of 142.8%); *Italy* (119%); *Ireland* (96.2%); *Portugal* (93.0%); and *Belgium* (96.8%).[69] Figure 4.1 shows the

[68] 1 January 2012.
[69] Eurostat (2011). The figures refer to gross general government debt (nominal value).

trajectory over 1999-2010 of government debt-to-GDP ratios for the five countries which had the highest debt-to-GDP ratios in 2010 - Greece, Italy, Belgium, Portugal, and Ireland - and compares these ratios with the corresponding ratios for the Euro Area (EU17) and the EU (EU27) countries in their entirety.

Although all five above-mentioned countries had debt-to-GDP ratios above 90% in 2010, the trajectory of their ratios was very different. Greece always had a high debt-to-GDP ratio: this hovered around 100% till 2007 but the recession that followed pushed it up to nearly 145% by 2010. Italy's debt-to-GDP ratio has also been just above 100% but the present recession has pushed this to nearly 120% in 2010. In a similar vein, Belgium also has had debt-to-GDP ratios above 100%; although, Belgium's ratio declined over 1999 -2007, achieving a low of 84% in 2007, the present recession has raised it to 97% in 2010. By contrast, Ireland's debt-to-GDP ratio fell from 81% in 1999 to 25% in 2007, when it had the lowest debt-to-GDP ratio of the Euro Area countries, before rising in recessionary conditions to reach 96% in 2010. Similarly, Portugal's debt-to-GDP ratio was around 50% till 2004 but a combination of sluggish growth since 2004 and the post-2007 recession raised it to 93% by 2010.

So, although these five countries appeared to be highly indebted in terms of 2010's snapshot of debt-to-GDP ratios, a moving picture of these ratios tells very different stories of how they arrived at their 2010 position. For Greece, the story was one of profligacy. It was a heavily indebted country even over the period (1997-2004), when its economy grew rapidly and, indeed, faster than the EU average (Figure 1.1), but it spurned the opportunity of reducing its debt burden that these high growth rates offered. Belgium, too, like Greece, has an unhealthy record of public sector profligacy to blame for its high indebtedness. In Portugal, the story was one of sluggish growth rates brought about by loss of competitiveness while, in Ireland, it was one of government assuming, perhaps misguidedly, responsibility for its banks liabilities in addition to its altering the nature of its tax base to raise more revenue from property based taxes.

Although the discussion of government deficits and debt in Europe focuses on the more indebted countries - principally the "peripheral" countries of the euro area that have been bailed out, Greece, Ireland, Portugal - it should not be forgotten that government indebtedness is a near-universal problem affecting several countries outside the much maligned "periphery". For example, notwithstanding today's very public criticism of tax-avoidance behaviour in Greece and the profligacy of its government, government revenue as a percentage of GDP is higher in Greece compared to the USA and the UK (39.1%, 30.9%, and 36.6%, respectively, in 2010).[70] The Greeks may resist paying taxes covertly through tax evasion but the Americans exhibit the same resistance but more overtly through party politics and the ballot box. In consequence, as Table 4.1 shows, the overall fiscal balance in 2010 was the same in Greece as in the UK and the USA (respectively, -10.4%, -10.2%, and -10.3%). For these reasons, Niall Ferguson writes that the "idiosyncrasies of the eurozone

[70] Though general government expenditure as a percentage of GDP is also higher in Greece compared to the UK and the USA (49.5%, 46.8%, and 41.3%, respectively, in 2010).

crisis should not distract us from the general nature of the fiscal crisis that is now afflicting most western countries".[71]

Europe's Sovereign Debt: Poor Growth Prospects, External Ownership

Sovereign debt in Europe differs in several essential respects from US debt after World War II and all these factors combine to provide several European economies with a less optimistic future. First, given the present recession, and given the contemporary presence of economic powerhouses like India and China, circumstances for rapid, renewed growth in Europe are considerably less favourable than they were for post-war USA which, at that time, ruled supreme as an economic behemoth. The average annual growth rate of the Euro area countries was 1.5% between 1992 and 1996, 2.8% between 1997 and 2001, and 1.7% between 2002 and 2006; in 2010, it was only 1.8%.[72]

Second, much of the sovereign debt of European countries is external debt held by lenders in other countries. The European Banking Authority (EBA, 2011) calculated the exposure of EU banks and domestic banks to public debt in the three peripheral countries, Greece, Ireland, and Portugal: of the *Greek government debt* of €328.6 billion in 2010, €98.2 billion (or 30%) was the exposure of EU banks and €65.79 billion (20%) was the exposure of Greek banks; of the *Irish government debt* of €148.1 billion in 2010, €52.7 billion (or 36%) was the exposure of EU banks and €32.2 billion (22%) was the exposure of Irish banks; of the *Portuguese public debt* of €160.5 billion in 2010, €43.2% billion (or 27%) was the exposure of EU banks and €27.2 billion (17%) was the exposure of Portuguese banks.[73] Outside the "periphery" of Greece, Ireland, and Portugal, about 69% of the *Belgian government debt* of €326 billion in 2010 was held by foreign investors[74] with Belgium owing €25 billion to the French bank, BNP Paribas and €9 billion to the Dutch bank ING.[75] A little more than half of *Italian public debt* (€1,843 billion in 2010) is held by non-residents. [76]

The large exposure of the debt of heavily indebted European countries to foreign investors has had the major consequence of opening up these countries to the scrutiny of markets and, their alter-ego, the Rating Agencies. The rating assigned to countries by these agencies (Moody's, Standard and Poor's, and Fitch) influences the rates of interest the bond market demands for holding their debt. Indeed, as MacDonald (2003) observes, "the bond market is now feted as a supranational, almost godlike force that passes daily judgment on the behaviour of government - stampeding like a 'galloping herd' at the merest whiff of reckless policy" (p. 472). As shown in Table 4.2 below, there is a considerable gap between the rates offered by the bond market to different countries depending upon its assessment of their economic viability. The rise in the yields of bonds (in effect, the interest received by bond holders) issued by highly indebted governments is reflected in a rise in the prices of credit

[71] Niall Ferguson, "A Greek Crisis is coming to America", *Financial Times*, 10 February 2010.
[72] European Commission (2011a).
[73] European Banking Authority (2011)
[74] Tracy Alloway, "It's the beginning of the endgame for Belgium", ft.com/alphaville, http://ftalphaville.ft.com/blog/2010/05/07/223096/its-the-beginning-of-the-endgame-for-belgium/
[75] http://financeaddict.com/2011/10/which-banks-have-the-most-belgium-debt-exposure/
[76] http://ftalphaville.ft.com/blog/2011/07/18/625136/goldman-answers-10-questions-on-italy/

default swaps offering protection against sovereign default by euro area countries. In July 2011, assuming a 40% recovery rate, these prices implied that the "market" thought that there was a 88% chance that Greece would default, and a 25% chance that Italy would default, within the next five years (Boone and Johnson, 2011).[77]

Europe's Sovereign Debt: The Dollar as the Currency of Global Banking

Another important difference between US public debt and that of European countries is the fact that the dollar is not only the world's most important reserve currency and the invoicing currency for foreign trade; *it is the currency that underpins global banking*. As Shin (2011) points out, the USA hosts branches of around 160 foreign banks whose main function is to collect wholesale dollar funding in capital markets and ship it to head office for disbursement to borrowers in their own countries. In 2010, foreign banks collectively raised $1 trillion in dollar wholesale funding of which $600 million was channelled to their headquarters. The United States, therefore, presents a paradox: it is the largest *net debtor* in the world, but it is, simultaneously, a substantial *net creditor* to the global banking system. In effect, as Shin (2011) points out, the USA *borrows long* (through Treasury Bills) and then recycles the dollars by *lending short* through the banking sector. There is, therefore, a global demand for dollars which sustains large US current account deficits. This is in marked contrast to countries like Ireland which funded current account deficits through an inflow of wholesale money into its banking sector and then suffered a banking collapse through withdrawals by wholesale lenders from its banks.

Europe's Sovereign Debt: Culture Wars between North and South Europe

In his magisterial book on the evolution of public debt through history, MacDonald (2003) develops the concept of the "citizen-creditor" - the person who willingly lends money to his government. The concept of the citizen-creditor who democratically gives his/her approval for a level of public debt and, thereby, assumes ownership of it, constitutes the fiscal foundation of democracy and provides part of the glue which binds a country's citizens in a sense of national solidarity and unity of purpose .[78] However, according to MacDonald (2011), this sense of solidarity and purpose disappears when debt is held by foreigners or by institutions - he contrasts the post World War II situation in the USA, when almost all its debt was held by its citizens, with the fact that, today, the proportion of US debt held directly by Americans is less than 10%, with financial intermediaries holding about 37% and other countries (principally China and Japan) holding about 30%, of US debt.

Although a significant proportion of the debt of the highly indebted European countries is external debt, non-European exposure to this debt is very small with most of the external debt holders being other European banks and *ipso facto* citizens of countries within

[77] Let S be the CDS spread (premium), R the recovery rate, and p the probability of default. The expected payoff of the buyer of the CDS is $(1-R)p$. When two parties enter into a CDS transaction, S is set so that the value of the transaction is zero: $S = (1-R)p \Rightarrow S/(1-R) = p$. If $R=40\%$ and $S=500bp$, $p=8.3\%$.

[78] Consequently MacDonald (2011) argues that political systems (democracy) which are based on a voluntary take up of debt have a greater capacity to survive compared to systems which extract money by compulsion (autocracy).

the EU and, in most cases, within the euro area. The fact that much of the sovereign debt problem in Europe is an *intra-Europe* issue should create a sense of fiscal solidarity à *la* MacDonald's "citizen-creditor". Instead, the current crisis has led to greater inter-country hostility within Europe than, arguably, any time since World War II. It verges today on a "cultural war" between Northern and Southern Europe with the Germans, for example, caricaturing the Greeks as tax-evading, work-shy spendthrifts addicted to the largesse of the public purse and the Greeks responding by resurrecting memories of the German occupation of Greece with images of the 21st version of the *Wehrmacht* yet again riding roughshod over Greek sovereignty. The evidence is that the European Union and, in particular, the euro is an elitist project which combines great support from the political and social elites of the member states but wide spread skepticism from the wider public (Risse, 2006).

A major reason for the surfacing of national stereotypes is that, underlying the veneer of European unity, there is a robust feeling of inter-European differences based upon national identity and rooted in past internecine conflict which, in moments of crisis, pits nation against nation. For example, the German Presidency of the EU in July 2007 wanted to introduce the principle of the "double majority." For a resolution to pass in the Council of Ministers, at least 55 percent of the states with 65 percent of the EU population have to agree. Poland, on the other hand, demanded that the weight of the vote be computed according to the square root of the total population thereby reducing the influence of the largest states and increasing that of the smaller states. However, this demand by Poland and its rejection by Germany were phrased in the most inflammatory terms: to the Germans, the Poles were "unloved and annoying neighbours"; to the Poles, the Germans had Great Power ambitions and sought influence in Europe at any price.[79] As Janusz Reiter, Poland's former Ambassador to Germany bitterly observed in an interview to *Der Spigel*: "Besides, there was also an old tradition of condescension toward the Poles. To this day, the average German knows nothing or very little about the fact that the Nazis didn't just commit crimes against the Jews, but also conducted an ethnic war against the Slavs. Its purpose was to destroy the national elites. In Poland, that was the key experience of the 20th century. *What is still absent in the German-Polish relationship, most of all, is respect, which hasn't always been the Germans' strong suit* [emphasis added]".[80]

Europe's Sovereign Debt: Sharing the Blame?

The truth about Europe's sovereign debt problem is that neither the creditor nor the debtor nations are free of blame: everyone has contributed to the mess and everyone should, rightly, contribute to clearing it. Creditors and debtors are but two sides of the same coin since one country's surplus is another country's deficit. The plain fact of the matter is that everyone cannot be in surplus. Surplus countries (creditors) produce goods and services in greater quantities than their own citizens are prepared to buy; deficit countries are unable to produce goods and services in the quantities (and of the quality and variety) that their residents wish to buy. The result is a flow of capital from creditor nations to debtor nations

[79] http://www.wsws.org/articles/2007/jun2007/summ-j22.shtml, accessed 5 March 2012.
[80] http://www.spiegel.de/international/europe/0,1518,671322,00.html, accessed 5 March 2012.

as the former accumulate claims on the latter's assets. It was the savings of German citizens which were, in substantial part, funding the borrowing spree of Irish property developers and the deficits racked up by Greek governments.

As Mervyn King, Governor of the Bank of England put it: "Persistent trade surpluses in some countries and deficits in others did not reflect a flow of capital to countries with profitable investment opportunities, but to countries that borrowed to finance consumption or had lost competitiveness. The result was unsustainably high levels of consumption (whether public or private) in the US, UK and a range of other advanced economies and unsustainably low levels of consumption in China and other economies in Asia, and some advanced economies with persistent trade surpluses, such as Germany and Japan."[81] However, it is the creditors who set the rules. Debtors have to beg while creditors insist that their view of the causes of a crisis is the right one. Germany affirms that the crisis is the result of the Greek government's profligacy (and not due to excessive German thrift); the Greeks have no option but to accept this diagnosis and to tighten their belts accordingly.[82]

Europe's Sovereign Debt: The Maastricht Treaty and the Stability and Growth Pact

On 9 February 1992 members of the European Community signed a treaty in the Dutch town of Maastricht. This Treaty (hereafter, the *Maastricht Treaty* but, more formally, the *Treaty on European Union*) detailed the parameters of the European Monetary Union (EMU) which was to come into force on 1 January 1999 under the aegis of a single currency, the euro. Countries could be part of the EMU only if they satisfied five conditions:

1. **Inflation**. To be eligible for EMU membership, a country's inflation rate should not exceed, by more than 1.5 percentage points, the average of the three lowest inflation rates of the EU Member states.
2. **Long-term Interest Rates**. Long-term interest rates should not exceed, by more than two percentage points, the average long-term interest rate of the three countries with the lowest inflation rates.
3. **ERM Membership**. Every country in the EMU should have participated in the Exchange Rate Mechanism for the past two years without devaluing its currency.
4. **Budget Deficit**. A country's budget deficit should not exceed 3% of its GDP.
5. **Public Debt**. The debt of a country's government should not exceed 60% of its GDP.

Taken collectively, the conditions implied conservatism in the monetary and fiscal policy stances of the countries. First, reflecting the German abhorrence of inflation, the joining countries should have had a credible record of low inflation. To ensure that low inflation rates were not the result of some temporary artefact conjured up just before the joining date - for example, freezing administered prices - emphasis was also placed on the long-term nominal interest rate. Since the nominal rate of interest equals the real rate plus the expected rate of inflation, and since real rates are fairly constant, low nominal rates of interest would be associated with low expected rates of inflation. The third condition served to

[81] Speech to the Institute of Directors, St George's Hall, Liverpool, 18 October 2011, http://www.bankofengland.co.uk/publications/Documents/speeches/2011/speech523.pdf
[82] Martin Wolf, "Creditors can huff but they need debtors", *Financial Times*, 1 November 2011.

undercut the practice of compensating, through exchange rate devaluation, for the loss of competiveness engendered by domestic inflation: countries joining the EMU had to demonstrate a record of eschewing this practice. The fourth and fifth conditions emphasised fiscal rectitude - there was a ceiling to the *current deficit* (3% of GDP) and also to the cumulated deficit in terms of the *stock of debt* (60% of GDP).

In 1999, after the start of EMU on 1 January 1999, the average budget deficit for the 17 countries *currently in EMU*[83] was 1.5% of GDP with an average public debt of 71.6% of GDP.[84] Of the 10 countries in EMU at its inception, none of the countries violated the "3% deficit-GDP rule" but Belgium and Italy, with debt levels of, respectively, 113.6% and 113% of GDP, flagrantly violated the "60% debt-GDP rule" (Figure 4.2). However, since Belgium and Italy were also founding members of the Common Market in 1957, they were accommodated with respect to their public debts by recasting the condition to allow for a GDP ratio less than 60% or "moving in that direction" (Baldwin and Wyplosz, 2009). By 2010, when there were 17 member States in EMU, twelve countries violated the 60% debt rule and fourteen countries violated the 3% deficit rule (Figure 4.3).

The Maastricht Treaty while setting out the criteria for membership of EMU enjoined member states to "avoid excessive deficits" and went on to say that "The Commission shall monitor the development of the budgetary situation and of the stock of government debt in the Member States with a view to identifying gross errors" (Article 104c). The Stability and Growth Pact (SGP), adopted in 1997, set out the practical details of: (i) what constitutes "excessive deficits"; (ii) avoidance measures for excessive deficits; (iii) corrective measures for excessive deficits; and (iv) penalties for excessive deficits.

I. In terms of what constituted excessive deficits, the watch word was *flexibility*: "exceptional circumstances" or "other relevant factors" could permit the 3% rule to be breached.[85] Member states sought to define "other factors" in their own interests by excluding what they regarded as "good expenditures" from the deficit calculation: France wanted a reference to research; after unification, Germany wanted a reference to the "unification of Europe".
II. The measures to avoid excessive deficits required each country to submit annually a *Stability Programme* which would present its budget forecast for the current year and the subsequent three years. In the event that the expected deficit exceeded 3%, the document was required to explain the corrective measures that were being adopted to reduce it. The European Commission

[83] Countries joining the EMU on 1 January 1999 were: Belgium, Germany, Ireland, Spain, France, Italy, Luxembourg, Netherlands, Austria, Portugal, and Finland. Greece joined on1 January 2001, Slovenia on 1 January 2007, Cyprus and Malta on 1 January 2008, Slovakia on 1 January 2009, and Estonia on 1 January 2011.
[84] Eurostat databank. The figures refer to gross general government debt.
[85] Originally exceptional circumstances referred to low growth, defined as a GDP decline of more than 2% with an intermediate case where it declined by less than 2% but by more than 0.75%. Now, exceptional circumstances refer to an unusual event outside the control of the Member State concerned which has a major impact on the financial position of the government or a severe economic downturn.

(EC) would then, on the basis of the Stability Programme document, forward individual country assessments to ECOFIN (the Economic and Financial Affairs Council of the EU comprising the finance ministers of the Member States) which would deliver an opinion adopted by *qualified majority*.[86]

III. The corrective measures were based on the *Excessive Deficit Procedure* (EDP). If, following an ECOFIN report, the Council decided that an excessive deficit existed, it simultaneously issued recommendations to the Member State concerned. The Council established a deadline of no more than six months for effective action to be taken with the correction of the excessive deficit being completed, unless there were special circumstances, in the year following its identification. In its recommendations the Council requests the Member State to achieve a minimum annual improvement of at least 0.5% of GDP as a benchmark.

IV. The penalties for excessive deficits follow when no effective action has been taken within six months of the identification of an excessive deficit. After a country had been "named and shamed" by the Council making its recommendations public, and after a warning notice to the Member State, the Council could impose a financial penalty. In principle, the interval between the reporting of the figures indicating that an excessive deficit existed and the decision to impose a penalty should not exceed sixteen months. The penalty starts at 0.2% of GDP for a 3% deficit rising to 0.5% of GDP if the deficit is 6% or more of GDP (Table 4.3, below) and, initially, takes the form of a non-remunerated deposit with the Council. If, however, the excess is not corrected within two years, the deposit converts to a fine.

Perhaps the most infamous event in the history of the Stability and Growth Pact (SGP) was Germany's flouting of its strictures in 2005. In 2003, both France and Germany (who today are some of the most vocal proponents of fiscal discipline) had budget deficits of, respectively, 4.2% and 4.1%, well in excess of the SGP limit of 3%. Moreover, their projected deficits for 2004 and 2005 were also above the 3% limit.[87] This led the EC (whose President was then Romano Prodi) to issue mandatory recommendations, the last step before sanctions. However, ECOFIN - comprising the 15 finance ministers of the EU's Member States - decided, after intense lobbying by France and Germany, to "hold the excessive deficit procedure for France and Germany in abeyance for the time being". After the ECOFIN decision, Sir John Grant, then Britain's Ambassador to the EU, remarked that the "credibility of the Commission and the readiness of the member states to accept the authority of the Commission as the independent enforcer of the Maastricht criteria were gravely undermined."[88] Such behaviour on the part of France and Germany, by signaling to the smaller countries that they too might thumb their noses at Maastricht and the SGP with

[86] EU countries which were not EMU members were required to submit Convergence Programmes, the contents of which were similar to the Stability Programmes of EMU members, except that they were not subject to penalties.

[87] The outturns for Germany and France were deficits of, respectively, 3.8% and 3.6% for 2004 and 3.3% and 2.9% for 2005.

[88] BBC News, 20 January 2012, http://www.bbc.co.uk/news/world-europe-16761087, accessed 5 March 2012.

impunity, arguably sowed the seeds for the crisis that followed. As, Peter Doukas, then Deputy Finance Minister for Greece, observed: "if the big boys won't impose discipline on themselves they are going to be more relaxed in enforcing the treaty [on us]. [89]

Government versus Private Borrowing

The Maastricht Treaty and the Stability and Growth Pact emphasised the importance of public deficits and public debt but ignored issues relating to a country's overall indebtedness as revealed in its current account deficits/surpluses. So, from the start of EMU, deficits due to *private sector overspending* were considered very different (and, indeed, much less serious) than deficits which resulted from *government overspending* (Fitzgerald, 2012; Soros, 2011). Indeed, as Soros (2012) expressed it: "They [the fathers of the euro] believed, in particular, that only the public sector is capable of producing unacceptable economic imbalances". The fact that policy makers could ignore imbalances produced by the market stemmed from the "Lawson doctrine" - named after Nigel Lawson, British Chancellor of the Exchequer from 1983-1989 - which stated that, provided there are no distortions, and expectations are rational, current account deficits as reflected in private saving and investment decisions represent optimal economic outcomes and do not require government intervention (Blanchard, 2006).

It is well known that the gap between a country's investment expenditure *(I)* and its saving *(S)* is identically reflected in the difference between the value of its exports *(X)* and its imports *(M)* that is, its current count balance, *X-M* (in surplus, if *X>M*, in deficit, if *X<M*). Consequently:

$$\underset{saving-investment\ gap}{S-I} = \underbrace{X-M}_{current\ account\ balance} \tag{1}$$

When countries run a deficit on their current balance, they finance their excess expenditure by selling their assets and, in effect, by borrowing from abroad. This borrowing could be by government or by the private sector. To distinguish between the government and the private sector, one can write aggregate saving *S* as the sum of private saving (S_p) and government saving (S_g) - where $S_g<0$ (>0) implies the government runs a deficit (surplus) - so that equation (1) can be rewritten as:

$$S-I=[S_p+S_g]-I = \underset{private\ borrowing}{S_p-I} + \underset{government\ borrowing}{S_g} = \underbrace{X-M}_{external\ borrowing} \tag{2}$$

A situation in which the government budget is balanced $(S_g=0)$ and domestic private saving is exactly enough to fund domestic investment $(S_p=I)$ will result in current account balance $(X-M=0)$ so that foreign lending/borrowing will be zero. From this position, the current account will go into deficit, with a concomitant inflow of borrowing from abroad, if either, or both, of two things occur:

1. Government behaviour changes so that it spends more, or taxes less, with the consequence that its budget balance becomes a budget deficit ($S_g=0 \rightarrow S_g<0$)

[89] Allan Little, "Did Germany sow the seeds of the eurozone crisis?", BBC News (Europe), 20 January 2012, http://www.bbc.co.uk/news/world-europe-16761087, accessed 5 March 2012.

2. Private sector behaviour changes so that the private sector spends more, either in the form of higher consumption (so that, S_p falls) or higher investment (I increases).

Whatever the source of the higher spending, it can only be financed by foreign borrowing. The split of this foreign borrowing between private and government borrowing will depend upon their relative spending needs (points 1 and 2, above) but this split will not affect the overall indebtedness of the country as reflected in its current account deficit. In a stand-alone country, current account deficits serve as an early warning system: unless corrective action was taken, asset transfer would come to an end - with bankruptcy the outcome - when overseas borrowers refused to extend their credit and/or gold and foreign exchange reserves were depleted.[90]

Such corrective action would involve measures to improve competitiveness. The first measure is currency depreciation. The second is internal deflation achieved by taking demand out of the economy through the appropriate exercise of monetary policy (raising interest rates through reductions in the money supply) and fiscal policy (reducing budgetary deficits, or increasing surpluses, by spending less and taxing more). This creates unemployment which leads to moderation in wage growth; when wage growth is less than productivity growth, real incomes fall; exports rise because competitiveness is improved and imports fall because the lower real income dampens demand.

For countries in the EMU, neither exchange rate depreciation nor the independent exercise of monetary policy is a policy option. The first is impossible by virtue of a single currency; the second option is ruled out because the interest rate across the euro area is set by the European Central Bank which, in so doing, takes regard of prevailing economic conditions over the entire area (and which may not be appropriate to the specific needs of any individual country). Since fiscal policy is the only (macroeconomic) policy instrument available to national governments, its proper exercise is of great importance to their countries' well-being. It is arguable, that the EMU - both collectively and in terms of individual countries - does not fully appreciate what the appropriate role of fiscal policy ought to be in the context of a common currency. This role should be broader, and more pro-active, than the current requirement of individual governments to exercise fiscal discipline by keeping their deficits and debt levels below prescribed levels (3% of GDP for deficits and 60% of GDP for debt). Instead, the role of fiscal policy ought to be to act as a countervailing force to private sector excesses by cooling "irrational exuberance". This requires governments to monitor the foreign indebtedness of their countries by keeping a watchful eye on the balance of payments current account and taking offsetting action whenever there is danger of overspending.

The numbers in Table 4.4 represent the empirical counterpart of equation 2: they show, for a selection of countries, the balance on current account (*OV: X-M*), private borrowing from abroad (*PV:* S_p-I), and the government deficit (*GV*: S_g), all as a percentage of GDP, with the numbers under the *OV* column equal to the sum of the numbers under the *PV*

[90] For example, prior to the economic reforms in India in 1990, Indian foreign-exchange reserves had dwindled to a low of $2.2 billion with less than 15 days' cover against annual imports.

and *GV* columns. The most striking feature of these numbers is that up to 2007, in several countries with large current account deficits it was private, as opposed to government, spending that was responsible for the deficits. In 2007, Spain had a current account *deficit* of 10% (of GDP) but a government *surplus* of 1.9%; Estonia had a current account *deficit* of 17.2% but a government *surplus* of 2.5%;[91] Ireland had a current account *deficit* of 5.5% but a government *surplus* of 0.1%; Portugal had a current account deficit of 10.2% but a government deficit of 3.1%. Even Greece, whose governments are excoriated for their spending excesses, had a current account deficit of 15.6% and a government deficit of 6.4%, with private sector overseas borrowing reaching 9.2% of GDP in 2007.

The interesting question is why, in the face of these large deficits, were governments disinclined to intervene? First, the years from 2002 to 2007 were also periods of rapid growth - real GDP in Ireland grew at over 5% annually; in Greece by over 4%; in Spain by nearly 4%. As observed in the previous chapter, when the economy is growing rapidly governments are more inclined to encourage growth and to take credit for it than attempt to slow it down.

Second, the Maastricht Treaty and the Stability and Growth Pact limited government responsibility to keeping within prescribed budgetary and debt limits and, as long as they did so, they did not feel they were required to do more. This raises an interesting issue of *quasi-sovereignty*: as part of EMU, sovereign governments operate under the direction of the European Commission and its scrutiny and are subject to its proscriptions and its penalties. In accepting this, governments lose part of their sovereignty: they are "quasi-sovereign" without being fully sovereign. In this state of quasi-sovereignty, governments of member states (particularly those of smaller countries) instead of leading their countries are content to follow timorously the directives and instructions from the higher authority represented by the European Commission and anxiously await its approval.

Third, because of the nature of the financing system within the *European System of Central Banks*, governments have not felt the need to intervene.[92] In order to appreciate this point, it is useful to begin with the observation that the EMU operates an "updated version of the classical gold standard".[93] Under the gold standard, current account imbalances between countries would result in an inflow of private finance into the deficit countries and, after this had dried up, an outflow of gold from the deficit to the surplus countries. Equilibrium would be restored by wages and prices falling in the deficit countries, because of reduced economic activity, and rising in the surplus countries because of increased economic activity. Under EMU, the current account deficit of countries has largely been financed through their banks borrowing from banks in EMU countries that are in current account surplus. Consequently, the overseas liabilities of domestic banks increase and this increase is approximately the size of the current account deficit.

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[91] A similar story can be told about Latvia and Lithuania.

[92] The European Central Bank plus the central banks of the 27 countries in the EU countries. The latter include those not in EMU but they do not participate in matters relating to monetary policy.

[93] Martin Wolf, "Intolerable choices for the eurozone", *Financial Times*, 31 May 2012. The *Gold Standard* was a system in which each country fixed its currency in terms of gold and stood ready to exchange gold for its currency at the stated parity.

So, for example, if an Irish buyer (Séan), who banks with Allied Irish, wants to spend €50,000 on a car being sold by a German (Helga) with an account with Deutsche Bank, he arranges for the amount to be transferred from his account to the Helga's account. However, the transaction follows a slightly circuitous route: Allied Irish debits Séan's account by €50,000 and transfers the sum to the Central Bank of Ireland which then transfers it to the Bundesbank which then transfers it to Deutsche Bank which then credits Helgas's account with €50,000. The difference between this transaction and one conducted under the erstwhile Exchange Rate Mechanism (ERM), which was the precursor to EMU, is that under ERM there would have been a flow of foreign exchange between the Central Bank of Ireland and the *Bundesbank*: Séan would have paid for his car in Irish pounds and Helga would have received her money in German marks. Now, under EMU, the transaction is conducted entirely in euros.

Now suppose that Séan asks Allied Irish for a loan to buy the car but Allied Irish does not have the resources, in terms of domestic deposits, to make this loan largely because importers are drawing down their deposits (with Allied Irish) to make overseas payments faster than exporters are adding to their deposits (with Allied Irish) from overseas payments received. Allied Irish then borrows €50,000 from Deutsche Bank and lends it to Séan (making money on the difference between the interest rate paid to Deutsche Bank and that and charged to Séan) who pays Helga for the car. The flow of €50,000 from the Central Bank of Ireland to the Bundesbank for the car is exactly offset by a flow of €50,000 from the Bundesbank to the Central Bank of Ireland for the loan.

Inter -Country Payments under the ECB's Target System

The preceding paragraphs described the nature of the usual *bilateral* flows that take place between national central banks in response to movements between their respective countries in goods, services, and assets. However, a slightly different system of inter-country payments exists for countries within EMU: payments do not take place bilaterally (say, between the Central Bank of Ireland and the Bundesbank) but through the ECB. Thus, in the above example, the Central Bank of Ireland transfers €50,000 to the ECB which then transfers the amount to the Bundesbank. In the process, ECB claims against the Central Bank of Ireland, and Bundesbank claims against the ECB, simultaneously increase by €50,000 without any direct involvement between the two national central banks: the Central Bank of Ireland owes €50,000 to the ECB *and not to the Bundesbank*; the Bundesbank is owed €50,000 by the ECB and *not by the Central Bank of Ireland*.[94] Under this system, (*Trans-European Automated Real-Time Gross Settlement Express Transfer* - TARGET) national balances with the ECB continually increase or decrease according to their net borrowing and lending.

[94] It is worth emphasising this point because it has been the subject of some controversy. The Bundesbank, as the system's largest creditor, has a TARGET balance of €320 billion with the ECB while the Central Bank of Ireland and the Bank of Greece, as the system's largest debtors, have TARGET liabilities with the ECB of, respectively, €146 billion and €87 billion. It would be wrong, however to interpret these amounts as debts owed to the Bundesbank by the two debtor national central banks.

While, on the face of it, TARGET is nothing more than a payments system, its power as a means of supporting EMU - and, indeed, ensuring its existence - was revealed when the economic situation in Europe began to unravel in 2008. The moment of crisis occurred when, as in Ireland in 2008, overseas banks were unwilling to roll over their credit and began to demand payment on outstanding amounts. At this stage, banks in the deficit countries - with illiquid assets whose prices were falling - faced collapse and this, in turn, triggered a withdrawal of deposits and pushed the national banking system further towards the cliff edge of bankruptcy.[95] Now, instead of the outflow resulting from the current account deficit being matched by an inflow of short-term capital (€50,000 outflow from Ireland, through Séan's purchase of a car from Helga, being offset by an inflow of €50,000 into Ireland resulting from the Deutsche Bank loan to Allied Irish), there was an outflow of funds under three headings:

1. The deficit on the current account of the balance of payments: €1.4 billion for Ireland and €32.1 billion for Greece in 2010.[96]
2. The withdrawal of deposits from the banking system: €110 billion in Ireland[97] and €16.1 billion in Greece in 2010.[98]
3. Foreign banks withdrawing their lending from peripheral countries and bringing the money home: €7.2 billion in Ireland between 2007 and 2010.[99]

The fact that the imbalances caused by these large outflows could persist is because the *only* consequence for the deficit countries was that their debit balances with the ECB increased and this was matched by a corresponding increase in the credit balances of the surplus countries with the ECB. Such imbalances could not persist for stand-alone countries whose central banks engaged in a bilateral settlement of accounts through the appropriate transfer of gold and foreign exchange reserves: the depletion of reserves would quickly lead to bank failure and government default. The TARGET system is, therefore, more than just a payment system - by taking the bilateral settlement of accounts between national central banks out of the equation it is, in effect, *central bank funding of external deficits*. Indeed, as Sinn and Wollmerahäuser (2011) observe, the TARGET system is comparable to "a special form of jointly and proportionately guaranteed Eurobonds to finance credit to the peripheral countries that are sold by a central European institution to the German state for whose acquisition the German state borrows from the capital market" (p. 2).

The Bail-Outs

Table 4.1 shows that up to 2007 there was little suggestion of a sovereign debt crisis in Europe much less that it was a problem peculiar to Greece, Ireland, Spain and Portugal. Apart from Greece, with a 2007 deficit which was 6.4% of its GDP, the countries running

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[95] The critical point is that that banking difficulties open up the prospect that euros in the deficit countries (say, Ireland) are worth less than euros in the surplus countries (say, Germany).
[96] OCED *Economic Outlook*, May 2011.
[97] Laura Noonan, "Banks lose over 40 billion a month in deposits flight", The Irish Independent, 2 February 2011, http://www.independent.ie/business/irish/banks-lose-40bn-over-a-month-in-deposits-flight-2520899.html, accessed 10 March 2012.
[98] http://economicsintelligence.com/2011/06/06/the-stealth-bailout-that-doesn%E2%80%99t-exist-debunking-hans-werner-sinn, accessed 10 March 2012.
[99] http://www.iiea.com/blogosphere/professor-sinn-misses-the-target, accessed 10 March 2012.

deficits satisfied the Maastricht and SGP upper limit of 3%[100] and, indeed, several countries (including today's "problem" countries, Ireland and Spain) had budgetary surpluses. In terms of the debt to GDP ratio, it was Greece, with a government debt that was 105% of GDP in 2007, which was again the outlier. In the other "peripheral" countries, debt as a percentage of GDP in 2007 was 25% in Ireland, 36% in Spain, and 68% in Portugal in comparison to the percentages (in today's fiscal hawk countries) of 65% in Germany, 64% in France, 45% in Netherlands, and 35% in Finland. By 2009, however, the situation regarding public finances in the peripheral countries had changed dramatically with Greece running a deficit of 15% of GDP, Ireland of 14%, Spain of 11%, and Portugal of 10%. In consequence, by 2009 Greece's debt to GDP ratio had risen to 127%, Portugal's to 83%, Ireland's to 66%, and Spain's to 53%.[101]

So, what happened in the period between 2007 and 2009 that so altered the picture regarding sovereign debt? First, there was the global recession. The Irish economy, which grew by 5.6% in 2007, shrank by 7.6% in 2009; growth in Greece, Spain, and Portugal plunged from, respectively, 4.3%, 3.6%, and 2.4% in 2007 to -2%, -3.7% and -2.5% in 2009. Nor were other countries immune from the recession: Germany contracted by 3.9%, France by 2.6%, the Netherlands by 3.9%. This meant that in virtually every country in Europe tax revenues fell and, as the numbers in unemployment rose, government expenditure increased in response: in 2009, the German deficit was 3% of GDP (up from 0.3% surplus in 2007), the French deficit was 7.5% of GDP (up from a 2.7% deficit in 2007), and the Dutch deficit was 5.5% (up from a 0.2% surplus in 2007).

However, for a mix of reasons - one general, the other specific to the countries concerned - the recession hit government finances in Greece, Portugal, Ireland, and Spain particularly badly and required the first three of them to be bailed out by the Troika. The general reason is one that was discussed earlier: prior to the recession, all these countries were running large deficits on their balance of payments current account which were largely being financed by domestic banks borrowing from their counterparts in other euro area countries. In all four countries, culpability for running such deficits could be apportioned between their private and government sectors. In Ireland and Spain, the deficits were entirely the handiwork of the private sector with the Irish and Spanish governments running budget surpluses but in the presence of balance of payments current account deficits in the five year period leading up to, and including, 2007. In Greece and Portugal, culpability lay largely with government: the Greek and Portuguese budget deficits averaged 5.8% and 3.9% of GDP over 2002-06 compared to a current account deficit of, respectively, 11.8% and 8.9% of GDP. When the recession hit, overseas lenders were no longer prepared to roll-over their loans in the face of falling asset prices and, in conjunction with the existing current account deficit, this meant there was now a large outflow of funds from these countries. The fact that nervous depositors were also withdrawing their money from banks only compounded the problem and threatened the very existence of the banking sector in the peripheral countries.

[100] Protugal had a budgetary deficit of 3.1%.
[101] All figures from European Commission (2011).

The recession simply exacerbated the government deficits in Greece and Portugal. In Ireland, the debt crisis had its origins in the collapse of construction activity causing Irish GDP to decline by 3.5% in 2008 and by 7.6% in 2009. The problem was, as Whelan (2011) points out, that the Irish government had no room for creating a fiscal stimulus to ease the recession. In order to take advantage of its construction boom, the Irish government had altered its tax base to collect increasing amounts of revenue from property related taxes - stamp duties, capital gains tax, and capital acquisition tax - and decreasing amounts from taxes on income. When the housing bubble burst and construction activity collapsed to trigger the Irish recession, a substantial source of government revenue also disappeared (Whelan, 2011). Consequently, and notwithstanding the recession, the Irish government has been contracting its budget since November 2008 resulting in a cumulative reduction in the deficit of €20.8 billion, equivalent to a reduction of €4,600 per person. The large exposure of Irish banks to the property market meant that, in the wake of the construction collapse, international investors were no longer prepared to roll over their loans and Irish banks turned to their government for help. The government responded by assuming responsibility, for a period of two years from 30 September 2008, for all banking sector liabilities. In September 2010, it was estimated (the "final" estimate) that this guarantee would cost the government €30 billion (or €700 per person in Ireland) resulting in a government deficit that was nearly one-third of Irish GDP in 2010 and a government debt which was 96% of GDP (up from 25% of GDP in by 2007).

The problems with the Greek economy were much more fundamental and long-standing. Its private sector was highly uncompetitive, characterised by anti-competitive regulation and barriers to entry.[102] At the same time, successive governments had generated large expenditures in using the expansion of public sector employment, wages, and pensions as a major plank of electoral success. Overlaying these problems was widespread tax evasion with the EU estimating that uncollected tax revenue in Greece in 2006 amounted to 3.4% of its GDP (Featherstone, 2011).[103]

Portugal's problem was one of economic stagnation. Although the country had grown rapidly in the 1990s (its average annual growth rate over 1997-01 was 3.9% compared to the euro area average of 2.8%), growth had stalled after 2002, averaging only 0.7% between 2002 and 2006, compared to the euro area average of 1.7%. Moreover, the economic growth and optimism of the 1990s gave rise to economic imbalances and excessive spending which were difficult to sustain in years of stagnation. Portugal's loss of competitiveness engendered by rapid wage increases has dulled its appeal as a low-cost producer and competition from emerging East European countries has further damaged the ability of its industries to compete in international markets. Unlike Greece, however, the Portuguese government was assiduous in implementing austerity measures: the governing Socialists moved to cut the deficit while the new government, which came to power in the summer of 2011, has reduced

[102] On the World Bank's "Ease of Doing Business", Greece ranked outside the top 100 countries (World Bank, 2010).

[103] More anecdotally, the Greek Finance Ministry reported that in one of the wealthiest Athens suburbs, 90 out of 150 doctors claimed net annual incomes of less than €30,000

the government's budget deficit by more than one-third. And yet Portugal's government debt has climbed inexorably from 93% of GDP in 2010 to 107% in 2012.

The event that crystallised Greece's precarious finances in the minds of bond dealers and credit rating agencies, and precipitated its subsequent bail-out by the Troika, was the admission on 20 October 2009 by the newly appointed Greek Finance Minister, following his party's (*PASOK*) victory in the recently concluded general election, that the outgoing government's (of Costas Karamanlis' *New Democracy* party) claim that the government deficit was 3.6% of GDP was incorrect: it was, in fact, 12.8% of GDP (Featherstone, 2011).[104] This "duplicity", in conjunction with Greece's mounting debt, led rating agencies to downgrade Greek debt, beginning with Fitch downgrading Greece from A- to BB+ and culminating in Standard & Poor's judging on 27 April 2010 that Greek government bonds had no more than "junk status". In March 2009, Ireland's credit rating was downgraded from AAA to AA+ by Standard & Poor, then to AA- in August 2010, and to A in November 2010. In April 2010, Portugal's credit rating was downgraded from A+ to A- by Standard & Poor.[105] Table 4.5 shows Moody's ratings for the Euro Area countries on 15 March 2012.

Following on the heels of the credit downgrades was a sharp rise in the yields on government bonds of the affected countries. As Figure 4.3 shows, long-term interest rates in February 2012 were nearly 30% in Greece and close to 15% in Portugal; the Irish rate peaked at 12% in the previous year but, in spite of falling subsequently, it remained around 7%. The rise in bond yields made it impossible for governments in Greece, Portugal, and Ireland to meet their funding needs through the market. On 6 May 2010, the Greek Finance Minister announced to his Parliament:

> "In less than two weeks, a €9 billion bond becomes due and the state coffers don't have this money...as we speak the country can't borrow it from foreign markets and the only way to avoid bankruptcy is to get this money from our European partners and the IMF".[106]

Thus began the bailouts of three euro area countries - first Greece, then Ireland, and then Portugal. At first the governments of the euro area countries were slow to recognise the gravity of the events unfolding in Greece in the last quarter of 2009 beginning with the hole in government finances revealed on 18 November, proceeding to the debt downgrade on 8 December, and culminating in the rise in Greek government bond yields shortly thereafter. The initial response of the Finance Ministers in the 16-nation euro area (ECOFIN) after a meeting on 15 February 2010 was that Greece should address its problems by reducing its deficit, making very clear that they were ignoring Greece's appeals to switch the emphasis from new austerity measures to spelling out a rescue plan that would calm market fears of a

[104] Later revised to13.6% of GDP on 22 April 2010. In the past, too, Greece had massaged its deficit figures to meet the Maastricht criteria for EMU entry (Featherstone, 2008).
[105] http://en.citizendium.org/wiki/Eurozone_crisis/Timelines
[106] Featherstone (2011).

Greek default.[107] However, on 26 March 2010, following debt downgrades of Portugal and Ireland, Germany agreed to a rescue package for Greece and, on 23 April 2010, the Greek government requested that this package be activated with a loan of €45 billion in order to cover its financial needs till the end of 2010. On 1 May 2010, the Greek parliament passed a raft of austerity measures[108] and, in response, the very next day the euro area countries and the IMF agreed to the *first* bailout: a three year, €110 billion loan at 5.5% interest. On the day following this agreement, the ECB announced that Greek bonds, notwithstanding their junk status, would continue to be accepted by it as collateral.[109]

After the austerity measures of May 2010, Greece embarked on further austerity measures in June 2011 the most newsworthy of which was a tax on immovable property (expected to raise €4 billion in revenue) tied to the owners' electricity bills. This was followed by another austerity package in February 2012 which imposed a 22% cut in the minimum wage, planned to eliminate 150,000 public sector jobs by 2015, and decreed that formerly closed professions should be opened up to competition. Coming on the heels of the February austerity package was a *second* bailout programme worth €130 billion but with stricter conditions. The main condition, which has now been implemented, was a *debt swap* agreement under which holders of Greek government bonds *issued under Greek law* - which comprise 92% of outstanding Greek bonds - would voluntarily swap their existing bonds for bonds of longer maturity and, thereby, erase nearly €107 billion from the Greek debt.[110] These conditions, in conjunction with the earlier austerity measures, are expected to bring the Greek government's debt down to 120% of GDP by 2020.

Ireland's problems came to a head in 2010. After the government's underwriting of banking liabilities, Irish banks had been able to raise money through government backed bonds. But, as the date for the expiry of this guarantee approached, banks, faced with the prospect that government cover might not be extended, found it difficult to raise funds on money markets and, increasingly, began borrowing from the ECB (€36 billion in April 2010, €50 billion in August, and €74 billion in September). However, here they faced the problem of not having sufficient eligible collateral to offer the ECB. In order to maintain the liquidity of Irish banks, the ECB allowed the Central Bank of Ireland to make "emergency liquidity assistance" (ELA). The ELA allowed the Central Bank of Ireland to continue giving banks money, even if they had run out of ECB-eligible collateral; ELA carried a higher interest rate, reflecting the lower quality of collateral being advanced, *and was 'explicitly' guaranteed by the State*. This guarantee was provided by the State issuing bonds and selling them to its banks that then use them as collateral to borrow money from the ECB.[111] The fact that the

[107] Financial Times, 16 February 2010, http://www.ft.com/cms/s/0/6e64a54c-1a9a-11df-bef7-00144feab49a.html#axzz1pYT8wOXZ
[108] This was Greece's third (and most comprehensive) austerity package following those of February and March 2010. Taken collectively, they involved a cut in the bonuses and salaries of public sector employees, a rise in taxes (VAT, property tax), a rise in the average retirement age of public sector workers from 61 to 65.
[109] The €110 billion was meant to cover €30 billion for the rest of 2010 and €40 billion each for 2011 and 2012.
[110] This was undertaken under a *collective action clause* whereby the swap was mandatory for all bond holders if a specified proportion agreed to it; in the end, the acceptance rate was 85.8%.
[111] The Irish government issued €31 billion worth of "promissory notes" as collateral for loans taken by Anglo Irish bank from the ECB.

Irish government, through ELA guarantees, was propping up a banking system which was increasingly looking *insolvent* rather than simply *illiquid* raised fears about sovereign default which, in turn, raised bond yields on Irish government debt quite substantially (See Figure 4.4) effectively shutting the government out of the bond market.[112]

On 29 November 2010, the Irish government reached a bailout agreement with the EU, the IMF and three countries (the UK, Denmark, and Sweden) under which it would receive a loan of €67.5 billion which, together with €17.5 billion from the government's pension reserve fund, would amount to a bailout fund of €85 billion. This loan was provided subject to a number of conditions, the most important of which was that the Irish government would address the problems of the banking sector which had already toppled a government (that of Brian Cowen's Fianna Fail) and had threatened to engulf the State. It would do this by providing funds to recapitalise its banks (except Anglo Irish and Irish Nationwide Building Society which were to be wound down) to the full extent required by the results of a round of bank "stress tests" conducted in March 2011. This amount turned out to be nearly €70 billion in total.

On 7 April 2011, Portugal put in a formal request for EU-IMF aid after the yield on the country's 10-year bonds rose to 8.59% and the Portuguese banking sector let it be known that it would not be prepared to continue purchasing its sovereign's debt; on 5 May 2011 Portugal received a bailout of €78 billion of which €12 billion was offered to its banks to enable them to raise their Tier 1 capital ratios to 9% in 2011 and to 10% by the end of 2012. In exchange, Portugal - which had not had a balanced budget in more than 30 years - was to reduce its persistent deficit through spending cuts, higher taxes, and privatisation which was to include its national airline TAP and its power companies *Energias de Portugal SA* and *Redes Energeticas Nacionais SGPS*.[113]

Epilogue

Notwithstanding these bailouts, the markets' assault on Ireland and Portugal continued. There were further ratings downgrades of Ireland and Portugal centring on (a) whether subsequent bailouts would be necessary for these two countries and (b) if so, whether this time private investors would, like they did in Greece, have to take a loss on their loans to the Irish and Portuguese governments.[114] On 5 July 2011, Moody's cut the status of long-term Portuguese bonds to Ba2 from Baa1 (bond ratings below Baa are colloquially termed "junk bonds") citing two reasons:[115]

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[112] On 11 November 2010, the spread between the yield on a 10-year Irish government bond and its German equivalent reached its highest point since the euro was created, to 6.65 percentage points.

[113] Patricia Kowsmann, "Portugal Bailout Plan Detailed", The Wall Street Journal, 5 May 2011, http://online.wsj.com/article/SB10001424052748703937104576302883922114642.html

[114] At Deauville, in October 2010, Mrs Merkel and Mr Sarkozy wanted debt default to become a possibility. Current debt would be safe but, from 2013, countries should issue new types of bonds on which they might default if they ran into trouble (Charlemagne, *The Economist*, July 14, 2011).

[115] John McDermott, "Moody's downgrades Portugal", http://ftalphaville.ft.com/blog/2011/07/05/613516/moodys-downgrades-portugal-on-greece-fears/

1. The growing risk that Portugal would require a second round of official financing before it could return to the private market and the increasing possibility that private sector creditor participation would be required as a pre-condition for a second bailout.
2. Heightened concerns that Portugal would not be able to fully achieve the deficit reduction and debt stabilisation targets set out in its loan agreement with the European Union (EU) and International Monetary Fund (IMF) due to the formidable challenges it faced in respect of reducing spending, increasing tax compliance, achieving economic growth and supporting the banking system.

On 14 July 2011, Moody's cut the status of the government-guaranteed debt of Ireland's five banks from Baa3 to Ba1, its lowest investment grade level, citing reasons similar to those for downgrading Portuguese debt: "to reflect the growing possibility that, following the end of the current EU/IMF support programme at year-end 2013, Ireland is likely to need further rounds of official financing before it can return to the private market, and the increasing possibility that private sector creditor participation will be required as a precondition for such additional support, in line with recent EU government proposals".[116]

The problem is that for *fiscal sustainability* - that is, to arrive at a situation in which government debt as a proportion of national income stabilises, even before it starts to fall, a government needs to generate a *primary* surplus or, at least reduce its *primary* deficit.[117] A general rule of thumb for fiscal sustainability is that a country must run a primary surplus which, expressed as a proportion of its GDP, is equal to [the interest rate it pays on debt less growth rate in its GDP] × its debt to GDP ratio.[118]

In 2011, Ireland had general government debt (as a percentage of income) of 112% ($b_{2011}=1.12$), growth rate in real GDP of 0.6% ($g=0.006$). If the interest rate is taken as the average yield on 10-year Irish government bonds from 1991-2012, which was 5.77% ($r=0.058$), then, under this scenario, the *primary surplus* needed to stabilise debt at 112% of GDP is, as a percentage of GDP, 5.8%.[119] However, in the same year, Ireland had a primary deficit of 6.8% which meant that it had a *primary gap* (which is the difference between the primary stance needed for fiscal sustainability and its actual primary stance) of 0.058-(-0.068) =0.126, that is, 12.6% of GDP.

Similarly, in 2011, Portugal had general government debt (as a percentage of income) of 101.7% ($b_{2011}=1.017$), growth rate in real GDP of -2.2% ($g=-0.022$). If the interest rate is taken as the average yield on 10-year Portuguese government bonds from 1997-2012, which was 4.88% ($r=0.049$) then, under this scenario, the primary surplus needed to stabilise debt at

[116] John McDermott, "Moody's downgrades Ireland to Ba1 from Baa3", http://ftalphaville.ft.com/blog/2011/07/12/620191/moodys-downgrades-ireland-to-ba1-from-baa3/

[117] A primary deficit is the excess of expenditure over revenue before taking into account interest payments on existing debt.

[118] See the Appendix to this chapter for details. The interest rate and the growth rate could be cast in nominal terms or in "real terms" (that is, after subtracting the inflation rate from both the nominal rates).

[119] $p^*_{IRL} = [0.058 - (0.006)] \times 1.12 = 0.058$

101.7% of GDP is, as a percentage of GDP, 7.1%.[120] However, in the same year, Portugal had a primary deficit of 1.7% which meant that it had a primary gap of 0.071-(-0.017) =0.088, that is, 8.8% of GDP.

The European Commission (2011b) computed the improvements that each country would have to make till 2020 in their respective primary balances, *given their fiscal positions in 2010*, in order to achieve a 60% debt-GDP ratio by 2030. On these calculations (shown in Table 4.6), Ireland would have to make the largest fiscal adjustment, amounting to a cumulative primary balance improvement, between 2010 and 2020, of 16.8% of its GDP; Greece would have to undertake the next largest adjustment amounting to a cumulative improvement in its primary balance of 12.7% of GDP. At the other end of the adjustment spectrum, Finland and Estonia would have to make the smallest adjustments of, respectively, 0.4% and 0.8% of GDP. What is significant about Table 4.6 is that even today's fiscal hawks - Germany, Netherlands, and France - would have to make large improvements in their primary balance between their 2010 position and 2020 if they were to meet by 2030 the SGP requirement of a 60% debt-GDP ratio.

On the assumption that the interest rate is exogenously given, either or both of two things must occur to close the primary gap: the growth rate in GDP must rise so that the primary surplus *needed for fiscal sustainability* (p_t^*) falls and the primary deficit ($-p_t$) must be reduced and, if possible, converted into a surplus. Portugal has the advantage over Ireland in having a lower primary deficit as a percentage of GDP (1.7% in Portugal compared to 6.8% in Ireland) but Ireland has the advantage over Portugal in having better growth prospects implying that it would require a smaller primary surplus for fiscal sustainability. Lying at the heart of these outcomes is, of course, the tension between policies that promote growth and those that impose austerity: growth requires *inter alia* demand for goods and services and this is precisely what austerity seeks to take out of the conomy.

But, regardless of how debt reduction is achieved, governments for several reasons need to take action to control their primary deficits. First, there is the issue of *repayment credibility*. If the rate of interest exceeds the growth rate, the debt to income ratio will rise over time, unless action is taken to generate the primary surplus appropriate to fiscal sustainability. If such action is not taken then investors in the country's debt upon observing a sustained rise in this ratio will begin to entertain doubts about its ability to repay. Interest rates will rise, the gap between the interest rate and the growth rate will widen, and the debt to income ratio will rise at a faster rate.

The second issue is one of *crowding* out. The rise in interest rates will crowd out private sector activity as demand by consumers and firms for goods and services (consumer durables, houses, investment goods) are stifled. This will reduce the rate of economic growth. The third issue is the *recessionary effect*. As growth in the economy slows, non-discretionary public expenditure will rise and tax revenues will fall. The primary balance will deteriorate

[120] $p_{PT}^* = [0.048 - (-0.022)] \times 1.017 = 0.071$

(smaller primary surplus or larger primary deficit), the primary gap will widen and the debt to income ratio will rise.

Thirdly, there is the *interdependency effect*. The interest rate that investors demand to hold a country's debt is not independent of its growth performance. When growth is strong, a country's economic fundamentals are viewed as sound. Investors have confidence in the country's ability to repay and the interest rate is also low. However, if growth is weak - especially if it is viewed as being the result of structural factors - investors' lack of confidence in the country's ability to repay might result in a high interest rate causing the interest rate-growth rate to widen and the debt to income ratio to rise.

Lastly, there is the *political effect*. A significant feature of the present crisis is the power of "the market" to topple governments. In Ireland, Brian Cowen's Fianna Fail government was voted out in the general election following the Irish bailout. In Greece, the Socialist Prime Minister George Papandreou resigned in November 2011, as a result of his failed attempt to hold a referendum on the terms of bail-out negotiated with the EU, and was replaced by Lucas Papa demos, a technocrat heading a grand coalition government. In the latest Greek Election of June 2012, the opposition party New Democracy formed the government with Antonis Samaras as Prime Minister. In Portugal, Prime Minister Jose Socrates of the Socialist party lost the elections of June 2011 and was replaced by the right-wing coalition of the Social Democrats and the People’s Party headed by Pedro Passos Coelho. The incumbent president of France, Nicholas Sarkozy, lost the Presidential elections of May 2012 and was replaced the Socialist Francois Hollande. The political lesson is that any government which - rightly or wrongly, for good reasons or for bad - ignores the precepts of "good housekeeping", by allowing its finances to slide into deficit, risks death at the hands of the market. For within the straitjacket of the European Monetary Union, this godlike creature - the Minotaur of modern times - has become both the economic and the political master of smaller countries and needs to be propitiated through regular affirmations of fiscal austerity.

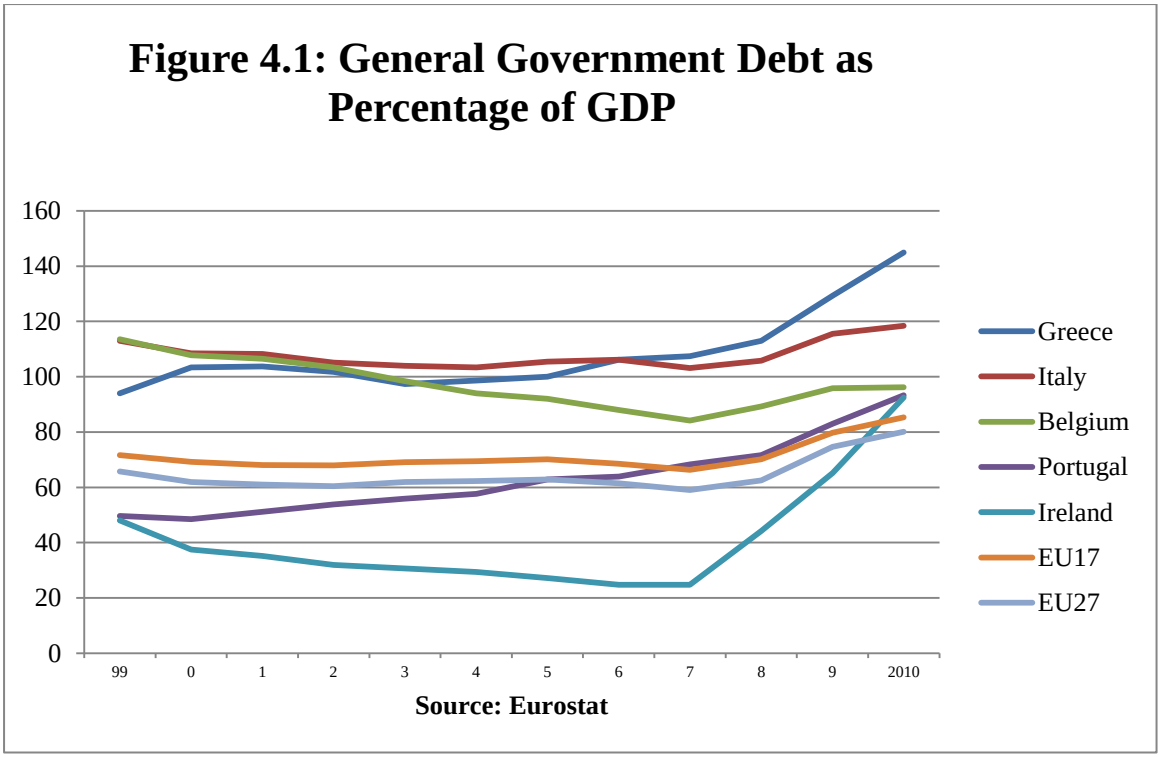
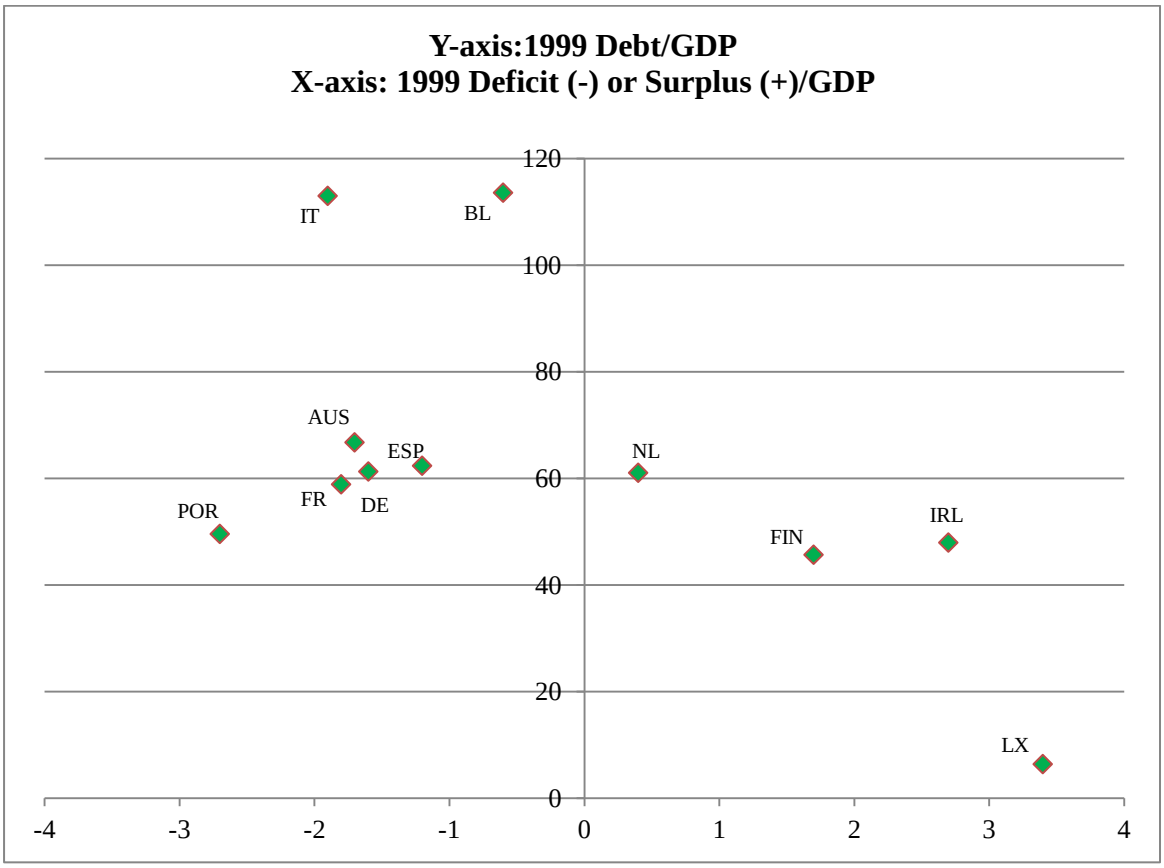


Table 4.1: General Government Balance as Percent of GDP

	2006		2007		2008		2009		2010		2011	
	OV	PM	OV	PM	OV	PM	OV	PM	OV	PM	OV	PM
Greece	-6.1	-1.5	-6.7	-2.0	-9.8	-4.8	-15.5	-10.3	-10.4	-4.9	-8.0	-1.3
Ireland	2.9	3.9	0.1	0.8	-7.3	-6.5	-14.2	-12.4	-32.0	-28.9	-10.3	-6.8
Portugal	-0.4	2.2	-3.1	-0.4	-3.5	-0.7	-10.1	-7.4	-9.1	-6.3	-5.9	-1.9
Italy	-3.3	1.1	-1.5	3.3	-2.7	2.2	-5.3	-1.0	-4.5	-0.3	-4.0	0.5
Spain	2.0	3.3	1.9	3.0	-4.1	-3.1	-11.1	-9.9	-9.2	-7.8	-6.1	-4.4
UK	-2.6	-1.1	-2.7	-1.1	-4.9	-3.3	-10.3	-8.5	-10.2	-7.7	-8.5	-5.6
USA	-2.0	-0.1	-2.7	-0.7	-6.5	-4.5	-12.8	-10.9	-10.3	-8.4	-9.6	-8.0

OV is overall balance, including all expenditure; **PM** is primary balance defined as overall balance less interest payments
Source: IMF, *Fiscal Monitor*, September 2011, Statistical Tables 1 and 2.

Figure 4.2: Deficit and Debt Ratios of EMU Countries in 1999



Source: Eurostat databank

Figure 4.3: Deficit and Debt Ratios of EMU Countries in 2010

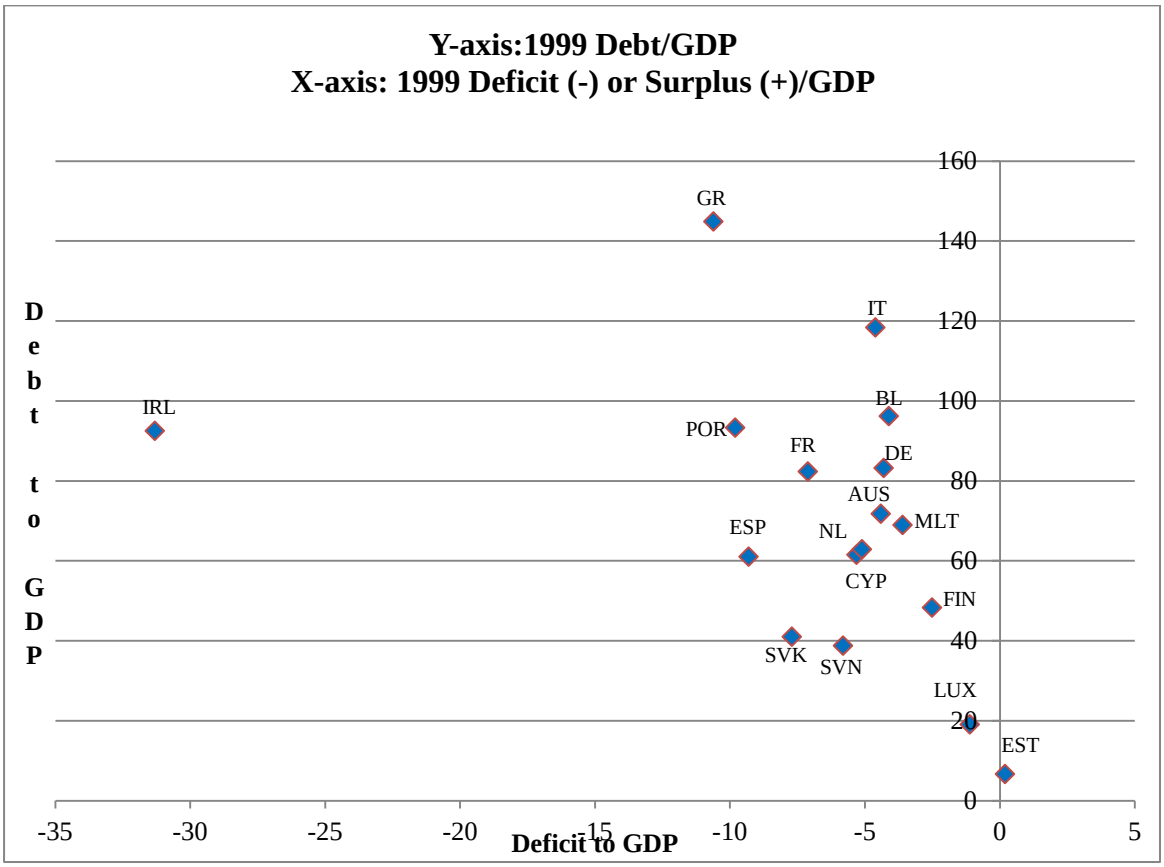


Table 4.2: Yields on 10-year government bonds (%)

Belgium	Greece	Ireland	Italy	Portugal	Germany	UK	France	USA
4.63	35.24	8.21	5.48	12.77	1.88	2.07	2.95	1.98

Source: www.tradingeconomics.com

Table 4.3: Financial Penalties under the Excess Deficit Procedure

Size of Deficit as % of GDP	Amount of Fine as % of GDP
3	**0.2**
4	**0.3**
5	**0.4**
6+	**0.5**

Source: Baldwin and Wyplosz (2009, p.536)

Table 4.4: Private, Government, and External Borrowing in Selected Countries as Percentage of GDP

	2002-06			2006			2007			2008			2009			2010		
	OV	PV	GV	OV	PV	GV	OV	PV	GV	OV	PV	GV	OV	PV	GV	OV	PV	GV
Belgium	4.5	5.1	-0.6	3.4	3.3	0.1	3.9	4.2	-0.3	1.1	2.4	-1.3	2.0	7.9	-5.9	2.4	6.5	-4.1
Germany	4.2	7.5	-3.3	6.6	8.2	-1.6	7.6	7.3	0.3	6.7	6.6	0.1	5.0	8.0	-3.0	5.1	8.4	-3.3
Estonia	-11.8	-13.3	1.5	-15.7	-18.1	2.4	-17.2	-19.7	2.5	-8.8	-6.0	-2.8	4.5	6.2	-1.7	2.8	2.7	0.1
Ireland	-1.3	-2.5	1.2	-3.7	--6.6	2.9	-5.5	-5.6	0.1	-5.6	1.7	-7.3	-3.1	11.2	-14.3	-0.7	31.7	-32.4
Greece	-11.8	-6.0	-5.8	-12.7	-7.0	-5.7	-15.6	-9.2	-6.4	-16.3	-6.5	-9.8	-14.0	1.4	-15.4	-11.8	-1.3	-10.5
Spain	-6.0	-6.4	0.4	-9.0	-11.0	2.0	-10.0	-11.9	1.9	-9.6	-5.4	-4.2	-5.5	5.6	-11.1	-4.5	4.7	-9.2
France	-0.6	2.6	-3.2	-1.8	0.5	-2.3	-2.2	0.5	-2.7	-2.7	2.6	-3.3	-2.9	4.6	-7.5	-3.5	3.5	-7.0
Italy	-1.0	2.5	-3.5	-2.0	1.4	-3.4	-1.8	-0.3	-1.5	-3.2	-0.5	-2.7	-3.0	2.4	-5.4	-4.2	0.4	-4.6
Luxembourg	10.5	9.9	0.6	10.4	9.0	1.4	10.1	6.4	3.7	5.3	2.3	3.0	6.9	7.8	-0.9	7.8	9.5	-1.7
Netherlands	7.5	8.8	-1.3	9.0	8.5	0.5	8.4	8.2	0.2	4.8	4.2	0.6	3.4	8.9	-5.5	6.7	12.1	-5.4
Austria	2.4	4.4	-2.0	3.3	4.9	-1.6	4.0	4.9	-0.9	3.7	4.6	-0.9	2.6	6.7	-4.1	2.6	8.2	-4.6
Portugal	-8.9	-5.0	-3.9	-10.8	-6.7	-4.1	-10.2	-7.1	-3.1	-12.6	9.1	-3.5	-10.7	-0.6	-10.1	-9.8	-0.7	-9.1
Finland	5.6	2.5	3.1	4.6	0.6	4.0	4.2	-1.0	5.2	2.9	-1.3	4.2	2.2	4.8	-2.6	3.0	8.5	-2.5
Euro Area	0.5	3.0	-2.5	0.3	1.7	-1.4	0.2	0.9	-0.7	-0.8	1.2	-2.0	-0.6	5.7	-6.3	-0.4	5.6	-6.0
Denmark	3.3	0.7	2.6	3.0	-2.2	5.2	1.4	-3.4	4.8	2.7	-0.5	3.2	3.6	6.3	-2.7	5.3	8.0	-2.7
Latvia	-12.5	-11.3	-1.2	-22.5	-22.0	-0.5	-22.3	-22.0	-0.3	-13.1	-8.9	-4.2	8.6	18.3	-9.7	3.6	11.3	-7.7
Lithuania	-7.4	-6.3	-1.1	-10.4	-10.0	-0.4	-15.1	-14.1	-1.0	-13.1	-9.8	-3.3	2.6	12.1	-9.5	1.8	8.9	-7.1
Sweden	6.7	6.1	0.6	7.9	5.6	2.3	8.6	5.0	3.6	8.9	6.7	2.2	6.8	7.5	-0.7	6.2	6.2	0.0
UK	-2.3	0.7	-3.0	-3.4	-0.7	-2.7	-2.6	0.1	-2.7	-1.6	3.4	-5.0	-1.7	9.7	-11.4	-2.5	7.9	-10.4
USA	-5.2	-1.5	-3.7	-6.0	-4.0	-2.0	-5.1	-2.3	-2.8	-4.7	1.5	-6.2	-2.7	8.5	-11.2	-3.3	7.9	-11.2

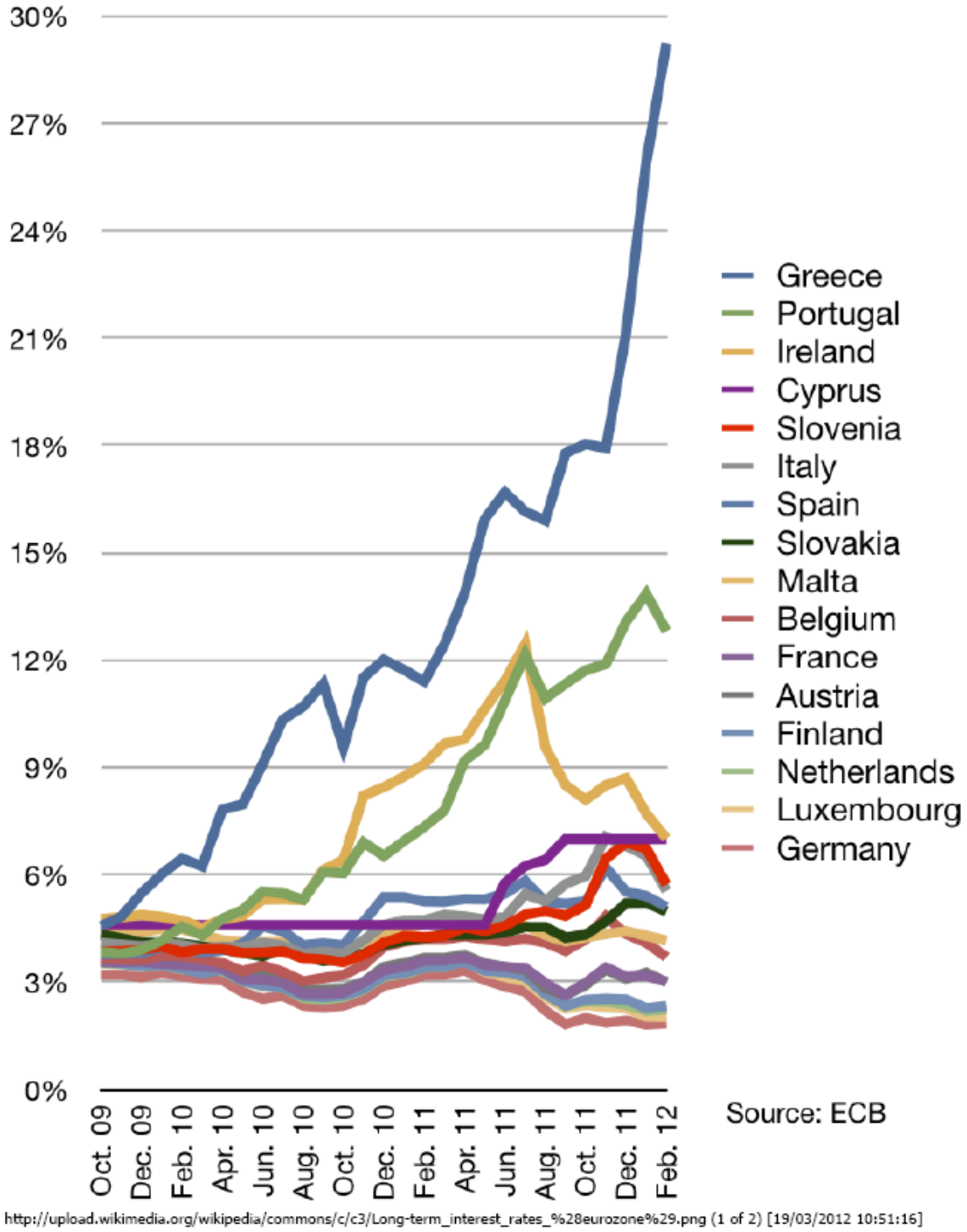
OV is current account balance as a percentage of GDP - it represents a country's overseas borrowing (-)/lending (+)
PV is private borrowing (-)/lending (+): it is the difference between private saving and investment
GV is the general government deficit (-)/surplus (+) as a percentage of GDP
Source: European Commission (2011a)

Table 4.5: Credit Ratings of Selected Countries

	Moody's Rating
Belgium	Aa1
Germany	Aaa
Estonia	A1
Ireland	Ba1
Greece	C
Spain	A3
France	Aaa
Italy	A3
Luxembourg	Aaa
Netherlands	Aaa
Austria	Aaa
Portugal	Ba3
Finland	Aaa
Denmark	Aaa
Latvia	Baa3
Lithuania	Baa1
Sweden	Aaa
UK	Aaa
USA	Aaa

Red: junk; Green: under observation; Blue: top-notch
Source: http://www.guardian.co.uk/news/datablog/2010/apr/30/credit-ratings-country-fitch-moodys-standard#data

Figure 4.4: Long Term Interest Rates of Euro Area Countries*



*Secondary market yields of government bonds with maturities close to 10 years

Source: *Wikipedia*, http://en.wikipedia.org/wiki/European_sovereign-debt_crisis

Table 4.6: Cumulative Improvement in the Primary Balance Required Between 2010-2020 to meet 60% debt-GDP ratio by 2030

Country	Adjustment as % of GDP
Finland	**0.4**
Estonia	**0.8**
Luxembourg	**0.9**
Cyprus	**4.0**
Slovakia	**4.3**
Germany	**4.7**
Belgium	**5.1**
Austria	**5.2**
Netherlands	**5.6**
Italy	**5.8**
France	**6.0**
Spain	**6.7**
Portugal	**7.5**
Slovenia	**7.5**
Malta	**7.8**
Greece	**12.7**
Ireland	**16.8**
Euro17	***5.8***

Source: European Commission (2011b) and Schmieding (2011)

Appendix
The Relationship between Government Deficits and Government Debt

Both the Maastricht treaty and the Stability and Growth Pact place emphasis on outcomes regarding government deficits (a ceiling of 3% of GDP) and government debt (a ceiling of 60% of GDP). Quite obviously, the two entities are not independent of each other: common sense tells us that a succession of deficits/surpluses would result in a build up/run down of debt. However, underlying the obvious link between deficits and debt, there is a more complex relation between deficits and debt which is explored in this Appendix.

If D_t is the deficit during period *t*, B_t is the stock of debt (in nominal terms) at the end of period *t*, Y_t is *nominal* GDP in period *t* and g_t the growth rate of *nominal* GDP in period *t* (that is, $Y_t = [1+g_t]Y_{t-1}$), then:

$$\begin{aligned} & B_t - B_{t-1} = D_t \Rightarrow \frac{B_t}{Y_t} - \frac{B_{t-1}}{Y_t} = \frac{D_t}{Y_t} \\ & \Rightarrow \frac{B_t}{Y_t} - \frac{B_{t-1}}{Y_{t-1}}\frac{Y_{t-1}}{Y_t} = d_t \Rightarrow b_t - \frac{b_{t-1}}{(1+g_t)} = d_t \\ & \Rightarrow b_t - b_{t-1} = (1+g_t)d_t - g_t b_t \end{aligned} \tag{3}$$

If the debt to GDP ratio is to remain constant over time (*fiscal sustainability*) so that $b_t = b_{t-1}$ we have from equation (3):

$$d_t = \frac{g_t}{1+g_t} b_t \tag{4}$$

where: $d_t = \frac{D_t}{Y_t}$ is the deficit to GDP ratio and $b_t = \frac{B_t}{Y_t}$ is the debt to GDP ratio.[121]

The implications of the above relationship are drawn out by Baldwin and Wyplosz (2009). Under the Maastricht Treaty, $d_t=3\%$ and $B_t=60\%$ implying that the two conditions will be approximately satisfied if nominal GDP grows at 5% annually or, equivalently, if real GDP grows at 3% and the inflation rate is 2%. Nominal GDP growing at 7% (say, 5% real growth, 2% inflation) will allow a higher deficit to GDP ratio of 4%, while maintaining a debt to GDP ratio of 60%. Conversely, a 3% deficit, combined with 7% nominal growth would see the debt to GDP ratio fall to 46%.

---

[121] $B_t - B_{t-1} = D_t \Rightarrow \frac{B_t}{Y_t} - \frac{B_{t-1}}{Y_t} = \frac{D_t}{Y_t} \Rightarrow \frac{B_t}{Y_t} - \frac{B_{t-1}}{Y_{t-1}}\frac{Y_{t-1}}{Y_t} = d_t \Rightarrow b_t - \frac{b_{t-1}}{(1+g_t)} = d_t \Rightarrow b_t - b_{t-1} = (1+g_t)d_t - g_t b_t$. If the debt to GDP ratio is to remain constant, $b_t - b_{t-1} = 0 \Rightarrow (1+gt)d_t = g_t b_t \Rightarrow d_t = \frac{g_t}{(1+g_t)} b_t$

The government deficit, D_t, can be separated into a part which represents *interest payments* on past debt ($i_t B_{t-1}$, for a *nominal* rate of interest r_t) and the *primary surplus* ($P_t = T_t - G_t$, where T_t is tax revenue and G_t is public expenditure in year t) such that:

$$D_t = i_t B_{t-1} - (T_t - G_t) \tag{5}$$

With this distinction between interest debt and primary debt, the relation between the debt to GDP ratios in two successive time for a primary balance to GDP ratio, p_t, is (dropping subscripts for i and g, for ease of presentation):

$$B_t = B_{t-1} + iB_{t-1} - (T_t - G_t) = (1+i)B_{t-1} - P_t \Rightarrow \frac{B_t}{Y_t} = \frac{(1+i)}{(1+g)}\frac{B_{t-1}}{Y_{t-1}} - \frac{P_t}{Y_t} \tag{6}$$

Since $\frac{1+i}{1+g} \simeq (1+i-g)$, we have:

$$b_t = (1+i-g)b_{t-1} - p_t \Rightarrow b_t - b_{t-1} = (i-g)b_{t-1} - p_t \tag{7}$$

Fiscal sustainability requires $b_t - b_{t-1} = 0$ so that, from equation (7):

$$p_t^* = \frac{P_t}{Y_t} = \frac{T_t - G_t}{Y_t} = (i-g)b_{t-1} \tag{8}$$

where p_t^* is the primary balance to GDP ratio which is consistent with fiscal sustainability. Equation (8) provides the general rule of thumb that, for fiscal sustainability: a country must run a primary surplus which, expressed as a proportion of its GDP, is equal to [its *nominal* interest rate less its growth rate in *nominal* GDP] × its debt to GDP ratio. If π is the inflation rate, then equation (8) may be rewritten as:

$$p_t^* = (i-g+\pi-\pi)b_{t-1} = [(i-\pi)-(g-\pi)]b_{t-1} = (r-s)b_{t-1} \tag{9}$$

where: r is the real rate of interest and s is the rate of growth of real GDP. Equation (9) provides the general rule of thumb that, for *fiscal sustainability*: a country must run a primary surplus which, expressed as a proportion of its GDP, is equal to [its *real* interest rate less its growth rate in *real* GDP] × its debt to GDP ratio.[122]

If the rate of interest equals the rate of growth (r=s), fiscal sustainability requires that the budget be balanced (G_t=T_t, or $p_t^* = 0$). If the rate of interest exceeds the rate of growth (r>s), fiscal sustainability requires a primary surplus (G_t<T_t, or $p_t^* > 0$), the required surplus being larger the greater the difference between the interest rate and the growth rate; if the growth rate in GDP exceeds the rate of interest (r<s), fiscal sustainability can be achieved

[122] If Q_t is the price level, and $Z_t = \frac{Y_t}{Q}$ is real GDP then: $Y_t = (1+g)Y_{t-1} \Rightarrow Z_t = (1+g)\frac{Q_{t-1}}{Q_t}Z_{t-1} = \frac{1+g}{1+\pi}Z_{t-1} = (1+g-\pi)Z_{t-1} = (1+s)Z_{t-1}$

with a primary deficit ($G_t > T_t$, or $p_t^* < 0$), the deficit being larger the greater the difference between the growth rate and the interest rate. The *primary gap* in a year is defined as the difference between p_t^* and p_t (the *actual* primary balance to income ratio) that is as: $(r-s)b_{t-1} - p_t = b_t - b_{t-1}$.

This relation in equation (7), which is $b_t = (1+r-s)b_{t-1} - p_t$, represents a first-order difference equation whose solution, for a constant primary balance to income ratio, is: [123]

$$b_T = (1+r-s)^T b_0 - p\left[\frac{1-(1+r-s)^T}{s-r}\right] \tag{10}$$

If, in equation (10), the interest rate exceeds the GDP growth rate ($r>s$) - as is most likely - then for a given initial debt to GDP ratio, b_0, the debt to GDP ratio will increase over time if the primary balance is in deficit ($p<0$) or, even, if it is in balance ($p=0$).[124] If the debt to GDP ratio is to stay at its initial value, b_0, then the country would need to generate every year, from year *0* to year *T*, adequate primary surpluses. The size of these surpluses (expressed as ratio of GDP), required to keep the debt to GDP ratio at its starting level, b_0, would be: $p^* = (r-s)b_0$.[125] The intuition behind this is that the initial debt to GDP ratio would grow every year at *r%* (the interest rate) but fall by *s%* (the growth in GDP) for a *net* growth rate of (*r-s)%*: in order to prevent this growth, the primary balance should, every year, offset this potential growth in the debt to income ratio.

In 2009 Greece had general government debt (as a percentage of income) of 127% ($b_{2009}=1.27$), a primary deficit (as a percentage of income) of 10.3% (p_{2009}=-0.103) growth rate in real GDP of -2% (g=-0.02).[126] If the interest rate is taken as the yield on 10-year Greek bonds in July 2009, then *r=5%*. Under this scenario, the primary surplus needed to stabilise debt at 127% of GDP is, as a percentage of GDP, 9%: in equation (4), $p_{GR}^* = [0.05-(0.02)]\times 1.27 = 0.07\times 1.27 = 0.09$.

However, in the same year, Greece had a primary deficit of 10.3% which meant that it had a *primary gap* of 0.09-(-0.103) = 0.193 which is 19.3% of GDP. With this information, equation (3) shows that Greek general government debt would be 146% of its GDP in 2010, 167% in 2011, and 189% in 2012:

[123] See preceding note. Constancy of *p* implies that, in each period, the primary balance P_t grows at the same rate as Y_t.

[124] Formally, $b_{T+j} > b_T$, for j>0.

[125] If $b_T = b_0$, then $\left[1-(1+r-s)^T\right]b_0 = -p\left[\frac{1-(1+r-s)^T}{s-r}\right] \Rightarrow p = (r-s)b_0$.

[126] Figures from European Commission (2011).

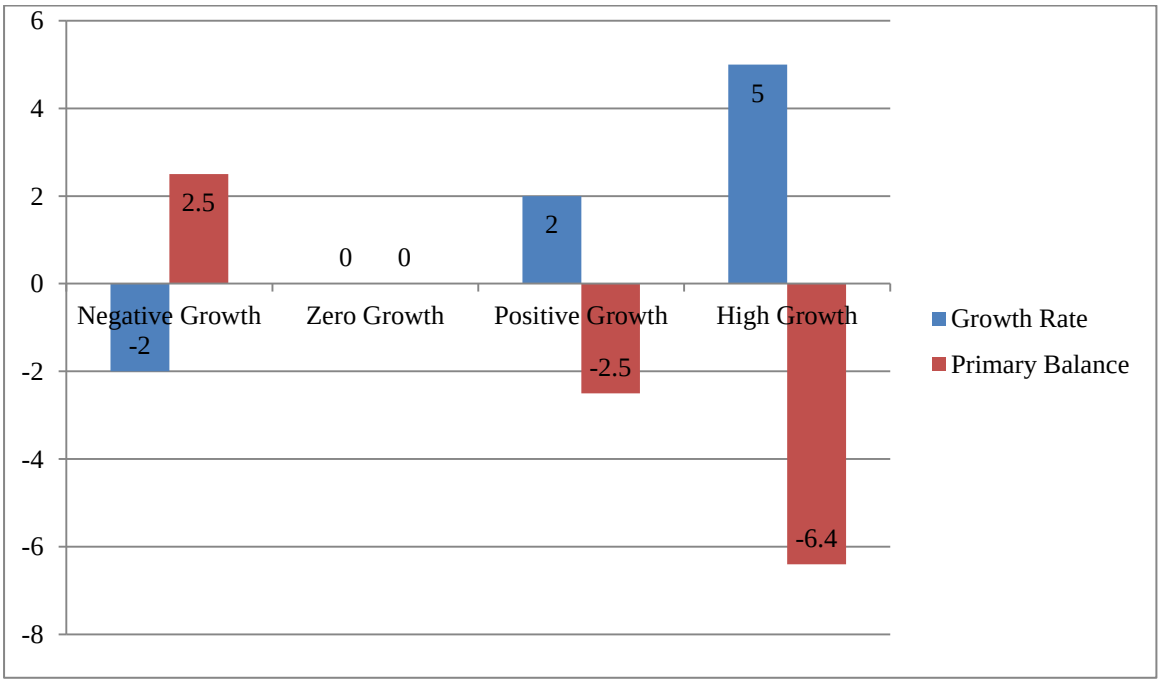
$$b_{2010} = 1.07 \times 1.27 + 0.103 = 1.46$$
$$b_{2011} = 1.07 \times 1.46 + 0.103 = 1.67$$
$$b_{2012} = 1.07 \times 1.67 + 0.103 = 1.89$$

On the assumption that the interest rate is exogenously given, either or both two things must occur to dampen this rise in the public debt to GDP ratio: the growth rate in GDP must rise and the primary deficit must be reduced and, if possible, converted into a surplus. To see the nature of the trade-off between the growth rate and the primary balance, suppose that the *target* debt-GDP ratio for 2010 is $b_t^* < 1.46$ (1.46 being the debt-GDP ratio that would occur under existing policies). Suppose, for the sake of simplicity, we assume that $b_{2010}^* = 1.05 \times 1.27 = 1.33$ that is, the target debt-GDP ratio for 2010 is the 2009 ratio grossed up for interest payments. Then from equation (3):

$$b_{2010}^* = (1 + 0.05 - g) \times 1.27 - p \Rightarrow b_{2010}^* - (1.05 \times 1.27) = -1.27g - p \Rightarrow p = -1.27g$$

under the simplifying assumption made about b_{2010}^*. Figure 4.5 shows various configurations of the growth rate and primary balance which can achieve the target debt-GDP ratio. When growth is negative (-2% per annum), maintaining $b_{2010}^* = 1.33$ requires a primary surplus which is 2.5% of GDP; zero growth requires a primary balance of zero; positive growth (+2%), permits a primary deficit of 2.5% of GDP; growth of 5% allows a primary deficit which is 6.4% of GDP.

Figure 4.5: Trade off Between Growth and Primary Balance to Achieve Desired Debt to GDP Ratio of 1.33 in Greece in 2010



Chapter 5
Austerity, Reform, and Hardship: Iphigenia at Aulis

The painter Eugène Delacroix (1798 –1863), leader of the French Romantic School famously remarked that "experience has two things to teach: the first is that we must correct a great deal and the second is that we must not correct too much". This injunction has relevance to the present European situation because the banking and the sovereign debt crises in the countries of the EU, particularly in some of the euro area countries, have unleashed a demand for the reform of structures (both at the national and the supra-national level) within the EU, and of relationships between its Member States. In seeking to correct the faults of the past lies the danger of correcting "too much". It is in this light that one must judge the pace and nature of reform which the economic and financial crisis in Europe has engendered.

Reform in the EU and within its countries has proceeded at two levels. The first is at the national level: here the pace of reform has been particularly marked among those countries which have received bailouts (Greece, Ireland, and Portugal) because these bailouts were given subject to the recipients undertaking certain tasks. In the case of Ireland, the most important of these tasks was to ensure that its banks were sufficiently capitalised to withstand future storms without external assistance and, equally importantly, that they refrained from the risk-taking behaviour that, in the past, had unleashed such storms. The Portuguese were tasked with reducing their budget deficit and strengthening their banks. The Greeks were required to undertake a much more comprehensive set of reforms than either the Irish or the Portuguese. Labour markets were to be reformed, pension arrangements were to be made less generous, public sector employment was to be reduced, the minimum wage was to be cut - in short, what was viewed from a Northern European perspective as a dysfunctional economy, with a bloated and wasteful public sector and restrictive labour practices, was sought to be transformed, within a short period of time, into something resembling a modern, competitive economy. Although the details of reform varied between the countries, their thrust has been to bring order and discipline to public finances through austerity and to reduce the nexus between banks and government which, in part, was responsible for the chaos in the finances of some countries.

At the supranational level there has been a concerted move to impose greater fiscal stringency on Member States and to increase the level of fiscal surveillance by the Commission on the budgets of the Member States. In pursuit of this, twenty-five European leaders signed the *Treaty of Stability, Coordination and Governance* on 2 March 2012 aimed at further strengthening fiscal discipline within the euro area by introducing the "balanced budget rule". This requires the national budget to be in *balance or in surplus*, a condition which would be satisfied if the annual *structural deficit* - the deficit that would exist even after the economy recovers its "normal" level of output - did not exceed 0.5% of GDP at market prices. Putting aside the question of how to measure this elusive concept,[127] the emphasis on structural deficit means that the focus of policy is to eliminate cyclical deficits rather than to control annual deficits. Moreover, this balanced budget rule needs to be

[127] See Martin Wolf, "The pain in Spain will test the euro", *Financial Times*, 7 March 2012.

incorporated into the legal systems of the member states and, preferably enshrined into the constitution. The EU Court of Justice will offer a binding decision as to whether a national government has adhered to this rule with breaches penalised by a fine of up to 0.1% of GDP.

The second component of reform at a supranational level has been to erect a firewall between the Member States and predatory bond markets when the latter refuse to supply the former with access to funds. Towards this end, the European Financial Stability Facility (EFSF) was set up in 2010 and assigned the responsibility of providing emergency financing to Member States till 2013. Thereafter, a more permanent fund, the European Stability Mechanism (ESM), was to be set up for this purpose.

Underpinning these supranational reforms has been a change in *attitude* within the EU. The *mantra* under the Maastricht Treaty and the Stability and Growth Pact was (Schuknecht *et. al*., 2011): *no bailout*, meaning that each Member State was solely and entirely responsible for its debts and this liability could not and would not be shared with other Member States; *no financing of government debt* by the ECB, meaning that while the ECB could lend to banks it could not directly finance government borrowing; *no privileged access to financial institutions* by a government, meaning that national banks could not be coerced into buying the debt of their governments. All these *shibboleths* have now been abandoned: countries are being bailed out by the Troika; permanent arrangements are being put in place to deal with future bailouts; and the ECB freely accepts government bonds as collateral for making loans to banks - no matter how fragile the state of a country's public finances - thereby enabling the backdoor financing of government deficits.

National Level Reform Measures

Reforms at the national level have taken two forms: measures to improve the prospects for growth by improving competiveness (*growth-enhancing* measures) and measures to improve the state of public finances by reducing expenditure and increasing revenue (*austerity-enhancing* measures). The question is about the appropriate mix of growth and austerity enhancing measures. Under certain conditions (for example, if home demand for domestically produced goods and services is an important component of GDP) there could be a significant trade-off between austerity and growth with more of the former implying less of the latter. As one commentator recently observed, "the problem is not so much that Greece has been unwilling to make sacrifices. It has made many. But Greece's budget numbers look bleak because its growth forecasts look bleak".[128]

The previous section made clear that in order to steady the debt-to-GDP ratio (that is, achieve *fiscal sustainability*) a country needed to improve its primary balance (through austerity-enhancing measures) and/or raise its growth rate (through growth-enhancing measures). The latter involves *inter alia* improving competitiveness, attracting foreign investment, releasing indigenous entrepreneurship, increasing human capital, fighting corruption, raising the quality of corporate and public governance, and making it easier to do business by reducing the amount of bureaucratic red tape in starting and running businesses.

[128] Fareed Zakaria, "Europe's real problem: a lack of growth", *Washington Post*, 13 October 2011.

Kapoor and Bofinger[129] have made the case for "growth-friendly" austerity policies. Their argument is that the axe of austerity falls first on public investment since such cuts are not as politically costly as cuts in current expenditure. However, reducing investment retards growth by reducing the capacity to grow. In a similar vein, they argue that efforts to reduce public indebtedness should focus on *raising revenue* - particularly through the taxation of property, land, wealth, and carbon emissions - rather than on cutting expenditure. Furthermore, this increased revenue should be appropriately allocated between deficit reduction, investment, and lowering income tax for the low paid.

Although the issue of raising revenue is often couched in terms of *tax evasion* - with, as discussed in the previous chapter, Greece as the favourite whipping boy - the issue of *tax avoidance* (when the very rich, by exploiting tax loopholes pay minimal taxes) is acquiring certain urgency in Europe. After an analysis of the tax returns of millionaires, George Osborne, the British Chancellor of the Exchequer, was "shocked" to learn how little taxes they paid as a consequence of exploiting tax loopholes through excessive tax avoidance schemes: two-thirds of Britain's top twenty tax avoiders wrote off business losses against income tax; others offset the cost of business mortgages borrowing on buy-to-let properties against their income tax; yet others took advantage of relief on donations to charity. By so doing, they reduced their total tax bill by £145 million.[130] Kapoor and Bofinger (*op. cit.*) suggest sharing and implementing the most effective anti-avoidance/anti-evasion strategies across all EU countries in conjunction with an agreement to help members enforce their domestic measures. Such EU-wide coordination, which would be more effective than the current raft of bilateral deals (UK-Liechtenstein, Germany-Switzerland), would then begin to match the heft of the USA's foreign account tax compliance act which *inter alia* requires EU banks to share, with the US Internal Revenue Service, data on accounts held by US citizens.

The Dynamics of Change

Schmieding (2011) has evaluated the adjustments made in the different European countries in response the post-2008 recession in respect of three important areas - external adjustment, fiscal adjustment, and changes in real unit labour costs (RULC) - and has ranked these countries (from highest to lowest) in terms of an Adjustment Progress Indicator, API (see Table 5.1). Two important points emerge from this analysis:

1. The bailout countries - Greece, Ireland, and Portugal- and a "near bailout" country, Spain place within the top seven in terms of the API. Much maligned Greece is second (after Estonia) in terms of overall adjustment (API), second in terms of external adjustment, second in terms of fiscal adjustment, and second in terms of reducing RULC.

[129] Sony Kapoor and Peter Bofinger, "Europe Can't Cut and Grow", The Guardian, 6 February 2012, http://www.guardian.co.uk/commentisfree/2012/feb/06/europe-cant-cut-and-grow.
[130] Robert Winnett and James Kirkup, "George Osborne: I am going after the wealthy tax dodgers", The Daily Telegraph, 10 April 2010, http://www.telegraph.co.uk/news/politics/georgeosborne/9194558/George-Osborne-Im-going-after-the-wealthy-tax-dodgers.html

2. Countries which have not suffered the opprobrium of having to be bailed out but whose indebtedness, nevertheless, places them in a in a position of danger - Belgium, Italy, and France - are doing very little to make the appropriate adjustments to their economies.[131]

The lesson to be drawn from the first point is that countries which have appeared as liabilities to the EMU, threatening the viability of the single currency, are mending their ways. Greece, as Schmieding (2011) points out, is the *worst performing* but also (after Estonia) the *fastest changing* economy in the EMU. The dramatic improvement in Greece's fiscal and competitiveness position suggests that the common perception, particularly in Northern Europe, that lending to Greece is akin to throwing good money after bad is wrong.

The lesson to be drawn from the second point is that the core countries of the EMU - in particular, France - are infused with a sense of complacency, layered by a sense of entitlement from being among the founding members of the EU. Government debt in France was 90% of GDP in 2012 and rising; public expenditure, at 56% of GDP, as a proportion of national income is higher than in Sweden (Figure 5.1), unemployment is 10%, growth is only 1.7%, and, with unit labour costs rising steeply (Figure 5.2), prospects for growth are poor. These are a combination of economic outcomes which, as Table 5.2 shows, place France near the bottom of the economic performance ranking of European countries on the basis of Schmieding's (2011) *Overall Health Indicator* (OHI).

Yet the leading candidates in the French Presidential elections of 2012 both promised to balance the budget within five years - even though the last time France had a balanced budget was in 1972 - without specifying the measures which would bring this about. Instead, in complete contrast to Greece, the newly elected President of France, Francois Hollande, proposes to *reduce* the retirement age from 62 to 60 for some workers, *raise* the minimum wage, and *expand* the number of teachers by 60,000. For this reason, it is claimed that that the real risk for the euro area is not Greece but France.[132] Greece is trying to mend its ways, France is not. More worryingly, perhaps it does not even recognise the need to do so.

Another country which flies “below the radar” of EU disapproval is Belgium which with a debt to GDP ratio of 96.8% was one of the EMU’s five most indebted countries and which, like Greece, has an unhealthy record of public sector profligacy to blame for its high indebtedness. Yet, Belgium, perhaps lulled into a sense of complacency by its high credit rating (see Table 4.5), does very little, as argued above, to repair its public finances. Belgium’s fundamental problem is the rivalry, bordering on hostility, between its French and Dutch speaking parts – Wallonia and Flanders, respectively. The outcome of this rivalry is that Belgium is divided into three ‘Regions’ (Flanders, Wallonia, and ‘Brussels’), *each with its own elected parliament*, alongside three ‘Communities’: Dutch-speaking, French-

[131] Though, subsequent to this study, Italy, under Prime Minister Mario Monti, has embraced both austerity and labour market reform.
[132] "An Inconvenient Truth", *Economist*, 31 March 2012.

speaking, and German-speaking,[133] each with their own parliaments. In addition to the regional and linguistic divisions, Belgium is divided into ten provinces with five each in Wallonia and Flanders. The outcome of all this division is that Belgium was no longer one or even two states but a patchwork of overlapping and duplicating authorities. As Judd (2005), observed: "A high price was paid to mollify the linguistic and regional separatists. It is not by chance that by the end of the twentieth century Belgium had the highest ratio of government debt to gross domestic product in Western Europe – *it is expensive to duplicate every service, every loan, every grant, every sign* [emphasis added] (p. 712).

Austerity and Social Unrest

The main plank for the economic restructuring of the indebted countries in Europe has been *austerity* where these *austerity* measures (defined as "actions taken by a government to reduce the amount of money that it spends or increase the amount that it receives") have taken the form of (Callan, *et. al.* 2011):[134]

1. Reductions in cash benefits and pensions.
2. Increases in direct taxes and other contributions
3. Increases in indirect taxes
4. Reductions in public services
5. Reductions in the expenditure on public goods
6. Cuts in public sector pay
7. Cuts in public sector employment

Because of these measures a concomitant of austerity has been hardship, with pensions being reduced, salaries of public sector employees being cut, and unemployment - in particular, youth unemployment - reaching stellar heights. Even the IMF recognises the scale of austerity-induced hardship, particularly in Greece; Poul Thomsen, the Danish official in charge of its programme in Greece and Portugal acknowledged: "While Greece will have to continue to reduce its fiscal deficits, we want to ensure - *considering that social tolerance and political support have their limitations* [emphasis added] - that we strike the right balance between fiscal consolidation and reform [needed to modernise the economy]".[135] The most visibly disturbing effect of austerity measures has been the rise of social unrest, principally, though not exclusively, in Greece.

In a reprise of Agamemnon having to sacrifice his daughter before the becalmed Achaean fleet could set sail from Aulis, the Troika requires the Greek government to extinguish the hopes of a generation of its citizens before the wind will be allowed to blow into the sails of its economy. The despair felt by citizens of the peripheral countries has been reflected in mob violence, which began on 5 May 2010 in Greece, against the Troika imposed budgetary cuts. Three people were killed in the initial protest which ignited a series of further

[133] Some 65,000 German speakers who live in eastern Wallonia near the German border.
[134] Callan *et. al.* (2011) detail the specific outcome for these items for six countries - Estonia, Ireland, Greece, Spain, Portugal, and the United Kingdom - and these are reproduced in an Appendix to this chapter.
[135] Helena Smith, "IMF official admits austerity is harming Greece", *The Guardian*, 1 February 2012, http://www.guardian.co.uk/business/2012/feb/01/imf-austerity-harming-greeve

protests (25 May and 29 June 2011) all of which fanned the flames of anti-EU/IMF and anti-government sentiment amongst the populace. The *Indignants* movement in Spain consists of a series of protests, in which an estimated 7 million Spaniards have participated, to protest against welfare cuts and rising unemployment. Most recently, baton-wielding riot police charged and arrested several demonstrators on 20 February 2012 at a student protest against spending cuts in Valencia. In Portugal, seven persons were wounded on 24 November 2011, in a general strike in Portugal which was only its second since it regained democracy in 1974.

The social unrest engendered by austerity raises the very real question about the legitimacy of government - if governments act according to external instruction, in opposition to the wishes of their people, then their legitimacy is severely undermined. No taxation without representation is a fundamental principle of political life and its violation often leads to the overthrow of government. The hated salt tax of 1930 imposed by the British government in India triggered a campaign of national resistance and spawned a wider civil disobedience movement which culminated in Indian independence. A similar situation has arisen in Greece when "political disobedience" by the Greek electorate has led them to cast their votes for a raft of anti-austerity parties (embodied in the coalition, Syriza) thus making implementation of the Troika's austerity package in its present form all but impossible. Increasingly, the Troika reigns, but does not rule, over Greece.

The point is not that austerity, or a wider program of economic reform, in Greece (or in other countries) is undesirable. The defects of the Greek economy are universally acknowledged and are set out most comprehensively by Costas Lapavitsas: “widespread tax evasion; a tax system that favours big business and the rich; corruption in public procurement; malfunctioning labour markets with exploitation in the private sector and clientalism in the public sector; favouritism for big business closely linked to the state; inefficient small and medium enterprises that often avoid taxes; inequality and weak welfare provision”.[136]

What is undesirable is that it be imposed with breathless haste, by a ham-fisted government, and a tin-eared European Commission. In effect, the people of Greece (and the other bail out countries) are being punished for the wrong doings of others. West Germany's attitude towards its eastern part after German (re)unification in 1990 provides a contrast to German attitudes towards Greece. At the time of unification, East Germany was a poor, unproductive country in which a malign State played a disproportionate part in the economic, social, and, indeed, personal lives of its citizens. But rather than suggesting that this was somehow the fault of the people, West Germany, quite rightly, diagnosed East German frailty as being the consequence of a failure of its political and economic system. The solution, again quite rightly, was not to starve East Germany into good health but rather to build its strength through massive investment in that neglected part of the country. Funding this investment resulted in Germany repeatedly breaching the Stability and Growth Pact fiscal guidelines but nobody at the time thought of penalising Germany or accusing it of fiscal profligacy.

[136] Costas Lapavitsas, “Greece’s path to ruin”, *The Guardian*, 14 June, 2012 (G2, p.7-8).

Indeed, it is not far-fetched to view the Troika's austerity program in Greece in the same light that history regards the harsh conditions imposed on Germany, at the conclusion of the First World War, through the Treaty of Versailles. Two of the most crushing provisions of this Treaty, signed on 28 June 1919, were to require Germany to, firstly, *accept responsibility* for starting the war and, secondly, to *make reparations* (amounting to €340 billion in 2012 prices) to the victors.[137] John Maynard Keynes regarded these reparations as an act of folly: "I believe that the campaign for securing out of Germany the general costs of the war was one of the most serious acts of political unwisdom for which our statesmen have ever been responsible" (Keynes, 1920). The folly was soon evident when Germany's humiliation drove it into the arms of Hitler and the Nazi Party. The modern incarnation of the Treaty of Versailles is the Troika's austerity program: for Germany, substitute Greece; for being "entirely responsible for the war", substitute "being entirely responsible for one's debts); for Germany's Nazi Party, substitute Greece's Golden Dawn – Europe's most vicious and far right political party whose statements on immigrants in Greece mirror those of the Nazis towards Jews in Germany.[138] This party, whose vote share was just 0.2 % in the 2009 General Election, won 7% of the votes - and 18 seats in Parliament - in the June 2012 Greek election. According to the Editor-in-Chief of *Kathimerini* – a leading Greek newspaper – the rise of Golden Dawn shows "the aggression in Greek society. This is a society not just in crisis, but in depression – like Germany or Italy in the 1930s. The EU is pushing too hard, on the economy, yes, but also on society which is cracking. When that happens, barriers to extremism fail".[139]

In the midst of the austerity-induced social unrest that characterises Greece and, to a lesser extent, Spain, Ireland and Portugal remain oases of relative calm. Apart from stray protests by pensioners and students, the Irish have been remarkably stoical in the face of salary cuts, pension levies, and higher taxes. Of course, one reason for this is that Ireland is a richer country than Greece and so, although its GDP shrank by 3.5% in 2008, and by a further 7.6% in 2009, the fall was from a comparatively high level of income. This has spared Ireland the levels of *absolute* deprivation currently being experienced in Greece after four consecutive years of recession since 2008.[140]

However, another reason may lie in two traits of the Irish personality: an inordinate desire to be liked and to be thought of well by one's superiors; and a stoical passivity in the face of adversity. In response to Ireland being described as the "role model" for other bailout countries, Fintan O'Toole, writing in the Irish Times, said that the reality is that "they [Irish politicians] are engaged in utter humiliation. They are reduced to operating Home Rule with

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[137] Then £6.6 billion. See Wikipedia, "Treaty of Versailles".

[138] "If Chrysi Avgi [Golden Dawn] gets into Parliament, it will carry out raids on hospitals and kindergartens and it will throw immigrants and their children out on the street so that Greeks can take their place." Ilias Panagiotaros, Golden Dawn MP, quoted in Thodoris Georgakopolous ,"The Rise of Golden Dawn is a sign of Greek Lawlessness", *The Guardian*, 14 June 2012. The Party also promotes books on Aryan supremacy, adopts a Nazi-style symbol, and has denied the holocaust.

[139] Quoted in Jon Henley and Lizzy Davies, "Greece's far-right party maintains share of vote", *The Guardian*, 18 June 2012.

[140] For an argument that Greece today represents a humanitarian crisis see http://auslandshilfe.diakonie.at/goto/en/aktuelles/news/griechenland_-haertefalle-durch-sparmasznahmen

the added twist that it is under Frankfurt, not Westminster."[141] In much of the discussion about the countries that needed bailing out, Ireland has sought to distance itself (the good European, the "teacher's pet") from Greece (the bad European, the "classroom dunce"): "Ireland is not Greece", as Ireland's Finance Minister, Michael Noonan famously announced in October 2011 adding, on a later occasion, that Irish consumers putting feta cheese into their shopping baskets was the extent of trade with Greece: "If you go into the shops here when you're doing your weekly shopping, apart from feta cheese, how many Greek items do you put in your basket?".[142]

The stoical personality was commented upon by Böll (1957) who observed that "what happens [in Ireland] is never the worst; on the contrary, what's worst never happens "because, no matter how bad things are, from the perspective of an Irishman (or Irish woman) things 'could be worse'". This stoicism was evident during the child abuse scandal which resulted in two damning reports, the second of which (the Murphy report) concluded that "the Dublin Archdiocese's preoccupations in dealing with cases of child sexual abuse, at least until the mid 1990s, were the maintenance of secrecy, the avoidance of scandal, the protection of the reputation of the Church, and the preservation of its assets. All other considerations, including the welfare of children and justice for victims, were subordinated to these priorities".[143] Notwithstanding the evidence contained in these reports, there was very little public anger displayed in Ireland against the Church and clergy: *things could be worse*.

However, the first sign that even Irish patience with the unending demands for belt-tightening might be wearing thin is provided by signs that a tax revolt might be brewing over the property tax of €100 that each Irish homeowner has to pay before 31 March 2012. By the due date, 85% of homeowners had yet to pay the tax. The organisers of the tax boycott - going under the collective title *Campaign against Household and Water Taxes* - claim the household tax was simply the last straw coming, as it did, on the heels of a litany of economic hardships: high unemployment, negative equity, rising debt, higher charges for fewer public services. As with Greece, what is ominous for the mainstream political parties is that the protest is supported by the middle-classes and the middle-aged who, even a year ago, would have voted for the established political order. [144]

The roots of Portuguese stoicism are different from those of Ireland. As the New York Times reports, the Portuguese government has, for month after month, put in the budgetary cut and the tax cuts and loosened labour restrictions in line with the Troika's demands with little reaction from its citizens. Perhaps the Portuguese are new comers to prosperity – in the mid-20th century, just under half the homes had running water and only 30% had electricity; even in the 1980s, inflation was running at over 30% and millions of workers had their salaries withheld for months on end.[145] The experience of Salazar's authoritarian regime from

[141] Finton O'Toole, "Dummies in the shop window of a failing ideology", *The Irish Times*, 2 April 2012.
[142] Mary Minihan, "Noonan defends feta cheese remark", *Irish Times*, 21 May 2012.
[143] *Commission to Inquire into Child Abuse* (Ryan Report) and *Sexual Abuse Scandal in the Catholic Archdiocese of Dublin* (Murphy Report).
[144] http://www.nytimes.com/2012/03/20/world/europe/growing-antitax-movement-shows-irish-stoicism-wearing-thin.html
[145] http://www.nytimes.com/2012/06/08/world/europe/portugal-shrugs-at-austerity.html

1932 to 1974 which put down radicalism and supressed protest may have led to a population which is disinclined to take to the streets. Overlaying this is a national temperament of fatalism and resignation as exemplified by its melancholic *fado* music which focuses on *saudade* or a sense of loss.[146]

Austerity and Hardship

In discussing the effects of austerity on hardship it is difficult to distinguish between the hardship engendered by the recession, which triggered the austerity measures, and that due to the austerity measures themselves. With this *caveat*, one response to hardship has been to migrate to countries which offer better life prospects. In 2011, 2,500 Greeks moved to Australia, 10,000 Portuguese left for Angola, and Ireland's Central Statistical Office projected that 50,000 Irish passport holders would have left Ireland by the end of that year.[147] Two generations are expected to be lost as a consequence of Greece's economic crisis, aggravated by the harsh measures its government has been forced to apply in exchange for Troika assistance.[148] Ireland's premier think-tank, the Economic and Social Research Institute estimates that one in 10 men aged 20 to 30, compared to one in 20 women in the same age range, left the country since the start of the recession. This will create shortages of men in a crucial age group with profound implications for births and pensions (Lunn, 2012). The impetus for these departures (with Australia a favourite destination) has been the high unemployment rate in all these countries: 18% in Greece, with 43% youth unemployment; 14% in Ireland, with 29% youth unemployment; 15% in Portugal, with 27% youth unemployment.

Migration is one consequence of high unemployment; another is poor health outcomes. Furthermore, these health outcomes could be directly related to the nature of austerity policies.[149] The most extreme of these health outcomes is suicide and the most dramatic of suicides was on 5 April 2012 when a retired pharmacist, Dimitris Christoulas, killed himself in Athens. In the wake of the present recession - during which economic prospects were turned on their head in the space of a few weeks - the number of suicides in Greece and Ireland rose by, respectively, 24% and 16% between 2007 and 2009.

Some 2,500 Greeks have killed themselves since the crisis began and their coffins, if placed end-to-end, would extend to 5 kilometres.[150] Many of these deaths were a response to the disproportionate burden borne by middle and lower-middle class Greeks of the stringent tax increases and the pay and pension cuts imposed upon the population. A suicide helpline in Greece which used to receive 10 calls a day in 2007 now fields over 100 daily calls with 75%

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[146] http://www.reuters.com/article/2012/06/10/us-portugal-austerity-idUSBRE85907C20120610
[147] Helen Pidd, "Economic migrants flood out of Europe in search of jobs", *The Guardian*, 22 December 2011.
[148] Helena Smith, "Greek graduates lead European exodus for better life abroad", *The Guardian*, 22 December 2011.
[149] For example, as Hopkins (2006) shows, the Asian economic crisis in1997-98 seemed to have few health consequences in Malaysia - which rejected the World Bank's advice reduce health expenditure as part of a general programme of expenditure reduction - compared to Thailand and Indonesia both of which agreed to cut health expenditure.
[150] Helena Smith, "Calm after the storm: now the hard work for Samaras begins", *The Guardian*, 19 June 2012.

of callers citing economic worries as the reason for their despair.[151] Before the financial crisis began to bite three years ago, Greece had the lowest suicide rate in Europe at 2.8 per 100,000 inhabitants; it now has almost double that number despite the stigma attached to suicide in a country where the Orthodox Church refuses funeral rights for those who take their lives.[152] The National Suicide Research Foundation in Ireland, which looked at 190 cases of suicide in Cork City and county between September 2008 and March 2011, found that these were predominantly men, almost 40% of whom were unemployed and 32% of whom had worked in construction. [153]

Stuckler *et. al.* (2009) in a study encompassing 26 EU countries showed that rapid and large rises in unemployment were associated with a rise in suicides among working age men and women but that this effect was ameliorated when investments in active labour market programmes were high.[154] Stuckler *et. al.* (2009) emphasised the speed at which unemployment rose: a slow, steady rise in joblessness was not as damaging as joblessness that emerged, as it were, out of the blue.

For citizens of Europe's periphery who continue to live on in their countries, hardship takes multifarious forms. Alongside the risk of losing one's job is the risk of losing one's home. Foote *et. al.* (2009) identified two factors which affected mortgage default: a fall in house prices and a rise in unemployment. The existence of both in Ireland has meant that mortgage default and home repossessions have become a reality of life. Since 2007, house prices have halved, mortgage arrears have risen to over 10%, almost two-thirds of all home loans are in negative equity, 170,000 construction jobs have disappeared and bailing out the banks has cost the Irish taxpayer €63bn. In spite of the fact that Irish households reduced their debt by €28 billion between 2006 and 2011, the parallel recession-induced fall in incomes has meant that the level of debt remains twice that of disposable income in contrast to a "normal" debt-to-disposable income ratio of 1.2.[155]

Another impact of falling house prices is on marital separation: the numbers of people in Ireland who were seeking a legal separation through the courts in 2010 was 19 percent less than in 2008, and lower than any year since 2002. On one interpretation, negative equity prevents unhappy spouses from dissolving their marriage because they can't afford a second home. If one adds to this the legal fees of €40,000 for a legal separation, then a number of spouses who, a few years ago, would have terminated their marriages are today trapped in unhappy relationships which they cannot afford to leave. [156]

In Greece, a new underclass has emerged as the sight of people sleeping on pavements, park benches, in metro stations and shopping arcades, doorways and cars, loses

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[151] CNN, http://edition.cnn.com/2012/04/06/world/europe/greece-austerity-suicide/index.html?hpt=hp_c2.
[152] Helena Smith, "Greek woes drive up suicide rate", *The Guardian*, 18 December 2011.
[153] Elisabetta Povoledo and Doreen Carvajal, "In euro zone crisis, stress turns deadly", *International Herald Tribune*, 13 April 2012.
[154] >$190 per head.
[155] Dermot O'Leary, "High household debt burden requires radical responses", *Irish Independent*, 14 June 2012.
[156] Closure Conflict Solutions for Ireland, "Irish Legal Separation Figures", 28 July 2010, http://closure.ie/blog/?tag=marriage. On another interpretation, this fall in numbers seeking separation represented an adversity-induced return to traditional values.

its novelty. Educated professionals shamefacedly stand in line with immigrants from developing countries waiting for food handouts from the town hall.[157] Giorgos Apostolopoulos, who heads Athens' municipal homeless shelter, wrote in a letter to the Prime Minister, Lucas Papademos: "Homelessness and even hunger – phenomena seen during the Second World War – have reached nightmare proportions. The medicine we are taking has proved fatal for the nation."[158] As Iphigenia lies dying, the fleet prepares to sail.

And yet, notwithstanding the austerity-induced hardship experienced in Greece and, to a lesser extent, in Ireland and Portugal it is claimed that austerity has been embraced by the Baltic States – Latvia in particular – and, indeed, it has been instrumental in transforming its economic prospects for the better *within the context of a fixed exchange rate.* However, those who hail Baltic stoicism (the IMF Managing Director, Christine Lagarde, called Latvia's achievement a "tour de force") fail to note the human cost of austerity: Latvian output fell by more than one-fifth in two years, unemployment shot up to 20%, and emigration is shockingly high in a country with a small population with Latvia's labour force falling by nearly 6% between 2008 and 2011 driven by emigration. Under these circumstances, while Latvia's willingness to suffer extreme austerity is, as Paul Krugman notes, politically impressive – and probably driven by fear of the nightmare years under Russian hegemony - it is not clear that the extreme hardship of the austerity years which persuaded young Latvians to simply to up sticks and leave their country is the best advertisement for the success of any policy.[159]

Prospects for Austerity

Austerity policies have two objectives. Firstly, through public expenditure cuts and measures to raise tax revenue they aim to progressively reduce, as a percentage of the country's GDP, the government's deficits and, by corollary, the levels of its debt. This makes it possible for the government to borrow on the bond market at a reduced cost – more formally, the yield of government bonds falls – thereby making it easier to service its debt. The second objective is to deflate the economy by taking demand out of it through lower public expenditure. This creates unemployment, reduces wages, lowers unit labour costs, and makes the economy more competitive. The latter is the process of "internal devaluation" required to restore competitiveness in national economies operating within a currency union.

Both objectives can be frustrated. Reducing income and demand, through expenditure cuts and tax hikes, leads to a rise in unemployment and, thereby, to a fall in tax revenue (fewer people work to pay taxes) and a rise in social welfare related public expenditure (more unemployed people mean benefit payments increase). As a result, the government's deficit and its debt levels might actually increase as a proportion of the country's GDP. For example, as noted in the previous chapter, the Portuguese government has been assiduous in implementing austerity measures: the governing Socialists moved to

[157] Helena Smith, "Greek homeless shelters take in casualties of the debt crisis", *The Guardian*, 10 February, 2012.
[158] Quoted in Helena Smith, "Greek homeless shelters take in casualties of the debt crisis", *The Guardian*, 10 February, 2012.
[159] http://krugman.blogs.nytimes.com/2012/06/10/latvian-competitiveness/

cut the deficit while the new government, which came to power in the summer of 2011, has reduced the government's budget deficit by more than one-third. And yet Portugal's government debt has climbed inexorably from 93% of GDP in 2010 to 107% in 2012.

The second source of frustration lies when internal devaluation is frustrated because competitor countries "move the goal posts". This was the problem that EMU countries faced vis-à-vis Germany. At the founding of the euro in 1999, the ECB set an inflation target of 2% per year for the Euro countries based on trends in Germany's labour market. This meant that if productivity (and, therefore, real wages) in Germany grew at 3% per year then the inflation target could be met by German nominal wages growing at 5% per year. Another way of expressing this is that *unit labour costs* (nominal wage rates divided by productivity growth) in Germany would grow at 3% per year. [160] For a country like Greece, where productivity was growing at only 1% per year, competitive balance with Germany could only be maintained with Greek nominal wages growing at 3% per year. (If Greek workers sought German wage increases, then Greek prices (unit labour costs) would rise by 4% per year, compared to Germany's 2%, eroding Greece's competitive position relative to Germany's).

Between 1999 and 2008, nominal wage growth exceeded productivity growth in Greece, Italy, and Spain so that unit labour costs (nominal wage rates divided by productivity growth) grew by 3% per year in these countries. This would have slowly eroded their competitiveness vis-à-vis Germany where unit labour costs were *projected* to grow at 2% per year. However, in the same period, unit labour costs in Germany grew by only 1% per year (Germany moved the goal posts) following the Hartz labour market reforms of 2002.[161] As a consequence, there emerged over this period a 25% overall gap in competitiveness between Germany and its European partners (Moravcsik, 2012) and a 40% gap between Germany and Greece (Feldstein, 2012). So, in terms of internal devaluation, the task before Germany's European partners – Greece, in particular – is truly Herculean: it is not just to prevent the gap between themselves and Germany from *growing*; it is to *eliminate* the existing gap. Since that is not likely to be achieved by increased productivity, it must be achieved through reducing real wages relative to Germany – a process that likely to be very painful involving years of declining incomes and high unemployment (Feldstein, 2012).

[160] Price inflation = wage inflation *less* productivity growth. Note *real* wage growth = *nominal* wage growth less price inflation = productivity growth. So growth in real wages is constrained by productivity growth.
[161] Named after Peter Hartz, the Chairman of the Commission for the Reforms. See Jakobi and Kluve (2006).

Table 5.1: Countries Ranked by Adjustment Progress Indicator

Rank	Country	Total Score	External	Fiscal	RULC
1	Estonia	8,4	9,9	5,6	9,8
2	Greece	6,6	6,4	8,2	5,2
3	Ireland	6,5	7,0	4,5	7,9
4	Malta	6,4	7,9	4,4	7,0
5	Spain	5,7	6,5	7,5	3,1
6	Slovakia	5,0	5,0	5,7	4,4
7	Portugal	4,9	5,1	6,4	3,2
8	Netherlands	4,0	3,2	5,1	3,8
9	Luxembourg	4,0	3,3	1,9	6,8
10	Finland	3,8	0,5	3,5	7,5
11	Slovenia	3,6	4,6	3,6	2,6
12	Italy	3,3	2,3	4,7	2,9
13	Cyprus	2,9	4,0	3,4	1,3
14	Belgium	2,6	2,8	1,6	3,3
15	France	2,5	2,5	3,9	1,3
16	Germany	2,2	1,6	3,7	1,1
17	Austria	2,1	3,2	1,6	1,6
	Euro17	3,2	3,0	4,5	2,2

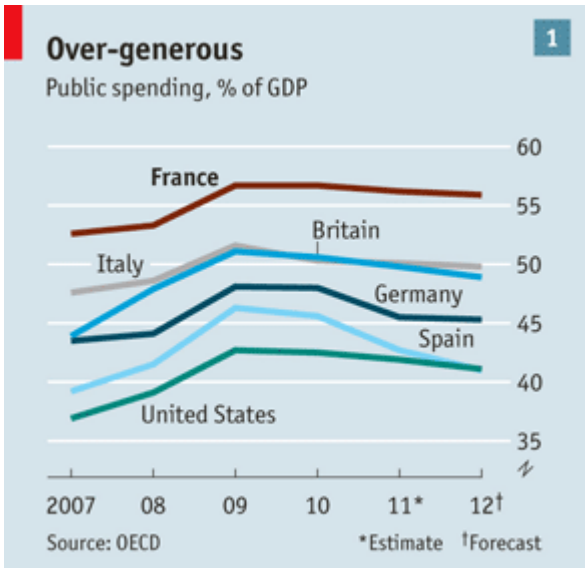
Source: Schmieding (2011).

Table 5.2: Countries Ranked by Overall Health Indicator

Rank	Country	Total Score	Growth	Competitiveness	Fiscal Sustainability	Resilience
1	Estonia	7,4	5,6	6,4	9,3	8,2
2	Luxembourg	7,3	7,1	6,4	9,2	6,6
3	Germany	6,8	6,6	7,9	6,0	6,7
4	Netherlands	6,8	7,5	8,2	5,8	5,8
5	Slovenia	6,6	6,2	6,7	5,6	7,7
6	Slovakia	6,3	5,2	6,7	6,6	6,8
7	Finland	6,2	6,2	4,5	7,1	7,2
8	Austria	5,6	6,1	5,3	5,0	6,1
9	Belgium	5,6	5,5	6,7	5,0	5,2
10	Ireland	4,7	4,7	7,0	3,5	3,7
11	Malta	4,6	4,2	6,4	5,4	2,4
12	Spain	4,5	3,4	3,8	5,8	5,1
13	France	4,5	4,7	3,7	4,1	5,3
14	Italy	4,4	3,2	4,1	4,8	5,4
15	Portugal	3,8	3,2	4,8	3,8	3,6
16	Cyprus	3,8	3,8	2,4	6,3	2,8
17	Greece	3,0	4,0	2,7	2,2	2,9
	Euro17	5,5	5,0	6,2	5,5	5,3

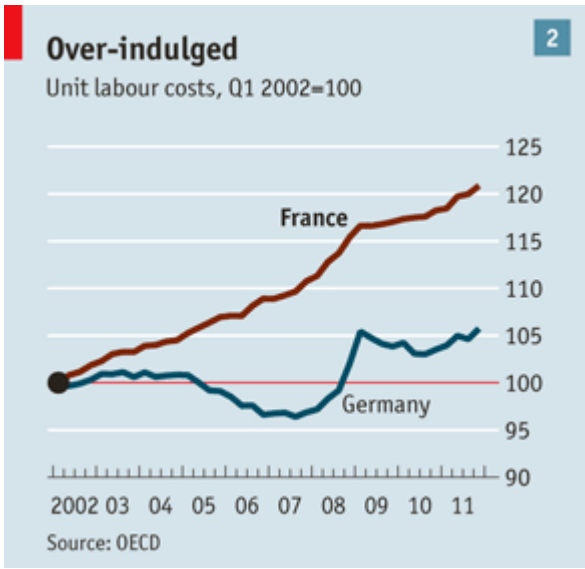
Source: Schmieding (2011).

Figure 5.1: Public Spending as a percentage of GDP



Source: The Economist, 31 March 2012

Figure 5.2: Unit Labour Costs



Source: The Economist, 31 March 2012

Appendix

Austerity Measures in Countries Bailed out by the Troika

(*Sources: Callan et. al. (2011), BBC*[162]*, Reuters*[163])

Ireland

1. Lowering income tax bands and reduction in tax credits. The tranche of income taxed at the standard 20% rate was reduced from €35,400 to €32,800. The basic personal tax credit was reduced from €1,830 in 2008 to €1,650 in 2011. The age tax credit was reduced from €325 to €245 while the income tax exemption limits for the over-65s was reduced from €20,000 to €18,000.
2. The introduction of a new income levy. A temporary income levy introduced in 2008 was replaced by a Universal Social Charge which is a tax payable on gross income (before pension contributions) of 2% on the first €10,036, 4% on the next €5,980, and 7% on the balance.
3. Increased social insurance contributions. The ceiling on employee and employer Pay Related Social Insurance (PRSI) was abolished and the rate of PRSI was raised from 3% to 4%.
4. Cuts in means-tested and universal cash benefits and a free in contributory benefits. Universal child benefit was reduced from €166 to €140 per month. Jobseeker's Assistance rates for those below 25 years of age were reduced by 25% for those aged 22-24 and by 50% for younger unemployed.
5. Public sector pay cuts. In early 2009, public sector workers had to make a "pay related deduction" (PRD) in respect of their pensions at an average rate of 7%-8% of salary. In late 2009, public sector pay cuts of 5% on the first €30,000, 7.5% on the next €40,000, 10% on the next €55,000 of salary were imposed.
6. Public sector employment to fall by 37,500 (12% of staff) between 2008 and 2015.
7. VAT to rise from 21% to 23%.
8. A household charge of €100 on persons owning residential property in Ireland as of 1 January 2012.

[162] http://www.bbc.co.uk/news/business-13940431
[163] http://www.reuters.com/article/2012/02/19/us-greece-austerity-idUSTRE81I05T20120219

Greece

1. Increase in top income tax rates (partly compensated by reducing tax rates for lower bands, changes in tax credits and allowances and broadening of the income tax base. The tax base was extended to include unemployment benefits, large family benefits, and contributory disability benefits for individuals with a taxable income over €30,000. The tax-free threshold for income tax to be lowered from €12,000 to €5,000.
2. A one-off special tax on incomes and a special tax on pensions. A "pensioners' solidarity contribution" was a special tax on pensions rising from 3% for pensions between €1,400 and €1,700 per month to 10% for pensions over €3,500 per month.
3. Cuts in public pensions. The 13th and 14th monthly pension payments were abolished (except for invalidity pensions and farmers' basic pensions) and, in their place, flat-rate vacation allowances of €800 per year would be paid to pensioners receiving a pension of less than €2,500 per month. Monthly pensions above €1,000 per month would be cut by 20%. The statutory retirement age would be raised to 65 years and 40 years service would be required for a full pension with early retirees (less than 55 years of age) losing 40% of pension above €1,000.
4. Minimum wage cut of 22% (32% for those below 25 years of age) in the current minimum wage of €750 per month.
5. The 13th and 14th monthly pension payments paid to civil servants and public utility employees were abolished and, in their place, flat-rate vacation allowances of €1,000 per year would be paid to public sector employees earning less than €3,000 per month. Nominal public sector wages would be cut by 20% and that of employees in state-owned enterprises would be cut by 30%. About 15,000 civil servants would be suspended on 60% pay in 2012 and dismissed after one year. Only one in four civil servants who retire would be replaced.
6. Increase in rates of Value Added Tax from 19% to 23% (for lower rates: 11% to 13% and 5.5% to 6.5%) and a 30% rise in the excise duty on tobacco, alcohol, and fuel.
7. Property tax of €0.50 to €10 per square metre would be imposed on commercial and residential property in Greece and estimated to affect 5.1 million properties.

Portugal

1. Increase in income tax rates and reduction of tax credits. Tax rates increased by 1-1.5 percentage points with a new tax bracket of incomes above €153,300 per year taxed at a higher tax rate of 46.5%.
2. Freezing insurance-related benefits and pensions and reduction of means-tested benefits (unemployment assistance, family benefit, and social assistance). The social benefit index, which is the basis for increasing benefits, was frozen between 2009 and 2011.
3. Increase in VAT from 20% to 23% (reduced rate from 12% to 13% and the reduced rate from 5% to 6%).
4. Public sector pay cuts of up to 10%.

Chapter 6
The Unsinkable

On 15 April 1912, just over a hundred years ago, high in the crow's nest of the SS Titanic, on a calm North Atlantic sea, two lookouts suddenly sighted an iceberg. Within thirty-seven seconds of that sighting the ship's hull scraped the ice with a "faint grinding jar" and the Titanic's fate was sealed. It sank two hours and forty minutes later with the loss of 1,500 lives. A nonchalant calm pervaded the ship in its final hours: there were no bells or sirens, many passengers spurned the "dangerous" little lifeboats (of which there was a great, and deliberate, scarcity) in favour of the "safety" of the large (though holed) ship. The band, more aware of the prospect of impending death, played "Nearer my God to Thee" as the ship slowly, but surely, foundered.

Several themes have emerged from the sinking of the Titanic. First, there was the issue of *hubris* as the captain of the Titanic, E.J. Smith (allegedly acting under pressure from the ship's owners) ordered a cruising speed which, in the context of the ice warnings he had received, was unsafe.[164]Second, there was the issue of class and money as the rich made for the lifeboats and the poor struggled to find their way to the upper decks where the lifeboats were located. Lastly, there was the issue of neglect as the SS Californian, which was only eight miles away, disregarded the Titanic's frantic signals - by wireless, Morse lamp, and rockets - of distress.

The sinking of the Titanic could equally well serve as a metaphor for the economic crisis that has gripped countries in the EMU. The euro was the currency that was going to unite the diverse countries of Europe and rival the dollar as a world currency. But, travelling too fast through the ice field of political diversity, it has struck the iceberg of sovereign debt and is grievously – if not fatally - holed. The well-off have taken their money and decamped - witness the flight of capital from Ireland and Greece - while those in steerage wait, with ever diminishing hope, to be rescued. Meanwhile, the distress of citizens in Europe's peripheral countries is viewed with a cold eye, and appraised with a stony heart, by its core countries: Germany loiters while Greece sinks. In the face of this disaster, the reputation of euro and of the Euro Area has been severely compromised.

This is partly related to the failure of the officers on the bridge to communicate with the passengers. For economic policy to succeed it must be understood and accepted by the general public. Communicating with people, in a language that they understand, the reasons why things are as bad as they are, and how they might be improved, is something the Troika, and its agents in the form of the national governments of the EMU, have failed to do. On the contrary, the harsh language used towards the population of the periphery has systematically failed to distinguish between those culpable for the crisis and the general population. Consequently, people in the EMU's peripheral countries lack optimism about there being light at the end of the tunnel because they cannot see how the austerity-induced hardship they suffer is an investment in their future instead of being...well, just unending hardship. Nor do

[164] The above account of the sinking of the Titanic is taken from Walter Lord, *A Night to Remember*, London: Penguin Books, 2012 (Centenary Edition).

they understand why their hardship is being imposed at the behest of persons whose names they do not know and whose faces they do not recognise. As the Nobel-laureate economist Amartya Sen recently observed: "[for those] living in a Southern country, in Greece, Portugal, and Spain, the electorate's views are much less important than the views of bankers, the rating agencies, and financial institutions....with the consequence that the population of many of these countries has no voice".[165]

The hubris embodied in the single currency is reflected in the haste with which the single currency was implemented.[166] In the rush to establish the euro, admission criteria were relaxed (Belgium and Italy were admitted notwithstanding their large public debts) and, in the anxiety to preserve membership, transgressions were overlooked (Germany and France were unpunished notwithstanding their continued infractions of the 3% deficit rule). The Titanic too was relaxed about the fact that it was carrying less than the full complement of lifeboats. That it hit an iceberg was misfortune (though even that might have been avoided at a slower speed). That so many lives were lost was carelessness. So with the euro. The depredations of Irish bankers and Greek politicians might have been bad luck; the ensuing devastation could be blamed on the "system".

Under the facade of a single currency, there are at least two euros in circulation within the EMU: at the risk of caricature, there is the "German" euro and the "Greek" euro and an indication of rates of exchange between them is provided by the yields on their respective government bonds. The fact that Greek (and, indeed, Irish) euros are fleeing abroad suggests that the ordinary public in Europe's periphery have little faith in their "country's euro" *vis-à-vis* that of Germany's. Anxiety about the euro has reached levels where a prize of £250,000 is being offered by the think-tank, Policy Exchange, for the best plan to break up the euro. In practice, as the *Economist* newspaper notes, the fate of the euro (like its origins) will be determined more by politics than economics. Debtors will tire of austerity; creditors will weary of bail outs; and any of the Member States may find the gradual erosion of sovereignty sufficiently offensive to want to leave.[167]

That leaves the question of "solutions" to the crisis. How does one find one's way through the festering jungle of bursting bubbles, soured bank loans, overwhelming public debt, and nervous markets to the sunny uplands of economic growth, rising living standards, and social harmony. In a possibly apocryphal story, a stranger seeking directions from an Irish farmer was advised "If I were you, I wouldn't start from here". In similar vein, if Europe is to find its way it cannot be through its present location in terms of a single currency – the euro is part of Europe's problem not its solution.

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[165] http://economicsintelligence.com/2012/04/12/an-interview-with-amartya-sen-there-is-a-democratic-failure-in-europe/

[166] In 1957, the Treaty of Rome launched the European Common Market. This expanded in 1967 to form the European Communities and, in 1992, the Maastricht Treaty (or, to give it its proper name, *Treaty on European Union*) gave birth to the European Union and set a timetable for adopting a single currency and an integrated market for goods and services. The single currency came into being on 1 January 1999 and, under the rubric of the European Monetary Union (EMU), it had an initial membership of 11 countries. By 2012, this had expanded to 17 countries.

[167] *The Economist*, 7 April 2012.

The failure of the single currency does not mean that the greater "European Idea" – which has seen the nation states of Europe coming together, under the aegis of the European Union, to work on projects of common benefit – has not been a success. As Judt (2005), in his magisterial history of post-war Europe observed:

> "And yet, taken all in all, the EU *is* a good thing. The economic benefits of the single market have been real, as even the most ardent British Eurosceptic had come to concede, particularly with the passing of the passion for 'harmonising' that marked the Commission Presidency of Jacques Delors. The newfound freedom to travel, work, and study anywhere in the Union was a boon to young people especially. And there was something else…from the late Eighties, the budgets of the European Community had a distinctly redistributive quality, transferring resources from wealthy regions to poorer ones and contributing to a steady reduction in the aggregate gap between rich and poor: substituting, in effect, for the nationally based Social-Democratic programmes of an earlier generation." (p. 732).

However, as Judt (2005) has argued, the success of the European idea lay in its imprecision. When the idea of a "European Union" was aired by the French President, George Pompidou, in the Seventies, the French Foreign Minister, Michel Jobert, asked his colleague Edouard Balladur (the future French Prime Minister) what exactly it meant: 'Nothing', replied Balladur, 'but, then, that is the beauty of it.'[168] Underpinned by a vague desire for "peace" and "prosperity", the European Union was too benign to attract controversy. Yet, under the cloak of formulaic vagueness, it ushered in a system of governance among the countries of the European Union that was (and is) remarkable in two respects: first, laws were made at supra-national level but implemented by national governments; second, since ultimate sovereignty rested with nation states, everything was done by reaching agreement through compromise. Or, as Judt (2005) described it succinctly, the European Union represents "international governance undertaken by national governments."

In pursuit of the European idea, the imposition of a single currency was, however, a step too far.

1. It replaced the imprecision of the European Union with a precise set of rules for implementing the common currency – and almost immediately eroded respect for these rules by exempting the Germany and France, who consistently broke these rules between 2003 and 2005, from the prescribed financial penalties.
2. By compelling a group of countries, who were at disparate levels of development and at different points in the economic cycle, to accept a "one size fits all" exchange rate and interest rate, the adoption of the single currency placed the entire burden of national economic policy on fiscal policy. Before the current recession, some countries like Ireland were booming and could have done with higher interest rates to choke demand while other low-growth countries like Portugal needed low interest

[168] As recounted in Judt (2005), p.733.

rates to stimulate demand. Instead they all got a single, ECB determined interest rate and a single exchange rate determined by the Euro Area's (in its entirety) foreign trade performance. Since one of these countries was Germany, the euro rate was inevitably uncompetitive for less successful countries.

3. Placing the burden of adjustment on fiscal policy meant that a country could only improve its competitive position through "internal devaluation" – a process of economic contraction, implemented through tax hikes and cuts in public expenditure, to raise unemployment and lower wages and prices.
4. At the same time, by restricting the scale of national budgetary deficits through the Growth and Stability Pact, the scope for expansionary fiscal policy was severely restricted – countries which ought to have been spending their way out of recession were obliged by the terms of the Pact to restrict their public expenditure.
5. When countries were running large current account deficits, the single currency did not offer the early warnings that a system of separate currencies would have automatically provided: declining foreign reserves and a weakening currency. Instead, bilateral transactions between deficit and surplus countries in the Euro Area were replaced by trilateral system in which the deficit and the surplus country transacted separately with the ECB, running up debits and credits on the ECB's slate without any real economic consequences. As has been argued in the earlier chapters, the crisis – which had its origins in private sector overspending – *was only identified* when it mutated into a sovereign debt crisis as governments (spectacularly) breached the terms of the Growth and Stability Pact through being forced - by the terms of the ECB rules which demanded it lend to governments and not directly to private agents – to underwrite private sector (that is, banking) debts.
6. The web of interdependency created by the single currency meant that the failure of a Member State to meet its debt obligations would pose *systemic risks* by creating problems for the EMU in this entirety and, therefore, that the market assumption was that *no country would be allowed to fail*. Consequently, smaller countries within the EMU enjoyed an ease of access to bond markets they could never have imagined earlier with their national currencies and some of them, Greece in particular, were keen to take advantage of this by expanding debt-financed public expenditure.
7. In order to meet the increased demand for expenditure by the private sector, banks within the EMU vastly expanded their lending by issuing short-term bonds to fund long-term loans. Investors were prepared to buy these bonds because they assumed that the sovereign debt that banks held as assets would, under ECB rules, give them easy access to ECB funds in the event of mishap. Banks, too, believed they would be bailed out by the ECB if their investments soured and this made them careless about evaluating the quality of their investments. The upshot of this was that the operation of the single currency created a *moral hazard regime* in which lenders and borrowers had strong incentives to act without taking "due care".

All these points raise the question of whether establishing a single currency for Europe was a good idea? The idea that a single market needs a single currency is specious: the North American Free Trade Area functions perfectly well with three national currencies.

On the other hand, the idea of establishing a single currency without adequate preparation was a bad idea. As Feldstein (2012) observed: "This failure [of the euro] was not an accident or the result of bureaucratic mismanagement but rather the inevitable consequence of imposing a single currency on a very heterogeneous group of countries". However, discussion of the Euro Area's economic problems proceeds as though the single currency is beyond reproach. Everything and everyone is blamed, from the feckless Irish, to the profligate Greeks, to the low productivity Portuguese, to an insufficient degree of subordination to a higher "European authority" – everything except the black rat that, in the shape of the euro, has inflicted this plague upon the House of Europe.[169] Every conceivable solution is proposed - austerity, haircuts for bondholders, new treaties, novel forms of lending, exhortation, entreaty – except the obvious one of recognising that imposing monetary unity on economic diversity is not the cleverest of ideas.

And yet, there is nothing sacrosanct about a currency union. Tepper (2012), in an entry for the think tank Policy Exchange's £250,000 prize for the best plan to manage a break-up of the Euro, points out that in the past century there have been sixty-nine currency breakups – *inter alia* the Austro-Hungarian Empire in 1919, India and Pakistan 1947, Pakistan and Bangladesh 1971, Czechoslovakia in 1992-93, and the USSR in 1992 – and that the move from an old currency to a new currency could be accomplished quickly and efficiently.[170] For countries like Greece, Ireland, Italy, Portugal, and Spain, exit from the euro followed by default and devaluation would address the fundamental problem that the euro has created for their economies: an overvalued exchange rate which makes it impossible to regain competitiveness without the most punishing of deflation; and a debt burden which is impossible to shake off without prospects of growth.[171] In contrast, after a short, sharp contraction following default and devaluation, the European periphery could then grow quickly much like many emerging countries – Asia 1997, Russia 1998, Argentina 2002 - have done after defaulting and devaluing.

If the euro is to be preserved then the way forward is obvious. European debt should be federalised and its responsibility spread across the countries of the Euro Area through the issue of euro bonds. Paul Krugman asks why the USA does not exhibit the kind of regional crises afflicting the European Union?[172] The answer is that the USA has a strong central government which provides *automatic* bailouts to states which get into trouble – for example, to Florida after its housing bubble burst. These bailouts do not evoke carping comment in the media and do not arouse resentment in states which are not in trouble. If that were only so in Europe! The insuperable difficulty is posed by Germany: as long as Germany, which will be

[169] See Simon Jenkins, "The euro gets off scot-free in this debacle – just like the black rat", *The Guardian*, 7 June 2012.
[170] According to Tepper (2012): "Typically, before old notes and coins can be withdrawn, they are stamped in ink or a physical stamp is placed on them, and old unstamped notes are no longer legal tender. In the meantime, new notes are quickly printed. Capital controls are imposed at borders in order to prevent unstamped notes from leaving the country. Despite capital controls, old notes will inevitably escape the country and be deposited elsewhere as citizens pursue an economic advantage. Once new notes are available, old stamped notes are de-monetized and are no longer legal tender. This entire process has typically been accomplished in a few months".
[171] There were a total of five short-listed entries.
[172] Paul Krugman, "Greece as a Victim", *The New York Times*, 17 June 2012.

the main guarantor of Euro debt, plays the bridegroom who is willing to marry but not to share the marital bed, such a solution is well-nigh impossible. In the latest European summit held in Rome on 22 June 2012, the German Chancellor, Angela Merkel, gave little indication of heeding calls from France, Italy, and Spain for pooling the region's debt or using European bailout funds to prop up the government bonds of Spain and Italy.

The federalisation of euro debt, if it could be achieved, should simultaneously be combined with a strategy for growth which will include structural reforms, investment in infrastructure, and measures to improve competitiveness. Easier said than done? As Gideon Rachman has pointed out, "the past 30 years have seen a huge splurge in infrastructure spending, often funded by the EU. The Athens metro is excellent. The AVE fast trains in Spain are a marvel. But this kind of spending has done very little to change the fundamental problems that plague Greece and Spain – in particular high youth unemployment".[173]

At the same time, while the scope for structural reforms in several European countries is enormous the barriers to implementing such reforms are no less formidable. The *Croke Park Agreement* in 2010 between the Irish government and the country's public sector unions was supposed to make the delivery of public services in Ireland more efficient. In return for assurances provided by the government (*inter alia* no further reductions in pay rates other than those applied in 2009 and 2010 and no compulsory redundancies) public servants and their managers undertook to bring about changes in work practices so that both the cost and the number of people working in the Public Service could fall significantly without diluting the quality of services provided.[174] However, two years after its inception, a confidential review of the Agreement by the Department of Finance has cast great doubt on its viability because managers are resisting reform for "fear of being accused of bullying". This has prompted the Minister for Public Expenditure and Reform, Brendan Howlin, to admit that "managers haven't embraced the reform as enthusiastically as I would have liked"[175] accompanied by a warning from the Transport Minister, Leo Varadkar, that any future renegotiation of the Agreement was likely to include compulsory redundancies.[176]

In recent years, two economists advising the Italian government on labour market reforms have been assassinated. On 20 March 2002, Marco Biagi, a 51 year old Professor of Economics at the University of Modena who had been helping the centre-right government draft proposed changes to Italy's labour laws, was shot dead outside his home in Bologna. His murder was preceded by that of Massino D'Antona in 1999, another government aide who had been working on the reform of Italy's restrictive labour laws.[177] The efforts of Mario Monti, Italy's technocrat Prime Minister, to carry out a significant pension overhaul,

[173] Gideon Rachman, "No alternative to austerity", *Financial Times*, 30 April 2012.
[174] Department of Public Expenditure and Reform, http://per.gov.ie/croke-park-agreement/
[175] Daniel McConnell and Tom Lyons, "Fear of bullying hits public sector reform", *The Irish Independent*, 7 June 2012.
[176] Daniel McConnell and John Drennan, "Cabinet Ravaged by bitter infighting", *The Irish Independent*, 17 June 2012.
[177] Melina Hennberger, Adviser for Italian Labor Reform Killed", New York Times, 20 March 2012.

increase property and other taxes, and crackdown on tax evasion have been watered down by Italy's political parties afraid of alienating their constituents.[178]

Greece, as McKinsey (2012) reports, is "one of the most regulated economies in Europe creating 'red tape' that affects businesses from the development of land to the competitive intensity of several regulated markets and professions. A complex administrative and tax system creates legal, bureaucratic and procedural disincentives to set up and expand businesses and fails to collect an estimated €15-20 billion in annual tax revenue which almost be sufficient to close the deficit." (p. 7). It would be a formidable achievement if Greece was to reform its business-unfriendly environment and its cumbersome legal system which comprises a number of laws some of them ambiguous, obsolete, or, even, contradictory.

So, if the conditions for preserving the euro are near impossible to obtain, why was a single currency ever established? As Moravcsik (2012) has observed, the Maastricht treaty of 1992, which established the European Monetary Union, represented a gamble. The gamble was that the economies of the Member States would converge and, in so doing, ensure the EMU's success. However, this convergence would not be one between equals: it was expected that other countries would begin to resemble Germany – converging on German levels of productivity and competitiveness - rather than the other way round. If this gamble succeeded, Germany stood to gain a great deal. Firstly, based on the euro, it would obtain an exchange rate which would be far more competitive than one based on the Deutsche Mark. This would cement its position as an exporting power. Second, by demanding and obtaining a European Central Bank which embodied the anti-inflationary principles of the *Bundesbank*, it would imbue the entire monetary union with its economic conservatism.

The other set of persons who supported the single currency are those idealists for whom the "European Project" should and would culminate in a political union and, by doing so, present to the world a European identity and a way of life that would rival, and outshine, that of the USA.[179] If political union within Europe was the holy grail of European politics then establishing a single currency was to be a significant step towards that goal. In that context, it was irrelevant whether the EMU countries would have been better off with their national currencies. What was important is that joining the single currency would be an irrevocable step and, for this step to be taken without stumbling, greater political union was essential. So, if the euro provides the glue which binds Europeans to each other - happily or unhappily, willingly or unwillingly, in hardship or in prosperity - in an ever-closer embrace then, for those who seek this Holy Grail, it has served its purpose. But, with a potential price tag of over one trillion euros, it must be the most expensive political glue in the world! One has to ask: is it worth it?

[178] Elisabetta Povoleddo and Steven Erlanger, "Leaders Vow to Defend Euro but Hint at Rifts on How", *International Herald Tribune*, 22 June 2012.
[179] See Judd (2005), chapter 24 for a discussion of the "European Way of Life".

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