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Ireland's Sovereign Debt Crisis

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1. Introduction

Among the countries currently experiencing sovereign debt crises, Ireland's case is perhaps the most dramatic. As recently as 2007, Ireland was seen by many as top of the European class in its economic achievements. Ireland had combined a long period of high economic growth and low unemployment with budget surpluses. The country appeared to be well placed to cope with any economic slowdown as it had a gross debt-GDP ratio in 2007 of 25% and a sovereign wealth fund worth about €5000 a head.

Fast forward four years and Ireland is shut out of sovereign debt markets and in an EU-IMF adjustment programme. Its debt-GDP ratio has soared over 100% and the sovereign wealth fund is effectively gone. In this short paper, I provide a brief review of how this rapid change came about and discuss potential future developments in relation to Ireland's sovereign debt situation.

2. The Rise and Fall of the Celtic Tiger

It is now well known that Ireland's famed "Celtic Tiger" ended with the collapse of a housing bubble and a banking crisis. Many have thus been tempted to describe the Irish boom as largely built on an unstable credit splurge. However, this would underestimate the true progress made by the Irish economy during the two decades prior to 2007.

The Birth of the Tiger

Before the "Celtic Tiger" became a well-known phrase during the 1990s, the Irish government had implemented a wide range of policies that helped to produce large increases in labour productivity. The 1960s saw a move away from protectionist trade policies and set Ireland on the path to EU membership in 1973. Industrial policies focused successfully on encouraging export-oriented foreign direct investment. There was also a gradual improvement in educational standards as policies to provide universal secondary education in the 1960s were subsequently followed by a large

expansion of the third-level sector. As a result of these policies, Irish productivity growth consistently outpaced other advanced economies from the early 1970s onwards and by the middle of the last decade, Irish labour productivity was very close to US levels (see Figure 1).²

While Ireland's pre-Tiger supply-side policies may have been good ones, its macroeconomic stabilisation policies were not so good. Ireland reacted to the global slowdown of the 1970s by running very large fiscal deficits, which cumulated in a debt crisis in the 1980s. At the same time, the traditional currency link with sterling was dropped for membership of the European Monetary System, which provided an unstable monetary regime featuring regular devaluations.

By the mid-1980s, Ireland had a debt-GDP ratio over 110 percent and was paying out almost 10 percent of GDP per year in interest payments. Tax rates had been raised to punitive levels in a series of failed attempts to stabilise the deficit and growth had stagnated.

It was at the depths of this previous crisis that the birth of the Celtic Tiger took place. The period from 1987 onwards saw fiscal problems dealt with via a programme that focused on restraining spending and by 1989, Ireland's debt dynamics had clearly moved in direction of sustainability. At the same time, the EMS finally also delivered a period of monetary stability. With macroeconomic stability restored and good fundamental policies in place, the Irish economy began to grow at an impressive rate.

Indeed, Ireland in the late 1980s was primed for growth. While its workers were becoming increasingly productive, Ireland was significantly under-employed by international standards. As Figure 2 shows, only about 30 percent of the population was at work in the late 1980s. This underemployment partly reflected an exceptionally high

² These data come from the US Bureau of Labor Statistics International Comparisons website. www.bls.gov/fls/intl_gdp_capita_gdp_hour.htm.

unemployment rate (Figure 3). However, it also reflected demographic and social factors.³

Ireland's baby boom occurred in the 1970s and peaked in 1980, so the depressed Ireland of the 1980s was supporting a very large population below working age. This demographic pattern gradually unwound over time so that by the late 1990s, Ireland had a higher fraction of the working age population than either the US or the UK (see Figure 4). Ireland in the late 1980s also had a very low rate of labour force participation: While female labour force participation had increased steadily in other countries throughout the 1960s and 1970s, this pattern was not replicated in Ireland (see Figure 5). However, when the economy recovered, there was a large female labour supply ready to enter the workforce.

The combination of these factors meant that the Irish economy became an incredible employment creating machine. Employment rose steadily from 1.1 million in the late 1980s to 2.1 million in 2007. Combined with steady improvements in productivity, the Irish economy delivered a period of extraordinary growth: From 1987 to 2007, economic growth averaged 6.3 percent per year.

This exceptional economic growth allowed Irish governments to achieve a holy grail that was the envy of politicians around the world: They lowered tax rates and raised spending year in and year out and yet economic growth delivered sufficient tax revenues to generate a string of budget surpluses. By 2007, Ireland's low stock of debt appeared to position the country well for coping with a slowdown.

The Housing Boom

Unfortunately, Ireland's position in 2007 was not nearly as strong as it appeared to many outsiders or to the government of the time. Despite high levels of labour

³ See Honohan, Patrick and Brendan Walsh (2002). "Catching up with the Leaders: The Irish Hare," Brookings Papers on Economic Activity part 1, pages 1-57.

productivity, the later years of the Irish boom saw the build-up of dangerous imbalances. At the heart of these imbalances was an extraordinary housing boom.

At the turn of the millennium, Ireland still had a relatively small housing stock, the smallest stock per capita in the European Union.⁴ With population growing, incomes expanding rapidly and EMU providing access to mortgage finance at historically low rates, there was a surge in the demand and ability to pay for housing. As a result, house prices in Ireland quadrupled in price between 1996 and 2007, a pace of increase double that seen in the United States over the same period (see Figure 7).

The response to this increase in housing demand was an extraordinary construction boom. The total stock of dwellings—which had stood at 1.2 million homes in 1991 and had gradually increased to 1.4 million homes in 2000—exploded to 1.9 million homes in 2008. House completions went from 19,000 in 1990 to 50,000 in 2000 to a whopping 93,000 in 2006. Figure 7 puts this in context by comparing house completions per capita with their equivalent in the United States. It shows that while Ireland’s rate of housing completions during the 1970s and 1980s, had been comparable to that seen in the US, housing activity gradually increased in Ireland—particularly after 2002—to the point where per capita completions were four times as high in Ireland as in the US.

Construction became a dominant factor in the Irish economy. With the economy already at full employment, much of the labour employed in the construction boom came from the new EU member states in Eastern Europe, and this inward migration further fuelled the demand for housing. By 2007, construction accounted for 13.3 percent of all employment, the highest share in the OECD. Indeed, with the exception of Spain and Portugal, Ireland’s share of construction employment exceeded all other OECD member states by almost five percentage points.

The Irish government of recent years placed much of the blame for the economic collapse on the international financial crisis. However, the evidence suggests that

⁴ See Somerville (2007).

Ireland was heading for a rough landing even in the absence of an international recession. Measured against various “fundamental” factors, Irish house prices became more and more over-valued and, by early 2007—well before the first outbreaks of the international crisis—Irish house prices began to fall.⁵

As house prices fell, the demand for new houses began to collapse with the attitude of potential buyers swiftly changing from being desperate to “get on the property ladder” to deciding to wait to get a better price later. In mid-2008, the new Minister for Finance, Brian Lenihan noted that the housing market had “come to a shuddering halt”. Figure 7 illustrates the scale of the collapse in housing construction, while Figure 8 shows how the subsequent decline in construction employment directly accounted for about two-thirds of the jump in the Irish unemployment rate after 2007. House prices have now fallen about 40 percent from their peak values and continue to fall.

3. The Sovereign Debt Crisis

With the Irish economy having placed so many of its eggs in the construction basket, one might have expected the authorities to have been careful to prepare for what was going to be an inevitable slowdown. This, however, was not the case. While a very low debt-GDP ratio due to years of fast economic growth may have appeared to provide a significant cushion against any downturn, Ireland’s fiscal situation turned out to be heavily dependent on the health of its property sector.

A Huge Deficit Opens Up

The collapse in construction activity, and the corresponding jump in unemployment, resulted in a large loss in income tax revenues and an increase in social welfare payments but if the fiscal consequences of the housing crash had been limited to these

⁵ There was relatively little discussion in Ireland at the time of the idea that house prices were unsustainable even though it didn’t require sophisticated analysis to suggest that house prices were over-valued. Notably, when Irish academic economists such as Alan Ahearne or Morgan Kelly questioned the sustainability of house prices, they received a very negative reaction from the Irish government.

impacts, Ireland would have been positioned to cope well. However, Ireland's tax base had been altered during the later periods of the boom to collect more and more tax revenue from construction activity.

Figure 9 shows the share of total tax revenue due to income taxes (the black line on the left scale) and due to asset-based taxes such as stamp duties, capital gains tax and capital acquisition tax.⁶ Thanks to booming housing activity and surging house prices, the share of tax revenue due to these 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 taxation. When construction activity collapsed, this substantial source of government revenue disappeared almost overnight.

By late 2008, the collapse in construction activity was apparent and the world economy was entering a severe recession. Irish real GDP declined by 3.5 percent in 2008 and by 7.6 percent in 2009. Despite having had years of budget surpluses, Ireland was suddenly facing a yawning fiscal gap. Indeed, it was apparent by early 2009 that, without fiscal adjustments, Ireland was heading for deficits of as large as 20 percent of GDP.

The scale of these potential deficits meant that, despite the low starting level of debt, the Irish government realised there was no room for discretionary fiscal stimulus to ease the effects of the severe downturn. Instead, from late 2008 onwards, the Irish government has implemented a sequence of contractionary budgets featuring a cumulative total of tax increases and spending cuts worth €20.8 billion. These adjustments are the equivalent of 13 percent of 2010's level of GDP or €4,600 per person and represent the largest budgetary adjustments seen anywhere in the advanced economic world in modern times.⁷ Despite these enormous adjustments, the

⁶ Ireland does not have a standard property tax. Instead, the government levied a stamp duty tax that was paid in full when a house was purchased. With high levels of housing activity, this collected a lot of revenue during the boom and almost nothing in recent years.

⁷ The IMF's October 2010 World Economic Outlook examined historical episodes of fiscal consolidation in fifteen advanced economies over 1980-2009. As a percentage of GDP, Ireland's 2009 consolidation was

decline in the size of the Irish economy has been so severe—nominal GDP has declined by almost 20 percent—that the European Commission are still projecting a budget deficit of 10.6% in 2011.

The Banking Crisis

The tale of the Irish fiscal crisis is gruesome enough if one focuses alone on the collapse of the construction sector and its effects on revenues and expenditures. However, the straw that broke the Irish camel's back was the effect on the state finances of the government's attempts to deal with a banking crisis.

The acceleration in housing activity after 2002 that is evident in Figure 7 was largely financed by the Irish banks. These banks significantly changed their business model during the later years of the boom. Prior to 2003, the Irish banks had operated in a traditional manner, with loans being roughly equal to deposits. After 2003, these banks increased their property lending at rapid rates and financed much of this expansion with bonds issued to international investors.

From less than €15 billion in 2003, international bond borrowings of the six main Irish banks rose to almost €100 billion (well over half of GDP) by 2007. In addition to rapidly expanding their mortgage lending, the Irish banks also built up huge exposures to property developers, many of whom had made fortunes during the boom and were “doubling down” on property with ever more extravagant investments. Many of these development loans were used for investments that could only have paid off if property prices continued to rise. Leading the way was the now-notorious Anglo Irish Bank, which specialised in property development. Anglo expanded its loan book at over 20 percent per year and is now known to have had a series of serious corporate governance problems.

the biggest the IMF researchers could find. The subsequent adjustments for 2010 and 2011 were of similar size.

During 2008, as evidence built up of the scale of the Irish construction collapse, international investors became concerned about the exposure to property investment loans of the Irish banks. These banks found it increasingly difficult to raise funds on bond markets and by late September 2008, two weeks after the collapse of Lehman Brothers, the Irish bankers turned up at government buildings looking for help.

The Irish government's decision on September 30, 2008 to give a near-blanket guarantee for a period of two years to the Irish banks has been, and will continue to be, hotly debated. The government appears to have taken seriously the assurances of the Irish Central Bank that the banks were fundamentally sound and were merely suffering from a short-term liquidity problem. Thus, the government appears to have believed that the guarantee would not have consequences for the state finances. However, there is also evidence that senior civil servants, as well as Merrill Lynch (who had been recruited as advisors in the weeks prior to the decision) warned against the dangers of a blanket guarantee.

By Spring of 2009, it became apparent that the losses at the Irish banks were extremely large, most notably at the dreaded Anglo Irish Bank. This paper will not focus on the various strategies the Irish government adopted from that point onwards to deal with the crisis. However, the fact that the liabilities of the banks were guaranteed by the government played a key role in limiting options to restructure insolvent banks in a way that would have seen losses shared with private creditors. Thus, in 2009, the government began using state funds to recapitalise the guaranteed banks.

The Endgame

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 fixing its banking sector. A National Asset Management Agency (NAMA) was set up to issue government bonds to the banks to purchase distressed property assets at

a discount and as 2010 went on and NAMA acquired more properties, it became clear that the final bill for recapitalising the Irish banks would be enormous.

In September 2010, the government provided a “final estimate” that Anglo Irish Bank would cost the state about €30 billion or almost €7000 per person living in Ireland today. The cost of these losses is being covered by a “promissory note” which will make cash payments over a number of years but which was fully counted against Ireland’s general government deficit in 2010, leading to what must be a world record official deficit of 32 percent of GDP.

As the economy failed to show evidence of a strong recovery, international markets also became increasingly concerned with the future losses of the Irish banks due to mortgages and business loans. The banks had been able to issue bonds from late 2008 to early 2010 under the protection of the state guarantee. However, as concern about potential sovereign default began to rise, this guarantee ceased to be of much use. Many of the bonds that had been issued matured in September 2010, when the original guarantee ran out.

When the banks failed to find new sources of market funding to roll maturing bonds or replace the corporate deposits that also began to leave the system at this point, they turned to the ECB for emergency funding. Borrowing from the ECB by the guaranteed banks, which had been negligible prior to the crisis, jumped from €36 billion in April 2010 to €50 billion in August to €74 billion in September. The banks also began to run out of eligible collateral to use to obtain loans from the ECB, at which point the ECB allowed the Central Bank of Ireland to begin making “emergency liquidity assistance” loans to the Irish banks

International markets, which had been reasonably confident throughout 2009 that Ireland would make it through without a sovereign default and which generally had a favourable view of the Irish government’s fiscal adjustment programme, became increasingly concerned that the Irish banking sector was going to destroy the

creditworthiness of the Irish sovereign. Bond yields on sovereign debt rose in September and October and then moved up dramatically in November following the famous Deauville declaration of Mrs. Merkel and Mr. Sarkozy.

4. The EU-IMF Bailout and Future Prospects

By mid-November, the game was up for the Irish government. Failing to see any sign of improvements in the banking situation, the ECB appears to have made its continued support for the Irish banking system contingent on Ireland applying the EU and the IMF for a multi-year lending programme.

The EU-IMF Deal

In late November, the Irish government agreed a multi-year funding deal with the EU and the IMF. The programme contained commitments to implement a further €15 billion in fiscal adjustments over the period 2011-2014, including a €6 billion adjustment for 2011 that was implemented in the budget passed in December 2010. Figure 11 shows the path for the Irish budget deficit that is projected by the European Commission. The deficit is projected to remain high over the next few years but to gradually move towards 3 percent of GDP in 2015.

The EU-IMF programme also contains a set of measures to stabilise the banking sector. Rather than stabilise the banking situation, the announcement of the EU-IMF deal appears to have intensified the problem for a while, as deposits continued to flee the Irish banking system and reliance on central bank funding increased even further. The programme included a commitment to conduct a further round of “stress tests” on the Irish banking system. These tests were released at the end of March and were accompanied by a commitment from the Irish government to provide a further €24 billion in funding to recapitalise the continuing Irish banks to high levels.⁸ It remains to

⁸ Anglo and the smaller but equally profligate Irish Nationwide Building Society are being wound down.

be seen whether these announcements will stabilise the funding situation for these banks.

With the latest announcements, the Irish government has now provided (or is about to provide) recapitalisation funds of about €70 billion (about 45 percent of the 2010 level of GDP) to offset the losses made by the Irish banks. Some of this money may eventually provide a return if the state's shares in banks such as Allied Irish or Bank of Ireland are sold to private ownership at some point in the future but the vast majority of these funds are simply gone.

Debt Sustainability

The official EU-IMF line is that Ireland will return to borrowing in the sovereign debt markets in late 2012 and will be able to do so at rates that allow the debt to be sustained. This will be re-enforced by a slow but steady return to economic growth that will see the economy growing by 3 percent per year in real terms by 2014.

The black line in Figure 12 shows the debt-GDP ratio that would be associated with this relatively rosy scenario. The debt-GDP ratio, which had been as low as 25 percent in 2007 but is estimated to be 112 percent in 2011 is now projected to peak at 120 percent in 2013 and only slowly decline thereafter. Interest as a share of GDP, which had started the crisis at only one percent, is projected to stabilise at about 6 percent in GDP, while the primary deficit is projected to move from 8.6 percent in 2010 to a primary surplus of 3 percent in 2015 (see Figure 13).

There are some arguments in favour of such a scenario occurring. Despite very high yields on secondary market debt, the coupon rates on Ireland's existing private debt are very low. The average interest rate that Ireland paid on its debt in 2010 was about four and a half percent. The average interest rate on EU-IMF package of 45 percent of GDP is higher than that on existing debt but it also has a relatively long maturity of seven and half years, so Ireland will not be under huge pressure over the next few years to replace

this funding with private borrowing. Thus, official projections are based on the idea that the average interest rate that the Irish government will pay on its debt will stabilise at about 5.4 percent in 2014 (see Figure 14) which provides room for a small primary surplus to start reducing the debt ratio.

There are also some compelling arguments against the official scenario. The assumed return to steady 3 percent growth may be too optimistic. Ireland cannot rely on a return of many of its previous sources of growth such as productivity catch up, demographic patterns and growth in participation.

Fiscal adjustment and debt overhang problems will continue to depress domestic demand. And while the Irish government regularly points to the role improving competitiveness should play in boosting exports in the coming years, the plan appears premised on a smooth recession-free ride for the world economy in the coming decade. It also assumes that the government will not be providing further funds to recapitalise the Irish banking sector, which owes vast quantities to emergency lending to the ECB and Irish Central Bank. Taken together, the official analysis paints a fairly rosy scenario which may not come to pass.

Another factor worth noting is that Ireland's debt burden looks even higher when measured relative to GNP as opposed to GDP. For most countries, there is very little distinction between these two measures. However, a large (indeed, increasingly large) fraction of Irish output is due to profits that are repatriated by multinationals. The relatively low corporate tax rate of 12.5 percent that is charged on these profits has been a repeated source of controversy but it is unlikely that the Irish government is going to introduce large changes to this rate as it is seen as central to industrial policy. For this reason, most of the tax burden falls on the domestic incomes measured by GNP and as the blue line in Figure 12 illustrates, this measure of the debt-burden is set to top 150%.

As of now, financial markets appear to be placing more emphasis on the negative factors than on the positive factors stressed by the EU and the IMF. Yields on Irish government debt are above 10 percent and this pricing appears to be based upon the assumption that there will be a debt restructuring. Against this background, the official plan's assumption that private sovereign borrowing will recommence in late 2012 seems optimistic. There may be some secondary market activity in Irish debt at the current high yields but it's questionable whether Ireland can sell the large amounts of debt that would be required to finance itself once the EU and IMF funds run out.

An ESM Solvency Test?

Based on the European Commission's projections, Ireland is likely to run out of money in early to mid-2013 if it cannot access funds in the private sovereign bond market. At present, my guess is that Ireland will not be able to sufficiently return to the sovereign bond market to avoid having to request funds from the new European Stability Mechanism.

According to the ESM "term sheet" released in March, a request for funds from the ESM will require a "sustainability analysis" to assess whether "a macro-economic adjustment programme can realistically restore the public debt to a sustainable."⁹ If the debt burden is deemed unsustainable, then "the beneficiary Member State will be required to engage in active negotiations in good faith with its creditors to secure their direct involvement in restoring debt sustainability."

It is not clear how such a sustainability analysis will work but if the Irish government manages to stick to its current adjustment programme and the macroeconomic assumptions underlying this programme come to pass, it seems likely that an ESM analysis will produce similar projections to those currently published by the EU and IMF showing a stabilisation and reduction in the debt-GDP ratio. Most likely, under such a scenario, the debt will be deemed sustainable. If, however, Ireland falls short of the

⁹ See www.gouvernement.lu/salle_presse/actualite/2011/03-mars/21-mes/esm.pdf

targets set in the current adjustment programme and the debt outlook looks worse in 2013, then this will raise the question of whether private sector debt should be restructured.

A Uruguay style “light dusting” restructuring (to borrow the phrase used by Buchheit and Gulati, 2011) in which maturities are extended while coupon payments are maintained at existing levels, may prove attractive for the EU and IMF because a second deal for Ireland would see the balance of risk on Irish sovereign debt shifting over from private bondholders to the official sector. Moreover, with both the IMF and soon the ESM claiming a creditor status that is senior over private bondholders, such a deal could be a tipping point that rules out private purchases of Irish government bonds for a number of years. A light dusting approach would lock in a large volume of privately supplied funds that could share the burden that could be associated with any later more severe restructuring of Irish sovereign debt.

Which route is chosen, and how any potential restructuring is organised, are likely to depend on events elsewhere. Greece appears to be closer to point of sovereign debt default than Ireland and the consequences of any attempts to restructure Greek debt would have a significant impact on the attitude of the European authorities to applying a similar approach to Ireland.

References

Buchheit, Lee and G. Mitu Gulai (2011). Greek Debt – The Endgame Scenarios, working paper, Duke University.

Honohan, Patrick and Brendan Walsh (2002). "Catching up with the Leaders: The Irish Hare," *Brookings Papers on Economic Activity*, Part 1, pages 1-57.

International Monetary Fund (2010). *World Economic Outlook*, Chapter 3: "Will it Hurt? Macroeconomic Effects of Fiscal Consolidation".

Somerville, R.A. (2007). "Housing Tenure in Ireland," *The Economic and Social Review*, pages, Volume 37, 107-134.

Whelan, Karl (2010). "Policy Lessons from Ireland's Latest Depression," *The Economic and Social Review*, Volume 41, pages 225-254.

Figure 1: US and Irish Labour Productivity (PPP-Adjusted, Source: US BLS)

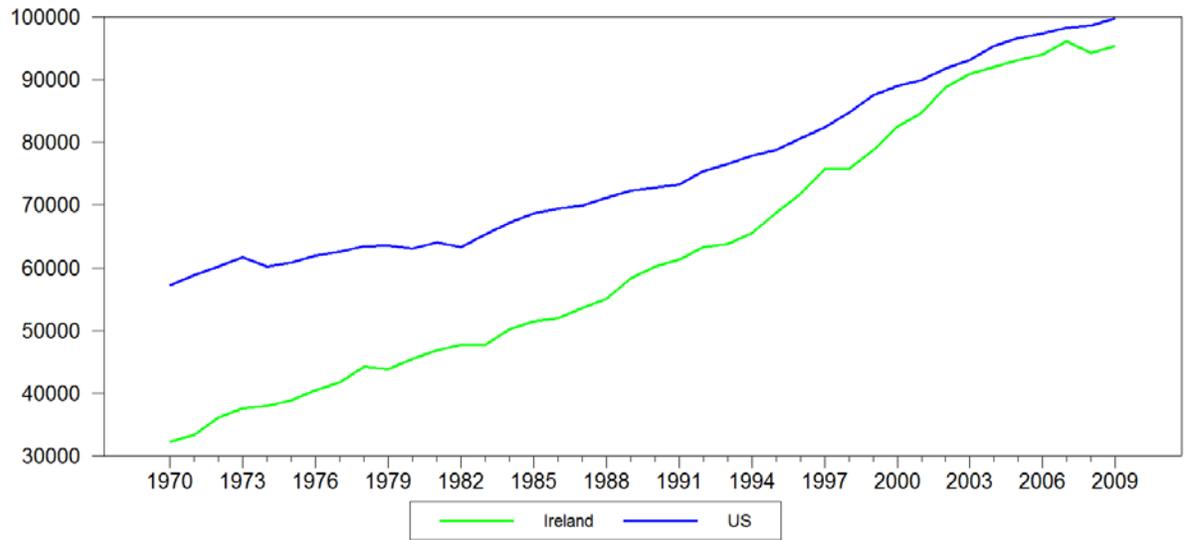


Figure 2: Employment-Population Ratios of Ireland, UK and US

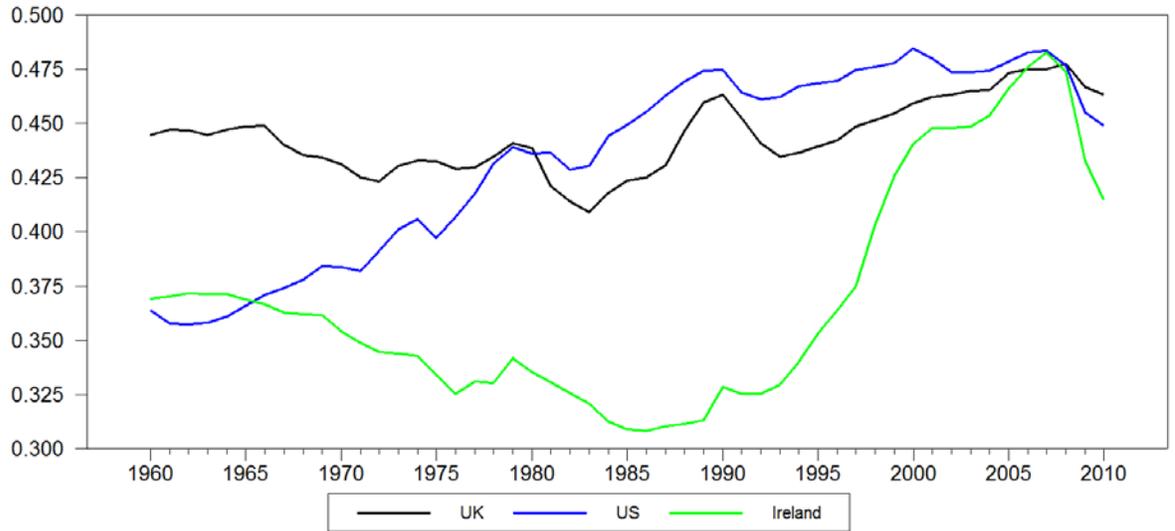


Figure 3: Unemployment Rates

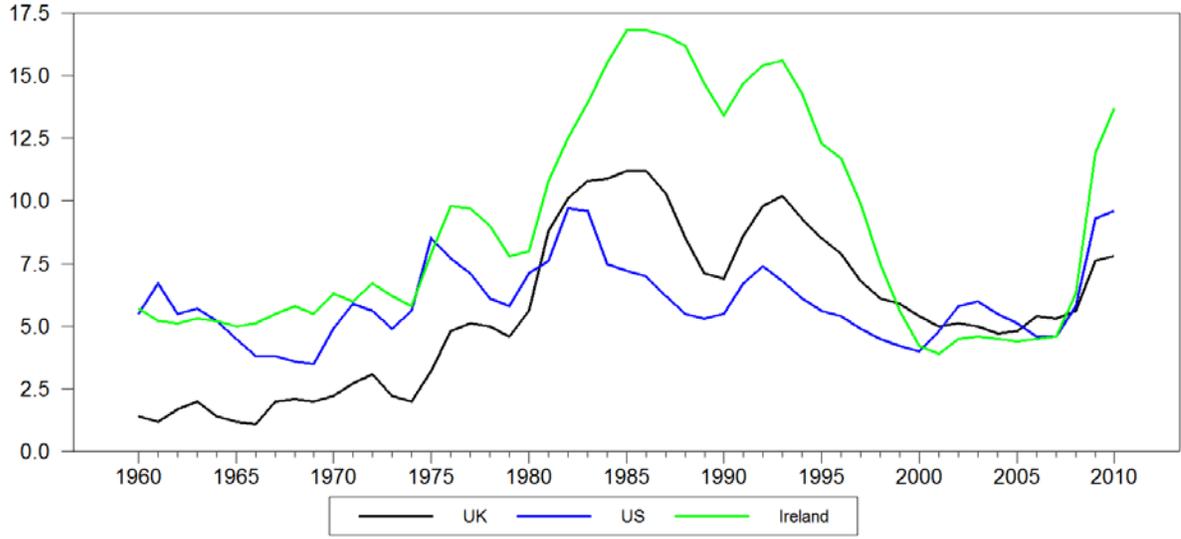


Figure 4: Fraction of the Population Aged between 15 and 65.

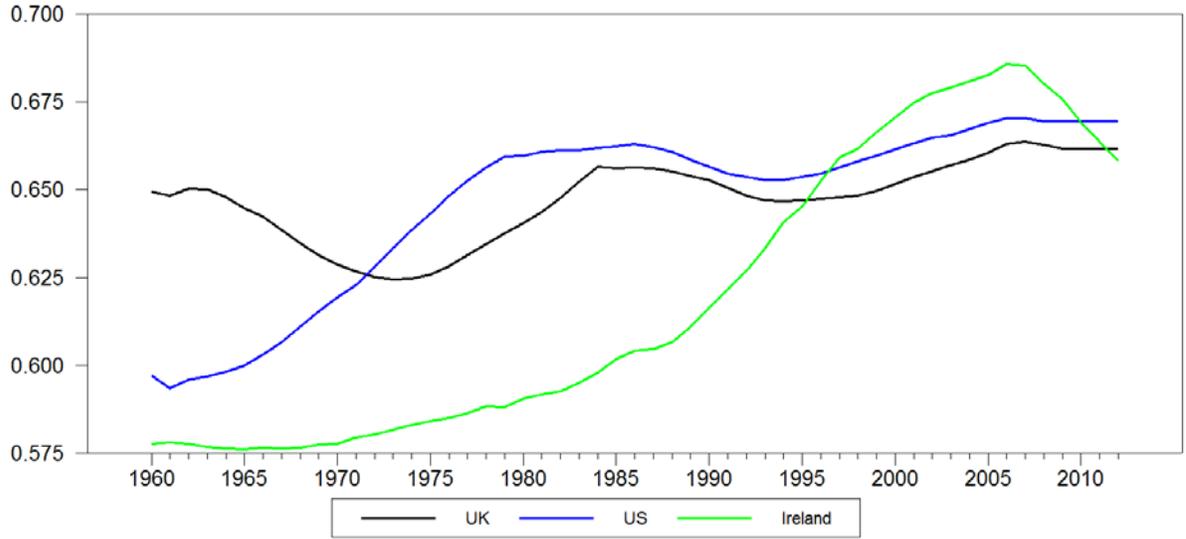


Figure 5: Labour Force Participation Rates

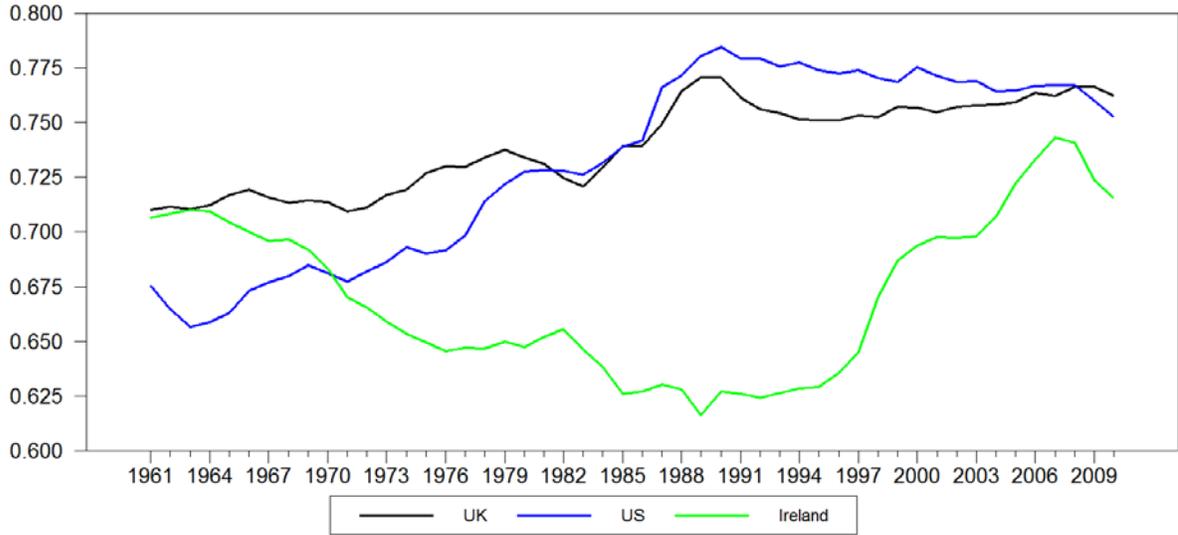


Figure 6: House Prices in Ireland and the US

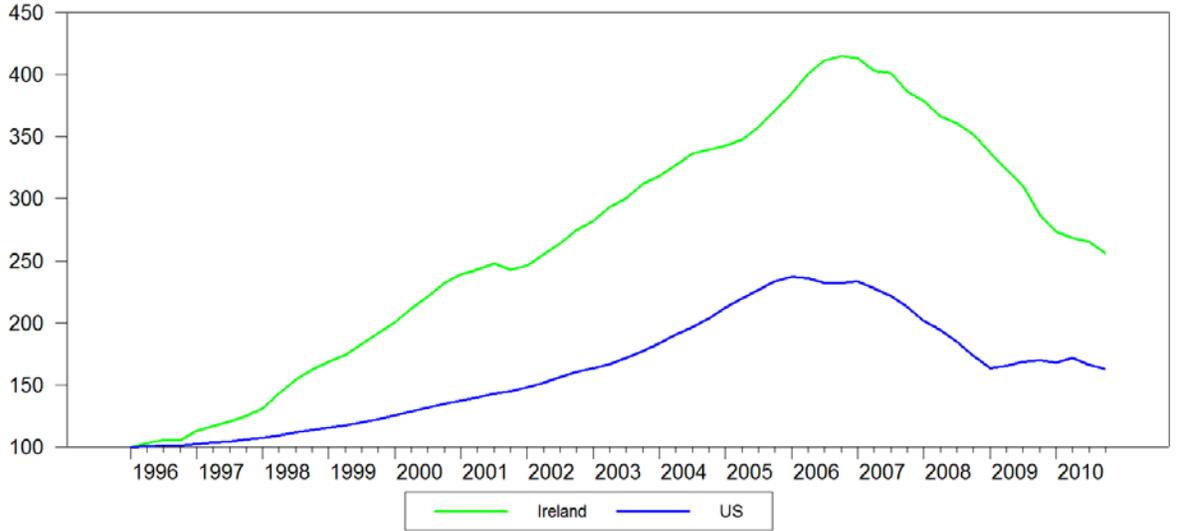


Figure 7: Housing Completions Per Thousand People

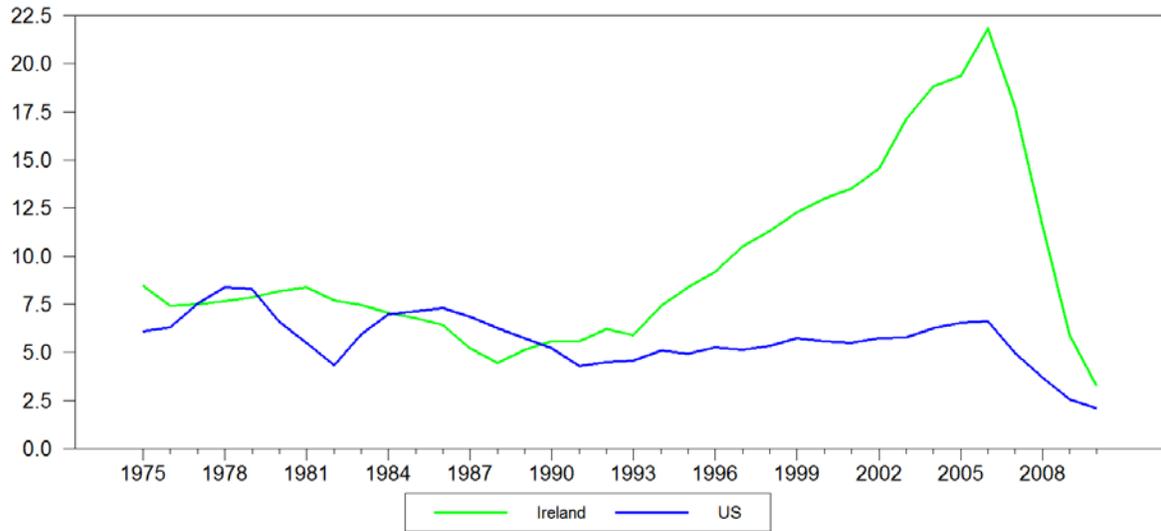


Figure 8: Fraction of Labour Force in Construction and in Unemployment

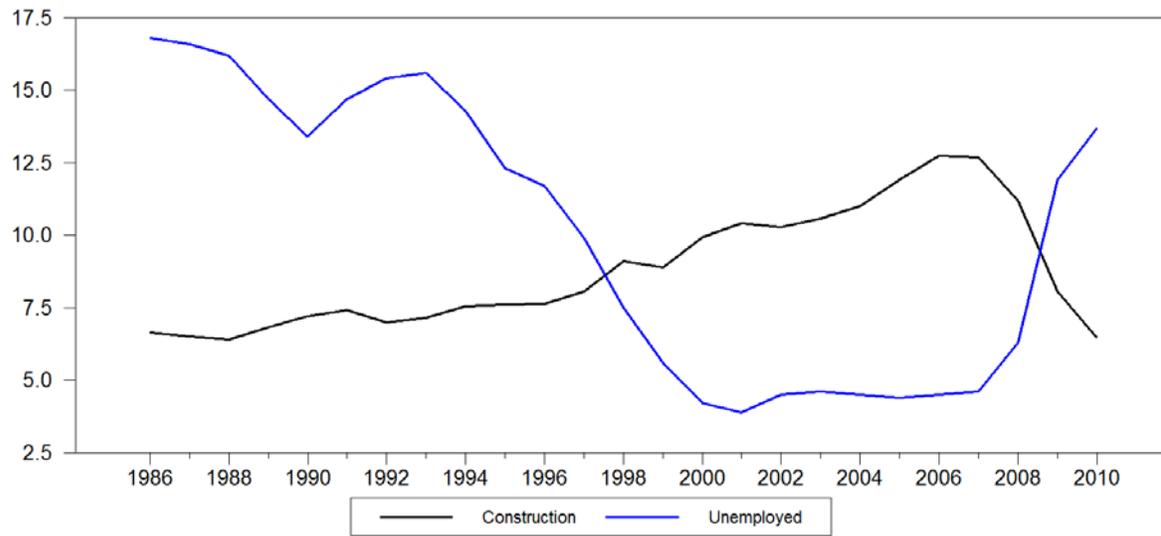


Figure 9: Composition of Tax Revenues

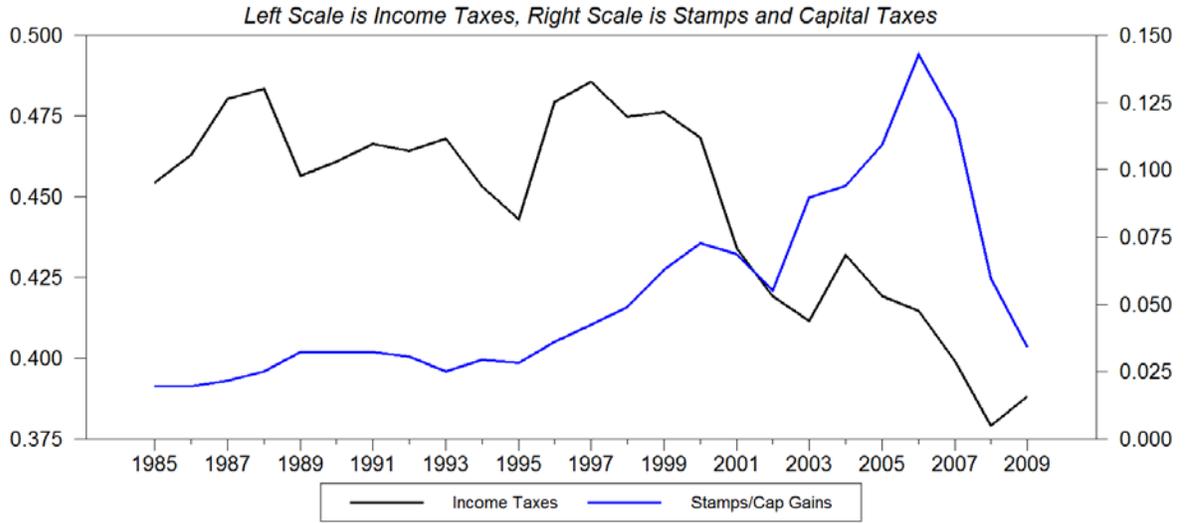


Figure 10: Loans and Deposits at the Guaranteed Irish Banks

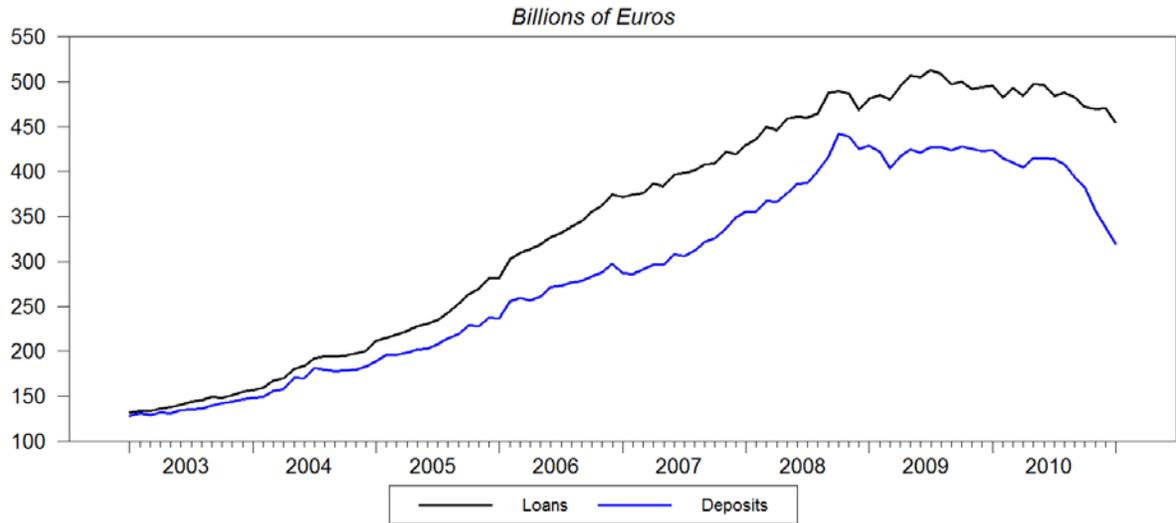


Figure 11: Budget Deficit as a Percent of GDP

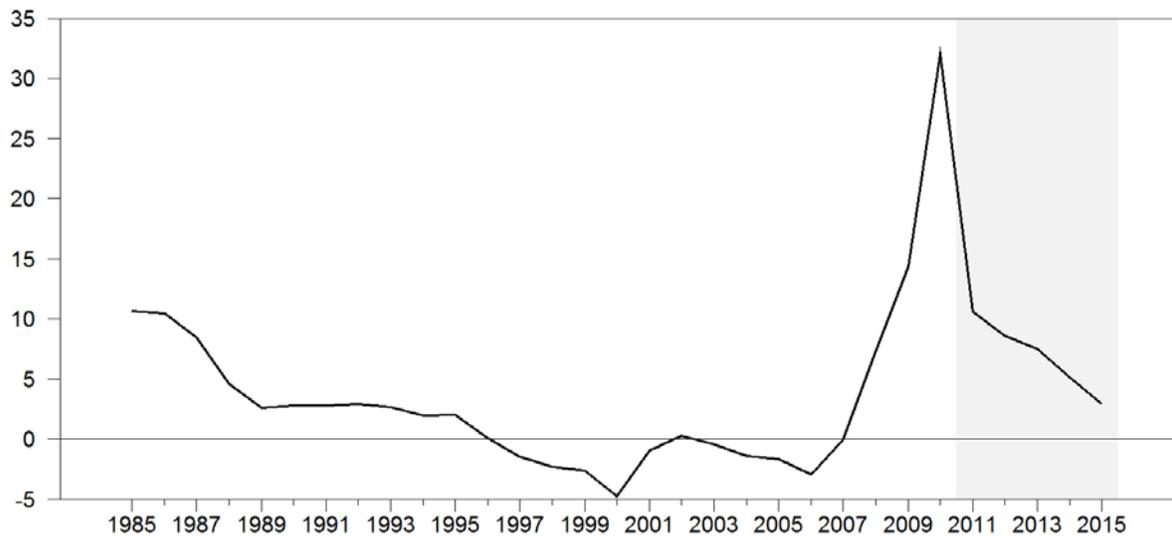


Figure 12: Debt-GDP and Debt-GNP

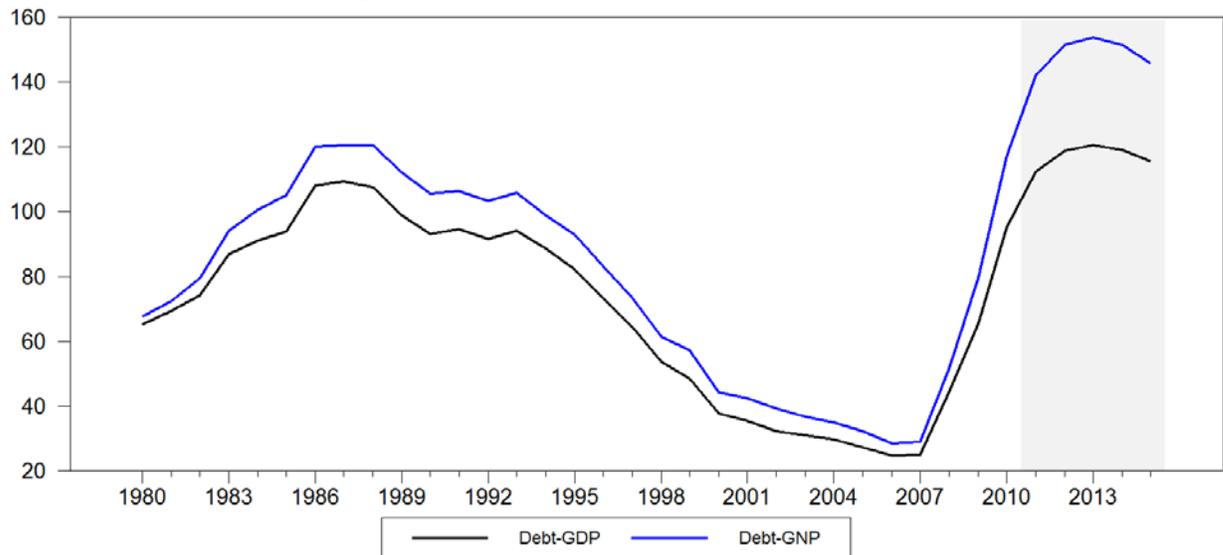


Figure 13: Composition of Non-Bank Deficit (EC Projections)

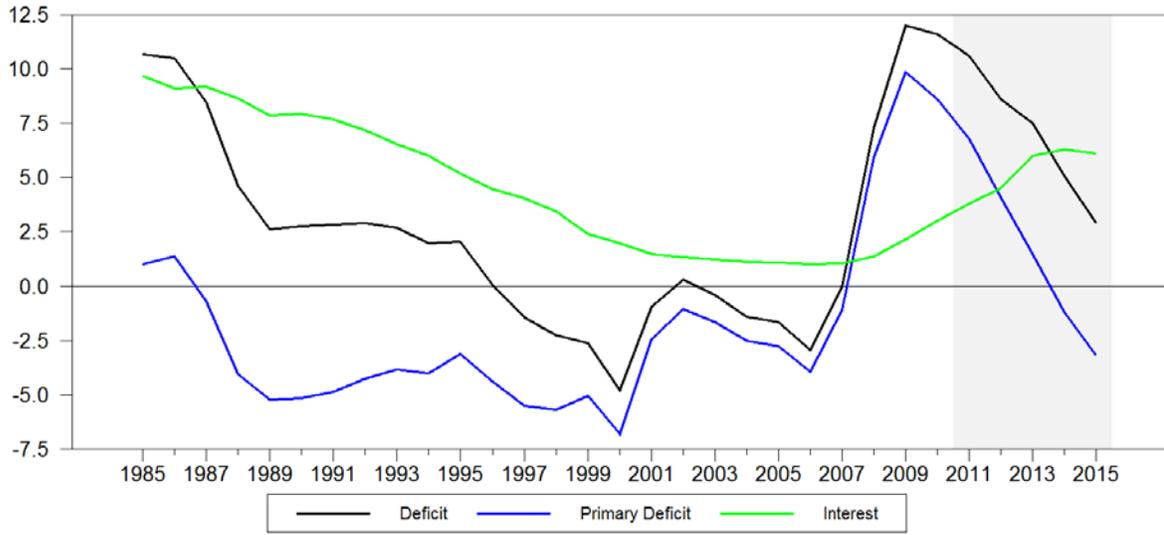
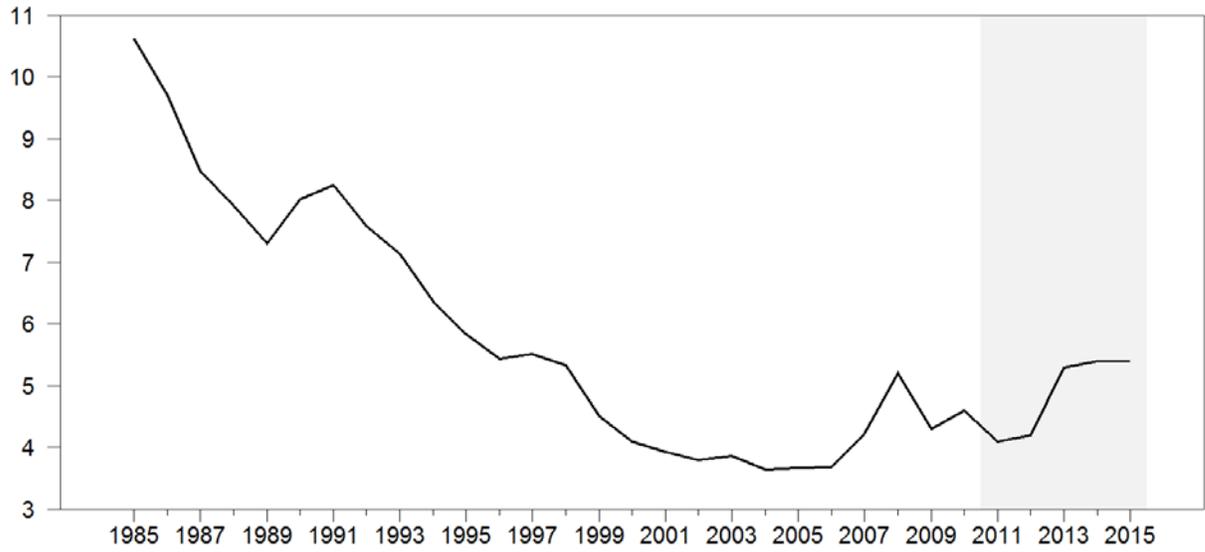


Figure 14: Average Interest Rate on Irish Government Debt



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