Ireland’s Economic Crisis
The Good, the Bad and the Ugly

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June 18, 2013

Abstract: This paper provides an overview of Ireland’s macroeconomic performance over the past decade. In addition, to presenting the underlying facts about the boom, bust and (currently limited) recovery, the paper also discusses some common fallacies and misrepresentations of economic events in Ireland. The paper concludes with some broader lessons from the Irish experience for Eurozone economic policy and some observations on the role that EMU and the ECB have played in Ireland’s crisis.

1. Introduction

The turnaround in Ireland’s economic fortunes in recent years is perhaps the most dramatic of any country in the euro area. As recently as 2007, Ireland was seen by many as top of the European class in its economic achievements. A long period of high rates of economic growth and low unemployment had been combined with budget surpluses. The country appeared 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 €5,000 a head. However, the subsequent crash – involving a housing market collapse, soaring unemployment and a full-scale banking crisis – proved too difficult for the Irish government to manage on its own. In 2010, Ireland agreed to an adjustment program with the EU and IMF. Today, Ireland is poised to exit this program and, while economic conditions remain poor and unemployment elevated, the country is again being cited regularly as an example for other countries in severe economic difficulties.

Taken together, then, Ireland’s recent macroeconomic history provides interesting examples of both success (the good …) and failure (the bad and ugly …) within the Eurozone. Not surprisingly, events in Ireland have commonly been used by in international debates among economists, politicians and international organizations to illustrate various preferred policy positions. However, often these arguments are based on a weak understanding of the underlying macroeconomic facts about Ireland’s economy.

This paper provides an overview of Ireland’s macroeconomic performance over the past decade. In addition, to presenting the underlying facts about the boom, bust and (currently limited) recovery, the paper also discusses some common fallacies and misrepresentations of economic events in Ireland. The paper is organized as follows.

Section 2 focuses on the so-called Celtic Tiger boom, which occurred from the early 1990s through to 2007. It emphasizes that this period saw both good and bad developments. The important role played by cheap credit and lax banking regulation is highlighted as is the skewed construction-focused nature of the economy on the eve of the crash. However, it also stresses that much of the pre-crash growth in Ireland was based on sound economic fundamentals with steady improvements in productivity and employment accounting for most of the increase in output over this period.

Sections 3 and 4 discuss Ireland’s crash, examining the popping of the housing bubble, its fiscal implications and the banking crisis. In contrast to some discussions of this crisis, I emphasize that Ireland’s huge build-up of debt was not predominantly due to its banking crisis. However, banking-related costs played a key role in making the debt burden appear unsustainable to financial markets and thus triggering an EU-IMF bailout.

Section 5 of the paper discusses Ireland’s performance during the EU-IMF program and the economy’s future prospects. It emphasizes that while Ireland’s relatively flexible labor market has helped it to perform better than some other Eurozone countries undergoing austerity, the austerity program has seen very few substantive structural reforms. Future economic prospects are dampened by a serious debt hangover problem and the weak outlook for growth in Europe.

Finally, Section 6 discusses some broader lessons from the Irish experience for Eurozone economic policy and some observations on the role that EMU and the ECB have played in Ireland’s crisis.
2. Ireland’s Economic Boom

This section discusses Ireland’s long economic boom that ended in 2007. The first part focuses on the positive fundamental aspects of the economic growth of this period while the second part describes the impact of the housing boom that dominated the later part of this expansion.

2.1. The Celtic Tiger

It is now well known that Ireland’s famed “Celtic Tiger” era ended with the collapse of a housing bubble and a banking crisis. Many have thus been tempted to interpret the preceding 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.

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 foster improvements in 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 expanded other advanced economies from the early 1970s onwards. By the mid-2000s, Irish labor 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 stabilization policies were not always 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 in 1979 in favor of membership of the European Monetary System, which provided an unstable monetary regime featuring regular devaluations.

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

² These data come from the US Bureau of Labor Statistics International Comparisons website. [www.bls.gov/fls/intl_gdp_capita_gdp_hour.htm](http://www.bls.gov/fls/intl_gdp_capita_gdp_hour.htm). One caveat worth noting is that Ireland’s low corporate tax regime has encouraged businesses to declare high profits in Ireland, perhaps via mis-pricing of inputs via transfer pricing. This pattern likely over-states the full extent of Irish GDP and thus of underlying productivity. However, even adjusting for this factor, productivity growth has been strong and room for catch-up is far lower than previously.
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, the population as whole was significantly under-employed. To explain this under-employment, the following decomposition is useful:

\[ \frac{\text{Emp}}{\text{Pop}} = (\text{Work-Age} / \text{Pop}) \times (\text{LForce} / \text{Work-Age}) \times (\text{Emp} / \text{LForce}) \]

The ratio of employment to population is the ratio of work-age people to total population times the ratio of people in the labor force to the work-age population times the ratio of employment to the labor force. As Figure 2 shows, only about 30 percent of the population was at work in the late 1980s, an extremely low level by developed international standards. This underemployment partly reflected an exceptionally high unemployment rate (Figure 3). However, it also reflected demographic and social factors that influenced the other elements of this calculation.\(^3\)

Ireland had a much delayed baby boom relative to the rest of Europe, one that started in the 1970s and peaked in the 1980s, 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 its population in the working age bracket than either the US or the UK (see Figure 4). Ireland in the late 1980s also had a very low rate of labor force participation: While female labor 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 labor supply ready to enter the workforce. In addition, from the mid-1990s onwards, there was a reversing of the traditional net migration outflow as Irish people abroad began taking jobs at home.

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 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 public spending year in and year out and yet economic growth delivered sufficient tax revenues to generate a string of budget surpluses. By 2007, however, most of the factors that had generated exceptional growth had played themselves out. Labor force participation and demographic factors could no longer be called upon to generate large increases in the labor force and the period of fast “catch-up” productivity growth had come to an end. So, even without an international slowdown or a domestic crisis, Ireland entered the latter part of the decade with an economy that was likely to slow down. Still, the low stock of debt appeared to position the country well for coping with a slowdown.

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2.2. The Housing Boom

Unfortunately, Ireland’s position in 2007 was not as strong as it appeared to many outsiders or to its government of the time. Despite high levels of labor 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. Indeed, Somerville (2007) estimated that Ireland had the smallest per capita housing stock in the European Union. With population growing and incomes expanding rapidly, there were strong fundamental factors underlying housing demand. In addition, EMU allowed Irish financial institutions to provide access to mortgage finance at historically low rates. Mortgage rates, which had traditionally been over ten percent, collapsed to below five percent. 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 a similar 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 8 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 the rates 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 effectively at full employment, much of the labor employed in the construction boom came from the new EU
member states in Eastern Europe, and this inward migration itself 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. This excessive economic concentration on housing construction was to prove disastrous.

![Figure 6: Average Mortgage Interest Rate](image)

![Figure 7: House Prices in Ireland and the US](image)
3. The Crash

3.1. The Bubble Pops

When Ireland’s economy entered into a severe recession in 2008, the government in charge at the time placed much of the blame for the economic collapse on the international financial crisis. However, the evidence suggests that Ireland was heading for a fairly nasty slump even in the absence of an international recession.

Measured against various “fundamental” factors, Irish house prices had become increasingly over-valued in the years leading up to 2007. Economists such as Morgan Kelly (2006, 2007) had presented various metrics to illustrate the scale of this over-valuation and discussed the threat to the Irish economy represented by the concentration in construction activity. However, very little was done by the government or the Central Bank during this period to cool the property market over this period and there was a strong domestic consensus that there would be a “soft landing”. Indeed, a number of political parties campaigned during the 2007 election for the abolition of the stamp duty tax on house purchases to assist young buyers with purchasing homes, a development that would have further fuelled prices. All parties campaigned on the basis of economic manifestos that projected real GDP growth rates of 4.5 percent per year over the following five years.

It turned out to be a good election to lose. By late 2007, well before the international financial crisis had gotten into full swing, Irish house prices began to fall from the peak levels. As house prices fell, the demand for new houses collapsed with the attitude of potential buyers changing swiftly 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 8 illustrates the scale of the collapse in housing construction, while Figure 9 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 subsequently fell about 50 percent from their peak values though, at the time of writing, there are now some signs of stabilization.
3.2. The Fiscal Crisis

With the Irish economy having placed so many of its eggs in the construction basket, one might have hoped that the authorities would have prepared carefully for what was going to be an inevitable slowdown. Certainly, the long period of growth had left the public finances in good shape. Ireland’s ratio of gross government debt to GDP in 2007 was only 25 percent and a sovereign wealth fund intended to cover future public sector pensions had built up to about 20 percent of GDP. However, despite these positive elements, Ireland’s apparently strong fiscal situation turned out to be heavily dependent on the health of its property sector.

The collapse in construction activity, and the corresponding jump in unemployment, resulted in a huge loss in income tax revenues and a big increase in social welfare payments. Furthermore, 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 10 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.\(^4\) 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 after 2002. At the same time, there was a corresponding reduction of a similar magnitude in the share of revenues collected from income taxation. When construction activity collapsed, this substantial source of government revenue disappeared almost overnight.

With domestic construction activity collapsing and the world economy entering a severe recession, Irish real GDP declined by ten percent over 2008 and 2009. Prices fell, so nominal GDP contracted even more sharply, from €190 billion in 2007 to €161 billion 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 annual 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 realized quickly there was no room for discretionary fiscal stimulus to ease the effects of the severe downturn. Instead, from late 2008 onwards, there has been a series of contractionary budgets. Public sector pay has been cut by significant amounts, income taxes and VAT rates have been raised, non-welfare current spending has been cut back and capital spending has been slashed. Taken together, these budgets have implemented a total amount of discretionary tax increases and spending cuts of €28.8 billion. These adjustments are the equivalent of 18 percent of 2012’s level of GDP or €6,270 per person and represent one of the largest budgetary adjustments seen anywhere in the advanced economic world in modern times.\(^5\)

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\(^4\) Ireland did not have a standard property tax during this period. 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 very little in recent years.

\(^5\) 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 the biggest the IMF researchers could find. The subsequent adjustments for 2010 and 2011 were of similar size.
4. The Banking Crisis

Ireland’s economic slump would have been bad enough even if it had only featured the collapse of the construction sector and its effects on employment and the budget deficit. However, Ireland’s recession became a crisis due to the collapse of its banks.

4.1. The Start of the Banking Crisis

The acceleration in housing activity after 2002 was largely financed by the Irish banks. As shown in Figure 11, the total stock of mortgage loans in Ireland exploded from €16 billion in 2003:Q1 to a peak of €106 billion in 2008:Q3, about 60 percent of that year’s GDP. In addition to rapidly expanding their mortgage lending, the Irish banks also built up huge exposures to property development projects. Property-related loans to construction businesses went from €45 billion in 2003:Q1 to a peak of €125 billion in 2008:Q1.

Many of the development loans on the books of the Irish banks in 2008 were made to businessmen that had made fortunes during the boom and were “doubling down” on property with ever more extravagant investments. Most of these loans were used for investments that could only have paid off if property prices continued to rise. In addition, these loans were largely concentrated in a small number of banks.

Leading the way was the now-notorious Anglo Irish Bank, which specialized in property development. Anglo expanded its loan book at over 20 percent per year, with assets growing from €26 billion in 2003 to €97 billion in 2007. In addition to its risky property loan book, it is now known that Anglo had a series of what can euphemistically be termed “serious corporate governance problems”.

Anglo, however, was not alone in its enthusiasm for property development loans. The smaller Irish Nationwide Building Society, later merged with Anglo, grew over a short period from a tiny mortgage lender to a €14 billion property development specialist with half of its funding from international bond markets. Allied Irish Bank, one of Ireland’s two principal “high street” retail banks invested heavily in in property-related loans with its portfolio of such loans building up from €16 billion in 2004 to €47 billion in 2007. This represented over one-quarter of its total assets, and over half of the €81 billion that it had in the form of customer deposits.

Another risk factor was the significant change in the funding model employed by the Irish banks during the later years of the boom. Prior to 2003, these banks had operated in a very traditional manner, with loans being roughly equal to deposits. After 2003, the rapid expansion of property lending was largely financed 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. This source of funding proved to be less stable than deposit funding once the property market crashed.

The huge build-up of risks at the Irish banks during this period raises questions about why the Central Bank of Ireland, which was in charge of banking regulation, did not intervene and why
external bodies such as the IMF and European Commission did not express concerns. One explanation is that regulators and other agencies focused too much on the apparently strong capital adequacy ratios. For example, the 2007 IMF Article 4 report on Ireland has a heading summarizing the position of the banking sector as “Banks Have Large Exposures to Property, But Big Cushions Too.” This was consistent with the government’s belief that the profitable Irish banks were going to be safe even if the economy hit a serious downturn.

The focus on capital adequacy, Pillar One of the Basle framework, appears to have come at the expense of a lack of emphasis on the second pillar, which relates to the supervisory process. In particular, the Basle 2 guidelines contain an extensive section on the importance of dealing with “credit concentration risk”, i.e. banks having too much exposure to one source of risk. The severe exposure of the Irish banks to any downturn in the property market was plain to see for anyone who read their annual reports. For example, Morgan Kelly (2007) used these reports to calculate the size of the Irish banks’ exposure to the property sector and the potential for insolvency after a property bust.

However, as discussed by Honohan (2010) the “principles based” supervisory culture at the Central Bank during this period meant there was very little supervisory interference in bank operations. Indeed, the Central Bank had been tasked during this period with a role in promoting Ireland’s financial services industry and presentations from this period to international investors highlighted the “user-friendly” nature of the regulatory approach. Whether because of this role or because of other failings, the outcome was a supervisory policy of not-so-benign neglect that left the banks totally unprepared for a slowdown in the property market.

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4.2. The Banking Crisis from September 2008 to EU-IMF Bailout

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 on September 29, 2008, two weeks after the collapse of Lehman Brothers, the senior management of the largest Irish banks turned up at government buildings looking for help. Anglo Irish was losing funds and running out of eligible collateral to be used to borrow from the ECB. Anglo was possibly days away from defaulting on its liabilities and the other banks were extremely concerned about the impact on their operations if such a default was to occur.

The Guarantee

What exactly happened during the meetings that took place between the bankers, the politicians and staff from the Department of Finance and Central Bank, is still unclear. Indeed, there are ongoing calls in Ireland for an official investigation into the details of these meetings. What we do know is that on the morning of September 30, 2008, the Irish public awoke to find out that the government had provided a guarantee for almost all of the existing and future liabilities of the domestic Irish banks. The guarantee was to run for two years, meaning any default on bank liabilities that occurred during that period would be covered for by the Irish government.

Those involved in the government that made this decision have often pointed to the fact that many other European governments also provided guarantees to bank creditors in the months after the Lehman bankruptcy. However, as documented by ECB (2009), most of these guarantees were limited in nature, generally applying only to newly-issued securities and often having specified limits. While the guarantee provided in September 2008 was technically never called on, 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.

Why did the government provide such a broad guarantee given that alternative arrangements could have protected Anglo and the other banks at the time? For example, the Central Bank could have arranged to provide Anglo with Emergency Liquidity Assistance, something that it did in large quantities at later points in the crisis. Ultimately, the answer appears to be that the government believed the assurances of the Irish Central Bank that the banks were fundamentally sound and were merely suffering from a short-term liquidity problem. They appear to have believed that the guarantee would not have consequences for the state finances and that the blanket approach was the best way to signal to financial markets that the Irish banks were sound. Whether this was a reasonable belief can be questioned. There is 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.
From Denial to Disaster

As is commonly the case with banking crises, the Irish government continued to adopt a policy of denial for some time after the emergence of problems. At first, the government steadfastly denied any solvency problem existed at the Irish banks. Consultants Price Waterhouse Coopers (PWC) were hired to “go deep into the banks” by analyzing their loan books. PWC reported back that the banks had no solvency problems. Remarkably, they reported that under their “highest stress scenario, Anglo’s core equity and tier 1 ratios are projected to exceed regulatory minima (Tier 1 – 4%) at 30 September 2010 after taking account of operating profits and stressed impairments.”

Still, with the property market crumbling and outside investors showing no interest in investing in equity in Irish banks, the implications of bailing out bank creditors for taxpayers began to gradually emerge. In December 2008, the government announced plans to provide state capital of €2 billion each to Bank of Ireland and Allied and €1.5 billion to Anglo. In January, with evidence of various wrong-doings becoming public, the government nationalized Anglo and replaced its senior management. By February, the government had raised its capital injection plans for Bank of Ireland and Allied to €3.5 billion each. In May 2009, Anglo’s new management announced that the bank had lost all of its €4 billion capital and predicted a further €4 billion in losses.

With concerns about property-related losses at the Irish banks spooking international bond investors and foreign depositors and Ireland’s banks becoming increasingly reliant on borrowings from the Eurosystem, the Irish government decided it needed a systemic solution to fix the balance sheets of the banks. A National Asset Management Agency (NAMA) was set up in late 2009 to issue government-backed bonds to the banks to purchase distressed property loans at a discount. NAMA began to acquire loans from the banks gradually over 2010 and as further tranches of loans were acquired, it became clear that the final bill for recapitalizing the Irish banks would be enormous.

By 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 the state. The bank was to be recapitalized by providing it with government bonds known as “promissory notes” which would make cash payments over a number of years. According to Eurostat’s rules, the promissory notes were counted against Ireland’s general government deficit in 2010, leading to what must be a world record official deficit of 32 percent of GDP for that year.

Despite having started the crisis with such a low level of debt, the combination of large underlying deficits (the deficit in 2010 would have been about 12 percent of GDP even without the Anglo recapitalization) and enormous bank bailout costs saw the debt to GDP ratio heading towards 100 percent in 2010 (Figure 12). International markets, which had been reasonably confident throughout 2009 that Ireland would make it through without a sovereign default and which generally taken a favorable view of the Irish government’s fiscal adjustment program, became increasingly concerned during 2010 that the banking sector was going to destroy the creditworthiness of the Irish sovereign.

This loss of faith in the sovereign further undermined the banks. The Irish banks had been able to issue bonds from late 2008 to early 2010 under the protection of the state guarantee. However, as

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8 Morgan Kelly (2008) famously declared of the plan to provide Anglo with €1.5 billion “For all it will achieve, the money might as well be piled up in St. Stephen’s Green and incinerated.”
concern about potential sovereign default began to rise, this guarantee ceased to be of much use. With the loss of effectiveness of this backstop, ratings agencies moved to lower their ratings on the Irish banks, which triggered automatic outflows of money from corporate deposits.

Many of the bonds that had been issued after the guarantee matured in September 2010, when the original guarantee ran out. When the banks failed to find new sources of market funding in September 2010 to roll maturing bonds or replace the outflow of corporate deposits, the Irish banking system effectively went into seizure. While there was little public sign of trouble at Irish bank branches, behind the scenes there was effectively a full-scale bank run, driven largely by non-resident deposits. Deposits of non-residents at the Irish banks covered by the guarantee declined from €162 billion in August 2010 to €116 billion in November 2010 (see Figure 13).

Faced with this huge outflow of funds, the Irish banks turned to the ECB for 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 (see Figure 14). These were enormous quantities relative to the prevailing level of Irish GDP of about €160 billion. 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, a program that had previously been confined to Anglo Irish Bank.

Bond yields on sovereign debt rose in September and October 2010 and then moved up dramatically in November following the famous Deauville declaration. By mid-November, the game was up for the Irish government. Failing to see any signs of improvement in the banking situation, 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 program. While we don’t have access to the communications that took place at this time between ECB President Trichet and Irish Minister for Finance, Brian Lenihan, media reports indicate the ECB was making credible threats to pull support from the Irish banking system.9 Given this situation, the Irish government had little choice other than to request assistance from the EU and IMF.

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9 See Whelan (2012a)
5. The EU-IMF Program

In late November 2010, the Irish government agreed a multi-year funding deal with the EU and the IMF. Despite not providing any official money as part of the program, the ECB were involved in over-seeing the program along with the European Commission and the IMF, thus seeing the birth of the so-called “troika”.

The program provided funding commitments of €67.5 billion, two-thirds of which would come from the European funds. In return for this funding, the program contained commitments to restructure the banking sector, to implement further fiscal adjustment and to introduce various reforms. This section describes the various elements of the program and the performance of the Irish economy over this period.

5.1. Stabilizing the Banking Sector?

The first priority for the program was to stabilize the banking sector. It was announced that the Irish government were providing an additional €17.5 billion (mainly from the National Pension Reserve Fund) towards bank recapitalization. Thus, the total amount of funds available was €85 billion, with €35 billion of that earmarked for potential use in bank recapitalization after the conduct of a comprehensive set of stress tests.

It was hoped that this announcement would prevent further deposit outflows. In fact, at first, the announcement of the EU-IMF deal intensified the problem with deposits continuing to flee the Irish banking system and reliance on central bank funding increased even further. However, the system began to stabilize in Spring 2011. The Central Bank published a “Financial Measures Report” (FMP), a detailed document that set out loss estimates for various parts of the loan books of the domestic Irish banks under stress scenarios and capitalization requirements to cover these losses. The report also established a set of deleveraging targets that would see the banks reduce their reliance on ECB borrowing.

The program set recapitalization requirements of €24 billion for the four banks that were examined; the other two covered banks (Anglo and Irish Nationwide) were merged and put into wind-down. Some of this recapitalization came from write-downs of subordinated bonds, a development enabled by the passage of new legislation that gave the Minister for Finance wide powers to enforce coercive write-downs of subordinated (but not senior) bonds in banks requiring state assistance. Bank of Ireland obtained private equity investment and remained in majority private ownership but the other banks did not. The state forked over another €16.5 billion for recapitalization purposes and Allied and two other banks were nationalized. Of the six banks that were covered by the September 2008 guarantee, only Bank of Ireland escaped full nationalization.10

10 Even this escape was largely at the discretion of the government. The National Asset Management Agency acquired loans from the Irish banks at a premium to their market value. The European Commission has calculated that Bank of Ireland received almost €1 billion in state aid via this over-payment. Were it not for this over-payment, the Bank would likely have ended up in majority state ownership.
Including the 2011 recapitalization, the total amount of funds provided by the Irish state to recapitalize its banking sector has come in at about €63 billion or approximately 40 percent of current GDP. As illustrated in Figure 12, this means that the bank bailout has contributed less than half of the increase in the ratio of public debt to GDP from 20 percent to 120 percent, with the rest of the increase mainly reflecting the large deficits that have been run over this period. For this reason, it is not correct to blame Ireland’s recent fiscal austerity on bank bailouts. Even without spending a cent on bank bailouts, Ireland’s debt ratio in 2013 would be over 80 percent of GDP and rising. Without the significant fiscal adjustment that has taken place, it is likely that Ireland would have required an EU-IMF program even had there been no bank recapitalization. What is less arguable, however, is that the banking-related costs probably made the difference between Ireland having to enter a formal adjustment program in 2010 versus muddling through on its own.

The program’s actions to stabilize the banking sector have been largely successful. The banks have achieved the deleveraging targets set out in the program, mainly by selling foreign assets, without incurring larger losses than envisaged in the FMP report. Foreign deposits have not returned to the Irish banks but the quantity of these deposits has stabilized, as have domestic deposits.

It would be a mistake, however, to over-state the current strength of the Irish banks or to assume they have returned to anything approximating full health. There are a large number of negative factors and uncertainties. While loan to deposit ratios of the two largest retail banks, Bank of Ireland and Allied, have been reduced to the program’s original target of 120 percent, the gap is made up by Eurosystem funding. While this now places the Irish banks in a similar situation to many banks around Europe, the absence of a sustainable long-term funding model means that, like Spain and Italy, Ireland is still undergoing a severe credit crunch with credit to businesses and households continuing to steadily contract. (See Figure 15.)

There is also still considerable uncertainty about the quality of the assets held by Irish banks. While the property-related loans of the largest developers have been moved from their balance sheets and on to that of the National Asset Management Agency (NAMA), many small development loans remain with the commercial banks. In addition, many of the loans to small and medium-size enterprises are effectively property loans, reflecting the propensity of small business owners to use their business to dabble in the property market during the boom.

Ireland also has a burgeoning mortgage crisis with levels of arrears that far outstrip every other country in Europe. By the end of 2012, almost one in five mortgages on primary residences was in arrears, with most of these over 90 days in arrears and a growing number falling even further behind. (See Figure 16.) There is also a substantial stock of buy-to-let mortgages that are performing even worse than those backed by primary residences. Most of these mortgages in arrears are also in negative equity, many significantly so. While the FMP report from 2011 provided detailed estimates of the losses likely to be incurred on mortgage books, this report assumed that unsustainable mortgages would quickly be dealt with via a wave of repossessions. In practice, Ireland’s Dickensian legal framework relating to personal debt prevented any quick resolution of the mortgage crisis. As of mid-2013, there are signs that the banks are finally making some progress to restructure unsustainable mortgages but, until this process is further advanced, it will be difficult to estimate the full scale of mortgage-related losses.
These problems with asset quality would be less serious if the Irish banks were making reasonable operating profits. However, international competition for deposits has raised funding costs while the large amount of ECB “tracker” mortgages issued by the two state-owned banks, Allied and Permanent TSB, are depressing their net interest margins. The banks are engaged in rationalizations of their branch networks and other cost-cutting operations but it is unclear at this point whether operational profits can offset unrealized loan losses and stave off a further round of recapitalization requirements. Another set of stress tests are due during 2014 and the future of these banks may depend on the findings reported from these tests.
5.2. Fiscal Adjustment

Ireland has made slow but steady progress in reducing its fiscal deficit and meeting the program’s fiscal targets. A €5.4 billion fiscal adjustment (about three percent of GDP) was introduced in December 2010 in the waning days of the Fianna Fail\Green Party coalition government to satisfy the first fiscal requirements of the EU-IMF program. The election of February 2011 featured plenty of brave claims from opposition politicians that they planned to renegotiate this program in various ways. However, the Fine Gael\Labour coalition government that won the election has barely changed the core conditions of the program and have continued to implement the fiscal adjustments dictated by the agreements, with a further fiscal adjustments of €3.5 billion introduced in budgets in December 2011 and December 2012.

The fiscal targets set down in the program have been met and the government has benefited from a number of developments. First, there have been substantial adjustments to the program’s financing costs. The initial design of the program saw the €45 billion in funds provided by the European Union carrying profit margins of around 300 basis points and having an average maturity of 7.5 years. After Greece negotiated to have profit margins on its loans eliminated, the same deal was passed on to Ireland and a deal has recently been agreed to extend the maturity of these loans. Taken together, these concessions have significantly reduced the annual cost of the bailout funds and reduced the medium-term financing requirements associated with Ireland’s debt.

Second, the arrangements put in place to recapitalize Anglo Irish Bank have been renegotiated. These arrangements had required the Irish taxpayer to provide the bank with promissory note payments of €3.1 billion per year (about 2 percent of GDP) over the next decade mainly to allow the bank to repay its ELA debts.\footnote{See Whelan (2012b) for a detailed description of the promissory note and ELA arrangements.} In February 2013, Anglo was liquidated and the Central Bank was compensated for its ELA loans by the provision of government bonds. The ECB Governing Council has required that these government bonds be sold to the private sector gradually over time, so the replacement of the promissory notes with these bonds has not changed Ireland’s public debt. However, the new arrangement does appear to provide more flexibility in relation to dealing with the burden generated by the decision to bail out Anglo Irish and Irish Nationwide.

The execution of the fiscal side of the program has been good, with spending targets being met. While this reflects well on the current government and on the Irish civil service, the discipline in spending has been enforced by the need to meet troika targets. For example, spending on health and social welfare has consistently run ahead of targets but overall spending targets have been met because adjustment has been made elsewhere. It is perhaps unlikely that this kind of spending discipline could have been maintained outside a formal program.

Furthermore, while there has been a strong political narrative that the current government has taken many brave decisions during the program to “restore the reputation of the country” it is worth noting that only €7.3 billion of the cumulated fiscal adjustment of €28.8 billion from 2007-2013 has taken place under the post-2011 government. If credit is to be applied, it is perhaps best awarded, not to individual political parties, but rather to the Irish people who have accepted the extraordinary scale of fiscal adjustment with a remarkable level of equanimity and without any significant turn
towards radical politics. Still, with so many spending cuts and tax increases having been implemented already, there is an increasing sense of “austerity fatigue” and the planned spending cuts and tax increases over the next few years are likely to cause more political problems than those seen up to now.

5.3. A Return to Growth

Ireland’s budget deficit is still projected to be about 7.3 percent of GDP in 2013. The European Commission projects that the deficit will decline to 4.3 percent in 2014 and 2.1 percent in 2015, by which time the primary budget is projected to record a surplus of 3 percent. These improvements partly reflect further planned fiscal consolidation but they are also reliant on projections that real GDP growth will return towards 3 percent in the coming years.

There are good grounds for skepticism about the European Commission’s growth projections. For each of the countries in the euro area, official forecasts have been projecting a gradual return to healthy economic growth for a number of years, only to have the forecasted recovery to be continually delayed. In Ireland’s case, however, there are somewhat greater grounds for optimism. Perhaps surprisingly, Ireland’s economy bottomed out in late 2010, right as the EU-IMF agreement was signed. After declining steadily from early 2008 onwards, the economy recorded tentative growth in 2011 and 2012, with GDP growing by 1.4 percent and 0.9 percent respectively. (See Figure 17) Employment, which had fallen 18 percent from its peak level, began to flatten out in 2011 but has yet to show signs of significant growth. (See Figure 18).

The economic growth of recent years has occurred despite fiscal contraction, tight credit and severe balance sheet problems for households and firms. As expected, these factors have severely depressed domestic demand, so the growth of recent years reflects a re-orientation of the economy away from domestic demand and towards exports.

Ireland is a small and highly open economy that has a significant fraction of export-platform foreign direct investment operations, so traditionally it has run a large trade surplus. In the final years of the boom, however, Ireland’s cost competitiveness was eroded and net exports declined as a share of GDP. With the collapse of the housing bubble, the roles played by investment and net exports have flipped in the sense that in 2007, investment was 25% of GDP and net exports was 10% while by 2012 investment was 10% of GDP and net exports was 25%. (See Figure 19.) The role of export growth in sustaining increases in GDP in recent years despite falling domestic demand is also illustrated in Figure 20.

Ireland’s export growth in recent years partly reflects an improvement in competitiveness. Figure 21 reports indexes of unit labor costs for various euro area countries. It shows that Ireland has had the most significant improvement in unit labor costs of any of the crisis countries. Still, this improvement has only made up part of the loss of competitiveness relative to Germany that was built up during the boom period.
In terms of broader concepts of cost competitiveness, Figure 22 reports figures from Eurostat showing comparable price levels for a selected group of EU countries. Ireland went from being an average EU country in terms of the cost of living in 1995 to being 30 percent more expensive than the average in 2008. With consumer prices down on average from their level in 2008, about half of this excess has been eliminated but Ireland remains a pretty expensive place to live and this acts as a constraint on competitiveness.

This improvement in competitiveness partly reflects the depressed state of the labor market but it also reflects the fact that the Irish economy is relatively flexible. For example, Venn (2008) reported that Ireland has a lower score on the OECD Employment Protection Index than any other euro area member state and the World Bank has consistently ranked Ireland higher in its Doing Business index than other members of the euro.

The relative success of Ireland in regaining competitiveness and sustaining export growth in difficult conditions in recent years can be considered an argument in favor of a theme regularly aired by European Commission officials and senior European politicians: That adjustment to fiscal contraction can be easier if labor and product markets are more flexible.

However, Ireland does not provide evidence for a more commonly-aired version of this argument—that Ireland is an example of how structural reforms in product and labor markets can boost growth while an economy undergoes fiscal austerity. In reality, there have been very few structural reforms in Ireland during the EU-IMF program because, by European standards, Ireland began the program with markets that are relatively deregulated.12 A quick examination of a recent European Commission report on Ireland’s progress reveals the modest nature of the structural reforms included in the program.13 A streamlining of the company examinership process, a water services bill and steps to beef up competition enforcement are among the hardly earthshattering list of reforms discussed in the report. Rather than a complement to austerity likely to stimulate short-term growth, structural reforms in labor and product markets should probably be seen as measures to boost long-term growth and these measures are probably easier to implement during expansionary periods than during recessions.

It is also important not to over-state Ireland’s recent economic success. The recent pace of economic growth has not generated increases in employment and is unlikely to be fast enough to allow the debt-GDP ratio to stabilize given the current projected pace of fiscal consolidation. In addition, export growth has been weakening. With domestic demand likely to be soft for a number of years, it is hard to see a full-scale recovery taking hold in Ireland without a corresponding return to steady growth in the euro area and the UK.

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12 Indeed, perhaps the most obvious labor market structural reform in the original EU-IMF program—cutting the minimum wage, which is high by European standards—was reversed when the Fine Gael\Labour government renegotiated the program in Spring 2011.
Figure 19: Changing Composition of GDP
Chart Shows Shares of GDP Due to Investment and Net Exports

Figure 20: Year-over-Year Real Growth in Exports and Domestic Demand
5.4. **Improving Market Sentiment and Program Exit**

In the months after the EU-IMF agreement, market sentiment towards Irish debt worsened. With the situation in Greece heading towards a sovereign default, investors worried that Ireland would be among the other countries that would subsequently default. However, from August 2011 onwards, Ireland’s status as a relative success story among Europe’s high-debt countries has been reflected in a gradual improvement in market sentiment towards the country’s debt.

There were a number of twists and turns along the way. Some of the positive developments reflected Irish-specific factors, such as the return to growth, the June 2012 statement of Euro area finance ministers that the burden of Ireland’s bank-related debt should be re-examined and the subsequent renegotiation in February 2013 of the debt related Anglo and Irish Nationwide. Other factors reflected Eurozone developments such as the introduction of the LTRO program in late 2011 and Mario Draghi’s “whatever it takes” speech and the Outright Monetary Transactions (OMT) announcement in 2012.

As of mid-2013, Ireland’s sovereign debt rates have returned to pre-crisis level and the country has issued a number of well-priced long-term bonds. (See Figure 23.) These fund-raising efforts mean that Ireland has sufficient cash on hand to finance budget deficits and bond rollovers through to the end of 2014. This means the country is nearly certain to officially exit from the EU-IMF program, a development that is likely to generate good headlines all around Europe. Still, Ireland’s economic situation remains precarious and the negotiation of a precautionary agreement with the European Stabilization Mechanism as well as establishing eligibility for the ECB’s OMT purchases are likely events, so program conditionality of some sort is likely to remain a feature of Irish policy-making for years to come.

![Figure 23: Long-Term Irish Sovereign Yield](image-url)
6. EMU and Ireland’s Crisis

Finally, I consider some questions relating to the role of EMU in Ireland’s recent economic history for other euro area countries. I start with some arguments that the Irish experience provides some support for a number of current Eurozone policy initiatives and then move on to some trickier questions about the role played by EMU and the ECB in Ireland’s crisis.

6.1. Some Support for Current Policy Initiatives

Events in Ireland have provided a number of important lessons that support some important current policy initiatives inside the Eurozone.

- The problems caused in Ireland by a housing bubble and an economy in which employment and tax revenues are overly dependent on one sector are good examples of the reasons for the broader approach to monitoring macroeconomic imbalances being adopted now by the European Commission.

- The failure in Ireland of an approach to banking regulation that was focused mainly on micro-prudential capital adequacy rules argues for a more macro-prudential approach to regulation in which macro stress scenarios and feedback effects are given more prominence. Europe has taken some steps in this direction with the setting up of the European Systemic Risk Board and the introduction of stress tests by the European Banking Authority.

- The Irish experience also argues strongly in favor of the proposed harmonized approach to banking supervision across the euro area, so that supervisory cultures in some countries that are lax in nature are not allowed to cause financial problems that spill over to the whole of the area.

- Ireland’s greater success in reducing costs and raising exports in response to the crisis has provided an illustration of the benefits of a less regulated labor market.

6.2. The Role of EMU in Producing the Crisis

An important question is the role that euro membership played in the both the build-up to the crisis and the policies adopted to deal with them. Some in Ireland blame the low interest rates associated with euro membership for the housing bubble and resulting crash.

I think the weight of blame is better placed on domestic fiscal and regulatory policy. While the authorities may not have been able to do much about the low interest rates brought in by euro membership, they had the power to place limits on mortgage lending (limiting multiples of income or requiring large down-payments) and to restrict the exposure of individual financial institutions to property development.
In addition, rather than “lean against” the property bubble, Ireland’s government provided a host of tax-based incentives that encouraged property speculation: Some of the largest loan losses incurred during the crash related to hotels or housing developments in remote areas that were only undertaken as investments because of tax breaks and an expectation of future price appreciation. Indeed, as shown in Figure 7, Irish property prices flattened out in 2001 as the global economy slowed and various tax incentives were removed. After lobbying from the property sector, the tax incentives were restored and property prices began to soar again.

6.3. The Role of the ECB in Dealing with the Crisis

Unlike the period leading up to the crisis, a mix of blame between the Irish government and the ECB is more appropriate when considering how the banking crisis was handled. I will focus on five areas: The introduction of the bank guarantee, the diagnosis of solvency versus liquidity problems, the decisions to grant Emergency Liquidity Assistance, the decisions on repayment of creditors after the EU-IMF program and the transparency and accountability of the ECB.

1. The Guarantee Decision

Politicians from the government that issued the September 2008 guarantee have suggested on various occasions that the decision was influenced by the ECB but no documentary evidence for this has ever been provided. The ECB had the telephone number of every finance minister in the euro area but no other governments introduced a guarantee as broad as the Irish one. Indeed, there is evidence that a number of European governments were upset by the precedent set by the Irish guarantee and concerned that pressure would be placed on them to follow suit. All told, the blame for the important role played in worsening Ireland’s banking crisis by the guarantee decision must rest with the Irish politicians who introduced it.

2. Solvency versus Liquidity

At around the same time as the Irish banks were getting into difficulty, Iceland’s banks were going into meltdown. Having borrowed heavily in foreign currency, there was no way the Central Bank of Iceland could act as a lender of last resort and ultimately, Iceland had little choice other than to restructure its banking sector with bank creditors taking a loss. The extent of the solvency problem faced by the Icelandic banks was not diagnosed in September 2008 and has only revealed itself over time.

In Ireland, membership of the euro significantly eased the nature of the liquidity problem faced by the banks. During the opening year of the crisis, the banks were largely able to substitute for lost deposits and failed bond rollovers by increasing their borrowings from the ECB. While this helped to

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14 Former Minister for Finance, Brian Lenihan, spoke on a number of occasions of how Jean-Claude Trichet had advised him “Save your banks.”
keep the show on the road for a while, it meant there was a substantial delay in admitting there was a serious solvency problem.

Another comparison that is useful is the recent haircutting of depositors in Cypriot banks. Had the Irish banks been unable to access euro-denominated loans in October 2008, it is likely that some form of bank resolution would have to have been applied. In the case of Anglo Irish Bank, which cost the Irish taxpayer over €30 billion, the impact on retail depositors of a Cyprus-style haircut would have been relatively small. Out of total liabilities in September 2008 of €97 billion, senior debt securities accounted for €17 billion, subordinated bonds for €5 billion and non-retail deposits accounted for €40 billion. Only €19 billion of Anglo’s liabilities were accounted for by retail deposits. These figures show that, at the moment of the guarantee, there was a large amount of loss-absorbing capacity among Anglo’s bondholders and large corporate depositors and much of this capacity came from non-Irish investors.

Without wishing to understate the potential contagion effects that would have occurred had Anglo been put into resolution in September 2008, I suspect the costs to Ireland of putting the bank into resolution in October 2008 would have come in below €30 billion. The ability of the authorities to use membership of the euro to postpone the day of reckoning did not prove helpful for the majority of the Irish people.

3. Emergency Liquidity Assistance

By late 2010, it was clear that the Irish banks faced serious solvency problems. As one by one, these banks ran out of ECB-eligible collateral, the ECB Governing Council granted the Central Bank of Ireland permission to supply the banks with Emergency Liquidity Assistance (ELA). There is an important difference between these two kinds of loans. Losses incurred on regular Eurosystem loans, i.e. those back by ECB-eligible collateral, are shared among participating euro area central banks. However, losses on ELA loans fall only on the providing national central bank. Before the ELA loans were given to banks, the Irish Minster for Finance was required to provide various guarantees that these loans would be paid back, using state funds if necessary.

The exact nature of the interplay between the ECB and the Central Bank of Ireland when granting ELA is unknown. For example, it’s not known whether the ECB encouraged the provision of ELA because it was keen to avoid bank failures or whether the ECB only reluctantly allowed the provision of ELA to an Irish Central Bank that was keen to see the government’s guarantee not be called on. However the decisions were taken, the decision to facilitate creditor withdrawals from Irish banks that had run out of eligible collateral contributed to increasing the cost of the banking crisis for Irish taxpayers. An alternative policy in which the ECB denied the use of ELA and advised abandoning an unwise guarantee may have produced a better outcome.

4. Post-Bailout Approach to Creditors

While Irish politicians should take most of the blame for the cost to their public of the bank bailout, the ECB’s actions added to this cost.
Though not an official part of the program, it is widely understood that the ECB insisted that all senior bond creditors in the Irish banks should be repaid and threatened to withdraw liquidity support and or significantly raise the cost of this funding. At the time, the ECB’s implicit policy was that no banks should be allowed to fail in the euro area out of fear that such an event could prove to be “another Lehmans”. The policy of repaying all creditors was opposed in the negotiations by the IMF and by Ireland’s government (which had belatedly admitted it shouldn’t try to bail out all bank creditors) but with the European authorities providing most of the program money and the Irish banks dependent on ECB liquidity support to maintain day-to-day operations, the ECB position prevailed.

Importantly, the ECB no longer favors the approach of insisting that all bank creditors be repaid. Indeed, it was the ECB’s decision to make future funding to Cypriot banks contingent on depositor write-downs that triggered the exact timing of the crisis in Cyprus. While one can question whether the ECB has now swung too much to the opposite extreme, it is good to see that the ECB now tacitly admits the approach taken to bank creditors in Ireland is not one that can be applied more widely.

All told, while the Irish authorities did not help themselves, in the absence of an agreed approach to bank resolution, the euro area in the later part of the last decade did not prove to be a good place to have a banking crisis.

5. Transparency and Accountability at the ECB

Finally, Ireland’s crisis and a number of other events of recent years have raised very important questions about the transparency and accountability of the ECB. I have written elsewhere at length about these issues and won’t repeat the arguments here. However, the actions of the ECB to effectively force countries into bailout programs (via threats to cut off liquidity if they don’t) as well as to influence the cost of these programs (by insisting certain classes of creditors by repaid or haircut) have raised serious questions about whether an organization that has so little democratic accountability and behaves with so little transparency should be endowed with so much power.

7. Conclusions

Ireland’s recent economic history has produced many events that are likely to continue to influence debates about economic policy in the euro area. Mistakes relating to lax banking regulation, over-concentration on the housing sector and mishandling the resolution of insolvent banks will provide important examples of policies that euro area countries should best avoid in the future.

However, despite these mistakes, Ireland’s economy has a number of strong fundamental factors including high productivity and a relatively flexible labor market. These factors have helped Ireland cope somewhat better with fiscal austerity in recent years than other euro area member states. Despite serious problems with overhangs of public and private debt and a difficult external environment, there are signs that the Irish economy is slowly getting back on track. An important

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15 See Whelan (2012c).
challenge now for Ireland is to re-build political and policy-making institutions in a way that will help to avoid the type of self-inflicted mistakes that have contributed to multiple economic crises over the past few decades.

More broadly, I argue in this paper that the euro area’s policy makers should avoid making glib conclusions about the effects of austerity or structural reforms based on their reading of Ireland’s experience and that events surrounding Ireland’s banking crisis should raise serious questions about the transparency and accountability of the European Central Bank.

References


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