Restructuring and Recovery of the Irish Financial Sector: An Economic Case History[*]

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1. Introduction

During the years 2003 to 2008, the Irish domestic financial sector experienced a very fast and poorly controlled expansion, followed by a dramatic collapse. The causes of the Irish credit bubble and bust have been exhaustively examined; see for example Connor et al. (2012), Honohan (2010), Nyberg (2011), Regling and Watson (2010) and additional references therein. Over the next six years, from late 2008 to 2014, the Irish financial sector went through a painful restructuring and slow, modestly successful, recovery. This paper provides an economic analysis of the Irish financial sector's restructuring and recovery period. The paper considers both domestic and foreign banks operating in Ireland, household and corporate debt, property and other asset markets, and business investment. We analyse what the Irish experience tells us about the economic theory of post-crisis financial sector restructuring and recovery strategies.

One can divide recent Irish economic history into three periods: the "Celtic Tiger" period of strong export-led economic growth from about 1990 to roughly 2003; the "financial bubble" from 2003 to early September 2008, and the "austerity period" from mid-September 2008 to December 2014. For our purposes, the appropriate start date for the austerity period is clear: on September 15th, 2008, Lehman Brothers went bankrupt, interbank borrowing markets froze, and the global credit-liquidity crisis began in earnest. The emerging difficulties in Ireland's financial and property markets were evident to some observers as early as mid-2007, but it was only after the September 2008 failure of Lehman Brothers that the true magnitude of the Irish financial crisis was widely recognised.

On 30th September 2008, following meetings on the previous night between senior government officials, representatives of the Irish banks, the Department of Finance and the Central Bank[1], the Irish government decided to guarantee all the liabilities of the Irish domestic banking sector. This extravagant act created a perilously large contingent liability of €440 billion for the Irish taxpayer, more than double Irish GDP. The Irish domestic banks effectively changed from private enterprises to sickly wards of the state. For the next six years, the restructuring of the financial sector in Ireland was one of the key goals of public policy.

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Section 2 describes the key imbalances in the domestic financial system at the beginning of the restructuring-recovery period. Section 3 considers the sale and liquidation of distressed loan portfolios of the banks, particularly by the National Asset Management Agency. Section 4 examines banking sector recovery strategies, including the Financial Measures Programme, a collection of directives imposed on the domestic banks by the Irish Central Bank to guide them toward more acceptable levels of capital adequacy and stable liquidity funding. Section 5 describes the explosive growth and slow retrenchment of Irish household and business debt, and the related problem of loan payment arrears and default. Section 6 concludes the paper. The paper is organised thematically rather than chronologically; Table 1 below gives a guide to the chronology of some of the key events.

Table 1: Chronology of Key Events

2. Imbalances in the Domestic Banking Sector

This section examines the key imbalances in the Irish domestic banking sector, which arose during the 2003-2008 credit bubble period and slowly dissipated thereafter. The 2003-2008 Irish growth-and-collapse episode is a classic example of a credit-fuelled property bubble and bust. Calvo et al. (1993, 1994) and Reinhart and Reinhart (2009) note that financial bubbles are often linked to large inflows of foreign capital. Such inflows are called “capital bonanzas” and they are often, but not always, linked to financial bubbles and busts.[2]

During the years 2003-2008, Ireland experienced a spectacular capital bonanza. The domestic banking sector in Ireland grew explosively, with a total growth of assets of 245% over a five a half year period, equivalent to 25% per annum. This was not financed from domestic sources; rather, the funding was borrowed from overseas via the interbank borrowing market, bank bond market, and via foreign corporate deposits in Irish domestic banks. Figure 1 gives the asset (Panel A) and liability (Panel B) composition of the aggregate[3] balance sheet of the domestic banking sector.[4] On the asset side, the very fast growth of property development lending is notable – it grew[5] by 502% between Q1 2003 and Q3 2008. Mortgage lending also grew quickly, by 172% over the same period. On the liability side, the growth in net foreign borrowing is critical to explaining the banking crisis: it grew by 353% over this same five and half year period. In September 2008, the Irish domestic banks had €113 billion of net foreign liabilities, equivalent to 63% of 2008 GDP. The growth of more stable sources of bank funding, such as domestic demand deposits, is more muted.

Figure 1: Composition of Domestic Banking Sector Balance Sheet

Linked to the growth of bank lending was a construction boom and property price bubble. Figure 2 shows a residential property price index, which grew by 311% between Q1 1996 and its peak in Q1 2007; it subsequently fell 51% to its trough in Q1 2013. Also, it is worth noting that residential property prices understate the magnitude of the property price

bubble, which was even more spectacular for development land. Ireland does not have a statistical index of development land prices.

Figure 2: Residential Property Price Index

3. Sale and Liquidation of Distressed Loan Portfolios

At the beginning of 2009, the Irish banking system, and the Irish government as guarantor of that system, was in a deep, existential crisis. The Global Great Recession had begun, with the worst four consecutive quarters of worldwide economic contraction since the beginning of the Great Depression in 1929; see Almunia, et al. (2009). Although the government liability guarantee provided some short-term relief, serious funding problems continued to plague the Irish banking sector.

3.1 The Nationalisation and Liquidation of Anglo Irish and Irish Nationwide

The two most distressed Irish domestic banks were Irish Nationwide and Anglo Irish Bank. Within a few months of the September 2008 bank liability guarantee it became obvious that both banks were essentially in the process of liquidation, although at first there was some hope that a rump institution might survive. Irresponsible corporate governance policies and accounting irregularities were discovered at both institutions; the extremely poor quality of their loan books also became evident quickly. In January 2009, the Irish government nationalised Anglo Irish bank with a view to an orderly wind-down of its operations. Later, in July of 2011, Irish Nationwide was also officially nationalised after merging with Anglo Irish bank to form the Irish Bank Resolution Corporation (IBRC).[6] This institution was finally declared bankrupt, and liquidated, in February of 2013.

The ECB stood ready to provide liquidity funding to Eurozone banks, but only if backed by eligible collateral assets. The institutional bank run against Anglo Irish was so severe that it did not have sufficient eligible collateral to obtain adequate emergency funding from the ECB. In the absence of suitable collateral, there was an additional fall-back source of central bank liquidity. The ECB council had an extra funding channel by which it could allow direct lending from the bank's member-state central bank (i.e., the Irish Central Bank) to individual banks, in a programme called Emergency Liquidity Assistance (ELA). The risk from any potential default on ELA lending by the bank falls on the member central bank (i.e., the Irish Central Bank) rather than on the ECB. Since the Irish Central Bank is guaranteed by the Irish sovereign, Irish Central Bank ELA lending adds to Irish sovereign risk.

By March of 2010, Anglo Irish bank had few unimpaired assets available for collateral for liquidity funding from either the ECB or Irish Central Bank. Anglo Irish Bank was very clearly insolvent by this date. The ECB was reticent to allow a Eurozone bank to enter bankruptcy during this tumultuous period for the Eurozone financial system. The Irish government did

not have the fiscal resources to pay the creditors of Anglo Irish Bank. A compromise deal was struck between the ECB, Irish government and Irish Central Bank. The Irish government gave a so-called “promissory note” to Anglo Irish Bank, promising to pay the bank (or its creditors) €30 billion plus interest over a twenty-year period. This promissory note was then accepted by the Irish Central Bank as collateral for “liquidity funding” under ELA (this acceptance was pre-agreed as part of the deal). Neither the Irish Central Bank nor the ECB could directly bail-out Anglo-Irish Bank since this would represent debt monetisation, which is forbidden under the ECB charter. (Examined critically, this liquidity assistance could still be interpreted as *indirect* debt monetisation since in effect the Irish Central Bank was creating new money for a member government unable to fund its claims, or rather for the claims of its private bank liability holders.)

The promissory note deal was widely criticised within Ireland since it involved Irish taxpayers taking on additional debt to pay off the private creditors of a failed bank. Unlike the capital injections into the surviving banks, where the Irish populace clearly benefitted from the banks’ survival, Anglo Irish Bank and Irish Nationwide were in full-scale liquidation and the injected money was used only to pay off private bank liabilities.

The valuation of the promissory note deal is quite subtle due to the budgeting relationship between the Irish Central Bank and Irish government: the Irish Central Bank’s investment surplus including interest earned is paid to the Irish government. See Whelan (2012) for a careful valuation analysis of the promissory note. The promissory note deal was made even more byzantine on the bankruptcy of IBRC in February of 2013. As part of the IBRC bankruptcy, the Irish government announced that it was altering the payment structure of the promissory note, replacing the note with long-term government bonds. Due to the circularity of interest payments between the Irish Central Bank and Irish government, this debt swap substantially lowered the true cost of the debt to the Irish government; see Whelan (2013). In an unusual move, the ECB governing council did not approve or disapprove of this change in the terms of the deal, rather, it announced that it “took note” of the changed terms, without endorsing or rejecting the change. The promissory note drama is a minor but fascinating episode in the evolving history of the Eurozone financial system.

3.2 The National Asset Management Agency

The nationalisation and planned liquidation of Anglo Irish Bank and Irish Nationwide still left unanswered the question of the best solution for the other, surviving domestic banks. Bacon (2009) in a report commissioned by the National Treasury Management Agency proposed solutions to the domestic bank sector’s credit and liquidity crisis. The report evaluated options for resolving property loan impairments and associated capital adequacy. The Bacon Report considered three alternative approaches:

1. A recapitalisation programme, which injects sufficient capital into the banks to absorb likely losses;
2. An asset guarantee scheme which would see the state guarantee the loan assets which would remain on bank balance sheets; and
3. An asset management arrangement which would remove the assets from the banks and place them in a separate vehicle.

The first approach (1) is least disruptive to the activities of the banks, since the bad loans remain under the banks' direct control, but the approach risks the banks becoming "zombie banks" which focus only on dealing with past bad lending decisions and not engaging in new lending. The guarantee scheme (2) has the advantage of not creating the need for the state to finance the purchase of the assets or for the banks to write down their asset values. This has the disadvantage that it creates misaligned incentives for banks and borrowers since the taxpayer is liable for loan losses. The report argued for the bad bank approach (3). It concluded: "when considered in the context of characteristic features of the Irish situation, in particular taking account of the contingent liability aspect; the implications of loans remaining on bank balance sheets and the continuing capital requirements of property related projects, it appears that the Asset Management approach has the potential to offer greater assistance to achieving resolution of the impairment issue upfront and maximising taxpayer returns, over the longer term" (Bacon, 2009; p.6).

The National Asset Management Agency (Nama) was established in December 2009. In a report outlining its functions (National Asset Management Agency, 2010) Nama's founding goal is stated as striving to achieve the best possible return for the taxpayer on the acquired assets. At inception it was given a target to liquidate its entire portfolio (through loan run-downs, loan sales, and the sale of underlying collateral) within a 7 to 10 year period.

The government faced challenges in correctly pricing the loan assets to be transferred from the banks to Nama. The government had to ensure that the prices paid were "fair value," not containing a hidden subsidy to the selling banks, since an over-priced sale would constitute a national government subsidy to private industry; such subsidies are not permitted (or very circumscribed) under EU competition law. At the same time, the government was aware that if the loan pricing was low, the realised loss on the sale of these loans could devastate the banks' capital bases. The government took a compromise position, in which the loans were fairly valued by an objective outside party, and then a premium was added to this current-market valuation, to take account of the loan's long-term holding value. The approach was approved by the EU competition commission under the circumstances. In retrospect, the Nama loan pricing policy seems to have been about right. By the end of 2014, Nama had unwound the majority of its portfolio with a small profit margin.

During 2009, as Nama was being developed and launched, the Irish government was in the midst of a fiscal crisis. The government could not afford the additional borrowing required

to fund Nama's purchase of loan assets. It was crucial that Nama borrowing be treated as off-balance-sheet funding by national income accounting authorities; this meant that Nama had to satisfy criteria to be designated a privately-controlled corporate entity rather than a government agency. Such a designation would ensure that the money borrowed to fund Nama would not be recorded as Irish sovereign borrowing. The ownership structure of Nama consisted of a 51% stake owned by private investors and the remainder held by the Irish state. Originally, the private stake was equally divided among three domestic investors, namely; New Ireland Assurance, Irish Life Investment Managers, and Allied Irish Banks Investment Managers. However the holding of the latter two entities had to be sold off when the Irish government became the majority shareholder in their parent banks. One share was bought by a South African firm, Prestige, with the other being acquired by an undisclosed client.

Ninety-five percent of the amount which Nama paid for the transferred property loans was paid with Government-guaranteed securities. These so-called "Nama bonds" paid a floating rate of interest tied to the Libor rate and were deemed to be eligible collateral for obtaining funding from the ECB. The participating Irish domestic banks, who received the Nama bonds in exchange for distressed loan assets, were able to convert the Nama bonds to cash, courtesy of the ECB lending facility. The very low interest rate on Nama bonds, together with their eligibility as collateral for extremely low-rate bank funding from the ECB, had the effect of creating a hidden borrowing-rate subsidy for Nama and the participating banks from the ECB. These funding subsidies did not violate EU competition laws. The remaining five percent of Nama funding was in the form of subordinated securities and equity, which allowed the entity to qualify as a private enterprise, not a government agency.

Nama acquired the first tranche of loans from the participating institutions (AIB, Bank of Ireland, Anglo Irish Bank, EBS and Irish Nationwide) in May 2010. Over the following two years, it acquired approximately 12,000 loans with a par value of €77 billion for €30 billion. Hence, the participating banks suffered a par-value loss of €47 billion on the sale of the loan assets. Table 2 shows the composition of the Nama portfolio by loan type and region.

Table 2: Composition of the Nama Loan Portfolio

By the end of 2014, Nama had redeemed €16.6 billion of senior bonds, 55% of the total senior debt originally issued (see National Asset Management Agency, 2015b), which placed it over two years ahead of its target redemption schedule (with an original target of 50% redemption by 2016). Nama is essentially an asset-disposal business with a limited lifespan, so its aggregate profitability depends critically upon the sale prices received on asset disposals over coming years. As of end-2014, Nama seems on target to terminate with a modest positive profit (see National Asset Management Agency, 2015a).

Nama was aided by three external factors: one, it had an extremely valuable borrowing subsidy provided by its indirect access to cheap ECB funding; two, it was able, as intended in

its design, to take a long-term holding strategy for most assets and "ride out" the poor market conditions of the first few years after its establishment; and three, it was indirectly aided by the quantitative easing and monetary expansion policies of the US, British and Eurozone central banks, which pushed down long-term interest rates to historic lows for long periods. These low long-term rates in all three currency zones (US dollar, British pound, and euro) made the potential yields on Nama's property portfolio very attractive to outside investors.

4. The Recovery Strategy for the Surviving Domestic Banking Sector

4.1 The EU-IMF-ECB Program and Bank Sector Stabilisation

As of the last quarter of 2010, the Irish government's attempts to restore the domestic banking system to health had not succeeded. Despite the nationalisation of Anglo Irish and several government-funded capital injections into banks, the markets remained unconvinced that the banking system was stabilised. Increasingly, wholesale deposits and bank bonds in domestic institutions began to be withdrawn on maturity, despite being protected by the Government guarantee (Central Bank of Ireland, 2011; p.3). During this period, the Irish banking sector absorbed an enormous quantity of liquidity support from the Irish Central Bank and ECB (€136 billion at peak in November 2010). Particularly troubling were the ELA funds provided by the Irish Central Bank (see Figure 3). These funds were guaranteed by the Irish government, but the ECB began to worry about the credit quality of this guarantee. The sharp economic downturn in Ireland following the banking collapse induced a very large Irish fiscal deficit, exacerbated by the high costs of capital injections into the banks. The ECB put pressure on the Irish government to enter an IMF-led sovereign borrowing and restructuring programme. The Irish government agreed to enter a programme in November 2010. There were three agencies involved in running the programme: the IMF, EU and ECB, aptly named "the Troika."

Figure 3: Liabilities of the Irish Central Bank

The collapse of the Irish banking system caused the fiscal failure of the Irish sovereign and necessitated the sovereign bail-out programme. This order of causality (banking crisis causing fiscal crisis) was not the case uniformly in the Eurozone crises; for some financially-troubled countries in the Eurozone, the opposite causality applied. Greece's financial crisis, for example, began with a fiscal crisis, which then spread to the banking system. One of the design weaknesses in the single currency area was this perverse interaction between banking and fiscal uncertainty –the so-called "doom loop" of interconnected banking sector and sovereign crises in the Eurozone monetary system, see De Grauwe (2013).

The Troika set the restoration of confidence in the banking system as one of the key goals of the programme. The Troika required €10 billion be immediately invested in the banks and

set aside a further €25 billion as a contingency sum to address potential future capital needs.

4.2 Bank Sector Stress Tests

The establishment of Nama, and the transfer of distressed property loans to it from the banks, generated a €47 billion realised capital loss for the domestic banks. The Irish government and Irish Central Bank, together with the Troika, were forced to develop and implement a strategy to restore capital adequacy and public confidence in the Irish banking sector.

For several years after the 2008 U.S. credit-liquidity crisis, a lack of confidence in the banking sector was widespread in the developed world, not just in Ireland. In an attempt to restore confidence in European banks, the Committee of European Bank Supervisors (CEBS) undertook a stress test in 2009. The test was applied to the 22 largest banks in Europe based on their balance sheet at the end of 2008 and projected the capital position of the banks two years forward. The test claimed to show that all the banks in the sample were adequately capitalised to withstand the assumed stresses. In July the following year, CEBS repeated the stress test, now covering 91 banks over the two-year period until the end of 2011. Bank of Ireland and AIB were included in the sample and both passed the test, while seven non-Irish banks failed. The credibility of the stress tests was called into question when, just months after passing the 2011 stress test, a number of banks, including Dexia and Bankia, required substantial restructuring.

The CEBS stress tests of European banks had inconsistent goals, which may explain their lack of credibility. Their main objective was to restore confidence in European banks; producing a test finding that there were few if any serious problems in the region's banks could contribute to this goal, if the test finding was believed. CEBS had the authority to recommend capital injections or restructuring of failing banks, but was aware that making such recommendations, without any obvious sources of new capital, might cause funding chaos. The resulting tests were eventually seen as a failed public relations exercise rather than a serious attempt to measure bank sector stability.

Starting in March 2010, the Central Bank of Ireland undertook its own stress tests, the Prudential Capital Assessment Review (PCAR). It had learned from the public criticism of the CEBS stress tests and was very careful and explicit about ensuring the rigour of the tests. The PCAR exercise was preceded by a forensic asset quality review of all the domestic banks. Then, the participating banks were required to develop pro forma bank losses (and capital positions) linked to a base-case scenario and worst-case scenario for key loss-linked variables such as property prices and interest rates. In March 2010, Bank of Ireland, AIB and EBS, the three surviving institutions which had sold loans to Nama, were subjected to PCAR. The PCAR covered a three-year period, 2010-12, and set a target level of 8% Core Tier 1 capital in the base case scenario and a 4% target in the stress scenario. Permanent TSB

undertook the PCAR in September that year. The PCAR was repeated the following year, this time supervised by BlackRock Solutions and covering the period 2011-13. The target level of Core Tier 1 was raised to 10.5% in the base scenario and 6% in the adverse scenario. Arising from the tests, all four institutions, AIB, Bank of Ireland, Permanent TSB and EBS, were deemed to require additional capital.

Prior to 2008, the traditional approach to bank risk regulation focussed upon capital risk with considerably less attention to liquidity risk. The US credit-liquidity crisis had made regulators more conscious of the importance of liquidity risk, in addition to capital risk. Reflecting this change in approach, the Irish Central Bank undertook a Prudential Liquidity Assessment Review (PLAR) as a supplement to the PCAR. The PLAR focused on trying to put the banking sector on a more stable funding structure. The purpose was to shrink the banking sector’s dependence on volatile sources of bank funding, particularly short-term wholesale and interbank borrowing, which was also mostly foreign-sourced funding. This was to be either replaced by stable funding sources, such as domestic deposits, or more realistically, matched by an offsetting shrinkage in the banks’ assets.

4.3 The Financial Measures Programme

The Financial Measures Programme (FMP) was the collection of directives to the domestic banks based on the outcomes from the PCAR and PLAR tests. Although prepared by the Irish Central Bank, the FMP represented the banking element of the Troika rescue package. There were two main recommendations of the plan, capital injections and funding rebalancing, corresponding to the output from the PCAR and PLAR risk measurement tests.

The Financial Measures Programme required new capital injections into the banks; the capital amount needed was well within the funds allocated in the Troika support programme. The more difficult part of the FMP was the need for funding rebalancing in response to the PLAR findings. The PLAR set a clear target for the banks: each of the banks individually needed to reach a loan-to-deposit ratio of 122.5% by December 2013. The purpose of this target was to return the Irish banks to a more appropriately leveraged and more stable funding position. To ensure smooth progress towards this 2013 target, the FMP also set interim six-monthly targets for the loan-to-deposit ratio.

The need to shrink assets in order to eliminate volatile funding created a difficulty in the PLAR recommendations. Forcing the banking sector to shrink its assets might incentivise the sector against new lending, which in turn might starve the economy of investment and lengthen the economic downturn. Selling the banks’ existing assets was also problematic. The market for bank loan assets seemed poor at the time that the PLAR was undertaken. There was a risk that any forced sale of bank assets might attract “fire sale” prices and generate bigger than necessary capital losses for the banks.

The FMP shaped the deleveraging plan to minimise disruption to domestic bank lending and to avoid fire sales of assets. Banks were required to divide their existing lending operations into "core" activities (chiefly, domestic lending) and "non-core" (chiefly, foreign lending). The banks were then tasked with deleveraging by shrinking the non-core business while focussing solely on core activities for future lending growth.

The FMP forecast that losses of €27.7 billion would be incurred on bank portfolios and a further €13.2 billion of losses would arise from sales of non-core portfolios. This produced a capital shortfall of €18.7 billion, to which Irish Central Bank added a €5.3 billion conservatism buffer, creating a requirement for a €24 billion capital injection.

5. Corporate and Household Debt Overhang and Deleveraging

Section 2 looked at the explosive growth in bank lending through analysis of the banking sector balance sheet. This section returns to the same phenomenon, but now from the perspective of the borrowers: Irish households and businesses.

Figure 4 shows the growth and then decline of Irish household and private enterprise debt as a proportion of annual GDP. The run-up of household debt before 2008 was mostly but not entirely due to the fast growth in mortgage lending during the bubble period. To a considerable extent, the fast increase in private enterprise debt during the credit bubble was also due to property-related lending. During the Irish credit bubble, Irish private enterprises were very active as part-time property investors, both for commercial properties and buy-to-let investment properties; see McCann and McIndoe-Calder (2014). Because of this, the collapse in property values created a very large unrealised capital loss for many Irish private enterprises. This large property investment loss, together with a sharp drop in business activity throughout the economy, contributed to widespread business distress and a lack of new investment by Irish businesses.

Figure 4: Household and Private Enterprise Debt to GDP Ratios

Figure 5 presents a breakdown by sector of the recipients of credit from Irish banks. It illustrates the banking sector's increasing exposure to property development and construction firms over the pre-crisis period, 2003-2008. By 2008, it represented approximately 60% of the combined banking loan book to private enterprises – a twenty percentage point increase over the start of our sample. This imbalance is still evident at the end of 2014, but the trend is toward a more stable ratio of property and construction debt to other sources of bank debt.

Figure 5: Sectoral Breakdown of Irish Bank Lending

The large cumulative increase in property prices and mortgage debt prior to 2008, followed by the sharp fall in property prices after the banking crisis, led to an enormous increase in negative equity for mortgage holders, in both the primary residence and buy-to-let

categories. This negative equity, together with increasing unemployment and household income falls, led to a very sharp increase in mortgage arrears. Figure 6 shows the default rates (that is, percentage of mortgages with arrears of 90 days or more) for residential and buy-to-let mortgages.

Figure 6: Default Rates of Residential and Investment Mortgages

Widespread mortgage default is conventionally followed by property repossession, but this was not the case in Ireland after the banking crisis. Soon after the banking crash, in 2009, the Irish government enacted the Land and Conveyancing Law Reform Act 2009 which inadvertently had the effect of making most repossession proceedings impossible following the discovery of an error, a "lacuna" in legal jargon, by Ms Justice Dunne in July of 2011. The judiciary ruled that the law as written and passed by parliament legally banned virtually all repossessions in most circumstances. Although not the stated intention of the law, the blanket ban on repossession was politically convenient at the time, and the law was not amended to correct the "lacuna" for almost two years. Eventually, under intense pressure from the Troika, amending legislation was passed in 2013, allowing repossession of defaulted properties. In any case, repossession rates remained extremely low in Ireland throughout the recovery period so far; see Figure 7. This is one financial sector imbalance which has not yet been resolved as of 2014; there is still a large overhang of defaulted mortgages, with only slow and limited progress toward reducing this overhang.

Figure 7: Repossession Rates for Defaulted Mortgages

6. Summary and Conclusions

During the period from late 2008 to the end of 2014, the Irish financial sector undertook a slow and painful restructuring and recovery from the financial excesses of the 2003-2008 Irish credit bubble. During the credit bubble, the domestic banking sector had grown extremely quickly, building up a large, narrow exposure to property-related lending. The banks had financed this excessively fast growth using unstable sources of foreign funding. After the banking crash of September 2008, Irish policymakers were faced with a banking sector with massive prospective losses due to failed property loans and an urgent need to replace quickly-disappearing foreign funding. At the same time, the Irish household and business sectors were threatened by an overhang of property-related debt whose underlying collateral value had dropped precipitously. The economy suffered a deep recession, while the government entered a fiscal crisis due to falling tax revenues and unsustainable spending levels.

Policymakers implemented a range of corrective measures. A large quantum of property development loans were moved to a dedicated "bad bank" called the National Asset Management Agency (Nama). An IMF-EU-ECB financial rescue package was negotiated, mostly to deal with the government's fiscal crisis, but also to provide capital infusions to the

domestic banking sector. A forensic analysis of banks' loan books was undertaken by the Irish Central Bank, followed by a stress test of their capital levels and funding stability. This in turn led to a series of Irish Central Bank directives to the domestic banking sector requiring substantial new capital infusions and a slow rebalancing of funding (mostly by shrinking the size of the banking sector asset base) toward more stable funding ratios.

Given the dire initial conditions of late 2008, the restructuring and recovery of the Irish financial sector has proceeded reasonably well. Nama seems on course, if conditions remain favourable, to liquidate its portfolio by the original target date and with a modest profit. The banking sector has regained the confidence of the domestic and international financial community, restored safe capital ratios, and made progress toward a stable funding model. Only the problem of long-term arrears on property debt in the household and small business sector remains mostly unresolved.

During the latter part of the period, the restructuring and recovery process was aided by foreign events favourable to the plan. In response to the Great Recession, the central banks of the U.S.A., U.K. and Eurozone set interest rates at unprecedentedly low levels; the U.S. and U.K. central banks also undertook quantitative easing programs, buying up long-term assets in order to revive their financial systems. These conditions helped to make the loan assets of the Irish banking system tempting for foreign purchasers.

The European Central Bank was criticised in Ireland for its preference for domestic bank capital support (funded by the Irish government) as opposed to allowing private-sector Irish banks to fail. On the other hand, some of the actions of the ECB were instrumental in the eventual recovery of the Irish financial system. It provided an enormous amount of funding support, both directly and through the Irish Central Bank, pushing the limits of its charter in terms of the ban on any indirect financial support for member governments. With hindsight, the insistence of the ECB that the Irish government accept an IMF-EU-ECB support package was the correct decision, and it helped to restore confidence in the Irish financial system. The low financing rate provided to Nama and the participating banks by the EU and ECB contributed to the profitability of the Nama business strategy.

The poor performance of Irish business leaders, politicians and financial regulators during 2003-2008, when they allowed the Irish credit bubble to inflate unchecked, damaged Ireland's business reputation. The restructuring and recovery period was long and painful, but its relative success may have repaired some of the reputational damage arising from the Irish credit bubble and financial crash.

Were enough new safeguards put in place during the restructuring and recovery period to ensure a similar credit bubble cannot occur again in Ireland? The answer is yes: the type of credit bubble and bust which devastated the Irish economy is extremely unlikely to re-occur in the new regulatory environment. The Basel III bank regulations include restrictions on the ratio of net stable funding to risky lending, and this restriction rules out the fast-growth

strategies used by the Irish banking sector during the boom (which relied on volatile, foreign funding vehicles such as interbank borrowing as the main sources of liability growth). Additionally, the risk regulation of the Irish domestic banks is now overseen by the ECB, and the ECB-based regulators would not allow any bank to adopt a narrow, unbalanced exposure to property development lending as was done by several Irish banks during the bubble. The Irish Central Bank has also changed drastically, taking a much stricter and more cautious approach to financial risk regulation.

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[1] Lyons (2014) provides a detailed account of those meetings on 29 September 2008.
[2] Using a large panel dataset, Calvo et al. (1994) estimate that a capital bonanza (suitably defined) increases the probability of a national banking crisis in the following year by a factor of seven.

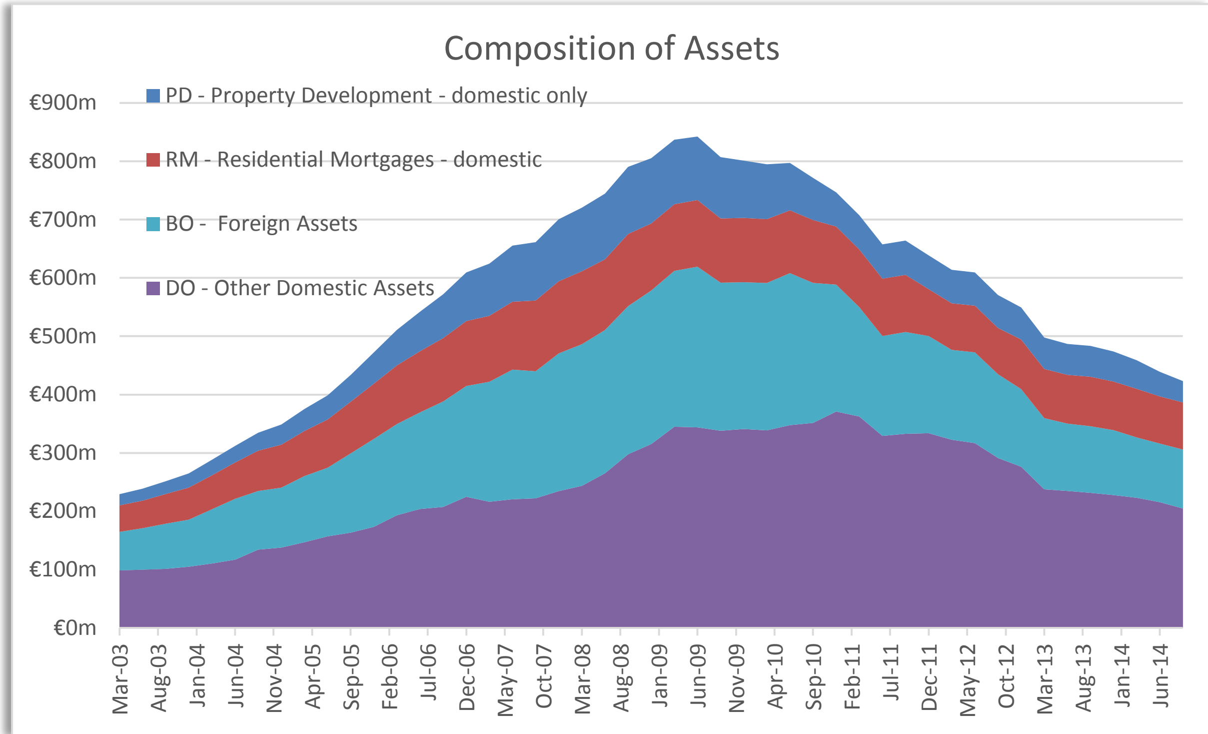
[3] The aggregate balance sheet of the domestic banking sector is found by summing the asset and liability entries of each domestic bank and cancelling intra-bank items such as interbank lending from one bank to another within the domestic banking sector. See Central Bank of Ireland (2013) for details.
[4] All data used in the charts and figures in this paper is available at https://www.maynoothuniversity.ie/economics-finance-and-accounting/working-papers.
[5] This statistic refers to domestic property development only. Including foreign property development (most of which was led by Irish-based developers) gives an even larger growth figure; see Connor and O'Kelly (2010).
[6] It could be argued that Irish Nationwide was already nationalised upon receiving a capital injection of €5.4 billion from the Irish government in 2010, which gave majority shareholding to the state.

Table 1: Chronology of key events

Lehman Brothers file for bankruptcy	September 2008
Irish government guarantee of bank liabilities	September 2008
Anglo Chairman and CEO resign after revelation of loan scandals	December 2008
Chief Executive of the Financial Regulator, Patrick Neary, resigns	January 2009
Irish government announce nationalisation of Anglo Irish bank	January 2009
Garda Fraud squad raid Anglo Irish buildings	February 2009
Government announce €7bn capital injection for BOI and AIB	February 2009
CBI launch first version of code of conduct on mortgage arrears	February 2009
S&P downgrade Irish sovereign debt; loss of AAA-rating	March 2009
Government propose establishment of Nama	April 2009
Nama established	December 2009
CBI and Financial Regulator publish methodology for PCAR exercise; Results for AIB, BOI and EBS	March 2010
Anglo Irish bank announce largest loss in Irish corporate history	March 2010
Anglo and INBS Promissory Notes issued	March 2010
First tranche of loans transferred to Nama	May 2010
CEBS announce results of EU-wide stress tests	July 2010
Second tranche of loans transferred to Nama	August 2010
PCAR results for IL&P	September 2010
Ireland agrees bailout programme with Troika	November 2010
Bulk transfer of remaining loans to Nama	December 2010
CBI announces Financial Measures Programme results	March 2011
Anglo announce loss of €17.7bn for year 2010 – a new record	March 2011
Moodys cut ratings on all Irish banks to junk status	April 2011
Creation of IBRC – merger of Anglo and INBS	July 2011
Irish deal to replace promissory notes with long-dated bonds	March 2012
Personal Insolvency Act becomes law	December 2012
Liquidation of IBRC	February 2013
Ireland complete return to bond markets	March 2013
Anglo Tapes released	June 2013
CBI launch fourth version of code of conduct on mortgage arrears	July 2013
Ireland exits Troika bailout programme	December 2013
Bank of Ireland is first Irish bank to announce return to profit	August 2014

Figure 1: Composition of Domestic Banking Sector Balance Sheet

Panel A



Panel B

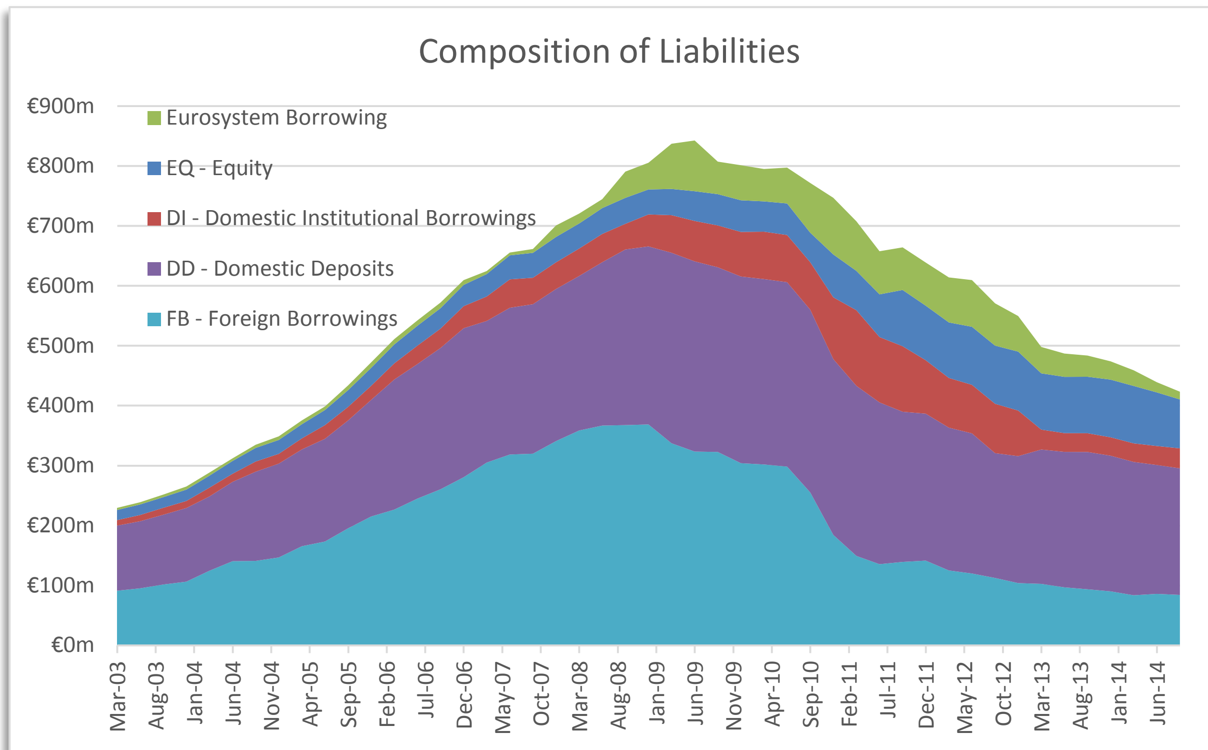


Table 2: Composition of Nama Portfolio by Asset and Region

	Ireland	Dublin	Northern Ireland	Britain	Rest of World	Total	% of Nama
Office	2.66	2.44	0.22	2.10	0.27	5.25	16.5%
Retail	2.91	1.51	0.22	1.16	0.15	4.44	14.0%
Other Investment	2.41	1.30	0.34	1.23	0.50	4.48	14.1%
Total Investment	*7.98*	*5.25*	*0.78*	*4.49*	*0.92*	*14.17*	*44.6%*
Residential	3.70	2.31	0.13	1.29	0.16	5.28	16.6%
Hotels	0.93	0.56	0.01	1.81	0.28	3.03	9.5%
Total Completed	*12.61*	*8.12*	*0.92*	*7.59*	*1.36*	*22.48*	*70.7%*
Development	1.13	0.52	0.06	1.33	0.33	2.85	9.0%
Land	4.17	2.42	0.28	1.85	0.16	6.46	20.3%
Total L & D	*5.30*	*2.94*	*0.34*	*3.18*	*0.49*	*9.31*	*29.3%*
Grand Total	**17.91**	**11.06**	**1.26**	**10.77**	**1.85**	**31.79**	**100.0%**
% of Nama	**56.3%**	**34.8%**	**4.0%**	**33.9%**	**5.8%**	**100.0%**	

Source: 'About Nama' Information Guide. Available at http://www.nama.ie/publications
Note: Unless indicated, figures are in billions of Euro

Figure 2: Residential Property Price Index: 1996 – 2014

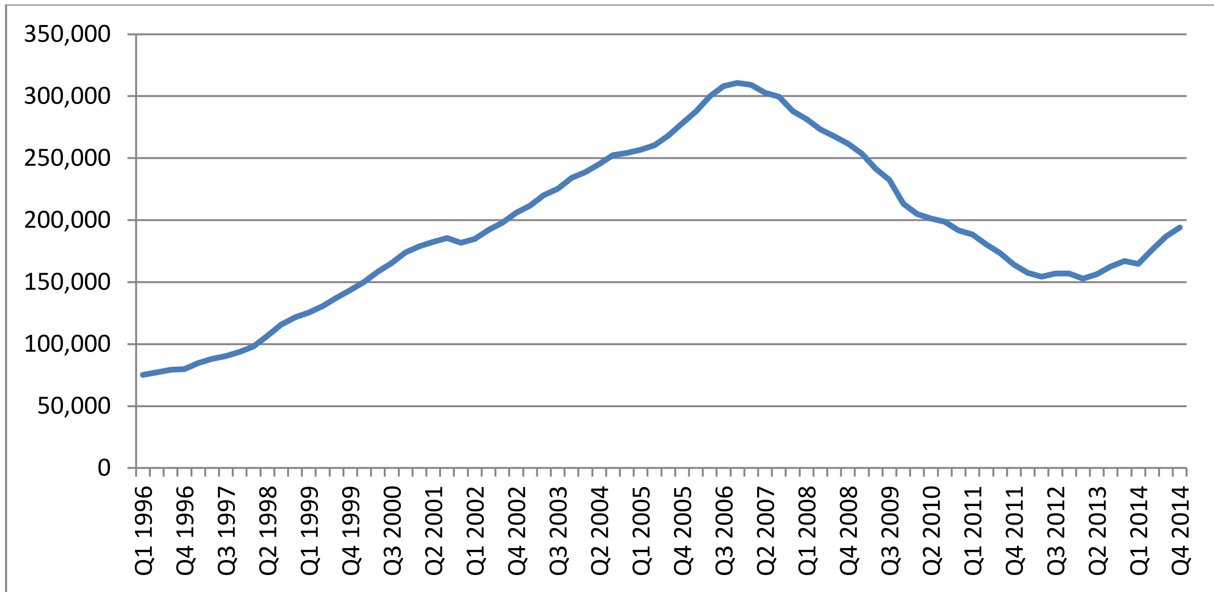


Figure 3: Liabilities of the Central Bank of Ireland Relative to GDP

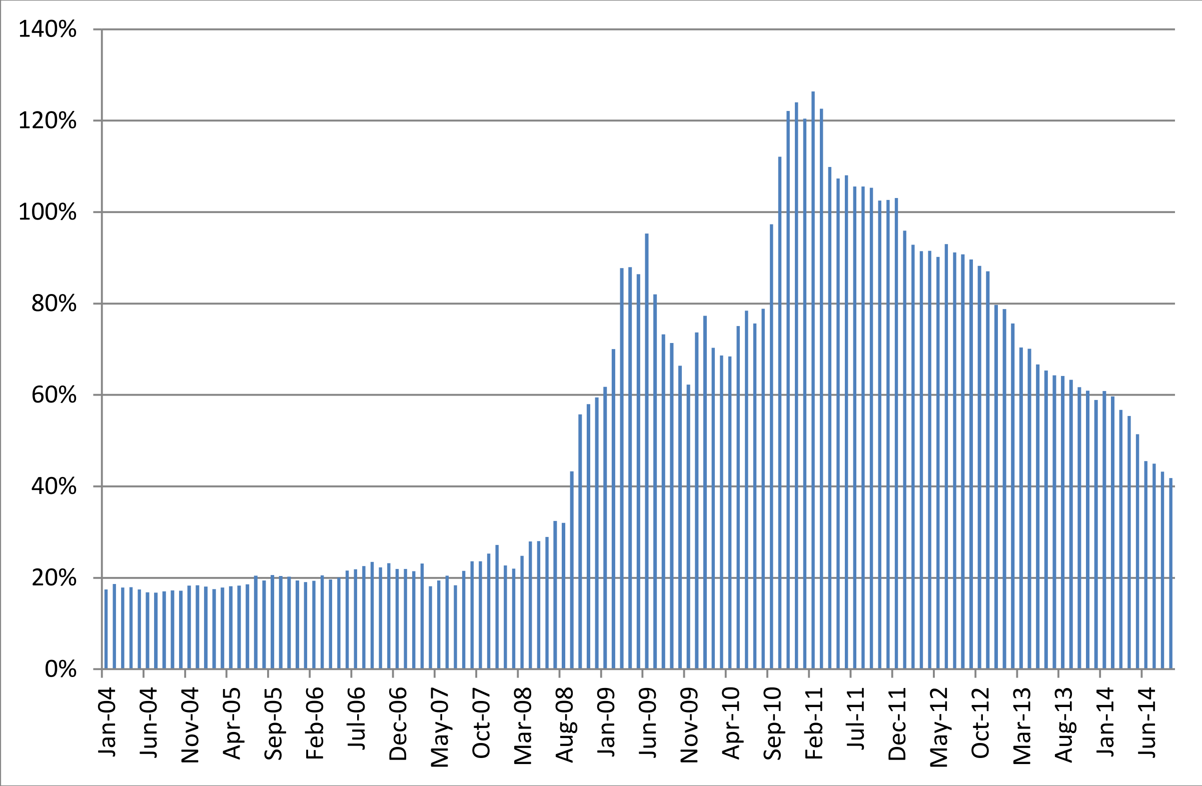
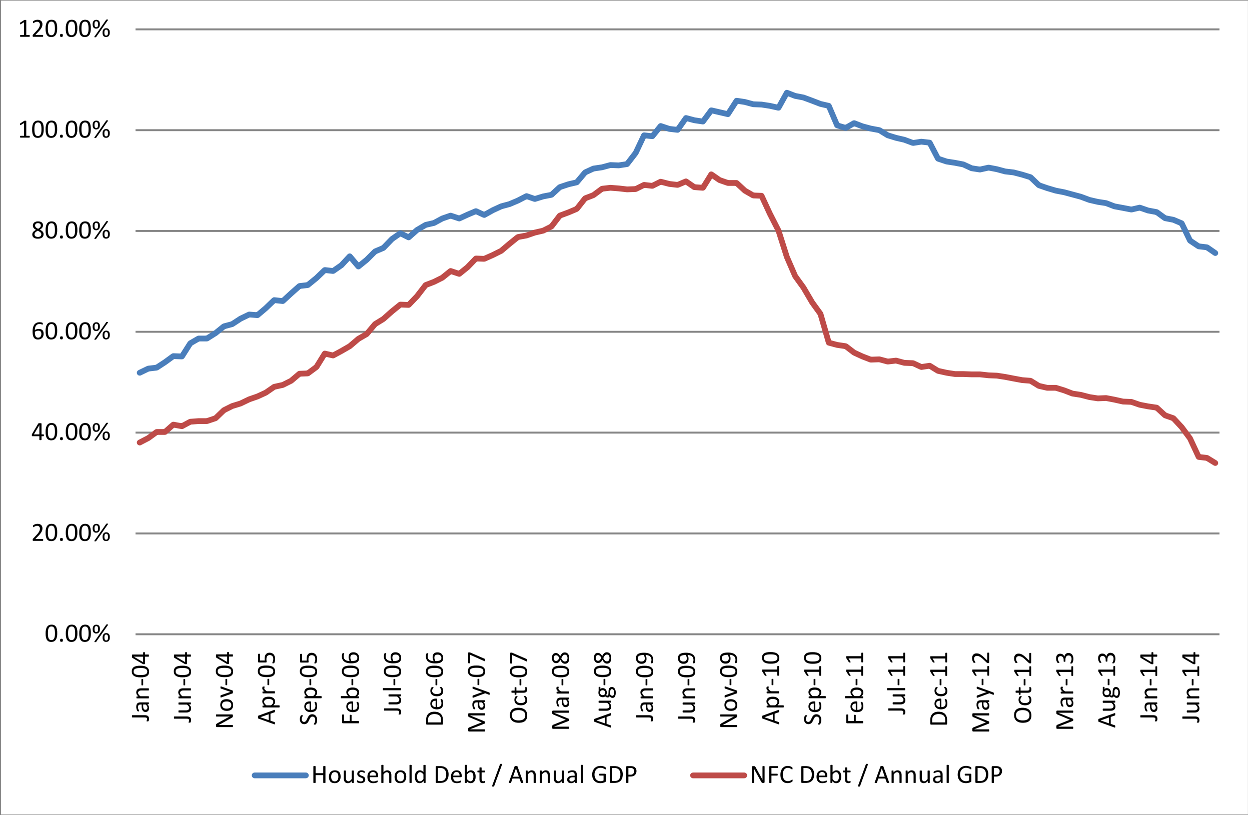


Figure 4: Household and Private Enterprise Debt to GDP Ratios



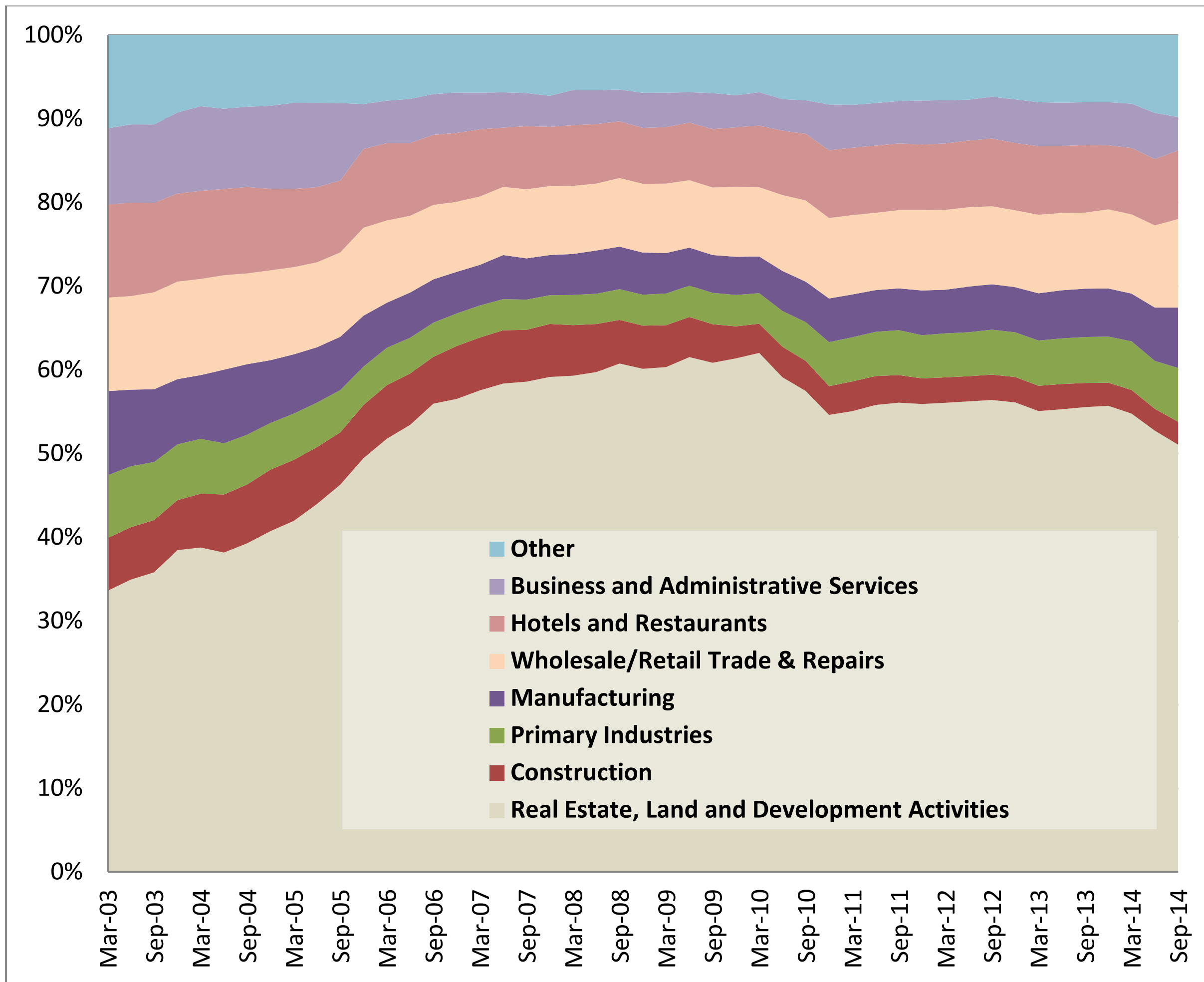


Figure 5: Sectoral Breakdown of Irish Bank Lending
(excluding Financial Intermediation)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Other
Business and Administrative Services
Hotels and Restaurants
Wholesale/Retail Trade & Repairs
Manufacturing
Primary Industries
Construction
Real Estate, Land and Development Activities
Mar-03
Sep-03
Mar-04
Sep-04
Mar-05
Sep-05
Mar-06
Sep-06
Mar-07
Sep-07
Mar-08
Sep-08
Mar-09
Sep-09
Mar-10
Sep-10
Mar-11
Sep-11
Mar-12
Sep-12
Mar-13
Sep-13
Mar-14
Sep-14

Figure 6: Default Rates of Residential and Investment Mortgages

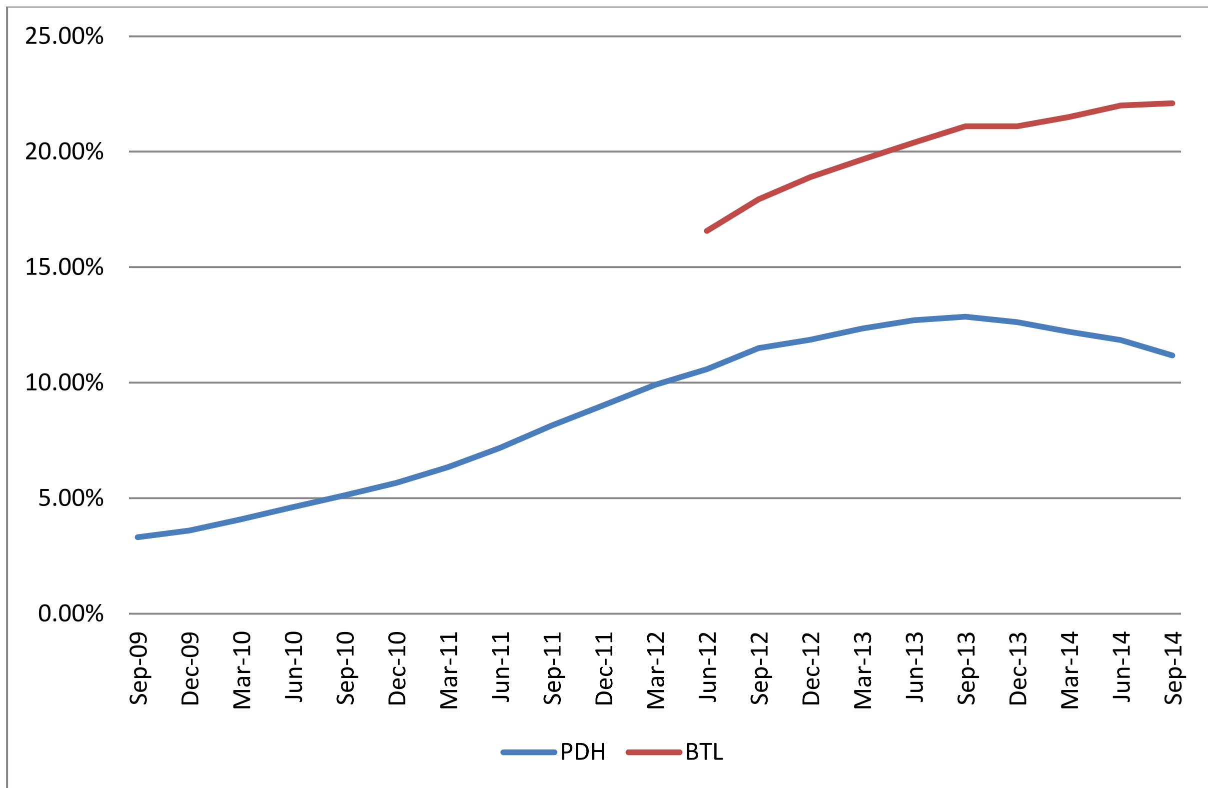


Figure 7: Repossession Rates for Defaulted Mortgages