Adjustment in the Eurozone Periphery: The Case of Greece

***Lalita Som*[1]**

Abstract

Since 2009, Greece has been at the epicentre of the Eurozone crisis. However, in 2008 and 2011, several Eurozone members (like Portugal, Ireland, Greece, and Spain) and Iceland were equally unable to repay or refinance their government debt. All of these countries were forced to secure financial assistance from third parties such as other Eurozone countries, the European Commission, the European Central Bank (ECB), the Nordic fund (in the case of Iceland), or the International Monetary Fund (IMF). From 2013 onwards, all of these countries except Greece regained complete lending access to financial markets and ended their bailout programmes as scheduled without any need for additional financial support. The EU-IMF economic adjustment programme aimed to reduce the public deficit and debt, primarily through severe cuts in public expenditure and structural reforms. Although Greece returned to modest growth in 2016 through the ongoing reforms and official financing from third parties, the extensive fiscal consolidation and internal devaluation have come at a high cost to Greek society, as reflected in declining incomes and exceptionally high unemployment. This paper examines why the economic adjustment policy has been inadequate for addressing Greece's financial and structural weaknesses. It analyses the main aspects of the adjustment programmes in countries like Iceland, Ireland, and Portugal; assesses their economic impact on these countries; and compares these outcomes to those in Greece.

Keywords: *Economic Adjustment, Devaluation, Eurozone, EU-IMF Financial Assistance.*

[1] Lalita Som has worked for the Organisation of Economic Cooperation and Development, Paris. She can be reached at lalita.som@gmail.com.

INTRODUCTION

Background: The financial crisis of 2008 and its impact on the EU and Eurozone

There have been several different economic and financial stress periods in both advanced and emerging market economies over the last century. These include: political crises, policy failure crises typified by things like currency crises, banking crises, sovereign (external) debt crises, twin crises (i.e. banking and currency), triple crises (i.e. all three), twin deficits (fiscal and current account), stock market, bond market or property crashes, and the failure of large financial institutions that are systemically important.

However, the financial crisis that began in 2007 and blew up fully in 2008 is without precedent in post-war economic history (Eichengreen & O'Rourke, 2009). It was preceded by a long period of rapid credit growth, low risk premia, abundant liquidity, and the development of real estate (and accompanying credit) bubbles. The crisis was exacerbated by a marked decline in financial intermediation and a synchronised contraction in economic output (Reinhart & Reinhart, 2010).

While the crisis was triggered by sub-prime mortgages and the packaging of sliced and diced debt that was securitised (and sold in global markets) in the US, Europe has not escaped the effects of the global financial crisis, where it has had asymmetric effects. In fact, Europe – and particularly the Eurozone economies in Southern Europe – is suffering from a protracted duration of that crisis, compounded by its own many policy mistakes. These have resulted in very low growth, high unemployment (and unusually high youth unemployment, which is socially destabilising), low productivity, deflation, and an anaemic recovery that shows little signs of achieving the kind of robustness and stability already achieved in the US (and to a lesser extent the UK, where recovery has now been put at risk by Brexit) after eight long years.

The lack of sufficient structural adjustment in Europe

This poses a long-lasting challenge for successful intra-European Union structural adjustment. The European Central Bank (ECB) estimated write-downs of $649 billion on securities and loans by Euro area banks alone over the period of 2007 to10 (ECB, 2009). EU GDP fell by an estimated four percent in 2009, the bloc's first recession since the early 1990s and its worst performance on record (European Commission, 2009).

Economic woes have been especially severe in the Eurozone, where countries have battled not only an economic recession but also asset price deflation (despite very high levels of quantitative easing along with extremely low interest rates). Burgeoning internal and external public (and private) debt in almost all EU economies have resulted in too high a level of public/sovereign indebtedness, leaving very little room for fiscal manoeuvre or permitting fiscal policy to play a more commensurate role in sharing the burden of adjustment with monetary policy, which now seems almost played out.

Moreover, the level of public indebtedness, concentrated more in Europe's banking system than in its capital markets (compared to the US and UK), has resulted in EU governments and its larger banks becoming hostage to one another in an unfortunate embrace – reminiscent of the spectre of mutual assured destruction – should things go wrong. In the aftermath of global financial turmoil, various EU governments have had to expend scarce public resources to rescue failing banks, in addition to protecting depositors and utilising monetary and fiscal tools to support banks, to unfreeze credit markets, and to stimulate economic growth.

Different EU countries were affected differently because of their initial conditions and their associated vulnerabilities. Countries that entered the crisis with a housing bubble and a large net foreign liability position faced the need to shift activity from construction to export-oriented activities. They had to reduce their dependency on external financing. Conversely, countries that had large current account surpluses, but were exposed to toxic financial assets, needed to reduce their export dependency and work on the balance sheet problems of their banking systems.

Among the proximate causes of the housing bubble in many deficit countries was the availability of cheap credit during the early 2000s. Some experts attribute a significant role played by emerging markets in East Asia and oil-producing nations as 'surplus savers' – i.e. suppliers of capital as contributors to the global savings glut. Others emphasise that East Asian emerging economies with surpluses were largely confined to treasury securities and agency debt and that the role of global banks was much more substantial, especially global European banks, in the origination and propagation of the gross capital flows and credit boom conditions in most advanced economies during this period (Gourinchas & Obstfeld, 2012; Shin, 2012).

Private-label securities and other holdings of US assets were concentrated in highly leveraged financial institutions in advanced economies such as Germany, France, Switzerland, and the UK – in short, in the larger global European banks. Almost half of all foreign holdings of US securities (especially asset backed securities packaged as collateralised debt obligations or CDOs) immediately before the crisis were held in Europe (Borio & Disyatat, 2011). Cross-border lending also witnessed a simultaneous increase in wholesale funding raised by global banks, primarily from US money markets. In conjunction with the liability side, the asset side of these global European banks also focused on synthetic US securities of dubious quality.

With minimal exchange rate risk and an appreciating Euro, banks increased lending both within and outside Europe. Ireland, Spain, and the UK, with high asset price appreciation, were the major beneficiaries of such financial inflows. The peripheral countries of the Eurozone (namely, Greece, Ireland, Italy, Portugal, and Spain) witnessed significant increases in capital inflows not just from banks in the core of the Eurozone (namely, France and Germany) but also from UK and Swiss banks. Risk aversion and risk recognition was distorted by the credit boom.

The inevitable bust after the boom saw the very same countries (such as the US, the UK, Spain, and Ireland) afflicted with increasing loan defaults and sharp declines in asset prices. But the effect of this contagion was muted in Greece and Portugal.

The Greek tragedy

In the case of Greece, this partly reflected the good health of the Greek banking sector before the onset of the sovereign debt crisis, as well as its low exposure to toxic assets (OECD, 2011). The decline in asset prices set in motion a cycle of declining prices, non-performing assets, and deleveraging by banks with significant impact on the real economy in Europe. The rise in uncertainty and the decline in confidence since the downturn have dragged down growth significantly.

Between 2008 and 2011, several Eurozone members (Portugal, Ireland, Greece, and Spain) and Iceland (collectively but inelegantly abbreviated as the PIIGs) were unable to repay or refinance their government debt. Neither could they bail out over-indebted banks under their national supervision, nor could they secure financial assistance from third parties like other Eurozone countries, the ECB, or the IMF. From 2013 onwards, all of these countries except Greece regained complete lending access to financial markets and ended their bailout programmes as scheduled without any need for additional financial support.

Greece not only needed additional support two years later but is also now negotiating yet another round of financial assistance. The adjustment programme in Greece has failed to yield the expected results in restoring activity, public finances, and competitiveness, which has been hit much harder than other in Eurozone countries with adjustment programmes. Growth has plummeted by an average -6.4 percent since 2010. This has worsened its debt problem. Despite the debt restructuring that took place in 2012, Greece's sovereign debt has risen from 146 percent of the GDP in 2010 to 177 percent in 2015. Unemployment has risen sharply from 12.7 percent in 2010 to 26.4 percent in 2014 and has raised social tensions (see Table 1).

Compared to other countries that secured an internationally coordinated adjustment programme around the same time, the outcomes for Greece have been very different. Ironically, Greece had initially held up better during the global financial crisis than the other peripheral countries of the Eurozone, as the impact of the crisis was indirect. But there were signs of an impending recession as tourism and shipping receipts fell substantially. The real estate sector contracted. The financial sector faced pressure from its exposure to the emerging economies of Southeastern Europe.

Although Greece responded with fiscal measures and a plan to assist the financial sector, its room for policy manoeuvre was restricted by the high public debt, repeated fiscal slippages, and the large external and internal imbalances.

In 2013, Greece was thought to have made significant progress in cutting its fiscal deficit, reducing its current account deficit, and implementing structural reforms to raise labour market flexibility and improve labour competitiveness. But more was expected and needed from Greece in fully implementing and extending structural reforms in the areas of public administration and price competitiveness to achieve fiscal sustainability.

This article compares the causes of each country's crisis among the PIIGS, the conditions of the assistance programme, and the outcomes of those adjustment programmes to understand why Greece has not been able to succeed in achieving the desired results. Clearly, Greece was unable to adjust as well as Iceland, Ireland, and Portugal in an overall sense as well as measured carefully against each critical parameter/dimension of adjustment. This comparative study sheds light on the individual parameters of adjustment, which have helped the other three countries in adjusting, while in the case of Greece, the same conditions harmed aggregate demand, living standards, and exports.

Table 1. *Dimensions of adjustment programmes*

	Greece		Ireland		Portugal		Iceland	
	2010	**2015**	**2010**	**2015**	**2011**	**2015**	**2009**	**2015**
External account sustainability								
1. Net external debt (% GDP)	100.8	139.0	-278.4	-289.0	84.5	101.5	241.8	14.5*
2. Current account (% GDP)	-11.4	-0.1	-1.2	10.2	-6.0	0.5	-10	4.2
3. Capital account (% GDP)	0.9	1.1	0.1	-0.5	1.5	1.3	-30	3.2
4. Management of exchange rate (%)	-	-	-	-	-	-	-26	-32**
Internal macro balance								
1. Fiscal balance (% GDP)	-11.2	-7.2	-32.3	-2.3	-7.4	-4.4	-9.7	-0.5
2. Long-term interest rates	9.09	8.21	6.09	1.11	10.24	2.41	8.26	2.56
3. Short-term interest rates	0.8	0.1	0.8	0.1	1.4	0.1	11.3	6.6
4. Government debt (% GDP)	146.2	176.9	86.8	93.8	111.4	129	82.9	68.5
Financial stability								
Banking System								
1. Domestic credit (% GDP)	111.6	113	134.3	64.8	156.2	120.1	76.6	92.1
2. Loan to deposit rate								
3. Liquid assets/short term liabilities		29.7						
4. Bank capital to assets ratio	6.6	6.8	5.3	13.9	5.3	8.06	14.9	19.4
5. NPLs/Capital provisions	42	80.8	80.8	42.8	36.6	32.9		
6. NPLs/Total gross loans	9.11	34.7	13.0	14.9	7.5	12.8	14.1	2.0
Factor market adjustment								
1. Real labour productivity (index 2010=100)	100	95.4 (p)	100	129.5	100	101.5 (e)		
2. Labour transition (to the same or higher qualification level, % of popn.)	82	85.3 (2014)	84	-	80.4	83.4	74.6	76.1
3. Gross fixed capital formation (GCFC, % GDP)	17.6	11.7(p)	17.6	21.2	18.4	15	13.9	19.2
4. Gross return on capital employed of non-financial corporations (%)	28.15	22.7 (2014)	23.89	22.7 (2014)	12.83	15.07	9.76	12.68 (2013)
5. Ratio of GCFC & Gross Value Added (investment rate %)	21.35	15.12 (2014)	19.07	23.91 (2014)	22.67	20.13	16.24	19.64
6. Venture capital investment (% GDP)	0.002	0.000	0.017	0.041	0.007	0.039		

Sources: Eurostat (2016), OECD (2016), IMF (2016), World Bank (2016), BIS (2016)

http://ec.europa.eu/eurostat/data/database accessed 10/9/2016
https://data.oecd.org accessed 12/9/2016
http://www.imf.org/en/data accessed 1/10/2016
http://data.worldbank.org accessed 13/9/2016
http://www.bis.org/statistics/index.htm?m=6%7C37 accessed 20/9/2016

* The end-2015 external debt ratio is more noteworthy because in the first quarter of 2015 the net debt position was 385 percent of the GDP (Moody's Investor Services, 2016). That figure included, at full price, all the debt of the failed banks' estates, even though it had long since become clear that those debts would be significantly restructured. Nearly 40 percent of the reduction is due to the current account surplus and GDP growth during this period, and the rest is due to default, debt restructuring, and other factors (Guðmundsson, 2016).

** Yearly change in the exchange rate between ISK and EUR.
(p) projected, (e) estimated

Table 1 above shows how the four countries adjusted their factor markets to face their respective crises. The basic tenet of structural adjustment is the mobility of labour and capital to their most productive uses, their reallocation to more efficient uses, and increasing their productivity. The process of transferring resources to more productive uses and to new and expanding areas is critical to successful adjustment and an important driver of sustained growth. The policy challenge is therefore to facilitate reallocation to take advantage of new possibilities.

By this standard, successful countries would not necessarily be characterised by stable sectoral patterns of production and employment or by the presence of particular industries. Instead, they would be characterised by their capacity to manage structural change without experiencing long-lasting increases in unemployment among working-age persons (OECD, 2005).
Table 1 clearly shows that the outcomes related to international trade, investment, the functioning of labour markets, and the reallocation of capital have deteriorated significantly for Greece between 2010 and 2015. Although Greece rose to the policy challenge related in particular to reforms in structural policies affecting the functioning of labour and

product markets, the outcomes have been very high (and unsustainable) adjustment costs for individuals–and society as a whole–but with successful adjustment still proving elusive.

THE ROOT CAUSES OF INDIVIDUAL COUNTRY CRISES

Starting with Greece in 2009, countries in the periphery of the Eurozone drifted into a sovereign debt crisis as concerns about deterioration of credit quality made it increasingly difficult for the affected countries to refinance and service existing debt. The crisis quickly spilled over to Ireland, Italy, Portugal, and Spain. Deterioration in sovereign credit-worthiness fed back into the financial sector (Acharya, Drechsler, & Schnabl, 2014).

Consequently, lending to the private sector contracted substantially in these countries. This drop in credit supply led to a sharp increase in uncertainty for borrowing firms as to whether they would be able to access bank funding in the future. However, individually these countries coasted into the crisis because of country-specific reasons leading to several years of rapid expansion, which entailed major internal and external imbalances.

Iceland

Iceland, which is not a member of the EU, faced similar challenges to those of some countries at the periphery of the Eurozone. Against the backdrop of the global financial turmoil, Iceland was struck by a banking crisis of unprecedented proportions. The economy plunged into a deep recession.

Iceland's three main banks, which accounted for 85 percent of the banking sector, were put into receivership in October 2008. These banks had pursued risky strategies, notably borrowing large sums in foreign capital markets to finance the international expansion of Icelandic investment companies. The consolidated assets (i.e. including the assets of Icelandic banks' foreign subsidiaries) of the three banks grew from 170 percent of the GDP at the end of 2003 to 880 percent of the GDP by the end of 2007 (OECD, 2009a).

The three banks had unusually large exposure to highly leveraged firms and to individuals whose main activity was investing in shares or other venture capital or speculative activities (Jännäri, 2009). Domestic credit to the nonfinancial private sector grew at an annual average rate of 30 percent between 2003 and 2007. High rates of domestic credit growth led to high asset inflation. The Icelandic equity market rose by 390 percent during that period. Real house prices also rose by 89 percent between 2000 and 2007. Non-financial firms and households took on extra debt during the boom years based on inflated asset values. In some cases, the debt was foreign-currency denominated without matching foreign-currency assets or revenues.

Household debt rose from 169 percent of household disposable income before interest payments in 2003 to 201 percent in 2007 (OECD, 2008). The surge in economic growth was led by an investment boom. Investment in large-scale projects related to aluminium smelting and electricity generation grew at an annual average rate of 19 percent between 2003 and 2007. Inflation was much more volatile in Iceland over these four years than in the Euro area. The current account deficit soared from five percent of the GDP in 2003 to 25 percent of the GDP in 2006, reflecting a growing deficit on goods and services. The Central Bank of Iceland (CBI) steadily increased its policy rate, making Iceland an alluring destination for foreign exchange carry trade, much like the Southeast Asian countries in the late 1990s. High interest rates had driven up the value of the Icelandic Króna. Iceland's real effective exchange rate was overvalued by 15 to25 percent in the first half of 2007 (IMF, 2008). The currency started depreciating from late 2007 onwards.

When the first signs of the global financial crisis began to emerge in the summer of 2007, concerns were raised about Icelandic banks' loans made to companies with complex ownership structures and about them being less closely supervised than other banks in the EU. Reflecting these concerns, their borrowing costs rose more sharply than for most banks in Europe or the US. Despite these difficulties, Icelandic banks massively expanded foreign lending between July and December 2007.

With rising borrowing costs, the Icelandic banks turned to the CBI and ECB discount windows for funding, but they were soon out of bounds. Iceland's Parliament approved legislation empowering the government to borrow to bolster the reserves of the CBI, but high borrowing costs deterred the government. In October 2008, the Parliament passed emergency legislation allowing the Financial Services Authority (FME) to intervene in the banks' operations and take them over.

The government partitioned the failed banks into new banks, which took over domestic deposits and loans booked through domestic branches, and old banks to be liquidated (OECD, 2009). Losses incurred on loans to the three main banks, bank securities held by the treasury, and costs related to loan guarantees led to an increase in the net government (and central bank) debt by about 14.5 percent of the GDP.

In November 2008, the government sought an IMF Stand-By Arrangement (SBA) to help build confidence in the recovery programme and to obtain necessary foreign currency funding at a reasonable cost.

Ireland

Ireland performed remarkably well between 2000 and 2007. GNP grew by 5.4 percent per year on average in real terms, propelling per capita income to above the EU average. But growth was heavily dependent on debt-driven property and housing markets. With the population growing, incomes expanding rapidly, and the European monetary union providing access to mortgage finance at historically low rates, there was a surge in the demand and ability to pay for housing (Whelan, 2011).

Private sector credit increased from 128 percent of annual GNP in 2002 to 215 percent in 2007, growing at an annual average rate of 20 percent. Mortgage lending was particularly buoyant; it expanded at an average annual rate of around 25 percent. Residential construction reached 13 percent of the GDP in 2006. Yet housing supply could respond only partially to rising demand. Thus, house prices in Ireland quadrupled in price between 1996 and 2007 (OECD, 2008).

The expansion of borrowing, particularly for property, was encouraged by the following: changes in the Irish economy; weak risk-management protocols and practices in the main lending banks; lower credit standards for mortgage lending; lax bank supervision; and the ability of the Irish financial intermediaries to borrow heavily in international financial markets.

In addition, a variety of property-related tax reliefs and incentives were provided at different times, contributing to demand for housing and real estate. Thus, household indebtedness rose substantially (OECD, 2009b).

Due to housing activity and surging house prices, the share of tax revenue from asset-based taxes rose steadily during the 1990s and then rapidly during the period after 2002. At the same time, there was a corresponding reduction of a similar magnitude in the amount of revenue collected from income tax. Rising demand did not result in any significant inflationary pressure on consumer goods, though rapid asset price inflation did occur. But, with rapidly rising consumption fuelling imports, the current account balance moved into deficit to reach around 5.4 percent of the GDP in 2007 (Whelan, 2011).

The collapse of the housing market resulted in a severe economic recession in the aftermath of a sharp tightening of financial conditions. As evidence built up of the scale of the Irish construction collapse, international investors became concerned about the exposure to the property investment loans of the Irish banks. These banks found it increasingly difficult to raise funds on bond markets. The government decided to give a near-blanket guarantee for a period of two years to the banks (Whelan, 2013).

The collapse in construction activity and the corresponding explosion in unemployment resulted in a large loss in income tax revenues and an increase in social welfare payments. Consumption fell sharply by almost nine percent from its peak by the first quarter of 2009, and it remained weak as households repaired their balance sheets.

Irish real GDP declined by 3.5 percent in 2008 and by 7.6 percent in 2009. After years of budget surpluses, Ireland was suddenly faced with a yawning fiscal gap. By 2010, it was clear to international financial markets that in addition to a serious problem with its budget deficit, Ireland was facing a large bill of uncertain size in relation to recapitalising its banking sector (Whelan, 2011 and Whelan, 2013).

The National Asset Management Agency (NAMA) was set up to issue government bonds to the banks to purchase distressed property assets at a discount. The banks could issue bonds from late 2008 to early 2010 under the protection of the state guarantee. When the banks failed to find new sources of market funding to roll maturing bonds, they turned to the ECB for emergency funding. Borrowing from the ECB by the guaranteed banks jumped from 36 billion Euros in April 2010 to 74 billion Euros in September (OECD, 2011a).

The banks also began to run out of eligible collateral to use to obtain loans from the ECB. International markets became increasingly concerned that the Irish banking sector was going to destroy the credit-worthiness of the Irish sovereign.

Failing to see any sign of improvements in the banking sector, the ECB made its continued support for the Irish banking system contingent on Ireland applying to the EU and the IMF for a multi-year lending programme. Based on data up to 2011, the Irish banking crisis ranked as one of the most expensive banking crises in an advanced economy since the 1970s (Laeven & Valencia, 2012).

In November 2010, the Irish government agreed to a multi-year funding deal with the EU and the IMF. This was the first major correction Ireland had experienced since the European Monetary Union (EMU). It required adjustment to take place in a different way from the past, when the nominal exchange rate could be adjusted.

Portugal

Unlike other countries in the peripheral Eurozone, where economic growth had been sustainably high before the crisis, Portugal had experienced low growth since 2001. In the early 2000s, it experienced neither a housing boom like Spain and Ireland nor as rampant an increase in public debt as Greece, nor did it suffer from Italy's chronic political instability.

Spurred by EU membership, Portugal undertook a wide range of reforms to liberalise its economy and opened it to foreign trade and investment. These reforms paid off in terms of GDP growth, and Portugal managed a significant catch-up towards the living standards of more affluent OECD economies until the early 2000s. Between 2000 and 2005, Portugal was in a slump, with anaemic productivity, almost no economic growth, high current account and budget deficits, and steadily increasing unemployment (OECD, 2010).

It wasn't until 2005 that economic growth picked up again, in part to a renewed effort at macroeconomic and structural reforms. Since then, over-reliance on consumption to induce growth, weak labour productivity gains, and insufficient wage moderation have led to a deterioration of competitiveness and significant external indebtedness. To regain competitiveness, Portugal, as a (premature) member of the Eurozone, could no longer depend on currency devaluation as a primary instrument for structural adjustment. Instead it had to adjust through 'internal devaluation' – i.e. through real relative wage declines and improved productivity growth.

Both occurred to an extent. Beginning in 2002, wage growth slowed considerably. The accumulated real effective exchange rate, measured in relative unit labour costs, rose by 3.6 percent in Portugal from 2003 to 2008 compared to 11 percent in the Euro area. Labour productivity in the second half of the last decade increased relative to average EU levels (Lourtie, 2011).

In terms of policy, the rate and span of badly needed structural reforms also increased during the period of low economic growth in Portugal. That was seen notably in outcomes related to education, investment in R&D, energy generation from renewables, improving the business environment, and labour market flexibility. The Portuguese government also implemented substantial pension and public administration reforms. Although the economy showed signs of correcting deficits in relative competitiveness and of more dynamism in exports, current account deficits nevertheless remained extremely high (Lourtie, 2011).

While the country was implementing several reforms during the 2000s, both the government and the country's private sector were accumulating debt at much too rapid a pace. In addition, fiscal headroom created by a decrease in sovereign yields as Portugal moved into the Euro area was more than offset by permanent spending increases.

Public expenditure rose by more than nine percent of the GDP in the decade between 2000 and 2010. In particular, spending on social benefits rose sharply, reaching 20.3 percent of the GDP in 2012, up from 12.2 percent of the GDP in 1995. Portugal adopted one of the largest Public Private Partnership (PPP) programs in the world for public investment, with a cumulative investment of 15 percent of the GDP (IMF, 2015).

On average, this implied higher fiscal deficit by roughly one percent of the GDP over the period in which these concessions were granted (1995–2010). Similarly, the state-owned-enterprise (SOE) sector expanded greatly, often to circumvent stricter policies applied to general government entities.

Most of the borrowing from abroad came through trade deficits with the rest of the European Union. Banks were at the centre of these capital flows, serving as the intermediary between foreigners and Portuguese firms and households. Chen, Milesi-Ferretti, and Tressel (2010) estimate that, in 2007, banks accounted for approximately half of Portuguese foreign debt.

Categorising gross capital flows into equity, foreign direct investment, and debt, Lane (2013) estimates that between 2003 and 2007, debt accounted for 68 percent of these flows. Capital inflows funded unproductive firms in the non-tradable services sector. Portuguese banks were particularly vulnerable to a shift in investor sentiment owing to excessive reliance on foreign borrowing and exposure to government bonds (especially in 2010). The banking system's aggregate net income turned negative in 2011, due largely to growing credit impairments and losses in financial assets portfolios (OECD, 2012).

The soft approach taken by Portugal to correct its more egregious economic and financial imbalances was too late and too slow when the global crisis hit. The economy went into recession in late 2008. The fiscal deficit reached 9.3 percent of the GDP in 2009 on the back of a large consumption and fiscal stimulus package after the country had been through a period of significant fiscal consolidation between 2005 and 07 (Figure 4). Relatively high public indebtedness combined with weak potential growth made fiscal consolidation a pressing concern once again.
Investors became more reluctant to buy Portuguese debt in the spring

of 2010, with spreads peaking in early May 2010. As a response, the government revised its fiscal consolidation programme by deciding to postpone some major investment projects and setting more ambitious deficit targets from 2010 to 2013, announcing additional consolidation measures.

Unlike Greece or Ireland, there was no single decisive event to undermine market sentiment. Contagion, Portuguese economic vulnerabilities, and risks stemming from austerity had added up to form negative market perceptions. In March 2010, the Portuguese government announced guidelines to meet the 2011, 2012, and 2013 fiscal consolidation targets and further structural reforms. These included the judicial reform, change in competition rules and housing laws, and adopted the Stability and Growth Pact for 2012-14 (OECD, 2011).

However, the Portuguese Parliament rejected the austerity package and the country headed for early elections. Political instability led to soaring interest rates for Portuguese bonds and rating agencies plunging Portugal's rating. With the financing conditions collapsing for both the sovereign and its banks and companies, in April 2011, the Portuguese government sought international financial assistance of 78 billion Euros from the EU and the IMF (IMF, 2016).

Greece

Greece entered the Eurozone without meeting the convergence criteria of three percent of the GDP ceiling on the government deficit. The Greek public debt level had been high (it was significantly understated when Greece adopted the Euro as its currency), fluctuating around 100 percent of the GDP since 1993. Adoption of the Euro in 2001 and loose global credit conditions in the 2000s allowed Greece easy access to foreign borrowing, which financed a significant expansion of government spending (IMF, 2013).

Easy access to credit, however, discouraged the governments of the 2001-2009 period from implementing sound economic policies and therefore allowed for further deterioration of fundamentals (Arghyrou & Tsoukalas, 2010). As a direct fiscal dividend, government interest expenditure dropped from 11.5 percent of the GDP in the mid-1990s to five percent of the GDP in the mid-2000s. However, these savings were more than swallowed up by increased spending on wages and pensions.

In 2008, the general government deficit reached 15.5 percent of the GDP (after incorporating data revisions), up from four percent of the GDP in 2001. Public debt was 140 percent of the GDP by 2010, with 75 percent held by foreigners (Figure 5). There were also significant contingent liabilities due to public enterprises borrowing under state guarantee, while the pension system had become underfunded because of increasingly generous entitlements and an aging population (IMF, 2013).

The counterpart to the decline in government saving was a sharply widening current account deficit that reached 15 percent of the GDP in 2008 (Figure 2). The total net foreign debt, both public and private, rose to 105 percent of the GDP in 2010 (IMF, 2013).

Robust private credit growth following financial liberalisation served to boost household consumption. Real GDP growth averaged four percent from 2000 to 2007, higher than in all Euro area countries. Although asset price inflation and household indebtedness remained moderate, government debt mounted rapidly.

Growth remained positive until the end of 2008 due to relatively buoyant exports to the Balkans and large wage increases, which supported consumption. But persistent structural imbalances – illustrated by the poor state of public finances, tax evasion, and the large current account deficit – limited room for policy manoeuvre, and Greece's exposure to Southeastern Europe increased the country's vulnerability to the crisis (OECD, 2009c).

In the wake of a general increase in risk aversion when rating agencies lowered the ratings of Greek sovereign debt and those of the country's main banks based on the persistence of structural imbalances, the long-term sovereign interest rate spread vis–à–vis Germany started widening sharply in early 2009. From 200 basis points in December 2008, the spreads shot up to 477 basis points in April 2010 (OECD, 2011b). In October 2009, a new government took office and announced that the fiscal problem had been significantly understated. Public debt estimates were also marked up sharply. Fitch responded by downgrading Greece's sovereign rating from A- to BBB+ (IMF, 2013).

Greek banks weathered the crisis initially, as they had to only deal with reduced liquidity. During 2009, there was a considerable slowdown in credit expansion to the private sector. From early 2009, owing to the restriction of funding sources, Greek banks started relying on the Eurosystem for raising liquidity. The worsening macroeconomic environment inevitably affected the quality of the Greek banks' loan portfolios. They became vulnerable to international turbulence through their exposure in Bulgaria, Romania, and Turkey. Bank claims in these countries were close to 17 percent of the GDP. Banks had substantial exposure to a contracting real estate sector in Greece. By 2010, Greek banks faced a considerable rise in the liquidity risk and deposit outflows (Alogoskoufis, 2012).

A support package of 28 billion Euros was adopted to boost confidence and liquidity in the banking system and to support credit growth to the private sector. It contained measures to increase the statutory guarantees for deposits with credit institutions, aid to bolster bank capitalisation (including government acquisitions of equity), and guarantees to support bank liquidity. In May 2009, the Bank of Greece conducted a comprehensive stress test of the Greek banking system with the IMF.

As part of the European Commission (EC) excessive deficit procedure (EDP), Greece was obliged to undertake measures by October 2009 to bring its deficit back to three percent by 2010 from five percent of the GDP in 2008. Thus, the government was forced to limit its crisis-related fiscal support to the most vulnerable groups and key economic sectors. After the austerity plan was adopted, growth prospects weakened substantially.

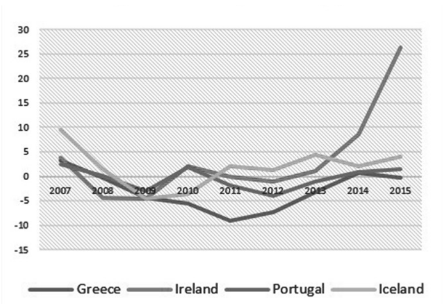
In December 2009, Greece committed to achieving fiscal consolidation via a Stability Programme with the EC that aimed to cut the deficit from 12.5 percent of the GDP to 8.75 percent in 2010 and by a further three percent in 2011 and in 2012. As part of the process, public sector wages were frozen, civil servant bonuses were partially cancelled, and indirect taxes were increased.

However, by early 2010, the Greek government faced a major crisis of confidence. Contagion from Greece was a major concern for Euro area members given the considerable exposure of their banks to the sovereign debt of the Euro area periphery. Assurances by the Eurogroup that it would stand by Greece failed to convince sovereign bond markets.

By late March, it became apparent that the Greek government was unable to refinance maturing debt or raise new capital. At the end of April 2010, Eurozone countries agreed to provide to Greece with 80 billion Euros in bilateral loans, coordinated by the European Commission, with an additional amount of up to 30 billion Euros available from the IMF. In July 2011, as it gradually appeared unlikely that Greece would be able to return to the markets in 2012 as originally envisioned, Eurozone countries agreed to an additional official financing of 109 billion Euros (Alogoskoufis, 2012).

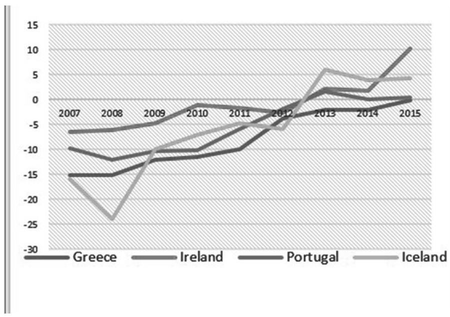
The adjustment challenge faced by the four countries differed both in nature and extent. Therefore, the required policy mix and the ability to implement policies also differed significantly. Although this differentiation was important, the key elements of the structural policy framework were broadly applicable across these countries, albeit with differing degrees of emphasis.

Figure 1. *Real GDP growth rate (%)*



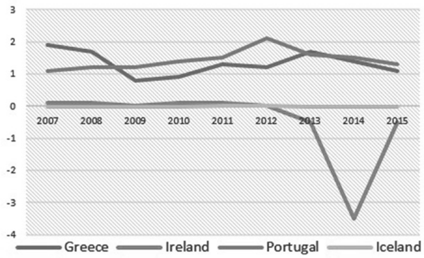
Source: Eurostat (2016)[1]

Figure 2. *Current account as % of GDP*



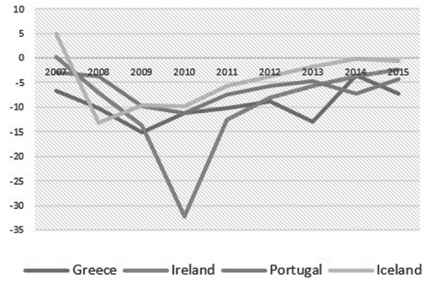
Source: Eurostat (2016)[2]

Figure 3. *Capital account % of GDP*



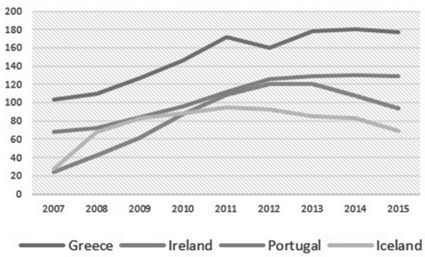
Source: Eurostat (2016)[3]

Figure 4. *Fiscal balance as % of GDP*



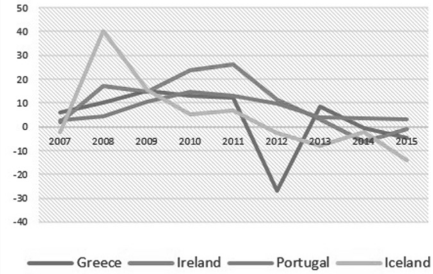
Source: Eurostat (2016)[4]

Figure 5. *Government debt (nominal value) as % of GDP*



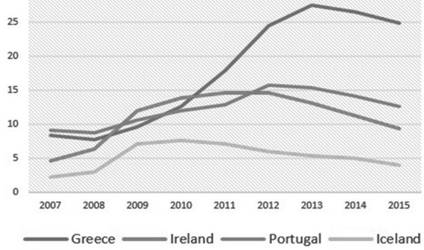
Source: Eurostat (2016)[5]

Figure 6. *Change in government debt (% of GDP)*



Source: Eurostat (2016)[6]

Figure 7. *Unemployment rate*



Source: Eurostat (2016), OECD Stat (2016)

[1] *http://ec.europa.eu/eurostat/data/database accessed 10/9/2016*
[2] *http://ec.europa.eu/eurostat/data/database accessed 10/9/2016*
[3] *http://ec.europa.eu/eurostat/data/database accessed 10/9/2016*
[4] *http://ec.europa.eu/eurostat/data/database accessed 10/9/2016*

THE IMF/EU ADJUSTMENT PROGRAMMES

The economic stabilisation programmes, designed to restore confidence in affected economies, included measures to restore fiscal sustainability by implementing sound banking strategies and structural reforms.

The first pillar of the programmes was related to achieving fiscal sustainability and included correction of excessive deficits, significant tightening of the structural balance, privatisation, targeted expenditure rationing, targeted revenue measures, and better fiscal control over public-private partnerships and SOEs.

The second pillar focused on financial stability with immediate attention to strengthening the banking sector, reforming the banks' operations, revising financial regulation in accordance with international best practice, recapitalisation, and safeguarding the financial sector against disorderly deleveraging through market-based mechanisms supported by backstop facilities.

In the case of Iceland, the adjustment programme had also included capital controls to prevent capital flight and focused on rebuilding monetary policy credibility by stabilising inflation at low levels. For the Euro area in the absence of the exchange rate lever, structural reforms were necessary to facilitate internal devaluation and boost economic growth.

Accordingly, the third pillar of the programmes consisted of structural reforms to allow a return to a robust and sustainable growth. Reforms included, in particular, reforms in the labour market, improving competitiveness, increasing competition in labour and product markets, boosting productivity, and improving the business environment.

THE PATH, NATURE, AND SPEED OF ADJUSTMENT

Iceland

In Iceland's case, agreements were reached with the creditors of each of the old banks by the end of 2009 on compensation instruments for the net assets transferred to the new banks, enabling the new banks to be capitalised. Empowered by emergency statutory authority gained at the time of the crisis, the FME imposed stricter capital standards on the new banks, doubling the required capital adequacy ratios (CAR) from the Basel II minimum of eight percent to 16 percent (FME, 2009).e The Icelandic authorities consistently adopted an approach of making shareholders in failing banks absorb losses first and, once capital was exhausted, exposing non-priority unsecured creditors to losses.

Although the size and scale of Iceland's banks relative to the size of Iceland's economy did not give the government the option of rescuing them, losses were imposed on creditors even for small savings banks. This helped strengthen market discipline. Allowing insolvent banks to fail accelerated the necessary downsizing of their balance sheets (OECD 2009a). The assets of Iceland's credit institutions fell from a peak of around 11 times the GDP to about 2.5 times the GDP in 2011.

The main downside was that the government damaged its reputation for upholding private property rights by changing the ranking of creditors in the Emergency Act of 2008 to the benefit of depositors at the expense of the other creditors.

Prudential regulation and supervision were reformed to prevent the practices that most contributed to the failure of the banks from recurring. Legislation in 2014 created a Financial Stability Council (FSC) – composed of the heads of the CBI, FME, and the Ministry of Finance and Economic Affairs – with a broad mandate to formulate financial stability policy, assess threats to stability, and recommend policy actions.

Economic recovery was initially led by private consumption, which was temporarily boosted by write-downs of household debt, households drawing down their pension assets and special payments from banks and the government, and residential and business investment. Private consumption expenditure and residential investment have continued to expand, supported by employment growth and wealth gains from rising house prices (IMF, 2008).

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[1] With these agreements, the new banks were capitalised to a high level on average (a risk-adjusted CAR of around 16 percent, with a Tier 1 ratio of around 12.5 percent) by the end of 2009. It was a high level (16 percent) by international and historical comparison in view of the high level of uncertainty about the value of the banks' loan portfolios.

Iceland exemplified that monetary policy was an ineffective tool to stabilise a small open economy facing a mismanaged financial liberalisation process and developments in global capital markets (Elíasson & Pétursson, 2009) that eluded its capacity to control.

The collapse of the banking sector led to a recalibration of the monetary policy objectives. The effective exchange rate had plunged 40 percent by early October 2008 compared to its level at the beginning of the year. Stabilising the Icelandic króna was a fundamental element of the programme for economic recovery. Consequently, exchange controls on capital movements were introduced to prevent a disorderly outflow of capital held by foreigners (about 40 to 50 percent of the 2009 GDP).

Inflation came down from a peak of 18.6 percent in 2008 to 2.8 percent in April 2011. Since the crisis, inflation has come down to levels in line with the CBI target, aided in part by the disinflationary global environment and by diminished variability in the exchange rate from capital controls.

The large current account deficits that Iceland had been running during the boom years were eliminated in the wake of the financial crisis. This turnaround was attributable to the contraction in imports caused by the collapse in domestic demand and a large real exchange rate depreciation. After a sharp depreciation at the onset of the crisis, the króna settled at a competitive level, boosting net exports and avoiding a further deterioration in private and public sector balance sheets (OECD, 2009a).

Gross government debt, which had shot up to 120 percent of the GDP in the wake of the financial crisis, was reduced to 85 percent of the GDP in 2014 (Figure 5). Iceland designed a fiscal consolidation programme to place public finances on a sustainable path, restore access to outside lending, reduce the sovereign risk premium, and reduce vulnerability to future crises.

Slightly more than half of the improvement was achieved through revenue increases. The direct tax system became more progressive with an increase in the flat tax on capital income as well as the reintroduction of a wealth tax. Most of the reduction in expenditures (excluding write-offs) was achieved by cutting government investment and non-wage consumption.

While economic recovery has progressed, growth is much slower than during the previous expansion. Business investment has slowed sharply, mainly owing to declines in shipping and aircraft investment and energy-intensive industry investment (Figures 12 and 14). With financial institutions restructured, the remaining requirement for restoring normal financial intermediation services was to restructure non-performing loans (NPL) or foreclose if that resulted in smaller losses.

However, progress in restructuring the banks' NPLs or foreclosing on them has been slow. By late 2010, NPLs had only fallen to about 40 percent of the book value of the banks' loan portfolios from a peak of 45 percent in late 2008.

Ireland

Ireland had several advantages: a large export sector (exports of goods and services exceed 100 percent of the GDP); a friendlier environment in which to do business; a more efficient tax system with a lower tax wedge on labour; more stable and lower corporate taxes; and more flexible and well regulated product and labour markets. Ireland's structural strengths were reflected in the relatively few structural reform conditions incorporated in its financial assistance programme.

Ireland continued to attract and benefit from foreign investment throughout the crisis. The fiscal deficit was brought under control through expenditure measures adopted by the government, including cutting public sector wages, social welfare, and capital spending. Around 60 percent of the consolidation measures implemented from 2008 to 2012 were on the expenditure side (OECD, 2011a).

Revenue was increased from 2011 onwards by broadening the income tax base, reducing the tax relief on pension contributions, cutting other tax expenditures, introducing an interim property (site value) tax, increasing the carbon tax, and reforming capital gain taxes. Between 2009 and 2014, the fiscal deficit (excluding bank-related financial measures) fell from 11.5 percent to four percent of the GDP, while gross public debt fell from a peak of 120.2 percent of the GDP in 2014 to 98.4 percent in 2015 (Figures 4 and 5) (OECD, 2015).

Export growth has been strong, as Ireland has gained market share thanks partly to improved cost-competitiveness since 2009. Labour costs adjusted swiftly after the onset of the crisis. Relative unit labour costs declined by about 16 percent by the end of 2012. The current account balance reversed significantly from -5.7 percent of the GDP in 2008 to 3.6 percent of the GDP in 2015 (Figure 2) (OECD, 2015).

However, the long-term unemployed and those outside the labour market still account for a larger share of the working-age population than before the crisis. Private-sector (households and non-financial corporations) debt remains high at 290 percent of the GDP, well above the Euro area average of about 165 percent (OECD, 2015).

In response to the 2008 banking crisis and the burst of the housing bubble, the authorities consolidated financial regulation in the central bank, adopting more risk-based and intrusive supervision; transferred large bad property loans to NAMA (a 'bad bank'); and undertook capital injections, liquidity support, and government guarantees. In addition, Ireland introduced a special resolution regime for banks, strengthened the deposit insurance scheme, issued a code of conduct to address mortgage arrears, and reformed the personal bankruptcy regime.

The banking sector has since returned to profitability in 2014, mainly due to a reduction in impairment charges, but non-performing loans still account for just under a fifth of the value of outstanding loans. The NPL ratio peaked at 25.7 percent in 2013. The share of very long-term mortgage arrears (720 days and over) in total arrears is still increasing, albeit at a much slower rate. Domestic credit to businesses is still constrained (Figure 14) (OECD, 2015).

Portugal

In Portugal, a process of rebalancing the economy from non-tradables to tradables had begun before the start of the IMF/EU programme in 2011. In the tradable sector, unit labour costs decreased by almost five percent between 2009 and 2013, while adjustment in the non-tradable sector started only in 2011, leading to a decrease in unit labour costs of 1.5 percent between 2011 and 2013.

Unit labour costs experienced a particularly large fall in 2013, originating largely in the public sector. The regular work-week of central government employees was raised from 35 to 40 hours with no pay rise in September 2013.

Significant progress has been made in improving Portugal's external position, as evidenced by the elimination of a long-standing current account deficit and strong growth in exports. By the end of 2013, exports had increased to over 40 percent of the GDP, compared to less than 30 percent of the GDP before the crisis. Its 11-percent-of-the-GDP improvement in the current account balance was the largest and the first surplus in more than 40 years (Figure 2) (OECD, 2014b).

This adjustment process was partly due to a contraction in domestic demand amid reduced private consumption and investment but was also supported by improving competitiveness due to wide-ranging labour and product market reforms, with an annual decline in unit labour costs relative to the Euro area of two percent over the 2011-2013 period.

Exports have been driving economic growth on the heels of sustained gains in market share by Portuguese exporters since 2010, outpacing most of their European competitors and reforms implemented in the 2000s. These gains have been broadly based and are testament to the flexibility of Portuguese firms to shift to external markets in the face of stagnating domestic demand, as well as to marked improvements in international competitiveness (OECD, 2014a).

The structure of Portuguese exports changed significantly. Merchandise exports now account for 70 percent of overall exports and are fairly diversified across a number of sectors. In services, the common language has facilitated rising exports of medical services, construction activities, and legal advisory services to Lusophone Africa (Arnold, 2015).

With an average current account deficit of almost 10 percent of the GDP between 2000 and 2009, Portugal showed improvement in export performance after 2010 and turned a small surplus of 0.5 percent of the GDP in 2013. Portugal needs to export more in the coming years, as its external debt is very high at 221 percent of the GDP, and it will need to be reduced through sustained current account surpluses (Arnold, 2014).

Between 2011 and 2015, the budget deficit fell from 7.4 percent to 4.4 percent of the GDP, while gross public debt has risen from 111 percent of the GDP in 2011 to 129.1 percent in 2015 (Figure 5). Permanent consolidation measures totalling some 12.5 percent of the GDP (ex-ante assessment) were implemented between 2011 and 2013. On the expenditure side, consolidation has been achieved via reductions in the public-sector wage bill, intermediate consumption, and public investment, whereas on the revenue side, consolidation has been mainly attributable to income tax increases (IMF, 2016a).

The combined stock of arrears for the general government sector and SOEs outside the general government fell from about 4.3 billion Euros (2.5 percent of the GDP) at the beginning of the Programme in May 2011 to about two billion Euros (1.2 percent of the GDP) by July 2014.

After implementing reforms aimed at streamlining the functioning of the public sector to reduce fiscal risks, as well as an increase in VAT and direct taxes, Portugal has achieved a significant structural primary surplus since 2012 and a significant reduction in the overall fiscal deficit. However, this is still short of original programme objectives. Efforts to reduce the public wage bill and rein in pension expenditures have been hindered by recurrent adverse rulings by the Constitutional Court (CC). Portugal still faces the challenge of building a more competent public administration while reducing public employment and the wage premium relative to the private sector (IMF, 2016b).

The banking sector suffered from difficult access to wholesale funding

[1] In particular, the CC required: (i) the fiscal consolidation burden to be shared between civil servants and the rest of the population; and (ii) wage bill consolidation to take place through structural reforms of public employment, rather than nominal cuts in wages.

in the aftermath of the financial crisis and has since relied more strongly on deposits, which have been resilient. To reinforce market confidence and comply with capital ratio requirements, banks have increased their capital. But high (and still rising) NPLs reflect the weak profitability and excessive indebtedness of a large segment of Portuguese firms. They are also reflective of lower lending standards by banks in the run-up to the crisis (Figure 14) (IMF, 2016b).

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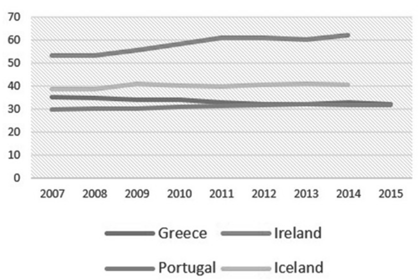
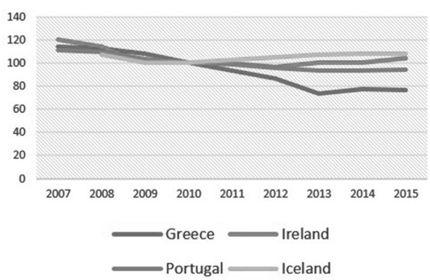
Figure 8. *Level of GDP per capita and productivity (%)*



Source: Eurostat (2016)[1]

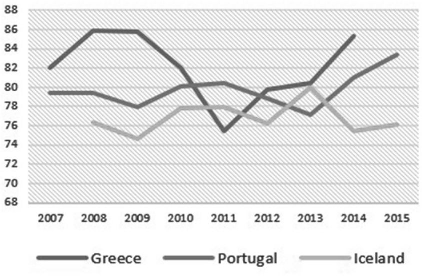
Figure 9. *Labour input in industry (Index 2010=100)*



Source: Eurostat (2016)[2]

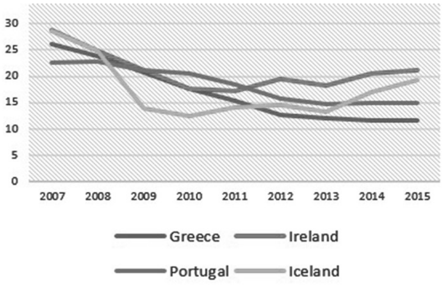
[1] *http://ec.europa.eu/eurostat/data/database accessed 10/9/2016*
[2] *http://ec.europa.eu/eurostat/data/database accessed 10/9/2016*
[3] *http://ec.europa.eu/eurostat/data/database accessed 10/9/2016*
[4] *http://ec.europa.eu/eurostat/data/database accessed 10/9/2016*

Figure 10. *Labour transition (to the same or higher qualification level) as % of population*



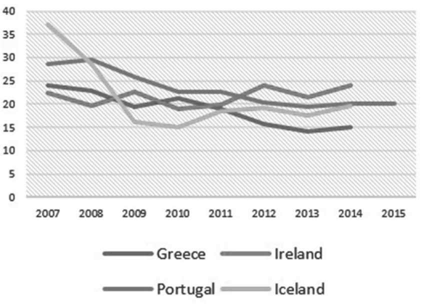
Source: Eurostat (2016)[3]

Figure 11. *GFCF (current prices) as % of GDP*



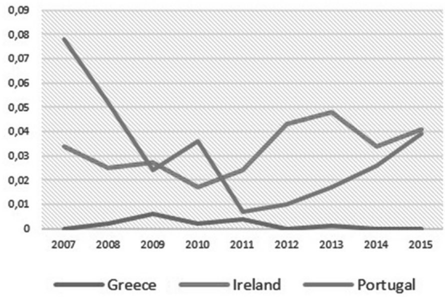
Source: Eurostat (2016)[4]

Figure 12. *Investment rate of non-financial corporations (%)*



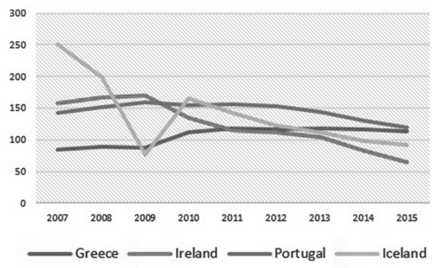
Source: Eurostat (2016)[5]

Figure 13. *Venture capital investments as % of GDP*



Source: Eurostat (2016)[6]

Figure 14. *Domestic credit to private sector (% GDP)*



Source: Eurostat (2016)[7]

WHY ADJUSTMENT FAILED TO OCCUR IN GREECE

Greece initially held up better during the global economic crisis than many other countries. However, it was afflicted by high public debt, repeated fiscal slippages, and large external and internal imbalances. Greece was advised to curb tax evasion, improve tax collection, cut administrative costs, rationalise and limit its wage bill, reform loss-making state enterprises, and undertake pension reforms. The Greek authorities resolutely implemented substantial fiscal consolidation and wide-ranging structural reforms.

The budget deficit was cut by about five percent of the GDP in 2010. Pension and healthcare reforms have enhanced long-term fiscal sustainability, while structural reform has improved labour market flexibility and cost competitiveness. Revenue has increased from 2010 onwards by increasing the income and sales tax rates, while corporate tax rates have risen from 2013. Between 2010 and 2015, the budget deficit fell from 11.1 percent to 7.6 percent of the GDP before rising to 12.4 percent in 2013, while gross public debt rose from 146 percent of the GDP in 2010 to 179 percent in 2015.

The strong fiscal contraction reduced domestic demand dramatically. But the adjustment programme agreed upon in 2010 between the Greek authorities, the IMF, the European Commission, and the ECB did not yield the expected results in restoring growth.

Economic activity has been hit much harder in Greece than in other Eurozone countries with adjustment programmes, such as Ireland and Portugal. Market confidence has not been restored yet, the banking system has lost 30 percent of its deposits, and the economy has encountered a much deeper than expected recession with exceptionally high unemployment. Even as Greece cut spending deeply and raised taxes, public debt has remained too high and was eventually restructured in 2012, with collateral damage for bank balance sheets that were already weakened by the recession.

As in Portugal, Greece has been unable to implement all the reforms required by the adjustment programme. Yet investors have doubted the ability of the reforms in Greece to deliver growth and fiscal consolidation. An OECD competition assessment report (2013) identified a wide range of regulations and legal provisions that undermined competition in sectors like food processing, retail trade, building materials, and tourism.

Lack of competition and rent seeking behaviour has led to Greek businesses and consumers paying a very heavy price in the form of a total of 5.2 billion Euros in lost efficiency and higher prices for goods and services. The government has been unable to implement the ambitious privatisation programme to any significant degree. This might be due to a lack of effective social dialogue between government and civil society, resulting in a lack of public understanding and acceptance of reform measures. Unit labour costs in Greece have not adjusted as swiftly as they did in Ireland. They started falling from 2012 onwards, initially by 2.33 percent. Since 2013, unit labour costs have fallen by more than 30 percent (Eurostat).

Although competitiveness improved on the back of falling wages, Greece's exports of goods and services still underperformed, unlike in the cases of Ireland and Portugal. Greece's current account to GDP ratio has been rising since 2008, when it was the lowest at -14.9 percent (Figure 2). According to the OECD (2013), this was because Greece's export markets have been weak and its price competitiveness has not improved nearly as much as its cost (wage) competitiveness.

This could be related to stalled structural reforms and a lack of productivity gains (Figure 9). This suggests that the liberal trade and investment policies that support structural adjustment by contributing to growth, innovation, and competitiveness have been implemented neither gradually enough to enable affected parties to adapt nor quickly enough to avoid policy reversal.

The economy has shrunk by 22 percent since 2010, with the unemployment rate remaining at a very high 24.3 percent in 2015, marginally lower than the all-time high of 27.88 percent in 2013 (Figures 7 and 8). The sustained high unemployment rates show that labour market policies to help develop workers' skills and facilitate labour mobility (Figure 10) across occupations, firms, industries, and regions have not shown results as yet. This suggests that the mobility of labour is still constrained, disallowing its reallocation to more efficient uses and preventing an increase in its productivity.

At the same time, Greece has been unable to provide adequate assistance to groups and sectors that have experienced significant adjustment costs but derived few adjustment benefits because of the excessive deficit procedure (EDP). The sustained economic decline seen in Greece since the adjustment programme is akin to that in countries associated with war or natural disaster.

This situation reflects shortcomings in the design of the original programme, especially the cost and maturities of the loans provided to cover programme-funding needs. This was the first ever programme with a member of the Eurozone; i.e. the first that issues a reserve currency. This was also the first ever programme in which there was an absence of an exchange rate lever, with Greece being politically committed to remain in the Eurozone (Ireland and Portugal followed Greece's adjustment programme).

An internal IMF report on the bailout strategy has acknowledged that the IMF considered the prospect of lending to a Eurozone country to be unlikely and had not set out how such programmes might be designed. Contagion from Greece was a major concern for Euro area members given the considerable exposure of their banks to Greece's sovereign debt. The immediate objective of the joint rescue programme was to quell market fears that the Eurozone itself could break up and build firewalls to contain the spillover in the Eurozone economies. Against this backdrop, the programme was considered a necessity, although there were misgivings about Greek debt sustainability.

The programme helped Greece remain in the Eurozone, and contagion was contained, but Greece's economic problems haven't disappeared. The rescue programme was intended to buy Greece time to stabilise its public finances, but programme financing was used to repay maturing bonds in 2010 and 2011, thereby exacerbating the crisis. Non-resident holdings of government debt dropped sharply in the 2010-12 period. There was a large-scale substitution from privately held to publicly held debt, and this shift was intensified by market access not being regained in 2012 (IMF, 2013).

Deep fiscal adjustment and the austerity conditions of the adjustment programme have led to an economic depression, and economic imbalances have kept growing, preventing the economy from reaching a more sustainable equilibrium where key accounts are brought into balance and allowed to grow sustainably and strongly thereafter. The overall effect of the 2010 programme has increased Greece's debt burden further. So, while Greece went into an economic depression, Portugal and Ireland marched along the road to recovery.

The programme also helped in ensuring stability of the banking system and protected deposits. In 2012, the four largest banks were recapitalised by a total of 18 billion Euros, thereby restoring their capital adequacy and improving their liquidity. Greece also restructured its banking system through the establishment of bridge banks, the transferring deposits to other banks; and the transferring of a bank's sound part to another bank followed by the reestablishment of the part as an interim credit institution and selling it within a short time frame. But the lingering risk to the banking system remains, and the economic depression has led to a continuous increase in NPLs and a solvency crisis.

In 2011, European leaders agreed to a new financial support package for Greece, the key provisions of which included reduced interest burdens, a meaningful extension of maturities, some private-sector involvement, protection of Greek banks, and measures to foster economic growth in Greece. The approach again included more official loans for more austerity. Although relief was made on official debt payments, continuing austerity has made a return to growth impossible. Thus, even as Greece cut spending deeply and raised taxes, the debt-to-GDP ratio has risen. Without meaningful debt relief, there is little chance that Greece will be able to grow in the medium term. An IMF decision is awaited on whether it will participate in a third rescue programme, as it now seeks meaningful debt relief.

CONCLUSION

The policy challenge in the four countries was related to reforms in structural policies affecting the functioning of labour and product markets while providing effective income support and reemployment services to those who had lost their jobs.

However, in the case of Greece, the country had little room for any fiscal manoeuvre to provide meaningful unemployment benefits and active labour market programmes to help cushion the cost of adjustment for the affected individuals. Additionally, it has been burdened with several regulations and legal provisions that constrain competition in several product markets. Given these rigidities and constraints, the design of the first bailout programme that focused on repaying non-resident Greek debt holders aggravated the situation. While Ireland, with its open economy and flexible labour markets, adjusted quickly and witnessed steady growth in its GDP, its banking sector is still afflicted by significant NPLs, and long term unemployment has remained high.

On the back of labour and product market adjustments, Portuguese firms have been successful in expanding to newer markets in Lusophone Africa. In Greece, on the other hand, lower primary surplus and a weak reform effort have led to substantial new financing needs. Given the high existing stock debt, new financing needs and debt servicing have rendered Greek debt dynamics unsustainable.
To make Greek debt sustainable, the maturities of existing European loans not only need to be extended significantly but also need new financing to be provided on more concessional terms. However, given the extensive contraction of the Greek economy since 2010, significant haircuts on existing debt seem absolutely necessary if there is to be any prospect of Greece adjusting successfully and returning to a growth path.

REFERENCES

[1] Acharya, V. V., Drechsler, I., & Schnabl, P. (2014). A pyrrhic victory? Bank bailouts and sovereign credit risk. *Journal of Finance,* 69, 2689–2739.

[2] Alogoskoufis, G. (2012). *Greece's sovereign debt crisis:* Retrospect and prospect (GreeSE Paper No. 54). London: London School of Economics and Political Science.

[3] Arghyrou, M. G., & Tsoukalas, J. D. (2010). *The Greek debt crisis: Likely causes, mechanics and outcomes* (Cardiff Economics Working Papers, E2010/3). Cardiff: Cardiff University.

[4] Arnold, J. (2015). *Boosting export performance in Portugal* (Economics Department Working Papers No. 1257). Paris: Organisation for Economic Co-operation and Development (OECD).

[5] Borio, C., & Disyatat, P. (2011). *Global imbalances and the financial crisis: Link or no link?* (BIS Working Papers No. 346). Basel: Bank for International Settlements.

[6] Chen, R., Milesi-Ferretti, G. M., & Tressel, T. (2010). *External imbalances in the Euro area.* Washington, DC: International Monetary Fund (IMF).

[7] ECB (2009). *Financial Stability Review June 2009.* European Central Bank.

[8] Eichengreen, B., & O'Rourke, K. H. (2009). A tale of two depressions. *VOX EU.* Retrieved from http://www.voxeu.org/index.php?q=node/3421.

[9] Elíasson, L., & Pétursson, T. G. (2009). The residential housing market in Iceland: Analysing the effects of mortgage market restructuring. *Housing Studies, 24*(1), 25-45.

[10] European Commission (2009). *Economic Crisis in Europe: Causes, Consequences and Responses.* Economic and Financial Affairs Directorate, European Commission.

[11] FME (2009). *The financial supervisory authority annual report 2009.* Reykjavík: The Financial Supervisory Authority (FME).

[12] Gourinchas, P.-O., & Obstfeld, M. (2012). Stories of the twentieth century for the twenty-first. *American Economic Journal: Macroeconomics, 4* (January): 226–65.

[13] Guðmundsson, Mar (2016). *Recent economic and financial developments in Iceland.* Governor of the Central Bank of Iceland, at the 55th Annual General Meeting of the Central Bank

of Iceland, Reykjavík.

[14] IMF (2008). *Iceland: Financial stability assessment – Update* (IMF Country Report No. 03/271). Washington, DC: International Monetary Fund (IMF).

[15] IMF (2013). *Greece: Ex post evaluation of exceptional access under the 2010 Stand-By Arrangement* (IMF Country Report No. 13/156). Washington, DC: International Monetary Fund (IMF).

[16] IMF (2015). *Portugal: Selected Issues Paper* (IMF Country Report No. 15/127). Washington, DC: International Monetary Fund (IMF).

[17] IMF (2016a). *Portugal: Ex-post evaluation of exceptional access under the 2011 extended arrangement* (IMF Country Report No. 16/302). Washington, DC: International Monetary Fund (IMF).

[18] IMF (2016b). *From crisis to convergence: charting a course for Portugal.* Departmental paper series (International Monetary Fund. European Department). Washington, DC: International Monetary Fund (IMF).

[19] Jännäri, K. (2009). *Report on banking regulation and supervision in Iceland: Past, present and future.* Reykjavík: Prime Ministry Office, Government of Iceland.

[20] Laeven, L., & Valencia, F. (2012). *Systemic banking crises database: An update* (IMF Working Paper 12/163). Washington, DC: International Monetary Fund (IMF).

[21] Lane, P. (2013). *Capital flows in the Euro area* (Discussion Paper No. 9493). London: Centre for Economic Policy Research.

[22] Lourtie, P. (2011). *Understanding Portugal in the context of the Euro crisis.* Paper prepared for *Resolving the European Debt Crisis,* a conference hosted by the Peterson Institute for

International Economics and Bruegel, Chantilly, France, September 13-14, 2011.

[23] Moody's Investor Services (2016). *Moody's places Iceland's Baa2 sovereign rating on review for upgrade.* Global Credit Research, Moody's Investor Services.

[24] OECD. (2005). *Trade and structural adjustment.* Paris: Organisation for Economic Co-operation and Development (OECD).

[25] OECD. (2008a). *OECD economic surveys: Iceland.* Paris: Organisation for Economic Co-operation and Development (OECD).

[26] OECD. (2009a). *OECD economic surveys: Iceland.* Paris: Organisation for Economic Co-operation and Development (OECD).

[27] OECD. (2008b). *OECD economic surveys: Ireland.* Paris: Organisation for Economic Co-operation and Development (OECD).

[28] OECD. (2009b). *OECD economic surveys: Ireland.* Paris: Organisation for Economic Co-operation and Development (OECD).

[29] OECD. (2011a). *OECD economic surveys: Ireland.* Paris: Organisation for Economic Co-operation and Development (OECD).

[30] OECD. (2015). *OECD economic surveys: Ireland.* Paris: Organisation for Economic Co-operation and Development (OECD)

[31] OECD. (2011b). *OECD economic surveys: Greece.* Paris: Organisation for Economic Co-operation and Development (OECD).

[32] OECD. (2011c). *OECD country reviews: Portugal.* Paris: Organisation for Economic Co-operation and Development (OECD).

[33] OECD. (2010). *OECD economic surveys: Portugal.* Paris: Organisation for Economic Co-operation and Development (OECD).

[34] OECD. (2012). *OECD economic surveys: Portugal.* Paris: Organisation for Economic Co-operation and Development (OECD).

[35] OECD. (2009c). *OECD economic surveys: Greece.* Paris: Organisation for Economic Co-operation and Development (OECD).

[36] OECD. (2013). *OECD competition assessment reviews:* Greece. Paris: Organisation for Economic Co-operation and Development (OECD).

[37] OECD. (2013). *OECD economic surveys: Greece.* Paris: Organisation for Economic Co-operation and Development (OECD).

[38] OECD. (2014a). *OECD economic surveys: Portugal.* Paris: Organisation for Economic Co-operation and Development (OECD).

[39] OECD. (2014b). *OECD Better Policies Series: Portugal.* Paris: Organisation for Economic Co-operation and Development (OECD).

[40] Reinhart, C. M., & Reinhart, V. R. (2010). *After the fall* (NBER Working Paper No. 16334). Cambridge: National Bureau of Economic Research.

[41] Shin, H. S. (2012). Global banking glut and loan risk premium. *IMF Economic Review,* 60(4), 155–92.

[42] Whelan, Karl (2011). *Ireland's sovereign debt crisis*. University College Dublin Center for Economic Research. Working Paper WP 11/09.

[43] Whelan, Karl (2013). *Ireland's Economic Crisis: The Good, the Bad and the Ugly.* University College Dublin Center for Economic Research. Working Paper WP 13/06.