Financial Stability Institute

FSI Crisis Management Series

No 2

The banking crisis in Ireland

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October 2020

JEL: E58, F33, G21, G28, G33
Keywords: bail-in, bank failure, bank restructuring, crisis management, emergency liquidity assistance, NPLs, promissory notes, resolution

BANK FOR INTERNATIONAL SETTLEMENTS

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Authorised by the Chairman of the FSI, Fernando Restoy.

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ISSN 2707-9503 (print)
ISBN 978-92-9259-432-9 (print)

ISSN 2707-9511 (online)
ISBN 978-92-9259-431-2 (online)

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Executive summary

This paper covers the banking crisis in Ireland that emerged in 2008. The Irish banking sector experienced a deep crisis, which first was at its most intense when severe funding pressures affected the Irish banks in 2008. These pressures re-emerged in 2010, in the light of unresolved questions about the viability of some of the Irish banks, the fiscal implications of the sovereign backstop given to the banking sector, and protracted but eventually unsustainable central bank liquidity support.

The crisis stemmed from a combination of macroeconomic developments, risky bank practices and unsustainable fiscal policies. From the early 2000s, economic growth became domestically focused. Following the adoption of the euro, the size of the banking sector grew significantly and became increasingly reliant on property-related lending in Ireland and abroad. This expansion was increasingly funded by cheap, abundant but short-term international wholesale funding. Fiscal policy was largely procyclical, with structural deficits only closed by transient transactions taxes. The growing imbalances in the domestic economy led to an asset price bubble with ever increasing property prices, encouraged by tax incentives and accommodative prudential oversight. As banks chased market share, lending practices and loan documentation and monitoring deteriorated. The Great Financial Crisis (GFC) that started in 2007 exposed the fragilities in the Irish system and a significant collapse in the property sector ensued. This resulted in a deep financial crisis, impacting the whole banking sector and in turn the Irish sovereign.

In line with the scope of this series, the paper focuses on the policy response. Due to inadequate information and insufficient preparation, the Irish financial authorities initially misdiagnosed the nature of the banking crisis as one of liquidity, linked to global market turmoil and overreliance on wholesale funding, as opposed to one of solvency. The crisis response was also shaped by the expectation, widely shared by euro area authorities following the demise of Lehman Brothers and based on the information at the time, that no bank would be allowed to fail in a disorderly way. This was considered necessary to mitigate further market panic. As a result, the Irish authorities introduced a government guarantee covering almost all Irish banks' liabilities, for a period of two years. But as the economy deteriorated, the unsustainability of the fiscal position became apparent and non-performing loans (NPLs) started to increase. A major banking sector restructuring became necessary.

Following the stabilisation of the banking sector, its restructuring required action on three fronts: capital, asset quality and liquidity. Initial attempts to bolster the banks' capital positions were insufficient and the declines in banks' solvency made it increasingly clear that a bolder approach was needed. Several rounds of stress tests were used to determine banks' losses, capital positions and long-term viability. Key decisions were needed to determine which entities were viable, with two of the most problematic banks being singled out for wind-down. Deleveraging plans were used to reduce reliance on short-term wholesale market funding. As a result, the banking system emerged as smaller and more domestically/more retail-focused.

An Asset Management Company (AMC) was established to remove larger land and development loans from the banks' balance sheets. The AMC, known as the National Asset

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Management Agency (NAMA), was tasked with removing certain types of real estate development loans from banks' balance sheets where economies of scale would be more substantial. Relying on the information from the capital assessment, deleveraging plans and the asset transfers to NAMA, forward-looking capital needs were quantified, and banks were subsequently recapitalised, mainly by the Irish state. Only in 2011 did a comprehensive assessment allow capital needs to be fully determined.

Central bank liquidity was essential to fund the restructuring of the banking sector. This was because NAMA provided bonds, not cash, in return for the assets bought from the banks, while the recapitalisation of the weakest banks was partly achieved through long-dated, non-marketable promissory notes. In both cases, these bonds and notes were pledged to the Irish central bank by the banks to source cash, since market funding was unavailable and liquidity outflows from the banks materialised again, especially in late 2010. Central bank exposure to Irish banks increased significantly because of these outflows.

The Irish authorities eventually sought external support in late 2010. External assistance was requested from the European Union (involving the European Commission (EC) and the European Central Bank (ECB)) and the International Monetary Fund (IMF) via a financial sector programme. The financial sector measures introduced as part of the EU/IMF Programme largely extended measures that the Irish authorities had already taken. However, the approach to bank restructuring was more comprehensive and robust and the sponsoring authorities gave Ireland both credibility and additional resources, providing some EUR 67.5 billion, or over 40% of Ireland's GDP. The deleveraging process embedded in the Programme and NAMA's NPL workouts reduced the central bank's exposure. However, a rapid exit from liquidity support by the central bank for Anglo and INBS, the gone-concern banks, was not possible because of the sovereign's stressed situation. The exit from emergency liquidity assistance (ELA) became possible once the gone-concern banks were liquidated and the central bank's claim restructured through a collateral exchange transaction.

One key lesson from the crisis response is the need to identify its real drivers and the limits of ELA and fiscal support. The Irish experience demonstrates the importance of intrusive supervisory oversight, crisis contingency planning and the need to collect and use reliable bank data to inform the authorities about the bank's underlying conditions and allow them to select the appropriate response. It also highlights the importance of ELA not being used to substitute for the required resolution of banks. Accordingly, the use of ELA needs to be restricted to viable banks and to a predefined and short time frame. Upfront recognition of the fiscal implications of any support granted to the banks also helps avoid the emergence of a damaging sovereign-bank loop that may be extremely difficult to exit from, especially without external support.

Important lessons also emerge in relation to bank restructuring. Ireland had to undertake a comprehensive restructuring of the banking sector. Deciding at an early stage which banks are non-viable is beneficial, and this also helps to determine the structure of the post-crisis banking sector. The experience also shows the importance of selecting marketable recapitalisation instruments that don't introduce hidden risks, especially for the central bank, which may otherwise be the sole provider of liquidity against these instruments. An additional but important measure to support the restructuring of the Irish banking sector was the use of an AMC to offload to and manage the larger property-related exposures.

However, some legacy issues remain. While the resulting NPL stock has been significantly reduced, many NPLs remain outstanding and in deep arrears, most of these being residential mortgages and mainly retained by the banks. There are multiple factors explaining the persistence of such arrears. One of these relates to the existence of a strong consumer protection framework that obliges lenders to find sustainable repayment arrangements with borrowers and makes home repossession a tool of last resort. While all countries strike a balance between creditor and debtor rights, a strong government emphasis on consumer protection – which dissuades NPL sales and complicates NPL resolution – may dilute the prudential objective, which is to restore the banks' ability to lend to the economy.

Section 1 – Introduction

1. **The Irish banking sector entered a financial crisis in 2008, and stress remained acute for a number of years before conditions could be stabilised.** Following years of rapid growth in the domestic banking sector, Irish banks became subject to increasing funding pressures which peaked in September 2008 and again in 2010. In response, Irish authorities took initial measures to bring the financial stress under control. However, market concerns about the adequacy of the efforts to restore stability, worsening global market conditions, and limits to Irish fiscal capacity in comparison to the growing rescue needs of the financial system, meant that the policy response was insufficient and needed strengthening and external support. This materialised in the form of an EU/IMF Programme in November 2010. Crisis response measures continued in the following years, building on and strengthening many of the measures already established by the Irish authorities.

2. **At its core, the crisis was a traditional case of unsustainable funding and excess credit growth and concentration of lending towards a single economic sector, where a bubble developed**. The Irish experience is an example of a traditional credit-driven crisis, where structural real estate imbalances combined with cheap but short-term international sources of funding led to weakened lending practices as banks competed for limited business opportunities in the real estate sector, and authorities did not intervene soon enough to mitigate the resultant build-up of excessive risks. International developments, and in particular the Great Financial Crisis (GFC) that started in 2007, also had a bearing on the crisis, although primarily in relation to its timing, where headwinds from international financial markets mostly determined when international capital flows to Ireland started to reverse.[2]

3. **The banking crisis was home-grown and stemmed from a combination of macroeconomic developments, abundant global liquidity, procyclical fiscal policies and risky bank practices.** While economic growth was robust in the 1990s, its fundamentals weakened from the early 2000s and growth became domestically focused. A concentration of lending in the property market led to the development of a property bubble. Banks' risk management practices did not keep pace with their expanding activities, and they competed intensely for market share. Meanwhile, prudential supervision and financial stability oversight lacked scrutiny and depth while the underlying data provided by the banks were not comprehensive and of low quality. Fiscal policy increased the imbalances by being largely procyclical, with structural deficits only closed by transient transactions taxes.

4. **This paper covers the authorities' crisis response to the collapse of the domestic banking sector, but does not aim to assess individual crisis measures per se.** In line with the practical approach of the FSI Crisis Management Series, this paper focuses on the response to the Irish banking crisis, presenting and discussing the policy measures put in place in response to it and the remaining legacy issues. To achieve this, and on the basis of publicly available information, the paper examines the key policy choices that were made and the information and rationale underpinning them and offers an overview of how policies interacted. The paper therefore does not discuss in detail the drivers of the crisis, as these have been covered extensively in the literature. Furthermore, policy aspects of monetary or fiscal policy are not discussed as these issues go beyond the focus of the FSI series.

5. **Multiple sources have been consulted in the preparation of this paper.** There is an extensive literature on the Irish banking crisis, which has been drawn on as appropriate throughout the various sections of this paper. The authors have also benefited from interviews with senior officials with direct experience of the crisis through their roles with the Central Bank of Ireland (CBI), the Department of

[2] The latest estimated net cost to the Irish state of the bank stabilisation measures is in the region of EUR 41.7 billion (Office of the Comptroller and Auditor General (2019)). This figure was estimated using end-2018 figures. The estimate does not include expected proceeds from the liquidation of the largest problem bank, which is still ongoing. The estimate does include valuations of the state's investments in the banks at EUR 8.4 billion, although the state has yet to sell or otherwise entirely liquidate its holdings (in May 2020 these valuations were revised downwards to EUR 2.5 billion (Department of Finance (2020a)).

Finance, the Irish Asset Management Company (National Asset Management Agency, NAMA) and the National Treasury Management Agency (NTMA), as well as the IMF, the ECB and the European Commission.

6. **There are four sections in this paper**. Section 2 discusses the origin of the crisis as related to developments in the banking sector. Section 3 presents the crisis response by the authorities including some of the resulting legacy issues, while Section 4 concludes with lessons.

Section 2 – Origin of the crisis

7. **This section briefly describes the main drivers of the banking crisis**. These include the domestic policies and economic trends, including the development of a property bubble, banks' risk management failures and shortcomings in the supervisory framework and practices.[3]

The macroeconomic context

8. **Ireland's economy grew at a rapid pace from the mid-1990s, but the original drivers of economic growth weakened after 2002, with growth increasingly driven by the financing of real estate activities.** Having put its macroeconomic policies on sounder footing by the turn of the 1990s, Ireland experienced high rates of economic growth starting in the middle of that decade.[4] A key contributing factor was the relocation to Ireland of the international operations of multinational companies (Lane (2011)). These were attracted by competitive wages, language skills and membership of the European Union, which facilitated free movement of financial services and exports to the rest of the EU.[5] Lower corporate taxes than in other EU countries also added significantly to the country's appeal. With close to full employment reached by 2000, competitiveness started to diminish. The main source of growth became commercial and residential real estate transactions, fuelled by domestic lending and tax incentives, accompanied by increasing domestic income levels and migration flows, including from the new EU member states after EU enlargement in 2004. Growth in both commercial and residential real estate lending became increasingly important sources of employment and of tax revenues and these became the banks' most profitable business lines. This practice, however, was not sustainable.

9. **Eventually, an asset price and construction bubble developed in the real estate sector.** Banks, developers and households became increasingly connected to the real estate sector. For banks, this translated into fast-growing, high and concentrated exposure to this sector, with exposures concentrated on commercial real estate and a small number of developers. Rapid credit growth followed and supported buoyant real estate markets and increasing prices. Low interest rates in the euro area resulted in low funding costs for banks but also lower costs for servicing mortgages, creating additional incentives for households to enter the property market. Increasing real estate prices lifted household wealth and supported higher spending, by giving households an opportunity to release equity. As a result of the

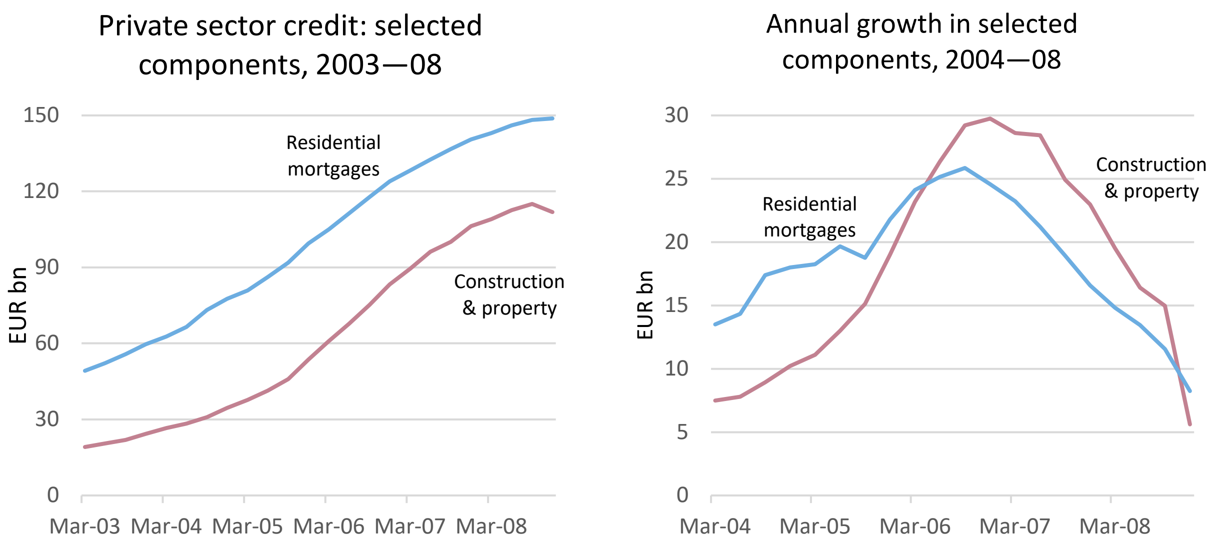
[3] The root causes of the Irish banking crisis are covered in a number of reports commissioned by the Irish government. These include Honohan (2010), Regling and Watson (2010) and Nyberg (2011). In 2016, a parliamentary Joint Committee of Inquiry into the Banking Crisis ("Joint Committee"), which was also tasked with examining the reasons for the crisis, issued a report.

[4] O'Sullivan and Kennedy (2010) discuss the economic developments in Ireland prior to the 2008 crisis. For instance, GDP increased by an average of 7% per year from 1997 until 2007.

[5] Ireland joined the euro area from its inception, in 1999. Clarke and Hardiman (2012) argue that joining the euro triggered the availability of cheap credit from abroad, and this pushed the economy to rely more on growth based on the property market. See also Regling and Watson (2010). Lane (2011) describes the switch to the euro as an asymmetric shock that especially affected peripheral countries such as Ireland, for which the fall in funding costs abroad was most marked. Moreover, for a relatively small country like Ireland, access to the much deeper and bigger euro market involved a drop in liquidity premia and therefore cheaper credit, which further boosted credit availability.

lending boom and its concentration on real estate assets, property prices rose markedly. For instance, residential property prices rose by over 300% between 1996 and the beginning of 2007, when they peaked (Connor et al (2017)). Banks also increasingly lent to Irish developers engaged in property ventures in the United Kingdom, United States, eastern Europe and elsewhere. At the same time, Ireland's international competitiveness deteriorated from the early 2000s onwards as unit labour costs rose more in relative terms than those of a number of other European countries (Regling and Watson (2010)). With its high and growing concentration on real estate development, building and construction, the Irish economy became increasingly imbalanced.

Chart 1: Components of overall lending growth



Source: Central Bank of Ireland.

10. **Fiscal and monetary policies did not mitigate the risks and were largely procyclical.** The fiscal authority consistently presented expansionary budgets that increasingly relied upon revenues from property taxes. While this approach aimed to keep wages competitive by reducing income tax on household revenues, it created a concentration of tax revenues arising from a highly procyclical sector and significantly narrowed the tax base. Accommodative monetary policy also contributed to the exuberance in the Irish economy. This policy was set for the whole euro area, but was too loose in relation to the economic developments in Ireland in the early 2000s and no offsetting measures were taken in Ireland.[6] More broadly, interest rates were low globally, generating considerable short-term inflows, which funded the banks' long-term lending. The absence of foreign exchange risk allowed Irish banks to borrow at lower rates in global markets, and pass on these rates to their customers.

Banks' credit expansion and business practices

11. **Banks competed aggressively for lending business to the residential and commercial property sectors.** The balance sheet of domestic banks[7] grew rapidly in the decade prior to the banking

[6] Pre-crisis, the Irish inflation rate was above the EU average and together with low nominal rates set by the ECB this meant that Ireland had very low, and mostly negative, real interest rates over the period (Connor et al (2012)).

[7] The six domestic Irish banks at the time of the crisis were Allied Irish Bank (AIB), Anglo Irish bank ("Anglo"), Bank of Ireland (BOI), Educational Building Society (EBS), Irish Life and Permanent (IL&P) and Irish Nationwide Building Society (INBS). The

crisis, and at their peak, their combined size reached five times Ireland's GDP (IMF (2010)). All banks adopted high-growth strategies (Nyberg (2011)),[8] and although some of them expanded operations abroad,[9] most remained focused on the domestic market. Some foreign banks, particularly from the United Kingdom, also entered the Irish market, intensifying competition for market share. Over the decade preceding the banking crisis, the extension of credit became essentially driven by considerations around loan size and market share, and credit quality declined as a consequence. Of the Irish banks, Anglo, which was initially a "monoline" bank specialised in commercial real estate lending, became the flagbearer of high-growth strategies and of increasing exposure to the property sector. As it managed to increase its market share,[10] the other banks developed similar high-growth and high-risk strategies in response.

12. **As they competed for market share, banks introduced high-risk products, including for residential loans, and increased their reliance on funding from abroad.** With demand for home buying in Ireland mostly stemming from domestic buyers, banks started to extend mortgages to a wider pool of households. To achieve this, they introduced products such as interest-only mortgages, so-called tracker mortgages,[11] or mortgages with loan-to-value ratios above 100%. These products artificially increased loan affordability over the short term by reducing initial payments for marginal retail borrowers. In addition, in a context of ample global liquidity, banks increasingly relied on cheap foreign funding to support their lending expansion. However, the maturity mismatches associated with this strategy and, those banks with a presence in the foreign funding markets, currency mismatches too, exposed the banks to considerable levels of risk.

13. **Banks' business practices did not keep pace with their evolving business models.** In particular, risk management systems and internal governance arrangements were inadequate. Property markets can experience cyclical swings, but Irish banks did not have risk management practices in place to monitor and mitigate this risk. Banks were focused primarily on balance sheet expansion through loan origination, without due consideration of the need to manage these loans over their lifetime. Growing weaknesses in risk management developed from at least three sides: liquidity and foreign exchange mismatches, exposure concentration and deteriorating lending standards. Funding was volatile, as banks filled the funding gap between domestic deposits and rapidly growing loan portfolios by accessing short-term funding markets abroad.[12] In the cheap financing environment of the early 2000s banks could easily

analysis presented in is paper does not extend to other foreign banks incorporated in Ireland, nor does it cover the Irish credit union sector. To give an indication of the size of each of the six banks, the reported consolidated asset size for each bank at specific points in 2008 was as follows: BOI (EUR 197 billion), AIB (EUR 182 billion), Anglo (EUR 101 billion), IL&P (EUR 74 billion), EBS (EUR 21 billion) and INBS (EUR 14 billion).

8 IL&P, being involved in both banking and insurance activities, differed from the other banks. It did not engage in speculative commercial real estate lending (Nyberg (2011)).

9 For instance, BOI tied in with the UK Post Office, Anglo started operations in the United States, AIB gained a presence in Poland, and IL&P had a UK residential mortgage operation.

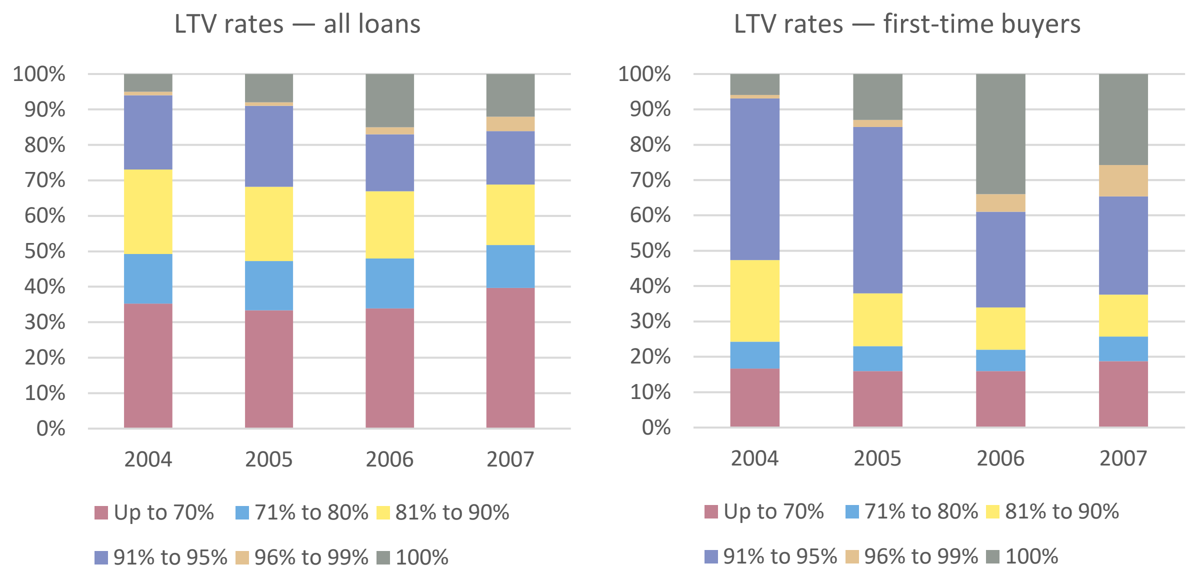
10 For instance, Anglo's share of customer loans in Ireland grew by 800% between 2000 and 2008, from 6.7% to 16%. The next-highest growth rate among the six banks under study was still considerable at 400% (Joint Committee (2016a)). Anglo was also highly dependent on wholesale funding, having a smaller customer deposit base to begin with. Its 20 largest customers made up about half of its Irish loan book (Casey (2018)). The other Irish banks engaged in a "chasing Anglo" strategy, trying to increase market share, which ultimately led to a loosening of lending standards.

11 The rate charged on these mortgages tracked the ECB refinancing rate very closely, at a fixed spread. Once Irish banks' funding costs increased, these mortgages became loss-making for the banks. There was also a significant increase in buy-to-let properties, which further exposed households to property price risk, while banks also offered equity release products to homeowners based on the unrealised profits of their property.

12 By 2008, loan-to-deposit ratios ranged between 130–140% and 175% for five of the six banks, and were as high as around 280% for IL&P (Nyberg (2011)). Banks attempted a shift into deposit funding when external funding conditions deteriorated in 2007, but only managed to stabilise the deposit-to-loan ratio, rather than increasing deposits in relative terms. Lane (2015) breaks down bank funding up to 2008, showing increasing reliance on international markets, and bond-based funding not only in euros, but also in sterling and US dollars.

meet such funding needs, but with apparently limited or no attention being paid to the inherent volatility of such short-term wholesale funding. Banks' exposures became especially concentrated in construction and commercial property loans, a more procyclical market than the residential real estate market.[13] In the rush to increase the size of loan books, property valuations were not conservative enough and underwriting practices deteriorated more generally, with loan agreements often poorly documented. In addition, a high number of mortgages were granted to the especially risky buy-to-let category (Joint Committee (2016a)).[14] These risks were further compounded by some banks adopting this increasingly popular property-focused business model without the required expertise.[15]

Chart 2: Loan-to-value ratios for Irish residential mortgages



New Irish mortgages issued in the respective year.

Source: Regling and Watson (2010).

14. **Banks had little interest in making the best possible use of the data they collected to improve their credit risk selection.** Under competitive pressure to retain or increase market share, banks gave priority to the growth of the business rather than its documentation and analysis. This resulted in incomplete and/or inaccurate data collection and inadequate due diligence by the banks. Furthermore, supervision followed non-intrusive practices with regard to banks' data, due diligence and underwriting (see Box 1). Once the crisis unfolded, these multiple shortcomings made an assessment of the banks' true condition much more difficult and hampered the crisis response (Lane (2015)).

13 For instance, over 70% of the balance sheet of Anglo and INBS comprised lending to construction and other commercial property loans (Casey (2018)). Between 2003 and 2008, the combined exposure of AIB, Anglo and BOI to construction and property firms grew almost fivefold (Casey (2018)).

14 Another consequence of high-growth strategies was that even when banks had adequate lending policies and underwriting standards in place, the proportion of approved loans that constituted exceptions to the policy grew over time. In one bank, exceptions represented 35% of all development property loans by 2008 and two thirds of these had a loan-to-value in excess of an 80% policy ceiling.

15 For instance, to this point INBS had been a retail lender, but it soon expanded into commercial lending amidst the general wave of increasing exposures to the property market.

Financial sector oversight

15. **In the ex post assessment of the lead-up to the crisis, reports commissioned by the Irish government revealed weaknesses in supervision and financial stability oversight**. One of the conclusions was that failings in supervision were at least partly due to the institutional setup of the Central Bank and Financial Services Authority established in 2003, which proved to be unwieldy; the corporate culture of consensus-seeking that had been dominant in the 2000s; the principles-based supervisory approach, which in practice delivered a non-intrusive supervisory attitude; and the related weak enforcement policy. Box 1 summarises the relevant findings of the reports submitted for the purpose of the Banking Inquiry.

Box 1

Regulatory and supervisory approach in Ireland before the crisis

The Honohan Report on Ireland's Banking Crisis (the "Honohan Report"), published in 2010, was one of three reports commissioned by the Irish government. Its remit was to assess the conduct of regulatory and financial stability policy in the lead-up to the crisis. It identified some key weaknesses, which are summarised below.

An integrated financial regulator was created in 2003 and placed within the central bank. This structure was the result of an Irish government decision in the late 1990s to consolidate prudential and consumer protection regulation, in response to tax evasion and consumer scandals. The result was the Central Bank and Financial Services Authority of Ireland (CBFSAI), which comprised three decision-making bodies within one legal personality. One of these bodies was the Irish Financial Services Regulatory Authority (IFSRA), which was responsible for prudential supervision and consumer protection. IFSRA had operational autonomy in the exercise of its statutory functions, but relied on the central banking body for resources and services. This structure gave rise to ambiguous lines of responsibility and to information silos between the prudential and central banking sides, possibly in an attempt to establish their operational independence from one another.① The CBFSAI was also affected by a diversity of mandates. By statute, IFSRA was responsible for both the safety and soundness of the financial system and also the promotion and development of the financial sector. This dual mandate had the potential to make the supervisor less effective in its bank-specific supervisory interventions.②

The report also identified shortcomings in corporate culture at the CBFSAI. Within IFSRA, herd behaviour and groupthink affected both staff and managers. They were expected to adopt and conform to consensus views. with departures from such views portrayed as going against team values. Contrarian views and behaviour that tended to "rock the boat" were frowned upon or at a minimum discouraged.

IFSRA adopted a principles-based supervisory approach, which in practice implied a non-intrusive supervisory attitude. The underlying assumption was that the supervisors did not need to second-guess the banks' business models. As a result, they tended to show deference to the banks' managers and exhibited a high level of complacency. In the same vein, the IFSRA board lacked regulatory expertise and the skill set that would have been needed for a more intrusive supervisory approach. Altogether it was considered sufficient to ensure that banks had a robust governance structure and reliable oversight and control systems in place. The principles-based approach allowed IFSRA to rely to a large extent on banks' own information and outputs, which were considered to be satisfactory, without questioning or challenging them, as part of its supervisory reviews. It also justified operating with a limited level of supervisory resources since it was assumed that the information and inputs that the banks provided did not need to be verified.③ Altogether, this resulted in a bank regulatory and supervisory environment that was not sufficiently intrusive.④

Finally, IFSRA took only limited enforcement action. In line with its overall non-intrusive supervisory approach, IFSRA also showed little propensity to follow up on supervisory action through harsher requirements when banks did not address concerns to the supervisor's satisfaction. Overall, enforcement by IFSRA was weak – there were no sanctions imposed on banks prior to 2008 and voluntary compliance, obtained through lengthy negotiations and compromises, was the preferred "enforcement" strategy.

① A further institutional reform took place in July 2010 through the passing of the Central Bank Reform Act, 2010, when the supervisory function was brought under the control of the central bank, and the joint authority was named the Central Bank of Ireland. ② A case in point was the concern that Irish banks might lose business to foreign competitors, which contributed to a delayed and only modest tightening in capital requirements for high LTV mortgages (Honohan (2010)). Nyberg (2011) discussed corporate culture failings at Irish commercial banks in detail. In addition, unlike the Prudential Director, the Consumer Director was a statutory position and they were a member of IFSRA's board. ③ It seems that the authorities considered supervisory resources to be sufficient. At the time, there were no requests for substantial increases in prudential staff (Nyberg (2011)). In practice however, the team assigned to supervise BOI (the largest bank in Ireland) and Anglo (the most problematic one) was made up of three persons, while that for AIB and IL&P was only two persons. Even if supervisory teams had been encouraged to examine issues in depth, and in particular to review, analyse and check a bank's financial position, their ability to do so was clearly constrained by their size. ④ For instance, the IFSRA did not challenge the banks on complex cross-collateralisation of loans to developers, did not investigate the vulnerability of bank lenders to declines in property prices or to borrower concentrations and did not establish the link between Irish and international property markets.

16. **CBFSAI warnings about rising financial stability risks were limited and not raised in a convincing way.** The Honohan Report highlighted how the central bank, which was in charge of financial stability surveillance, raised some concerns in its analysis of property markets, but did not consider price developments in the residential market to be misaligned with economic fundamentals. As late as 2007, its central scenario for the residential property market was that it would experience a soft landing. The commercial property market was considered to be even less of a concern, at least until 2006. Internal self-censoring (Nyberg (2011)) or insufficient attention given to contrarian views may have also undermined the capacity of the CBFSAI to raise stronger warnings about the risks in the property sector.[16] Underestimation of system-wide vulnerabilities was compounded by lack of sufficient information regarding the true financial position of individual institutions.

17. **More widely, these financial stability risks were not recognised in Ireland.** The Department of Finance did not raise any red flags regarding the increasingly procyclical nature of fiscal policy (Wright (2010)) with a substitution of income tax with property related tax. Moreover, "the risk of a large fall in property prices was also underestimated by the wider community of journalists, experts and the public, including house-buyers," (Lunn (2011), p 3), illustrating to what extent groupthink was pervasive and spread across the whole society, with a few exceptions,[17] and not confined to the public authorities only.[18]

18. **When the CBFSAI started to enhance its risk assessment in relation to the funding pressures of 2007, this did not result in tough supervisory action.** As the retrenchment in global funding in mid-2007 and the run on the UK bank Northern Rock in September 2007 created funding pressure for the Irish banks, the CBFSAI decided to quantify the exposure of Irish banks to the largest property developers. A special inspection launched in December of that year highlighted considerable information gaps (Honohan (2010)). At the time it was considered reassuring that the banks could assert they had no concerns about the current or future repayment capacity of their borrowers included in the review. But the inspection also showed that the banks grossly underestimated the extent to which their customers were borrowing from the other banks, and the high concentration of exposures to these major developers. In addition, the personal wealth of the providers of guarantees of these loans was not always verified. However, no

[16] A finding of the Joint Committee (2016a, p 10) was that the CBFSAI's financial stability reports "…did identify key risks. However, the overall assessment and tone of the reports were too reassuring and did not identify or warn of the systemic and macro prudential risks in the banking sector as well as the structural imbalances in the Irish economy despite specific, escalating and repeating risks". Similarly, Honohan (2010, p 10) commented that "although the [financial stability reports] included significant analytical material analysing the underpinnings of the property boom, the relatively sanguine conclusions tended to be reached on a selective reading of the evidence".

[17] One such exception was Morgan Kelly, a professor of economics at University College Dublin, who at the time warned about a significant correction in the housing market (Kelly (2006)).

[18] For this and for the biases that affected decision-making and contributed to such widely-held views, see Lunn (2011).

supervisory actions were taken at the time to address the multiple shortcomings that had been identified (Honohan (2019)).

19. **External observers expressed views on financial stability that were broadly in line with those of the CBFSAI.** Irish authorities' overall benign assessment was broadly shared by major external observers, such as the IMF and the OECD. This reinforced the dominant paradigm that the Irish banks would be able to cope with stress in the property sector. Some concerns were raised in relation to the analytical framework of the central bank, for instance regarding stress testing exercises, as discussed in the next section, but the overall view was that the correction in the property market would take the form of a soft landing.[19] In relation to the risk assessment of the property sector and price developments, the IMF's internal review conducted after the crisis (IEO (2016)) discusses how IMF staff could have held more prudent views about them than the CBFSAI.

Section 3 – Crisis response

20. **This section describes the main elements of the crisis response.** That description is organised by measures rather than in chronological order, focusing on the type of instrument used and the intended objectives. The first subsection presents the Irish blanket guarantee. The second covers the restructuring of the banking sector, including its rescue and recapitalisation. This involved sizing losses and recapitalising the banks; restructuring the banking sector and cleaning up banks' balance sheets through an asset management company; and addressing liquidity shortfalls. The section concludes with a subsection discussing the numerous post-crisis legislative, regulatory and supervisory reforms and some related legacy issues.

The guarantee

21. **On the morning of 30 September 2008, the Irish government announced its decision to provide a two-year guarantee covering nearly all liabilities of Irish banks.** This measure (hereafter "the guarantee"), presented as "unconditional and irrevocable", became one of the most debated and controversial topics of the Irish crisis. Before presenting the main features and the impact of the guarantee, the following paragraphs discuss the context of the decision.

22. **In a context of increasing pressure on market funding, by late September there was a sense of growing emergency.** The run on Northern Rock in the United Kingdom,[20] the near failure and rescue of Bear Stearns in March 2008 and the negative market rumours in early September 2008 about INBS created strong funding pressures on Irish banks (Honohan (2010)). By September, Anglo was losing access to funding markets.[21] Funding at other Irish banks, which still had access to the market, was also becoming

[19] In its review of the IMF experience in Ireland, the IMF's Independent Evaluation Office (IEO) discusses how the IMF staff reviews of Ireland failed to raise sufficient concerns about risks in the residential property market, and ignored the commercial property market, partly due to data limitations (IEO (2016)). IMF (2006a,b) are examples of the overall positive assessment of the situation in Ireland prior to the crisis.

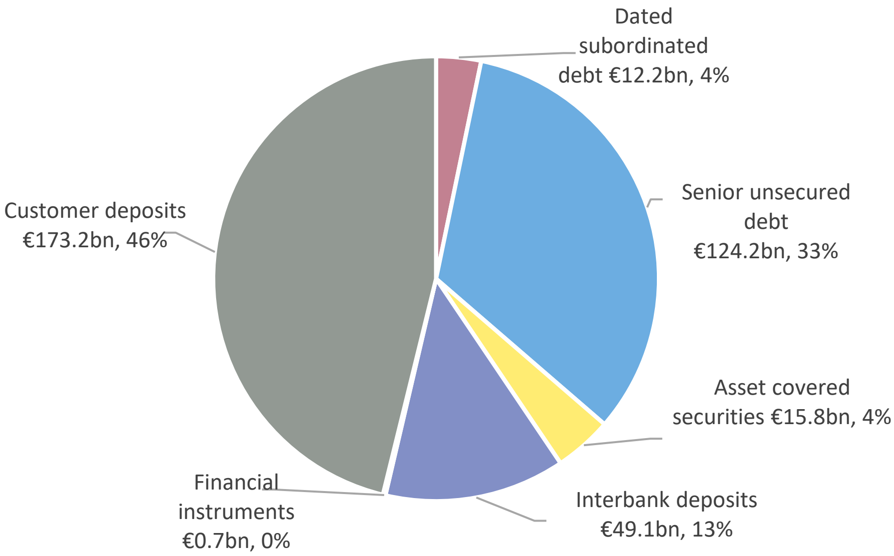
[20] This mortgage lending bank had a business model based on high growth, aggressive lending and real estate lending which presented some similarities to that of Anglo.

[21] Market stress had materialised already earlier in the year, in March, in what came to be known as the "St Patrick's Day Massacre". On the back of market turmoil following the collapse of Bear Stearns in mid-March, share prices of Irish banks crashed. The price dynamics of Irish banks' shares were not directly related to the developments in the US banking sector, but foreign investors started to doubt the sustainability of the highly priced real estate sector in Ireland, and banks' funding model abroad. However, the March stress events did not turn into a wake-up call for the industry or the authorities (Honohan (2019)).

increasingly restricted even though they could expect to hold out for longer than Anglo. In other words, the context of the September meeting was one of growing pressure on Irish banks' funding and the increasing need for the Irish government to act decisively because time was running out.[22]

23. **All deposits and most of the other liabilities of all domestic banks fell under the scope of the guarantee.** Apart from equity, only perpetually subordinated debt would not be protected. The amount of liabilities guaranteed totalled EUR 375 billion, or more than twice Ireland's GDP at the time (Chart 3 provides a breakdown).[23] The guarantee enacted in legislation was put in place for two years and was effective immediately.

Chart 3: Liabilities guaranteed by the state as at 30 September 2008



Source: Nyberg (2011).

24. **The decision was based on incomplete and inaccurate information.** Although no official minutes of the discussions leading to this decision exist,[24] it seems to have been based on two considerations (Honohan (2019)). The first was the statement, reiterated at the meeting by the supervisory authority, that all banks were technically solvent as of the end of September 2008, since they all – including Anglo – met all capital requirements at this date. Such a statement[25] was a prerequisite to the provision

22 The fact that the rejection by US Congress of the first version of the Troubled Asset Relief Program (TARP) took place and was announced during the meeting, and the impact that this could be expected to have the very next day on Irish banks' liquidity only increased the pressure and the perceived need to act. In the absence of data evidencing the connections of developers to each of the domestic banks, all of the domestic banks were considered too connected to fail.

23 Some foreign-owned banks were also eligible to be guaranteed. Specifically, "on 9 October 2008, the Minister confirmed the Government's intention that the guarantee scheme for banks previously announced would be available to certain banking subsidiaries in Ireland with a significant and broad-based footprint in the domestic economy. In particular, the Minister said that Ulster Bank, First Active, Halifax Bank of Scotland, IIB Bank and Postbank would be eligible for the scheme" (European Commission (2008), p 2). However, these foreign-owned banks chose not to participate in the scheme.

24 The absence of an official record for such a key meeting has been emphasised multiple times (see, for instance, Donovan and Murphy (2013) and Cardiff (2016)). Even the Joint Committee was not entirely successful in reconstructing the events and positions of the main participants at the meeting (Joint Committee (2016a), Chapter 7).

25 The statement did not reflect banks' solvency on an ongoing basis and was not forward-looking. As underlined by Donovan and Murphy (2013), it "underscores the "static" nature of official thinking at the time". It also illustrates a tendency to not carry prudential analysis through to its logical conclusion. In addition, the international accounting framework (IAS 39), under which

of emergency liquidity assistance (ELA) since an insolvent institution was not eligible for ELA. The second consideration, which was shared among EU authorities and member states and was part of an international consensus among financial authorities, based on the information available at the time, was that banks across the euro area should be prevented from defaulting in order to avoid the kind of panic that had followed the demise of Lehman Brothers a fortnight earlier (Honohan (2019)).

25. **The alternatives immediately available to the Irish authorities were limited.** In the absence of a resolution framework,[26] these could only be to provide system-wide emergency liquidity support, to nationalise one or several banks, to provide a state guarantee, or a combination of these measures. ELA was supposed to be short-term, bank-specific, provided against collateral and confidential to avoid the risk of a bank run. However, given that all of the main Irish banks were already experiencing a run and that banks had only limited eligible collateral, even system-wide liquidity support was not seen as sufficient to restore market confidence in the whole Irish banking system (Joint Committee (2016a)). Although nationalising Anglo (and perhaps INBS) was considered and maybe could have been implemented within a few days (Joint Committee (2016a)), this option was seen as impractical. It may also have been insufficient on its own.[27] Anglo was still technically complying at the time with all regulatory requirements, and therefore apparently solvent. In addition, these nationalisations would not necessarily put an end to the market-wide liquidity pressures. All Irish banks had similar real estate exposures, although to varying degrees, and these exposures were viewed as "high-risk" by market participants.

26. **While multiple aspects of the guarantee have been criticised, it was initially successful in alleviating liquidity pressures.** By protecting almost all liabilities against potential losses, the guarantee halted the run on most of the banks' funding. There was even initially a major inflow of funds into the Irish banking system after its introduction. However, this measure was insufficient to restore market confidence.[28] Share prices continued to decline and Irish banks' market capitalisations continued to shrink,[29] indicating persistent and growing doubts from market participants about the banks' true financial positions. Box 2 discusses the controversial aspects of the guarantee.

27. **In practice, however, the guarantee could only address liquidity problems, and it created a very large liability that the sovereign could not cover.** The guarantee alleviated liquidity pressures by transferring potential losses from the creditors to the sovereign. However, this could only buy time and presumed that measures to restore banks' credibility in the market would be put in place. A guarantee cannot in itself restore confidence in banks' solvency. Instead, and as losses started to emerge and grew from 2009 onwards, it became increasingly apparent that the domestic banks were insolvent and not merely illiquid and that the size of the losses could compromise the creditworthiness of the sovereign itself.

28. **Despite the criticism since 2008, by the evening of 29 September, the game was already up.** Faced with a developing run on Irish banks, with limited options to choose from and with the

losses that were not yet incurred were not recognised, resulted in a significant overstatement of regulatory capital and banks' solvency.

26 The absence of finalised draft legislation allowing the supervisory authority to treat equally ranking creditors differently essentially limited the range of options available. Legislation introducing a "special resolution regime" was only introduced in late 2011 as part of the EU/IMF Agreement. See, for instance, Donovan and Murphy (2013) and Nyberg (2011).

27 Nationalising Anglo (and the much smaller INBS) was considered both prior to and during the meeting on 29 September, although it was rejected. Draft legislation allowing for nationalisation was available at the time. To the extent that it was, it would have needed to be rushed through Parliament and approved before the opening of markets the next day.

28 Anglo did not recover the deposits it had lost in the weeks preceding the guarantee (Nyberg (2011)).

29 For an illustration of this, see Nyberg (2011).

expectation that the run would worsen the next day,[30] the Irish government had "its back to the wall" and felt the need to take action with whatever tools were at its immediate disposal. In other words, and while the guarantee was far from perfect, the most important failures took place prior to the meeting and during the previous year in particular (from September 2007 to September 2008). This is when there would have been time to conduct an in-depth assessment of the Irish banks to identify their true financial position. It is also during this period that additional emergency legislation was being prepared, but it was not finalised, in particular with regard to the ability to impose losses on creditors without putting banks into insolvency proceedings.[31] However, the CBFSAI did not conduct such an assessment and maintained that there was no evidence of insolvency, with the Department of Finance's draft emergency legislation focusing on nationalising one or several banks and not including provisions allowing it to bail-in at least some of the creditors.[32]

Box 2

Controversies around the Irish guarantee

Several features of the Irish guarantee have been subject to controversy. One is its "excessive" coverage. Specifically, this relates to the inclusion of dated subordinated debt, amounting to slightly over EUR 12 billion, because these instruments were supposed to be loss-absorbing in the event of a bank failure. Another issue was that the guarantee should have excluded long- and medium-term debt already in place since such funds could not be withdrawn. In the absence of bail-in clauses in subordinated debt contracts or of a resolution regime, dated subordinated debt could only absorb losses after a bank had defaulted and failed or if bought back by the issuer at a price below par (where the subordinated debt securities had fallen in value since issuance). This is in fact what Irish banks would do a few months later through their liability management exercises (LMEs). However, preventing any bank failure was one of the authorities' objectives and one of the major aims of the guarantee. Moreover, discriminatory treatment of debt holders, whether according to tenor or to the type of instrument, was not possible under the Irish legal regime at the time. Given the global market strains, and even if it had been legally possible, it would very likely have been opposed by the European authorities. These were concerned at the time that bail-ins in the middle of a crisis could trigger further market runs on banks' liabilities.

The length of the guarantee has also been criticised. If temporary pressures on the banks' funding had been the real source of the September crisis, the length of the guarantee would have been largely irrelevant. A long time span could even have been suitable to restore market confidence because it exhibited the sovereign's confidence, and the extent of the commitment (twice the size of the Ireland's GDP) that it was ready to provide. In reality, criticism of the length of the guarantee implicitly refers to the fact that it was based on an incorrect diagnostic. The banks were increasingly insolvent instead of merely and temporarily illiquid. Rather than being sufficient to restore confidence, the guarantee was only sufficient to convince debt holders to remain as long as it protected them against credit losses.

Another criticism is that the Irish government took a unilateral decision, which seems to have surprised the EU authorities (Honohan (2010)). At the time, the EU position and the global consensus among financial regulators following the demise of Lehman Brothers on 15 September 2008 was that no financial institution would be allowed to fail. There was no collective European solution available to deal with the crisis, and in particular no risk-sharing agreement. It was therefore up to each government to take the necessary steps to protect its banking system. While

30 The rejection of the first version of the TARP by US Congress was announced during the meeting, adding further and considerable pressure to the need to take action.

31 Concerns started to arise in the Department of Finance in August 2007, with the National Treasury Management Agency (NTMA) temporarily ceasing to place deposits with any bank and deciding to move all maturing deposits to the CBFSAI. By September 2007, the Department of Finance was starting to consider what legal powers might be needed by the Minister of Finance to provide assistance to a financial institution in distress. However, because the problem was believed to be limited to access to funding, the work over the period focused on intervention measures that would help to restore market confidence, including the potential nationalisation of the weakest among the Irish banks, as opposed to resolution or liquidation measures. While the ability to impose losses on creditors was considered, constitutional, legal and market obstacles were such that this was not pursued. See Joint Committee (2016a) and Cardiff (2016).

32 See Nyberg (2011) and Honohan (2019).

the state did take a step to that effect by putting its blanket guarantee in place, it did so without considering the consequences of its measure on the rest of the EU. The guarantee decision put pressure on other European countries and institutions. It may also have pre-empted actions by other countries and it obliged them to follow suit and guarantee depositors.

The pressure on other EU countries was aggravated by aggressive deposit-taking activities by Irish banks, especially in the United Kingdom, but also by the deepening of the global market stress since the Lehman Brothers' demise and growing concerns about the banking sectors of several EU countries. It was also exacerbated by the fact that the guarantee at first only applied to Irish banks; eligibility was extended to foreign banks "with a significant and broad-based footprint in the domestic economy" only on 9 October 2008. Branches and subsidiaries of EU banks operating in Ireland were not eligible. Following the example of the Irish blanket guarantee, by mid-October, Germany and France had also promised to protect their depositors while Denmark, Austria, Slovakia and Slovenia had all introduced bank guarantees and other EU states had raised the ceiling of their existing deposit guarantees.①

① One of the longer-term consequences of the guarantees introduced at the time in Europe was the 2009 EU Directive which began to harmonise deposit protection regimes. It was intended to end the level playing field issues that such government guarantees had introduced.

29. **In December 2009, the Eligible Liabilities Guarantee (ELG) Scheme was introduced to replace the 2008 guarantee.** The ELG Scheme covered only certain liabilities incurred after January 2010 and before 29 March 2013. Public support was restricted to funding in the form of deposits exceeding the EUR 100,000[33] threshold of guaranteed deposits, and to certain unsecured debt securities issued by the institutions participating in it. The purpose was to allow banks to access stable and/or longer-term sources of funding and to help them progressively regain access to international capital markets. Access to the ELG Scheme was subject to a graduated fee[34] charged to the banks.

30. **The ELG Scheme achieved its objectives and was accordingly phased out.** While the 2008 guarantee covered EUR 375 billion of liabilities, the ELG Scheme's coverage was reduced to EUR 75 billion in March 2013 before declining to less than EUR 4 billion in July 2015. From late 2011 onwards, banks became increasingly able to collect deposits without ELG coverage from large corporate customers. From late 2012 onwards, they were able over time to access repurchase markets and to issue covered and senior unsecured bonds. In 2013, the Department of Finance announced that all new liabilities as of the end of March would no longer be eligible for the Scheme, while existing liabilities would continue to be guaranteed for a maximum of five years (ie until end-March 2018).

Banking sector restructuring

31. **Bank restructuring, covering capital, liquidity and asset quality, was achieved through various steps that overlap over time.** The process involved bank rescuing, and banking sector's stabilisation and reorganisation. Several rounds of bank diagnostics comprising of asset quality reviews, solvency stress tests, liquidity and profitability analyses were used to determine the size of losses and assess the banks' capital positions. Two banks, Anglo and INBS, were singled out for wind-down. Deleveraging plans were used to progressively reduce reliance on wholesale market funding. An asset management company (National Asset Management Agency (NAMA)) was set up to remove certain commercial property and land loans from banks' balance sheets. On the basis of the information from the capital assessment exercises, deleveraging plans and the asset transfers to NAMA, recapitalisation needs were quantified and banks recapitalised. At the end of this process, the Irish banking system emerged as

33 Retail deposits with all credit institutions authorised in Ireland were already protected under the existing statutory Deposit Guarantee Scheme (DGS). In September 2008 the protection threshold was increased from EUR 20,000 to EUR 100,000 per qualifying depositor and per institution, without time limit.

34 The fee had to be agreed with the EU Commission and comply with relevant EU state aid rules. State aid is an advantage given by a government that may provide a company or a group of companies with an unfair competitive edge over its commercial rivals (European Commission (2020)).

smaller and more domestically/more retail-focused. The following subsections describe these steps in detail.

Sizing the losses

32. **The CBFSAI had conducted regular stress test exercises prior to 2008, but had not identified major risks in the banking sector.** The CBFSAI had performed regular stress tests, usually every other year, with the last, full pre-crisis exercise undertaken in 2006 (in parallel with the IMF Article IV and FSAP reviews). However, structural weaknesses in the models and poor data used for these exercises seriously limited the validity of their results.[35] The CBFSAI conducted internal stress tests again in early 2008, with a sensitivity analysis for the residential real estate market (Joint Committee (2016a)), but again, for similar reasons, no major concerns emerged.

33. **Stress tests by international agencies also failed to properly identify the asset quality issues and capital needs.** In 2006, an IMF FSAP and IMF Article IV consultation concluded (on the basis of stress tests conducted together with the central bank) that the Irish banks had sufficient capital in excess of minimum requirements to cover a range of shocks (IMF (2006a,b)). However, the stress tests were later deemed inadequate, as neither the model's assumptions nor the scenarios employed reflected the risks emerging at the time (Joint Committee (2016a)). In particular, the scenarios did not include any stress arising in the commercial property market and also assumed a "soft landing" of the economy (Joint Committee (2016a)). These exercises also relied on unverified asset quality data from banks. The OECD Economic Survey of Ireland, published in April 2008, confirmed and reinforced the belief in the health of the banking sector, based on a range of indicators and the results of its own stress testing exercises (OECD (2008)).[36]

34. **Following the introduction of the blanket guarantee, it became increasingly clear that a thorough assessment of banks' capital needs was necessary.** By September 2008, the Department of Finance had sought an independent source of information on the bank conditions, being dissatisfied with the analysis by the CBFSAI.[37] With the guarantee formally binding the state to cover all banks' liabilities, reliable information on the health of the Irish banks, including the size of their future losses, became even more necessary for the Irish official sector.

35. **In late 2008, a new initiative, dubbed "Project Atlas", was launched to shed light on the true financial position of each of the banks.** As part of Project Atlas, the accounting firm PWC was tasked with delivering a series of assessments around the time the guarantee was established and shortly thereafter. This included a report on each bank's capital position against various scenarios of asset writedowns, but the assumptions adopted on impairment levels and on changes in asset values were in the end too optimistic (Joint Committee (2016a)). A separate part of Project Atlas involved an assessment of the changes in value of land and development loans, and as part of this effort another consulting company, Jones Lang LaSalle (JLL), reviewed the valuation of the underlying assets. JLL's valuation of the portfolios was more conservative and totalled about EUR 19.5 billion, which was EUR 8 billion lower than the estimates of the banks (around EUR 27.5 billion).

[35] In its reports on Ireland, the IMF had indicated that stress tests should be conducted more frequently and that the central bank's stress testing framework should continue to be upgraded (IMF (2006a,b)) and data collections expanded (IMF (2006a)).

[36] However, the OECD Economic Survey acknowledged model and data limitations and the risk that performances of property loans would be correlated under stress, resulting in a deterioration of the asset quality of many loans at the same time.

[37] Information was sought from the National Treasury Management Agency (NTMA), accounting firm PWC and investment bank Merrill Lynch (Honohan (2019)). The Department of Finance also asked Morgan Stanley to conduct a review of IL&P and asked Goldman Sachs to review INBS (Joint Committee (2016a)).

36. **An initial recapitalisation plan was prepared as a result, but this proved to be inadequate.** In December 2008, the Irish government announced that it was willing to inject up to EUR 10 billion into the Irish banks. In this context, one week later it committed to inject EUR 1.5 billion into Anglo, and EUR 2 billion each into AIB and BOI (Joint Committee (2016a)) by subscribing to preference shares to be issued by those banks. Given that the assumptions made under the stress analysis were too optimistic as the crisis deepened, and because of reliance on patchy credit exposure data from the banks, these quantifications of capital needs became rapidly obsolete. At the same time, the Irish government still considered it possible for the Irish banks to rely on market sources to raise their capital buffers and therefore it tried to encourage the banks' own efforts to raise capital in this way rather than by relying on official support.[38]

37. **A capital injection was undertaken in early 2009.** Confronted with deteriorating funding conditions, declining asset values and increasing NPLs, the Irish government came to the conclusion that the capital needs of both AIB and BOI were higher than anticipated. As a result, it decided to inject EUR 3.5 billion in cash into each in February 2009, against issuance of preference shares (Joint Committee (2016a)). By then, Anglo was being addressed separately, as it was to be nationalised.[39] Nonetheless, the state still injected capital into Anglo during the course of 2009, in two tranches and for a total of EUR 4 billion, against the issuance of ordinary shares (Joint Committee (2016a)).[40]

38. **In 2010 the central bank conducted a new round of stress tests, known as PCAR, and identified additional capital needs**. This Prudential Capital Assessment Review (PCAR), conducted in early 2010, determined additional combined capital needs of EUR 10.9 billion for AIB, BOI and EBS.[41] This time the banks managed to meet their capital needs mostly by raising capital in the market, by selling assets and, for BOI, through a liability management exercise (LME), which replaced preference shares by ordinary shares (Joint Committee (2016a)).

39. **Yet another capital gap emerged later in 2010 as more assets were transferred to NAMA.** The 2010 PCAR assumed that each bank would use the same discount rate on the remaining loan tranches to be transferred to NAMA as that used for the first tranche of the largest debtors. However, by the middle of the year, it became clear that higher discounts would be applied when transferring later tranches, which mostly referred to smaller debtors. In September 2010, the central bank determined that a larger capital injection was needed than had been required by PCAR earlier that year.[42]

40. **The sequence of announcements about increasingly higher capital needs had a negative impact on public confidence in the domestic banking sector**. The inability to determine the Irish banks' capital needs once and for all created uncertainty and dented confidence by giving the impression that their financial positions were not well understood, and that authorities might not be well equipped to deal

[38] For instance, in some cases public capital injections were made conditional on cost savings by the respective banks.

[39] The Irish authorities decided to nationalise Anglo in January 2009 (the decision was approved by the European Commission one month later). Until mid-2010, the government attempted to build a new business bank out of Anglo, but when another round of sector-wide recapitalisation needs was assessed in 2010, it abandoned this plan and decided to wind down the bank (Honohan (2012)). INBS was effectively nationalised in August 2010.

[40] Cash injections for AIB, EBS and BOI were made from the National Pensions Reserve Fund Commission (NPRFC) which was a statutory body established to manage the assets of the National Pension Reserve Fund (NPRF) on behalf of the Minister of Finance. By contrast, the funds to recapitalise Anglo came from the Exchequer because the government considered it unlikely that it would recover those funds since its losses were assumed to be higher (Joint Committee (2016a)).

[41] Even if Anglo and INBS were treated separately, given that a final decision on their restructuring had not yet been taken, the CBI gave an indication of their recapitalisation needs, ie EUR 8.3 billion and EUR 2.6 billion respectively. These banks were recapitalised in March 2010 using promissory notes from the state, as explained below.

[42] For instance, AIB needed EUR 3 billion on top of the EUR 7.4 billion of the PCAR 2010.

with them. The repeated rounds of piecemeal recapitalisation also eroded fiscal space, before the problem could be addressed once and for all.

41. **A breakthrough came with the Financial Measures Programme concluded in March 2011, which was launched under the EU/IMF programme.** This programme was essential to provide clarity about the financial position of Irish banks and it was a significant improvement in comparison to the previous round of stress testing exercises for several reasons. First, it incorporated both a capital (PCAR 2011) and a liquidity (PLAR 2011) component. Second, both components were preceded by a loan by loan assessment exercise, performed by an external company.[43] Third, the capital targets were more ambitious than in the previous year's exercise, and completion of the sale of assets to NAMA during the course of 2010 also removed a major source of uncertainty.[44] Fourth and importantly, an additional capital cushion was imposed on top of recapitalisation needs based on the stress testing exercise. This was introduced as an extra layer of resilience, in the event that large losses were to materialise beyond the stress horizon, ie after 2013. Fifth, the authorities also clearly explained the methodology and the outcome of the exercise in order to remove market uncertainty and restore confidence (Central Bank of Ireland (2011)).[45] Finally, transparency about the external company and its role in conducting the PCAR, as well as its international reputation, were also expected to increase the exercise's credibility. In total, the PCAR increased the capital needs by an additional EUR 24 billion broken down into EUR 18.7 billion from the stress test, and EUR 5.3 billion as an additional cushion (see Table 1).[46]

42. **The capital assessment under the 2011 PCAR exercise finalised the recapitalisation efforts.** As macroeconomic conditions did not worsen beyond those assumed in the stress scenario of the 2011 PCAR, additional recapitalisation needs did not exceed the levels derived from the scenario's assumptions. The EUR 24 billion capital gap was lower than the EUR 35 billion earmarked for recapitalising Irish banks in the EU-IMF Programme. However, other measures significantly reduced the fiscal cost of a recapitalisation of the banks. In particular, the banks sold assets (as part of their deleveraging plans, discussed later) and also conducted liability management exercises (LMEs) on their subordinated debt.

43. **The LMEs conducted in 2011 and 2010 were an early form of burden-sharing with the banks' creditors.** Under the terms of the LMEs, each bank bought back its own subordinated debt from investors at a price lower than par value. In this way, the banks raised EUR 5.2 billion of the PCAR recapitalisation requirements in 2011 and reduced the need for public resources by that amount (Joint Committee (2016a)). Prior to that, and up to February 2011, the Irish banks had already managed to raise EUR 10.3 billion via LMEs (Joint Committee (2016a)).[47]

[43] Black Rock Solutions calculated expected losses, both for three years and over the lifetime of the asset, and under a baseline and an adverse scenario. The central bank then modelled the impact of these losses on the banks' balance sheet and profit and loss account, and by combining the two, it could derive an assessment of the capital needs for each bank. Only the going-concern banks were covered in the exercise: AIB/EBS, BOI, and IL&P.

[44] The 2011 PCAR required a minimum CET1 ratio of 10.5% under the baseline scenario, and 6% under the stress scenario. In earlier exercises, the corresponding CET1 ratios had been 8% and 4% respectively. These tighter requirements were in line with those used in an EU-wide exercise that was also taking place in 2011, and which was coordinated by the European Banking Authority.

[45] The CBI issued a special report in 2012, to monitor the performance of the banks in the 2011 exercise. Overall, the findings in the 2012 report corroborated the PCAR results as, in terms of capital positions, the banks were in an intermediate situation between the baseline and the stress scenarios. This development helped to put an end to the sequence of new capital gap and recapitalisation assessments (Central Bank of Ireland (2012)).

[46] On 31 March 2011, the day of the announcement of the results of the Financial Measures Programme, share trading in the domestic banks was temporarily suspended to avoid the possibility of a negative market response (see Euronext (2011a,b) for more details).

[47] In the case of the going-concern banks, these offers were voluntary where investors were invited to participate. However, in the case of LMEs undertaken by the gone-concern banks (which took place in 2009 and 2010 and to a very small extent in

Public and market-based recapitalisations of the domestic banks* — Table 1

EUR bn	AIB/EBS	BOI	IL&P	Anglo/INBS	Total
Pre-PCAR 2011					
LMEs (market)	3.35	2.47	–	4.09	9.91
Preference shares (NPRF)**	3.50	3.50	–	–	7.00
Promissory notes (Exchequer)	0.25	–	–	30.60	30.85
Special investment shares (Exchequer)***	0.63	–	–	0.1	0.73
Ordinary shares (Exchequer)	–	–	–	4.0	4.00
Ordinary shares (NPRF)	3.70	–	–	–	3.70
Subtotal	*11.43*	*5.97*	–	*38.79*	*56.19*
PCAR 2011					
Equity-raising (market)****	–	2.30	–	–	2.30
LMEs/other (market)	2.10	1.70	1.30	–	5.10
Ordinary shares (Exchequer)	–	–	2.30	–	2.30
Ordinary shares (NPRF)	5.00	–	–	–	5.00
Other (Exchequer & NPRF)*****	6.10	0.20	–	–	6.30
Contingent capital notes (Exchequer)	1.60	1.00	0.40	–	3.00
Subtotal	*14.80*	*5.20*	*4.00*	–	*24.00*
Total	26.23	11.17	4.00	38.79	80.19

* Position as at 2012. Excludes asset/business line disposals by banks, while figures are subject to rounding.

** Approximately EUR 1.6 billion of preference shares in BOI were converted into ordinary shares in 2010. The state also received EUR 500 million from the warrants relating to BOI's preference shares which are excluded from this table.

*** Special investment shares were holdings that would be converted into ordinary shares should EBS and/or INBS be converted to a limited company. In the case of EBS this occurred on 1 July 2011, when EBS was demutualised and acquired by AIB.

**** Includes debt for equity swaps.

***** Made by the Exchequer (EUR 2.30 billion) and the NPRF (EUR 3.80 billion). BOI figure represents net cost to the state following sale of shares to private investors.

Source: Authors' estimates based on data presented in Central Bank of Ireland (2012), Joint Committee (2016d, pp 33–36) and Office of the Comptroller and Auditor General (2012). The description of special investment shares is that provided in EBS (2013).

44. **The bank recapitalisation conducted in 2011 also made use of contingent capital instruments.** Contingent convertible capital instruments, known as CoCos, rose to prominence from 2009 onwards in the context of the policy response to the GFC, as the official sector revised both the minimum levels and the composition of banks' regulatory capital.[48] Authorities recognised as qualifying for regulatory capital purposes capital instruments that would be fully loss-absorbing in the event of significant losses that depleted capital levels to a specified threshold, but which would behave like fixed

2011), the offerings were more forced as investors would have received nothing if they did not participate in these schemes. In the main, LMEs focused on subordinated debt, with LMEs of senior debt (INBS) and of residential-backed securitisations (BOI) carried out to a lesser extent (see Table 1).

48 See IMF (2011a) for a discussion of key design features and Murphy et al (2012) for a discussion of the use of CoCos following the GFC.

income instruments rather than equity as long as the bank's capital exceeded that threshold. CoCos were used to recapitalise the Irish banks following the PCAR of 2011 (see Table 1).[49]

Reorganising the banking sector

45. **Recapitalisation was complemented by an effort to reorganise the banking sector.** While Anglo had been nationalised in January 2009, the separation between viable and non-viable banks was only effective in October 2009, when all the six major banks were asked to submit a three-year business and recovery plan (Joint Committee (2016a)). Accordingly, it became increasingly clear that neither Anglo nor INBS was viable. For the other banks, possible mergers were considered, but their implementation took time, as the economic environment continued to deteriorate and capital needs increased during the successive stress tests.

46. **The decision to designate Anglo and INBS as non-viable took time.** Up to the middle of 2010, there were still efforts to keep these two banks afloat, until a final decision on their future could be taken.[50] As late as 2010, capital injections into the two banks were made in order to retain their eligibility for ELA (see subsection on liquidity for more details).

47. **Because of increasing uncertainty about their viability, Anglo and INBS were recapitalised in a different way, with promissory notes.** The recapitalisation of Anglo and INBS from 2010 did not rely on cash injections, but on promissory notes (PNs).[51] These were state-issued debt instruments, which were not issued into the market and not listed, making them non-marketable. They also had long maturities, out to 2031, and a relatively high coupon to at least partly compensate for this.[52] However, they met the CBFSAI eligibility requirements for regulatory capital. Because of their non-marketability, PNs did not qualify for regular monetary policy operations at the ECB. Instead, they could only be used to raise cash in the CBI's ELA operations. The amount of PNs needed for Anglo and INBS was increased several times during 2010, as the transfers to NAMA were being completed and the size of the final haircuts, and therefore the banks' losses, became known. Altogether, the value of PNs issued by the state to support Anglo and INBS reached EUR 30.6 billion by the end of 2010 (Joint Committee (2016a)).[53]

[49] These were subordinated tier 2 capital instruments issued at par and maturing in 2016 (five-year maturity). These instruments paid an annual coupon of 10% and a potential step-up to a maximum of 18% on the sale to a third party, which would convert to equity if a bank's CET1 ratio fell below 8.25% (Central Bank of Ireland (2012)).

[50] In addition to having the more problematic loan portfolios, by 2010 the reputation of both banks was tarnished as there were ongoing fraud investigations into loans from Anglo to its chairman, which were concealed from its annual accounts and which involved INBS. There was also a window-dressing issue relating to large transfers made into Anglo through IL&P's life assurance arm, with the sole goal of improving the financial position of Anglo in its published accounts.

[51] The selection of PNs as the appropriate instrument to recapitalise the two gone-concern banks came about over the course of 2010, conditional on State Aid approval by the European Commission. As an illustration of how State Aid restrictions affected the decisions on the nationalisation of Anglo and INBS, see EU Commission (2011). In the interim, IFSRA provided some derogations from normal capital requirements. For instance, for INBS, IFSRA approved the reduction of minimum total capital requirement ratios from 11% to 8%, as well as the reduction of the risk weights attached to certain loan types related to the real estate sector. The use of PNs, in combination with other capital instruments, was already envisaged in March 2010, but was finalised in the course of 2010 (European Commission (2010)). For further discussion on the structure of the PNs, see Whelan (2012).

[52] The PN had a 20-year payment schedule and would pay out at an annual interest rate of around 8%.

[53] The rate of interest on the PNs was set by reference to the prevailing government bond yields at the time the PN tranche was issued. In total, four PN tranches were issued between 31 March 2010 and December 2010. Because government yields were increasing over the period, each tranche was issued with a higher interest rate than the previous tranche. Following the final PN increase in December 2010, a 12-month principal and interest holiday was inserted into its terms. As a result, the weighted average interest of the PNs increased to 8.2% (from 5.8% in the absence of the payment holiday). Principal and interest cash flows on the PNs were 10% of the final amount (EUR 3.06 billion until 2023), where the total cost of the PNs including the principal amount and interest was estimated to be EUR 47.4 billion over their lifetime (Department of Finance (2011)).

48. **The Irish authorities' objective was to downsize the domestic banks and make them more domestically focused.** In March 2011, the government announced its strategy for restructuring the banking sector. It decided to merge AIB and EBS. As a result, three banks would remain in the Irish banking sector: two so-called "pillar banks", AIB/EBS and BOI, and one smaller bank, IL&P.[54] The decision to have three domestic banks stemmed from two motivations. The first was to strike a balance between retaining some level of bank competition – and therefore having three rather than two banks – and the recognition that the domestic banking sector was not large enough to support more than two relatively big banks, implying that the third bank would have to be smaller. Foreign banks were already exiting the Irish market so would not be a source of competition. A smaller banking sector, as a proportion of GDP, would also make it possible for the state to support the Irish banks, in the event that future banking problems should make that necessary. The second motivation was that more than half of Permanent TSB's mortgage book consisted of loss-making tracker mortgages and if its resolution had been pursued, losses would have been recognised with this cost falling on the state (Joint Committee (2016c)).

49. **This strategy also featured the implementation of a deleveraging programme to scale back the domestic banks' operations and thus enhance their viability.** Divesting and running off assets not intrinsically linked to the core business activities was prioritised.[55] This reflected the concern that any additional capital injections from the state for such assets would further increase the sovereign's burden and may not have been feasible. The decision by the Irish authorities had far-reaching implications. Essentially, prioritising the downsizing of the banks and refocusing them on the financing of less profitable but more stable domestic activities[56] reflected the fact that their role was essential to the economy, whereas their holding of higher-yielding non-core and (often) foreign assets was not.[57]

50. **A system-wide loan-to-deposit ratio was established to guide this deleveraging process.** The PLAR, which was part of the 2011 PCAR, included a "loan-to-deposit" (LDR) target whereby the going-concern banks had to achieve a ratio of 122.5% by 2013, under the assumption of no deposit growth.[58] This required deleveraging corresponding to just under 45% of GDP (or EUR 70.2 billion), to be achieved through a combination of asset sales and portfolio run-off.[59]

51. **This approach was not without risks, as sales depended on market conditions and the process would concentrate banks' operations on less profitable Irish assets.** Market conditions would

54 In the context of the Programme, it was also decided that Anglo's and INBS' deposits would be transferred to AIB and IL&P respectively (Joint Committee (2016a)). IL&P eventually became Permanent TSB in July 2013.

55 Adjusting the funding profile of the domestic banks was not likely to bring significant benefits, as Irish banks were not major players in international wholesale markets and raising deposit funding in a crowded domestic market was not practical.

56 The CBI developed guidance for the banks in their non-core asset determination. When splitting their books, banks were to focus on (i) the importance of the assets to the Irish economy (serving the needs of the Irish public, supporting competition); (ii) creating clean banks (improved asset quality and profitability); and (iii) limited execution constraints (capital costs of disposals, legal and operational considerations) (Department of Finance (2011)). Foreign asset holdings did not automatically receive a non-core determination; BOI, for example, retained its fully deposit-funded activities in the United Kingdom and also its joint venture with the UK Post Office as these were deemed to be "core" to the operation of the bank.

57 Overall, assets of the domestic banking system were reduced by EUR 131 billion (from EUR 588 billion) between 2008 and 2010 (Department of Finance (2011)). There was also active local retrenchment, with disposals of profitable stakes or wholly owned subsidiaries. For example, BOI sold its asset management operation, while AIB divested M&T bank and its Polish subsidiary. All of these disposals were driven by the objective of bolstering individual capital positions. In addition, Anglo and INBS were both formally in managed wind-down.

58 Funding plans were requested from the banks and were reviewed over a three-year period to establish credible deleveraging plans (with agreed six-monthly targets). These aimed to increase the sustainability of the banks' funding by reducing their reliance on short-term wholesale and central bank funding. The LDR calculation assumed no deposit growth as against end-2010 numbers.

59 2010 LDR levels for the four going-concern banks stood at 180% (Department of Finance (2011)).

have an impact both on the risk appetite of potential acquirers and on the price of the assets they would buy. However, third-party consultancies assisted the banks with asset valuations. There was also a concern that the deleveraging process could remove the more profitable foreign assets from the banks' books, therefore reducing their long-term overall profitability. However, in the absence of a long-term solution to funding for these assets, there was no alternative other than to divest in order to downsize.

52. **The sale of some the banks' higher-yielding assets initially allowed them to meet their targets, but the downsides associated with the LDR metric led to its replacement in 2012.** The banks achieved a significant portion of their overall targets by 2011, by selling highly profitable foreign assets and through core book "run-off".[60] However, there was an increasing awareness that the pace of sales was unlikely to continue, as the domestic banks were running out of highly profitable assets to sell. From 2010 onwards, they were also not alone in downsizing their balance sheets, since other European banks had started to deleverage. There was an additional concern that the LDR targets were obliging the domestic banks to compete and offer higher interest rates to attract deposits, further weakening bank income (IMF (2012a)).[61] The LDR as a target was therefore abandoned by mid-2012 and replaced with a net stable funding requirement for core assets and by nominal targets for banks' non-core asset sales, and which took account of asset run-off (IMF (2012b)).

53. **The EU/IMF Programme built on and enhanced the choices made for reorganising the banking sector up to then.** In the context of the Programme negotiations, and building on the analysis of merger options for the Irish banks that had started in late 2009, the strategy for reorganising the Irish banking sector was reinforced. With the completion of the recapitalisation plans following the PCAR of 2011, three banks (AIB/EBS, BOI and IL&P) were expected to be going concerns. The strategy also included the decision to wind down Anglo and INBS and to merge them into a new entity (IMF (2011b)).[62] This merged entity became the Irish Bank Resolution Corporation (IBRC).[63]

[60] "Run-off" is where repayments by customers exceed new lending, where in the case of the bank's core books, this was seen as a factor potentially constraining new lending to the domestic economy at the time (IMF (2012a) and Office of the Comptroller and Auditor General (2012)).

[61] Other concerns related to the fact that under the metric, any deleveraging gains by the banks could be offset by deposit outflows. Furthermore, to comply with the metric, banks had incentives to retain liquidity rather than extend new credit, but no incentive to seek term wholesale funding because this implied that their deposit base would represent a lower proportion of their balance sheet. In addition, the metric did not fully capture the UK deposit gathering operations of Irish banks. At the time, UK authorities had imposed a "trapped liquidity" requirement whereby deposits raised in the United Kingdom by the domestic banks had to be matched by gilt holdings. In effect, this meant that any increase in deposits raised in the United Kingdom could not benefit their LDR ratios.

[62] In the European Union, bank restructuring using public funds is subject to the approval of the Competition Directorate of the European Commission, to ensure consistency with the EU State Aid regulations. A plan for the merger of Anglo and INBS and how the two institutions would be wound down was submitted to the European Commission in January 2011.

[63] See Box 4 on how the Department of Finance managed public ownership of the banks.

Box 3

The EU/IMF Programme – the banking sector

The Irish government requested external financial support in November 2010, and shortly afterwards it agreed to a EUR 85 billion financial support programme, provided by members of the European Union (represented by the European Commission and the European Central Bank) and the International Monetary Fund. The Programme was designed to last three years. It was funded through a combination of sources.① External support amounted to approximately EUR 67.5 billion, and of this, EUR 22.5 billion was provided by the IMF's Extended Fund Facility, and EUR 45 billion by European lenders. Of the latter, EUR 22.5 billion was from the European Commission's European Financial Stabilisation Mechanism. The other half (EUR 22.5 billion) came in the form of bilateral loans (with, in particular, EUR 3.8 billion from the United Kingdom, EUR 400 million from Denmark, and EUR 600 million from Sweden), and from the European Financial Stability Facility. Ireland contributed EUR 17.5 billion to the Programme, with EUR 12.5 billion coming from the National Pensions Reserve Fund and EUR 5 billion from accumulated Exchequer cash balances (Central Bank of Ireland (2011)). The IMF contribution to the Programme corresponded to 2,321.9% of Ireland's quota in the Fund (IMF (2010)).

Several factors made external support essential for Ireland in 2010. The fiscal situation had worsened and the Irish sovereign lost its access to the market. In addition, the pending expiry of the blanket guarantee and the associated funding cliff (see the liquidity section for further discussion) had again increased market uncertainty. This contributed to liquidity outflows from the domestic banks. As a result, the domestic banks had become increasingly reliant on ECB funding during the preceding two years, making Ireland a significant user of ECB resources, and well in excess of its capital contribution to the ECB. The commencement of a similar programme for Greece, in May 2010, also provided a template for EU and IMF cooperation in joint programmes for EU countries.

The Irish authorities agreed to significantly downsize and reorganise the banking sector, with a strong domestic and retail focus. To this end, the wind-down of Anglo and INBS, the use of more conservative and forward-looking capital assessments for the remaining banks and the corresponding recapitalisations, and a prudential liquidity review (PLAR) to reduce reliance on short-term wholesale and central bank funding were key components of the Programme. Nevertheless, because these elements could have led to a higher use of public sector resources, the strategy for the banking sector in the EU/IMF Programme needed to strike the balance between adequate bank recapitalisation and public debt sustainability.

The measures included in the Programme enhanced and improved the actions taken by the Irish government up to then. However, the involvement of the external partners and the availability of external financing accelerated decision-making, provided Ireland with international credibility, and gave it sufficient room to implement these decisions. This contrasted with the initial Irish approach, when hesitations and conflicting objectives (minimising the use of limited public sector resources versus sufficiently large and convincing interventions) had led to bank recapitalisation measures and wind-down decisions that were not always sufficiently decisive. Transparency was also enhanced under the Programme, with detailed bank by bank disclosure under the Financial Measures Programme.

The EU/IMF Programme ended in December 2013,② in accordance with its three-year lifespan. Somewhat controversially at the time, Ireland decided not to seek any form of backup arrangement from its lenders, such as a precautionary credit line, on the back of a strong fiscal position and improving macroeconomic conditions towards the end of the Programme. Although this decision was questioned by some at the time as it could have been risky, in the end Ireland did not need further recourse to external support. Ireland also reduced its debt servicing costs under the Programme through accelerating repayments and repaying the more expensive tranches first. As a result, Ireland's debt management agency, the NTMA, completed the repayments of the IMF loan facility and some bilateral loans in 2017 (ahead of the official deadline of 2021 to 2023), leaving other, less expensive repayments for later.③

① The combined interest rate across the different funding lines in the Programme was calculated to be around 5.8 percent per annum for a 7.5 year loan (Lane, 2011), but the rate for the European component was reduced later on, in line with similar adjustments made for Greece (Honohan (2019)). ② Because of the formation of a new government in Ireland, the programme's start was delayed until early 2011, and the first two reviews conducted together in May 2011. ③ By the time Ireland had repaid in full both the IMF and the bilateral loans to Sweden and Denmark (ie December 2017), the Programme financing repayment still outstanding was composed of EUR 22.5 billion to the European Financial Stabilisation Mechanism, EUR 18.4 billion to the European Financial Stability Facility and GBP 3.2 billion to the United Kingdom (NTMA (2017)).

NAMA loan clean-up

54. **In 2009, it was recommended that the Minister of Finance establish an asset management company for commercial real estate assets.** In February 2009, the Minister commissioned a report to study and assess the range of options available for resolving loan impairments and improving the capital adequacy of the banks. In April 2009, the "Bacon Report" was published. It recommended the establishment of an off-balance sheet asset management company to facilitate the acquisition and central management of commercial real estate assets.[64] The report suggested that such a structure would help to break the bank/developer link and would also put a floor under the losses and allow the banks to take them upfront (Bacon (2009)). Furthermore, through a central structure workout specialists, who were not always available in sufficient numbers within the banks, could be dedicated to work through complex commercial real estate loans and programmes,[65] bringing economies of scale (Cerruti and Neyens (2016) and Bacon (2009)).[66]

55. **Created by legislation, NAMA, an AMC, was established in November 2009.** Its primary objective was to protect or even enhance the value of property development loans and maximise the state's return (NAMA (2010a)). In practice, NAMA essentially replaced the participating banks in their rights; it controlled the relationship with the borrower and all associated decision-making and receipt of income from these loans. Being an agency partly owned by the state, NAMA also had a secondary objective, which was to make a positive a contribution to society through the provision of social housing and by developing properties for investment.

56. **To be considered outside of Irish government finances, NAMA was established as a 51% privately owned entity – with the state owning the remaining minority stake.** Being mainly a privately owned entity[67] fulfilled one of the EU-wide requirements for AMCs to be considered outside the Irish government sector.[68] This avoided having to add NAMA's liabilities to the state's public debt, though the liabilities were a contingent liability of the state. In practical terms, the annual return to private investors was restricted to the sovereign 10-year bond yield prevailing at the time the dividend was declared. If NAMA's performance objectives were met and the equity stake repaid to the private investors, a further

[64] The Bacon Report also examined the merits of asset protection schemes, which were being used internationally at the time. The general view in the report is that such schemes would have provided little comfort to creditors as these programmes avoid upfront payments and initial writedowns of the assets. Such arrangements would also have increased the contingent liabilities of the State, which would not have been viewed favourably given the risks associated with property-related assets whose valuation was extremely uncertain. An additional concern was that this would further "entwine the sovereign rating with Irish banks capital adequacy problems" (Bacon (2009), p 4).

[65] Against a backdrop of declining demand for property specialists following the global financial crisis, NAMA recruited specialists who were either existing or former employees of commercial banks and asset management consultancy firms. As the property market picket up from 2013 onwards, staff retention became a key challenge for NAMA (Department of Finance (2013)).

[66] This centralised approach would also prevent banks from offloading assets in an uncoordinated way (and potentially at "fire sale" prices) with the resulting risks to financial stability, while the removal of problem assets would also allow banks to refocus on their core and remaining business activities.

[67] There were three original private investors, New Ireland Assurance Plc, Irish Life Investment Managers Ltd (part of Irish Life and Permanent) and AIB Investment Managers Ltd (Connor et al (2017)). Each investor made an equal share capital investment of EUR 17 million. As part of a shareholders' agreement between the State and the private investors, State representatives on the Board had the power to veto any of the Board's decisions in order to manage the AMC's and the government's interests (NAMA (2020b)).

[68] This was according to requirements set by the European Commission and relying on data from its statistical department (Eurostat). Other requirements were that: AMCs should be established for the sole purpose of addressing a financial crisis; their lifespan should be temporary; they should be autonomous in their decision-making; and that they should acquire assets with a substantial haircut on the purchase price (EU Commission (2016)). NAMA was established as part of the existing National Treasury Management Agency (NTMA) while remaining fully autonomous in terms of its governance and funding structures (NAMA (2020c)).

10% return on their respective investments could be paid out (although this was capped at EUR 5 million). All other profits and losses would accrue to NAMA.

57. **NAMA assumed it had a 10-year lifespan, but this was not specified in the legislation, providing additional flexibility.** As Irish economic prospects were difficult to forecast, to avoid constraining NAMA by allowing markets to anticipate forced sales as the end of the lifespan approached, an end date was not hardcoded in legislation. Instead, NAMA detailed in its business plans and strategy publications that it expected to be active for an anticipated 10-year lifespan. NAMA complemented these plans with a framework for reporting regularly on its progress to its owners[69] and to the market, including assessments of whether its lifespan might need to be extended.[70]

58. **NAMA acquired the larger land and development property loans and all associated exposures, including derivatives**. NAMA's focus was concentrated on the bigger land development loans, where economies of scale would be more substantial.[71] The scheme removed the majority of the commercial property loans from the banks. Such downsizing reduced the banks' need to fund these assets and to hold the corresponding amount of capital. The eligibility criteria[72] allowed for the transfer of all associated loans of a debtor once that debtor had loans secured on land and development assets. Therefore, all exposures to such debtors were transferred, whether performing or non-performing and whether for exposures located in Ireland or abroad.

59. **The transfer of the full exposure also assisted NAMA with overall recoverability, while the inclusion of performing loans had the ancillary benefit of providing NAMA with upfront cash flows**. As UK and European markets were beginning to rebound around early 2016, NAMA benefited from the inclusion of a relatively high proportion of foreign assets (44% of total assets) in the portfolios it had acquired, in addition to the fact that 25% of all loans transferred into NAMA were classified as performing.[73] Overall, 12,000 loans were acquired, from 772 debtors, secured by 60,000 properties, of which slightly more than half were located in Ireland. However, the book was very concentrated, with 145 debtors accounting for 78% of all loans (Joint Committee (2016a)).

60. **NAMA's first major task was setting a value for the transferred assets, given the declining real estate price levels at the time.** Reflecting banks' poor underwriting practices and the associated poor quality of loan documentation, NAMA saw it as too risky to adopt a portfolio valuation approach. It therefore undertook a loan by loan assessment[74] with a set property valuation date of 30 November 2009.

[69] NAMA's accountability framework includes annual reports and accounts, quarterly reports to the Minister of Finance and Irish Parliament, attendance at Parliamentary committees and assessments by the Comptroller and Auditor General.

[70] Section 227 of the NAMA Act requires the Minister for Finance to assess every five years the extent to which NAMA has made progress towards achieving its overall objectives, and decide whether continuation of NAMA is necessary. The results of this assessment are published.

[71] When transferring the loans to NAMA, consideration was given to including residential property portfolios as part of a second phase. However, although NPLs were an increasing concern at the time, the central management of portfolios made up of large numbers of small value loans would not have brought significant benefits. Moreover, it would have further increased the size of NAMA, which at this time was already one of the biggest asset management companies operating globally, further increasing the state's contingent liabilities and thereby putting at risk the objectives of the arrangement.

[72] Loans transferred into NAMA were those issued for the purchase, exploitation or development of land, as well as loans either secured or guaranteed by land and some associated commercial loans which were interconnected with these land and development loans (European Commission (2010)). Asset eligibility was determined by reference to the NAMA Act and also eligible asset regulations published by NAMA.

[73] While this came at a cost to the banks, as discussed in the next section, the deleveraging of foreign assets by the banks was the preferred approach at the time.

[74] The loan by loan valuations did make the transfer a lengthy exercise. The last tranche transfer was concluded nearly two years after NAMA's establishment.

In terms of the valuation approach, against a backdrop of declining property prices,[75] the authorities faced a trade-off between overpaying for the loans – which would impact NAMA's business model and potential profits – and underpaying – which would require further bank recapitalisations by the state.

61. **A two-step approach was applied to the valuation.** The first step was to determine the price expected to be achieved should the loans be sold in the market. The second step introduced a second price based on an economic valuation approach that was to reflect the long-term value in the loans. To calculate the first price, an independent valuation of property prices as of 30 November 2009 was undertaken – this valuation date applied regardless of the actual transfer date of the loan.[76] Commercial discount rates were then applied to the projected loan cash flows using the 30 November 2009 value of the property and any associated rental income to calculate the loan's current market value, as calculated in the first step. For the second price, an uplift factor (ranging between 0 and 25% and based on the valuation team's expert judgment) was then applied to the market valuation of the property asset to reflect what was deemed to be the long-term economic value of the property (or in other words the price at which NAMA estimated the property would be realised when the market normalised).[77] A different set of discount rates[78] were then applied to the projected loan cash flows using the long-term economic value of property and any associated rental income to calculate the loan's long-term economic value.

62. **This approach led to EUR 5.6 billion being paid by NAMA above the current market valuation used.** This was approved by the EU Commission as State Aid (European Commission (2010)). Due to the detailed valuation approach employed, the loans were valued in nine tranches, with the valuation of the last tranche concluded nearly two years after NAMA's establishment.

63. **Overall, NAMA acquired a par value of EUR 74.2 billion of loans in return for payment of EUR 31.8 billion.** This represented an average haircut of 57% over face value. This discount, broken down in more detail in Table 2, mainly reflected the significant risks arising from the fact that banks did not have sufficient loan data, in terms of both quality and quantity. In a number of cases, due diligence had not been completed and the assets transferred often turned out to be more impaired than initially thought. Finally, the restoration of value on which the long-term valuation approach was predicated was very much contingent on economic recovery (NAMA (2009)). The expectation was that the earlier tranches, which contained the larger debtor exposures, would incur the higher haircuts, but in practice it was the smaller debtors to which the more significant discounts were applied (Honohan (2012)).[79]

64. **Since NAMA did not have the resources to pay cash for the loans acquired, the payments were made in the form of NAMA bonds.** Most of the transfer value (95%) of the loans was exchanged against state-guaranteed senior NAMA bonds (EUR 30.2 billion). These bonds were structured with a one-year maturity and supported by a state guarantee that had the same maturity. However, as NAMA was

75 Between November 2009 and end-2013 there was a 25–30% decline in Irish property values (McDonagh (2015)).

76 Property prices continued to decline after the establishment of NAMA.

77 In line with Section 72 (2) (c) & (d) of the NAMA Act 2009, an uplift adjustment factor was applied to the current market value of property to reflect its long-term economic valuation. This is defined as the value that a property can reasonably be expected to attain in a stable financial system when the crisis conditions prevailing at the passing of the NAMA Act are ameliorated and in which a future price or yield of the property is consistent with reasonable expectations having regard to its long-term historical average (House of Parliament (2009)). Following transfer, the weighted average uplift applied was 8.2% (NAMA (2020d)).

78 The EU Commission needed to agree to these discount rates, therefore establishing that such rates did not provide undue State aid to those benefiting from them.

79 The first tranche had a 50% discount applied (NAMA (2010a)); the second received a 56% haircut (NAMA (2010b)), with tranches 3–9, the so-called "bulk tranches", receiving a 60% haircut (European Commission (2014)). Another reason for the difference is the fact that the majority of assets in the first tranche comprised investment property loans, while the majority in the remaining tranches were land-related (NAMA (2010a)), and would thus be expected to have a lower value than investment property loans.

expected to exist for at least 10 years, this made it difficult to evaluate such short-term notes.[80] The remaining value of the transferred loans (5%) was paid through the issuance of unguaranteed subordinated NAMA bonds (EUR 1.6 billion), with a fixed coupon of 5.264%, set by reference to the 10-year Irish government bond rate plus a 75 basis point spread. This latter issuance helped mitigate the risk of NAMA overpaying for the loans, given that some of the risk from the process remained with the participating banks (Joint Committee (2016a)).

NAMA loan valuations

Table 2

EUR billion	AIB	Anglo	BOI	EBS	INBS	Total
(A) Loan balance transfers	20.4	34.3	9.9	0.9	8.7	74.2
(B) Market value of property*	9.3	13.3	5.7	0.4	3.8	32.5
(C) Current value of loans**	7.4	11.2	4.6	0.3	2.7	26.2
(D) LTEV of property***	9.9	14.5	6.2	0.4	4.1	35.1
(F) LTEV of loans (value paid by NAMA)	9.0	13.4	5.6	0.4	3.4	31.8
(E) Uplift (F) minus (C)	1.6	2.2	1.0	0.1	0.7	5.6
Discount applied (1 minus (F)/(A))	56%	61%	44%	57%	61%	57%
State support ((F)-(C)/(C))	21%	20%	22%	23%	28%	22%

* Valuation date set at 30 November 2009.

** The present value of the property cash flows, using the current market value of the property, discounted at an average rate of 5%.

*** The amount NAMA anticipates the underlying properties would realise if disposed of when market crisis conditions have normalised.

Source: Office of the Comptroller and Auditor General (2014, 2018).

65. **The non-marketability of the senior NAMA bonds meant that NAMA could not be funded in the market.** The senior bonds were listed on the Irish Stock Exchange and issued under standard terms, but were not marketable and not liquid and therefore not used in wholesale markets.[81] At the same time, domestic banks' continued access to low-cost ECB operations meant that the non-marketability of these bonds was not really an issue. This was even less of an issue after 2013, when the senior bonds began to qualify as high-quality liquid assets (HQLA) for regulatory purposes (Level 1).[82]

80 The contractual maturity of the bonds was one year, but because the notes were to be replaced with a new bond of equivalent maturity, the bond's real maturity was much longer.

81 In principle, the short-term maturity presented NAMA with rollover risk, although the repayments from the performing assets did help. To address this risk, embedded in the terms of the bonds was the ability to physically settle with a NAMA security of equivalent value. The senior notes were also issued with a floating interest rate (6-month Euribor flat) which meant that the banks had a negative carry of holding the NAMA bonds – computed against the ECB policy rate that applied to ECB operations – and it would have been even costlier to use these bonds in the market.

82 This classification was assigned on the basis of the government guarantee, eligibility for ECB operations and the importance of the bonds as part of agreed transitionary measures towards bank recovery (EBA (2013)). Even if the instrument itself was not liquid, it could be classified as HQLA to the extent that it could be pledged as collateral to raise cash.

66. **After 10 years, NAMA has made considerable progress towards achieving its objectives and has repaid its bonds and private investors.** EUR 45 billion of cash generation through the workout process has justified the systematic valuation approach adopted and put NAMA in a position to repay its debt holders in full. The last senior debt holders were repaid in October 2017, and the remaining subordinated debt holders in March 2020. This was followed in May 2020 by the repayment to private investors of their original capital investment of EUR 51 million along with the capped "upside" payment of a modest EUR 5 million. NAMA has now become 100% controlled by the state and continues to work through the remaining loans. This is scheduled to be completed by 2025 with an overall EUR 4 billion surplus expected to be delivered to the Exchequer,[83] of which EUR 2 billion has already been paid (NAMA (2020e)).[84]

67. **Several important structural features have contributed to this estimated return for the state.** NAMA created a centralised platform to manage the loans and secured property assets, involving staff with expertise in relevant fields to enhance the future disposal value of the property securing its loans. Loans that were transferred included not only non-performing Irish exposures but also performing ones and more profitable foreign loans. In addition, the cost of funding was extraordinary and one which relied on the ECB's willingness to provide funds against a wide range of eligible collateral for an extended period at very low interest rates (Connor et al (2017)).[85]

Box 4

Management of state investments in banks①

The Department of Finance established a separate unit, the Shareholding and Financial Advisory Division (SFAD), so as to avoid state-owned banks becoming conduits for Irish government policy. As of 2020, it continues to manage the state's investments in the banking sector (Allied Irish Banks with 71% ownership, Bank of Ireland with 14% ownership and Permanent TSB with 75% ownership), the state's interests in NAMA and also in the liquidation of IBRC, while also providing advice related to credit unions. Specifically, the division monitors the overall strategic direction of the banks and develops and executes plans to protect the state's investments and maximise the disposal of its shareholding (Department of Finance (2020b)).

This division helped to separate the wider economic interests of the Department from its interests as shareholder. Within this division, banking experts could be recruited to monitor and provide advice on issues within the banks. Representatives sit on boards and have general oversight of the activities and strategies of these banks. They report on developments to the Minister of Finance, but do not have a veto over any decision taken by the Minister in relation to these banks. Relationship framework agreements govern the relationship between the Minister and the banks and include elements such as the legal basis for the relationship, when ministerial consultation or consent is required, ongoing requirements for business plans and restructuring plans, and appointments.

83 In the end the private investors did not get any significant upside, especially when compared with the expected returns to the Exchequer. This reflects two factors: (i) the annual dividend payouts to private investors were linked to the Irish Government 10-year bond rate, which was low as a result of expansionary ECB monetary policy; and (ii) the final "upside" payment was capped at 10% of the original investment.

84 In terms of its secondary objective, by end-December 2019 NAMA had delivered 11,000 residential units in Ireland and over 2,600 social homes (NAMA (2020a)).

85 Furthermore, the participating banks did not get any upside, in fact only potential downside through their holdings of the subordinated debt, while the return to the shareholders was modest, despite their majority holding in NAMA.

The Department of Finance has set out preconditions for any bank disposals. These are: (i) the financial sector must be stable and no longer dependent on state involvement; (ii) the relevant bank must be ready for the state to start selling down; (iii) the market appetite must be there for the shares; and (iv) the disposal must meet the Department's value for money considerations (Department of Finance (2020b)). In early 2020, the state was in a position to sell shares in both AIB and BOI, but it determined that share prices and valuations were too low and insufficient to allow it to recover the full investment in the going-concern banks. The Department of Finance has been confident that the full amount of this investment could be recovered over the medium to long term, but following the impact of Covid-19, this looks less likely, at least in the medium term.②

① The last paragraph in this box is taken largely from Section 3.1.7.1 of Department of Finance (2020b). ② As at June 2020, the state was running a net deficit of EUR 7.6 billion in the going-concern banks, while only a small portion of the roughly EUR 35 billion invested in Anglo/INBS is expected to be recovered.

Liquidity support

68. **In 2008, the ECB introduced extraordinary policy measures in response to the global financial crisis, providing Irish banks with liquidity lifelines.** The six domestic banks were not traditionally among the largest takers of ECB liquidity.[86] However, a fragile global funding environment and growing investor doubts about the solvency of domestic banks resulted in a loss of confidence and in liquidity outflows. At the end of September 2008, Irish banks' reliance on the ECB operations doubled to EUR 43 billion when compared to the previous month.[87]

69. **Multiple rating downgrades and the pending expiry of the guarantee saw the domestic banks running out of ECB-eligible collateral buffers by mid-2010.** Following the nationalisation of Anglo, and rating downgrades of banks and of the sovereign, further outflows saw the domestic banks' recourse increase to EUR 85 billion by June 2009 (10% of all Eurosystem funding or about 53% of Ireland's GDP). Despite a brief respite around end-2009, the situation deteriorated further because of unconvincing efforts to restore the banking sector's stability coupled with the escalation of the financial and economic crisis in Greece. With further credit rating downgrades taking place in 2010, the Irish banks were struggling to limit deposit outflows.[88] However, it was the growing uncertainty around the sustainability of Irish banks' funding once the 2008 guarantee had matured that affected market confidence the most, with a significant portion of market funding at risk (the so-called funding "cliff"). Pressure was compounded by an increasing loss of confidence among creditors brought about by insufficient restructuring at the time, ongoing uncertainty about the proposed treatment of unsecured creditors and the increasing signs of fragility across the Eurosystem. In practice, the market was beginning to price in the need to restructure the sovereign's debt. This resulted in margin increases in the market. At one stage, LCH (a clearing house) applied a haircut of 80% to the face value of Ireland's sovereign securities before accepting them as collateral.[89]

86 At end-2006 borrowings stood at EUR 8 billion. This represented about 2% of all liquidity provided by the ECB at the time while Ireland's capital subscription to the ECB was slightly over 1% (ECB, (2015)).

87 Market sentiment towards Irish banks began to turn negative after September 2007 (after Northern Rock) and this became more pronounced in March 2008, when there was a large sell-off in Irish banks' shares (the "St Patrick's Day Massacre"). This negative view taken on Irish banks continued through 2008 resulting in increasing liquidity outflows.

88 Furthermore, some Irish banks were having difficulties funding their UK deposit books and a GBP swap line between the Bank of England and the Central Bank of Ireland was used. As access to foreign currency funding was becoming a wider European issue, in 2010 the ECB became a party to this arrangement, with the result that the Bank of England's direct exposure to Ireland shifted to the ECB.

89 See Armakolla et al (2017). There were also some rumours in the market at the time that so-called "Irish on Irish" (Irish counterparties providing Irish collateral) would not be accepted by market participants.

70. **As they were running out of eligible collateral, Irish banks resorted to increasingly pledging self-generated and often non-marketable collateral to the ECB to raise liquidity.** As the domestic banks ran out of higher-quality ECB-eligible assets, they began to use self-generated asset-backed securities retained on their balance sheets, namely covered bonds, asset-backed securities and retail mortgage-backed promissory notes,[90] and pledge them as collateral. The ECB framework also allowed certain banks to issue and retain unsecured bank bonds – without placing or selling them – and, with a state guarantee, to use these in ECB operations. In practice, this amounted to a form of collateral creation that banks were allowed to undertake when in desperate need for liquidity. This provided some additional breathing space and helped avoid systemic recourse to ELA.[91]

71. **By end-2010, Anglo was already heavily dependent on ELA and, in the absence of other liquidity solutions, its continued provision was integral to Anglo's planned restructuring.** Around February 2009, Anglo began accessing the CBI's ELA facility, initially for about EUR 10 billion. In the absence of market access, Anglo's recourse to ELA from the central bank was EUR 28.1 billion (EUR 45 billion including ECB borrowings) at 31 December 2010 (Anglo Irish Bank (2011)) and it continued to grow thereafter. While the initial purpose was to buy time, the CBI, and by extension the ECB, found themselves "locked into" this arrangement.[92] However, liquidity support continued to be needed to support the planned restructuring and ultimate wind-down of Anglo/INBS.[93]

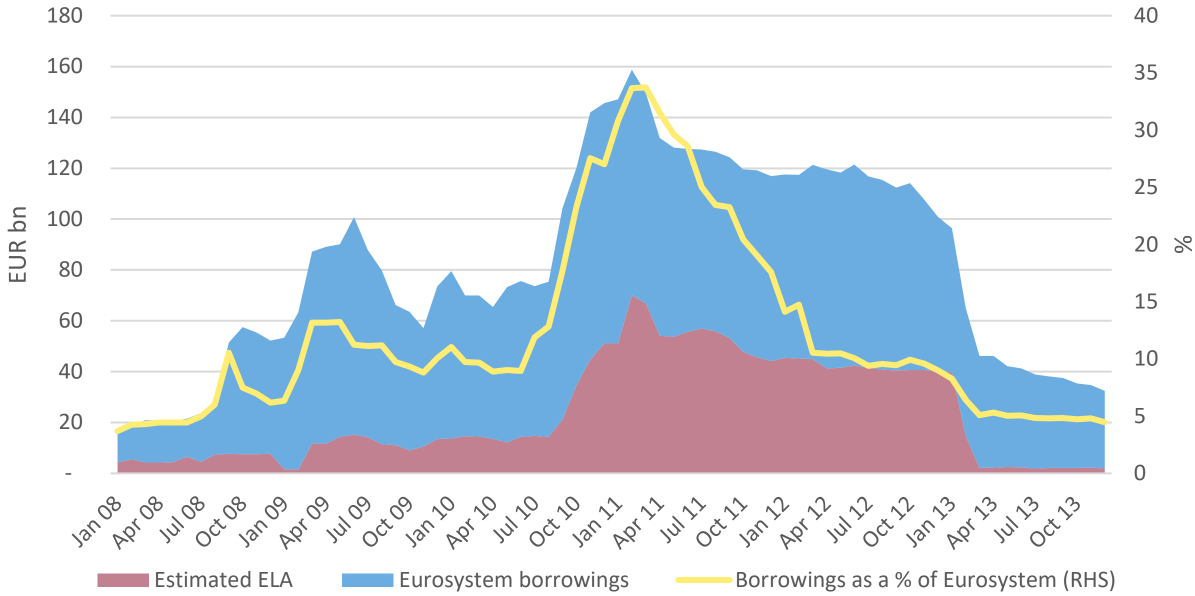
[90] Credit rating downgrades led to reductions in the market value of collateral posted and increased the haircut rate applied by the ECB, resulting in further deterioration of collateral buffers.

[91] This arrangement was initially available to all banks across the Eurosystem but, recognising that this arrangement was surrogate ELA, the ECB tightened the rules, introducing limits and approvals, along with a departure from the loss-sharing principle.

[92] Honohan (2010) points out that while a crisis manual existed, it was not relied upon in practice. He also states that while a significant amount of resources were dedicated to the preparation of the manual, the procedures outlined were excessively cumbersome and sought to involve too many officials at a time when rapid decision-making was at a premium.

[93] Despite this ELA arrangement being subject to regular approval by the ECB's Governing Council, it persisted for a total of four years. Other domestic banks did have to use ELA in late 2010 but were able to repay this promptly.

Chart 4: Recourse to central bank liquidity operations



The CBI does not disclose recourse to ELA nor does it publish the Eurosystem borrowings by the six domestic banks. The ELA number presented represents the 'other assets' category of the CBI's balance sheet return, in which the provision of ELA at the time was recorded. The Eurosystem borrowings figure presented represents that of the domestic banking group, which includes institutions whose ultimate parent is resident in Ireland, or which have a significant (>20%) level of business with Irish households and non-financial corporations in terms of their overall resident business activity.

Source: Authors' calculations based on Central Bank of Ireland and European Central Bank statistical returns.

72. **With no clear alternative to the extraordinarily large recourse to central bank liquidity in sight, in late 2010 the ECB made further liquidity supply conditional on the undertaking of structural reforms in Ireland.** In Q3 2010, recourse to Eurosystem and central bank operations accounted for 25% of all Eurosystem lending. On 15 October 2010, the President of the ECB wrote to the Minister of Finance stating that "large scale provision of liquidity…to entities such as Anglo Irish Bank should not be taken for granted as a long-term solution" and also outlined that for any decisions regarding the provision of liquidity, the Governing Council would need to take into account progress in the areas of fiscal consolidation, structural reforms and financial sector restructuring (ECB (2014a)). With no sign of the recourse to central bank liquidity facilities tapering, on 19 November 2010, the President of the ECB again wrote to the Irish Finance Minister, this time outlining explicit conditionality for the further authorisation of ELA (ECB (2014b)).[94] Amongst other measures, the Irish authorities had to request an official support and commit to undertake fiscal consolidation, structural reforms and financial sector restructuring (including recapitalisation).[95]

73. **While the EU/IMF Programme, the ongoing restructuring and adherence to the Programme's targets renewed market confidence, IBRC was a legacy issue that remained to be resolved.** Deleveraging allowed the domestic banks to reduce their reliance on the ECB to pre-crisis levels

94 The decision to provide ELA is a national responsibility. However, when amounts are significant, the provision of ELA and any subsequent rollover is subject to the non-objection of the ECB's Governing Council.

95 The ECB was exposed to Ireland in a number of ways: (i) through the sovereign who had issued the PN, the "letter of comfort" backing the outstanding ELA, and was the issuer and guarantor of some of the securities being used in Eurosystem operations; and (ii) through the GBP swap arrangement. Furthermore, the ECB had a sizeable and increasing exposure to Ireland through TARGET2 (representing the cross-border flows out of Ireland that were recorded as a liability on the CBI's balance sheet). Any default of the Irish sovereign would have meant that remaining losses (following the realisation of underlying collateral) would have been shared across the members of the Eurosystem.

by mid-2012 (IMF (2012c)). By 2013, banks had a more stable deposit base and the sovereign was taking steps to re-enter the market. NAMA also commenced the repayment of maturing senior bonds, while the going-concern banks were receiving cash deposits under the state recapitalisations. While the overall situation was improving, IBRC's recourse to ELA was close to EUR 40 billion and a permanent solution to this legacy issue still needed to be found.[96]

74. **In 2013, the domestic authorities decided to liquidate IBRC and agreed that the state would repay the bank's ELA to the CBI over time.** The decision, supported by specific legislation, paved the way for a creditors' voluntary liquidation. This was within the CBI's control, because the central bank was by far the largest creditor. Crucially, the agreement allowed the government to avoid having to repay ELA in cash. Instead, it allowed repayment through the proceeds received from a portfolio of long-dated Irish sovereign bonds and government-guaranteed bonds.[97] These sovereign bonds would be exchanged with the CBI in return for the collateral backing IBRC's ELA drawings and the PN would be replaced (see Box 5). In February 2013, IBRC was liquidated under special legislation and the asset exchange commenced.[98] Estimates are that as a result of the liquidation, the net present value of the obligation was reduced by 33% (IMF (2015), citing Whelan (2013)), significantly reducing the state's burden[99].

75. **Following this transaction, the NTMA also entered the final stage of its three-phase plan for the sovereign's market re-entry.** This final phase was made possible by the increasingly positive investor sentiment towards Ireland and the progress made in fiscal consolidation and in the restructuring of the whole banking sector, as measured through adherence to EU/IMF Programme targets.[100] Ongoing system-wide liquidity and asset purchase support from the ECB contributed to this optimism.[101]

[96] Capital and interest payments made under the terms of the PNs were used by IBRC to pay down ELA, but these payments did little to reduce and ultimately eliminate the overall need for ELA as IBRC faced a structural liquidity gap due to continuing liquidity outflows.

[97] The Irish sovereign bonds had a weighted average maturity of 34 to 35 years as against the weighted average maturity of the PNs of seven to eight years (Department of Finance (2019b)). In practice, the weighted average maturity of the bonds was much less due to the minimum schedule agreed with the ECB.

[98] In practical terms, the Irish state pulled its support for IBRC which then automatically triggered the liquidation and in turn caused the provision of ELA to cease. Not being party to redemption of the PN and subsequent elimination of ELA, the Governing Council of the ECB was recorded as "taking note of this arrangement" (ECB (2013)).

[99] Including eliminating the financing costs associated with the annual EUR 3.1 billion cash burden (capital and interest) associated with PNs.

[100] Given the complexity of the stabilisation measures, Phase 1 of this plan involved visits to investors to minimise any misconceptions around the proposed path to recovery. As part of Phase 2, the NTMA prepared a roadmap for the issuance of short-term debt. Phase 3 involved the NTMA undertaking regular and repeat trades and accessing longer-term funding as market access normalised.

[101] From a system-wide perspective, re-entry into markets was carefully sequenced; the NTMA entered the market first, followed by the banks, and then by the semi-state agencies.

Box 5

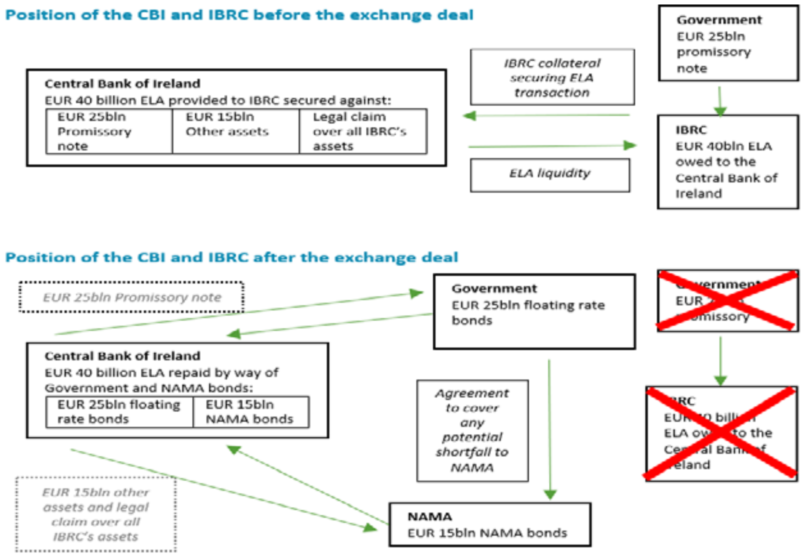
The IBRC liquidation①

The enactment, in February 2013, of the Irish Bank Resolution Corporation Act 2013 provided for the liquidation of IBRC. The liquidation meant that the CBI, as creditor to the ELA transaction, was to take ownership of the assets, including PNs, NAMA bonds, guarantees and loan collateral, collateralising the ELA arrangement.

As part of its ELA arrangement with IBRC, the CBI had a legal claim over all of IBRC's assets. This ELA collateral was transferred to NAMA. In return, a portfolio of Irish sovereign bonds (EUR 25 billion) with maturities of 25–40 years and NAMA bonds (EUR 15 billion) was issued to the CBI.② The Irish sovereign bonds received by the CBI were issued with a floating rate.

The transaction made the CBI whole for its ELA lending to IBRC, but rather than receiving cash up front, the full repayment would be made over time through sales and/or amortisation from the portfolio of bonds received.

A minimum sales schedule was published in 2013 which included targets according to which minimum amounts of the government bonds received were to be sold with the overarching requirement that such sales would take place "as soon as possible, provided that conditions of financial stability permit" (Central Bank of Ireland (2015)). This approach sought to balance, on the one hand, the monetary financing concerns associated with the delayed realisation of the bonds, and on the other, the risks of selling at fire sale prices and of depressing market prices more generally by selling the bonds too quickly.



Source: Adapted from Central Bank of Ireland (2013a) and IMF (2013).

In the absence of a deep and liquid market for floating rate government instruments, the NTMA formed part of the disposal strategy where, through the issuance of fixed rate bonds into the market, it could fund the repurchase of the floating rate bonds. To date, a large portion of the portfolio has been repurchased by the NTMA, facilitated in the main by the low interest rate environment.③ NAMA bonds received as part of the transaction have been redeemed in full by NAMA.

The floating bonds have made a significant contribution to CBI income in each year from 2013: in 2019, net realised gains and interest income made up slightly over two thirds of the total net income of the CBI. The CBI typically pays a minimum of 80% of all of its profits back to the state. As such, these gains contributed to an overall CBI profit of EUR 2.56 billion in 2019, of which EUR 2.05 billion was transferred to the state (Central Bank of Ireland (2020b)). The amounts transferred will be significantly reduced in future as the CBI's holdings of these floating rate bonds decline and are eventually fully disposed of.④

① For further discussion, see Central Bank of Ireland (2013a, 2015). ② The transfer of IBRC's assets to NAMA allowed these assets to be managed centrally within existing structures rather than within the CBI, which had no expertise in managing workouts and troubled assets. ③ At end-2019, the outstanding balance of floating rate bonds held by the CBI was EUR 8.5 billion, which was well ahead of the minimum disposal schedule. ④ While these profits entailed a circular set of transactions, the scale of the profit is a measure of the capitalised value to the state of having been able to finance this debt at very low market interest rates, relative to those prevailing in early 2013 (Honohan (2019)).

Regulatory and supervisory reforms and legacy issues

76. **This subsection describes elements of the crisis response with regards to regulation, supervision and bank resolution.** Many of the reforms, derived from implementation of the EU framework and the Single Supervisory Mechanism (SSM), are only briefly presented. However, additional reforms adopted by the Irish authorities constitute country-specific measures which address specific weaknesses.

Regulatory and supervisory reforms and insolvency regimes

77. **The Central Bank Reform Act of July 2010 established the CBI as a single fully integrated structure.** One of the Act's purposes[102] was to "enhance the system of regulatory control and to confer additional powers on the central bank, the governor and the Head of Financial Regulation to prevent potential serious damage to the financial system in the state, support the stability of that system and to protect users of financial services".[103] The passing of this Act led to the introduction of new institutional and policy approaches and new prudential regulations to address the causes of regulatory and supervisory failures. To ensure supervisory effectiveness and accountability, the Act also requires the conduct of an international peer review at least every four years to assess the CBI's performance of its regulatory functions.[104]

78. **Bank regulation has been overhauled through the introduction of the European legislation transposing the Basel III framework.** Ireland adopted regulatory changes in line with EU requirements. A key aspect is the establishment of a robust framework for setting minimum capital requirements, with these being higher than the levels that prevailed up to 2013. These are part of the Fourth Capital Requirements Directive (CRD IV), the Capital Requirements Regulation (CRR) and a European Commission Delegated Regulation for the Liquidity Coverage Ratio. Capital requirements include the minimum Pillar 1 requirements, Pillar 2 requirements and the Combined Buffer Requirement (See Table 3).

79. **Effective enforcement and forward-looking and risk-based supervision were introduced as part of the reforms adopted in 2010.** One of the earlier reforms was to establish in 2010 a unit specialised in enforcement at the CBI.[105] This function includes several multidisciplinary teams tasked with investigations, routine data mining and forensic interviews.[106] Forward-looking supervision has also been developed and promoted, both through the supervisory review process for individual institutions and through system-wide stress testing at a macroprudential level. In addition, the supervisory function has

102 Since the 2010 Central Bank Reform Act, the CBI, in addition to its central bank duties, has been responsible for supervising all credit institutions and investment firms, and all funds and insurance firms. It is also the national macroprudential authority and the national resolution authority. It plays important roles in the conduct of business, consumer protection and anti-money laundering (AML) activities for all regulated entities. For an overview of how these extensive responsibilities help in providing a comprehensive approach to financial stability, see Sibley (2019).

103 See House of Parliament (2010).

104 See House of Parliament (2010, Section 32M). The reviewer is either "another central bank, or another person or body certified by the Governor, after consultation with the Minister".

105 See Honohan (2019).

106 Enforcement addresses issues identified during the normal course of work undertaken by a supervisory division, as a result of an on-site inspection at a regulated firm or following a themed inspection across a particular sector. A cross-directorate team also conducts thematic reviews on a range of supervisory topics across all regulated firms.

been reorganised around its risk-based framework and tool for supervising regulated firms – the Probability Risk and Impact SysteM TM (PRISM TM).[107]

80. **The 2013 Credit Reporting Act introduced the Central Credit Register (CCR), a centralised system that collects and stores loan information and is managed by the CBI**. It covers a wide range of loans[108] of EUR 500 or more. Its scope provides lenders with comprehensive information on borrowers[109] through credit reports that help with their credit assessments. It also provides the CBI with a macroprudential tool that allows it to assess trends in lending. Such a tool responds to one of the lessons from the crisis: that neither lenders nor the CBI had adequate information to identify credit risk concentrations.

CRD IV capital buffers in Ireland

Table 3

Buffer	Range	Situation in Ireland (July 2020)
Capital conservation buffer	2.5%	Applicable to all banks
Countercyclical capital buffer	0–2.5%	0% since 1 April 2020 (applies to Irish exposures only)
Global/Other systemically important institution buffer	G-SII buffer: 0–3.5%	No G-SII headquartered in Ireland
	O-SII buffer: 0–2%	CBI responsible for identifying O-SII and setting buffer rates together with the ECB Build-up of buffer requirement began in July 2019. Phasing-in lasts until July 2021
Systemic risk buffer (SRB)	1–5%	National discretion not exercised in Ireland

Source: Central Bank of Ireland.

81. **To safeguard financial stability and limit high-risk lending while ensuring loan affordability and sustainability, in 2015 the CBI introduced loan-to-value (LTV) and loan-to-income (LTI) limits.** These limits, known as the Mortgage Measures, are reviewed annually. The LTV limit sets a ceiling on the amount that can be borrowed to buy residential property, which varies depending upon whether the borrower is a first-time buyer, a second and subsequent buyer, or a buy-to-let buyer, while the LTI limit restricts the amount borrowed to a maximum of 3.5 times the gross income of the borrower. However, to provide lenders with some flexibility, the Mortgage Measures include a system of allowances within which loans may be issued above the limits up to a predetermined percentage of each lender's annual loan volume.[110]

82. **In addition to the introduction of macroprudential tools, Ireland's financial stability governance has been reformed with the creation of the Financial Stability Group (FSG)**. The FSG[111] is the successor to the much more informal Principals' Group. Contrary to its predecessor, it has explicit

107 Like similar systems operated by regulatory agencies, PRISM allows CBI resources to be allocated based on the probability of a bank failure and the impact that such a failure could have on the financial system. It also ensures that firms' risks are assessed in a systematic and structured fashion, that all high-impact firms are subject to a sufficient level of engagement and that action is taken to mitigate unacceptable risks in an effective and timely manner.

108 Loans on which information is available include credit cards, overdrafts, mortgages, personal loans, business loans, moneylender loans and loans from local authorities (see Central Bank of Ireland (2020d)).

109 The borrower also has the right to access it and to require corrections should the information held be incorrect.

110 For instance, a second-time buyer's LTV limit is 20%, with the potential buyer needing to have a deposit equal to at least 20% of the property's value to get a mortgage. For first-time buyers and buy-to-let buyers, the LTV limits are respectively 10% and 30%. The percentages of exceptions are, respectively, 20%, 5% and 10% (see Central Bank of Ireland (2020c)).

111 See Department of Finance (2019a).

Terms of Reference. It meets on a bimonthly basis and its meetings are documented, with the minutes being published. The FSG's overall objective is to support financial stability arrangements with a greater emphasis on forward-looking assessments of financial stability.[112] This forum of senior officials includes the Department of Finance, the CBI and the NTMA.[113] Its work is supported by the CBI's Financial Stability Directorate which covers macroprudential and resolution issues.

83. **Detailed requirements have been established to improve corporate governance standards and practices across the financial services industry.** The measures are part of a series of Codes that apply to banks, credit unions and insurance firms and, since 2018, also to investment firms.[114] The requirements include prescriptions for selecting fit and proper chief executives and board members, including specific requirements for non-executive directors. There are also prescriptive criteria and measures to limit and/or manage conflicts of interest, such as mandating the separation of the roles of chair of the board and chief executive officer, limitations on the number of directorships that a person may hold and a review of board membership every three years. Most (if not all) of these measures correspond – and are responses – to specific shortcomings that were identified during the crisis.

84. **Since November 2014, banking supervision in Ireland has been integrated within the SSM framework.** The ECB is responsible for the supervision of significant institutions operating in Ireland (SIs) while the CBI is responsible for the less significant institutions (LSIs). In addition to the direct supervision of LSIs, the CBI continues to have important responsibilities with regard to SIs, given the role it plays in Joint Supervisory Teams (JSTs).[115] All JSTs follow the same methodology, based on the SSM's Supervisory Manual, and the SSM's guidance. They comprise ECB and CBI staff.

85. **With the transposition of the EU Bank Recovery and Resolution Directive (BRRD) into Irish law in 2015, the CBI is also the national resolution authority (NRA).** As the NRA,[116] the central bank is responsible for the resolution of failing banks, credit unions and certain investment firms and is part of the banking union Single Resolution Mechanism (SRM). The Single Resolution Board (SRB) is the centralised decision-making body of the Banking Union and works together with NRAs to resolve significant failing banks[117] (the SRB leads the resolution of significant institutions, while the CBI, as NRA, is responsible for the less significant ones). The NRA functions of the CBI have been structurally separated from its supervisory and other functions to avoid conflicts of interest and preserve operational independence.[118]

112 This greater emphasis is in line with the Recommendations of the Banking Inquiry and the 2016 IMF assessment of the Irish financial sector.

113 The FSG includes the Secretary General and Assistant Secretary Banking Division from the Department of Finance, the Governor and Deputy Governors of the CBI and the NTMA's Chief Executive and Director Funding and Debt Management.

114 For banks, the two relevant documents are the Corporate Governance Code for Credit Institutions and Insurance Undertakings 2013 (effective January 2015) and the Corporate Governance Requirements for Credit Institutions 2015 (source: www.centralbank.ie). Credit unions are subject to specific governance requirements.

115 SIs are supervised by JSTs under the lead of a coordinator who is based at the ECB, and a JST sub-coordinator who is based in the EU member country.

116 The BRRD, adopted on 15 May 2014, provides NRAs and the EU resolution authority with comprehensive powers to address banks and large investment firms that are failing or about to fail.

117 Significant institutions that fall within the remit of the SRB are those institutions that are subject to consolidated supervision by the ECB and institutions that are "less significant" but established in more than one banking union member state.

118 As part of its efforts to embed the EU framework in Ireland, in April 2019 the CBI published its Approach to Resolution for Banks and Investment Firms (First Edition) which provides an overview of the resolution framework, outlines the CBI's views on resolution planning and its approaches to setting the minimum requirements for own funds and eligible liabilities (MREL) and illustrates how it intends to exercise its resolution and liquidation powers (Central Bank of Ireland (2019a)).

NPLs and the impact of consumer protection

86. **The Irish financial crisis and the deep recession that followed resulted in a large increase in NPLs.** By the end of December 2013, the overall average NPL ratio of the Irish banks, which had started growing from 2009 onwards, had peaked at 32% or about EUR 85 billion (see Chart 5). By that date, the default rate for SME loans stood at 26%,[119] that of commercial real estate lending, including for the part that was transferred to NAMA, was 70%, while that of residential mortgages had reached 12.9%.

87. **To resolve the NPLs that were still on the banks' books, the CBI needed to balance financial stability and customer protection considerations.** While financial stability and bank recapitalisation tended to dominate the first phase of the crisis response, a second phase from 2011 onwards saw a growing focus on resolving NPLs through sustainable debt restructuring. Chart 5 provides a timeline of the measures taken by the CBI from December 2010 until 2018 and maps them against the evolution of the overall NPL ratio over the same period. The CBI's actions and strategies to find the appropriate balance between financial stability and consumer protection are part of a wider context of long-standing government policies that the crisis and its aftermath have reinforced.[120]

88. **In February 2009, the CBI issued the Code of Conduct on Mortgage Arrears (CCMA).** The CCMA's main purpose is to ensure fair and transparent treatment of financially distressed borrowers.[121] It recognises that mortgage arrears are "unique" when compared to other assets with each case needing "to be considered on its own merits".[122] To this effect, the Code obliges lenders to treat borrowers in or facing mortgage arrears in predetermined ways with the objective of helping them to meet their mortgage obligations. The key part of the CCMA is the Mortgage Arrears Resolution Process (MARP), which obliges the lender to follow four specific and lengthy steps with all borrowers that engage with the lender. It is only after all steps have been complied with that the lender may begin legal proceedings for the repossession of a borrower's primary residence. The CBI is also responsible for enforcing the CCMA.[123]

[119] This is the proportion of SME loans in default. When weighted by outstanding balances, the proportion rises to about 40%.

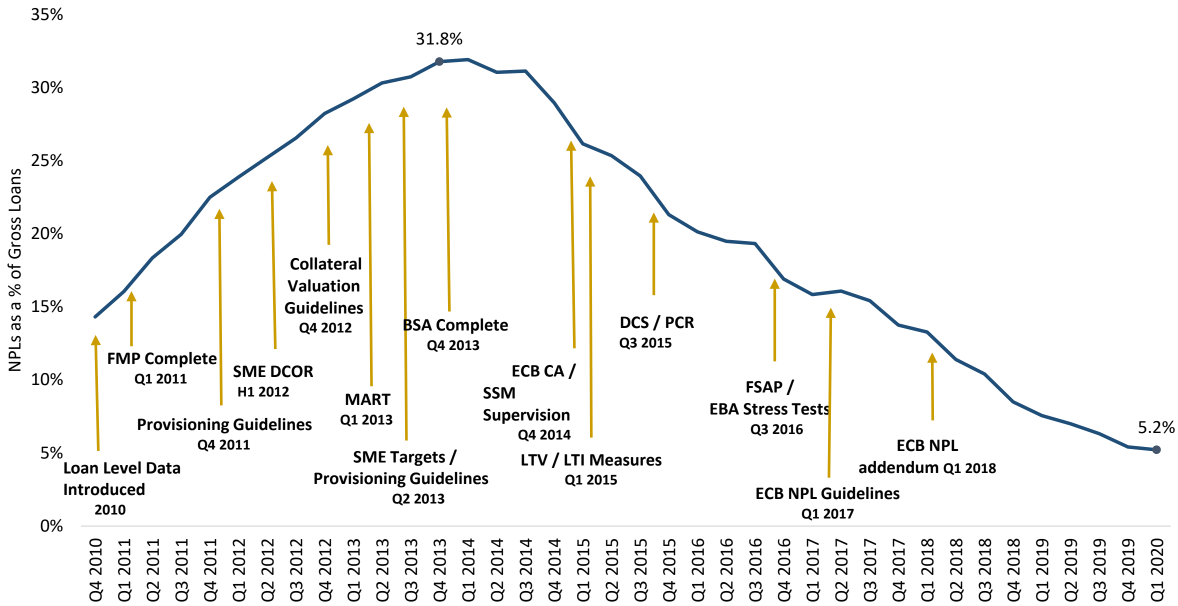
[120] While these reforms are not part of this paper's scope, two of the main measures were the 2012 revision of the Consumer Protection Code and the Personal Insolvency Act in December 2012, which created the Insolvency Service of Ireland (ISI).

[121] See Donnery et al (2018).

[122] See Central Bank of Ireland (2013b, p 1).

[123] The CCMA was revised substantially in 2012 and 2013. Central Bank of Ireland (2013b, Chapter 1 – Scope) states that the CBI "has the power to administer sanctions for a contravention of this Code".

Chart 5: Retail banks' NPL ratio and milestones in NPL resolution*



The definition of "non-performing" used by the European Banking Authority (EBA) introduced in Q3 2014. Prior to this date an internal definition was used, equivalent to impaired loans and/or arrears > 90 days.

Source: Central Bank of Ireland regulatory returns.

89. **The CCMA and its subsequent revisions are part of a trend reinforcing consumer protection as a response to recurrent customer issues and mistreatment.** While the requirements contained in the CCMA may seem detailed and prescriptive, each of them corresponds to cases where banks' practices have fallen short of the "fair treatment" of customers that is expected.[124] Some oblige lenders to have the means to deal with distressed customers in a professional way, such as the requirement to have an Arrears Support Unit that is sufficiently resourced with experienced staff and that designs and implements sustainable repayment solutions. Others, such as procedures that lenders must comply with to communicate with borrowers, are meant to prevent borrower harassment, while additional requirements also specify in detail the types and contents of information that the lender must communicate to the borrower in an effort to address asymmetrical information issues.

90. **Between 2011 and 2013, the CBI took a series of measures to improve banks' internal approaches to resolving mortgage arrears.** The rationale for those interventions was the persistent shortcomings observed at lenders, which had neither the strategies nor the resources and processes in place to expedite the resolution of their NPLs while dealing fairly with their customers (see Box 6).

[124] There have been multiple business conduct cases where banks have generally overcharged their customers. One set of issues, identified in 2010 but with new cases still emerging, is that of "tracker mortgages" with tracking rates linked to the ECB's main rate. During the financial crisis, the ECB lowered its main rate considerably, making tracker loans much less profitable. Even before 2008, tracker customers were encouraged by their banks to move to a fixed rate option with the understanding that they could move back to their original mortgage tracker rate. Instead, at the end of the fixed rate period, customers were either not returned to their original tracker rate and put on higher fixed or variable rate loans, or were put back on trackers but at a higher rate than the original tracker agreement, leading to overcharging in both cases. The CBI's Tracker Mortgage Examination, which began in 2010, identified over 40,000 affected customers as of July 2019 and obliged lenders to pay redress for almost EUR 700 million.

91. **Since the establishment of the SSM, the CBI has actively worked towards the resolution of NPLs at two levels.** Within its jurisdiction, the CBI continues to practice intrusive supervision through credit risk inspections, deep dives by supervisory teams, thematic reviews and bank by bank assessments through the Supervisory Review and Evaluation Process (SREP). Given its rich experience with NPL resolution, it has also contributed to the development of the ECB's supervisory guidance on NPLs[125] and of the European Banking Authority (EBA)'s guidelines for managing non-performing and forborne exposures (NPEs/FBEs).

92. **The stock of NPLs has declined significantly since the 2013 peak.** NPL ratios have declined up to the end of 2019, with most of the decline taking place between the beginning of 2014 and end-2017. By end-2017, the overall stock of NPLs stood at around EUR 25 billion, down from a peak of EUR 85 billion. The most striking declines are those of the NPL ratio for commercial real estate (CRE) lending and SME lending, which declined from 70% at end-2013 to 21.5%, and from about 30% to 7.7%, respectively, within four years.[126] The decline in the mortgage NPL rate, which peaked at 12.9% in September 2013, while still significant, has been somewhat slower. For instance, the outstanding balances on principal dwelling house (PDH) mortgages stood at 7.9% at the end of March 2020. However, because of the number of loans involved, they constitute the most important source of NPLs.[127]

93. **The main drivers of these reductions vary significantly according to the type of exposure.** For CRE lending, the main driver has been loan exits,[128] with write-offs, sales and liquidation (ie sale of the collateral) accounting for 90% of the reduction for each year between 2013 and 2017. For residential PDH mortgages, cures[129] are the main cause of reduction. These include cases where the borrower's financial condition has improved sufficiently to clear the arrears and resume payments. They also include restructured loans where the borrower is paying according to a contractual repayment schedule.[130]

94. **However, repossessing a primary residence is now rare in Ireland.** Between the third quarter of 2009 and the end of 2017, there have been only about 8,200 cases of loss of PDH property. Two thirds of these were surrendered voluntarily while only 2,722 resulted in repossession under a court order (see Donnery et al (2018)). More than 63,000 PDH residential mortgage accounts were in arrears in March 2020. In most other cases, the lender voluntarily surrendered or abandoned the property, often at the end of a lengthy MARP process.

95. **While limited repossession is the result of a deliberate policy, there are other causes explaining the persistence of such arrears.** One of these relates to the existence of a framework for restructuring mortgage loans that obliges lenders to find repayment arrangements with borrowers and makes home repossession into a tool of last resort. Another is the persistence in many areas of the country of depressed real estate prices[131] for both residential and commercial properties, with these having yet to

[125] The ECB's High Level Group on NPLs was chaired by Sharon Donnery, Deputy Governor of the CBI.

[126] For the numbers and percentages used, see McCann and McGeever (2018).

[127] Since the end of 2017, mortgage NPL balances make up about 70% of all outstanding NPLs (see Donnery et al (2018)).

[128] Loan exits include legal repossession, voluntary surrender of property, transfers to schemes such as Mortgage to Rent (but for residential mortgages only), write-offs and portfolio sales.

[129] A cured NPL is essentially an NPL that has become performing again.

[130] This paragraph is essentially based on McCann and McGeever (2018).

[131] While real estate prices may have largely recovered in Dublin and some of its residential suburbs due to high demand, this does not seem to be the case in most of the rest of the Republic, and in particular in the west and southwest.

recover the levels they had reached more than a decade ago.[132] Accordingly, some loans in these areas may still have negative equity (ie where the size of the debt outstanding is greater than the estimated market value of the underlying property). A third possible cause is that many retail borrowers may still be in financial distress and not have recovered pre-crisis levels of income. As a result of that continuing distress, certain borrowers may miss payments and fall into arrears again because their restructuring arrangements are unaffordable over the long term.[133]

96. **Another type of cause relates to incentives and unintended consequences.** While the overarching aim of the framework for loan restructuring in Ireland is to create strong incentives to reach sustainable and fair repayment arrangements, conditions in real estate markets may create an incentive for lenders to delay resolution in the hope of future price recoveries. Finally, a persistent and structural gap between housing demand and supply, and a lack of social housing in particular, continue to exercise upward pressure on housing prices, therefore limiting house affordability.[134]

97. **A related consideration is whether the current balance between creditor rights and the protection of borrowers creates incentives for them to delay resolution.** Reforms over the last decade reinforced the protection of borrowers for the reasons discussed above. To the extent that lenders are constrained by what they perceive as expensive and time-consuming MARP processes and cannot liquidate borrower assets in a timely manner, they may have lost their main leverage against borrowers. This is because at least some borrowers may have an incentive to hold out as long as possible in the hope of a better deal.[135]

Box 6

CBI actions taken in the area of NPLs between 2011 and 2013

In October 2011, each lender was required to submit to the CBI a board-approved Mortgage Arrears Resolution Strategy (MARS) including implementation plans. Reviews of these MARS showed that lenders were ill-equipped to resolve large numbers of arrears cases in a sustainable way. Lenders essentially relied on forbearance and/or on limited and temporary agreements whereby borrowers would see their payments reduced and/or limited to interest-only while unpaid amounts were capitalised.

As a result, the CBI conducted an independent Distressed Credit Operations Review (DCOR) in 2012 to assess the banks' operational capacity to address mortgage NPLs and distressed SME loans. This was both a top-down review of procedures and processes, including an assessment as to whether these were fit for purpose, and a bottom-up review to the extent that it was supported by detailed loan file reviews. Among the shortcomings identified were a lack of expertise and experience in working out NPLs, a lack of centralised specialist resources and an absence of performance monitoring and incentives. As a result, the CBI developed and monitored the implementation of risk control and mitigation programmes tailored to each institution's shortcomings.

As NPLs continued to increase, the CBI introduced additional measures in the first quarter of 2013. These obliged banks to comply with a Mortgage Arrears Resolution Target (MART) framework that imposed quarterly quantitative targets on the six main residential mortgage lenders to resolve arrears greater than 90 days. The targets were organised around the provision of sustainable solutions to borrowers. To monitor banks' performances, the CBI published its Internal Guideline on Sustainable Mortgage Arrears Solutions (Sustainability Guideline) used by its supervisors to disclose supervisory expectations to banks. The CBI enhanced its reporting requirements regarding

[132] An illustration is the introduction in the CCMA of restrictions on the commencement of legal proceedings. These can only begin three months after the issuance of written communication or eight months from the date the arrears arose, whichever date is later.

[133] See McCann (2017).

[134] For a recent overview of the Irish housing market, see Kennedy and Myers (2019).

[135] See, for instance, O'Malley (2018).

sustainable solutions. It also conducted on-site inspections to analyse samples of these solutions, assess their sustainability and more generally audit banks' performances against the MART targets.

A further step was the substantial revisions of the CCMA that took place in 2013. These introduced a four-step approach. They also clarified key definitions and their consequences, such as when a borrower can be classified as "not co-operating". In addition, borrowers were provided with an appeal against such a classification. The revisions also clarified the restrictions imposed on lenders wanting to commence legal proceedings.

Following these efforts, the CBI conducted a balance sheet assessment (BSA) in 2013 and an impairment provisioning review in 2015. The BSA was an asset quality review (AQR) to assess the adequacy of risk classification, of provisioning and of regulatory risk weighting for capital purposes conducted on portfolio samples. The provisioning review assessed whether provisioning practices remained appropriate two years after the AQR.①

① The most comprehensive overview of the CBI's efforts in resolving NPLs over the period 2010–18 can be found in Donnery et al (2018).

98. **Persistent shortcomings in Irish banks' culture, risk management and governance, which generate reputational and financial risks, have led the CBI to review behaviour and culture in Irish retail banks.** The CBI's 2018 review of behaviour and culture in Irish retail banks found that "consumer-focused cultures in the banks remain under-developed" and in particular that consumer focus was not always embedded in the banks' structures, processes and systems. As a result, the CBI requested banks to implement detailed action plans to address the review's findings and focus on values and conduct that must be reflected in all business areas, at all levels of the organisations and from strategy setting to sales of products and management of customer relations.[136]

99. **There are indications that further improvements in Irish banks' risk management practices are needed.** For example, close to 40% of long-term primary dwelling mortgage arrears cases in Ireland did not appear to have engaged with their lender. While this is an estimate,[137] the CBI's Residential Mortgage Arrears and Repossession Statistics for PDH mortgages for the first quarter of 2020 tend to confirm this. As of end-March 2020, only 28% of all PDH mortgages remaining in arrears were classified as restructured, meaning that the vast majority are not (or at least not for the time being) part of a restructuring arrangement. Focusing on restructured mortgage loans, breakdowns according to the length of the arrears and by type of restructuring show that about 40% of remaining NPLs have arrears of more than two years while almost a third of repayment arrangements are the result of capitalising arrears.[138] A related indication is the fact that, on average, mortgage rates offered by Irish banks are the highest or second highest in the euro area. They are, in particular, higher than those offered in most of other euro area countries that also have significant stocks of NPL arrears and environments that make the repossession of real estate difficult. Both indicators may raise sustainability concerns, especially in the wake of the Covid-19 pandemic.[139]

[136] See Central Bank of Ireland (2018, 2020a).

[137] The estimate can be found in McCann and McGeever (2018), citing McCann (2017).

[138] To the extent that the capitalisation of arrears is not supplemented with a loan extension, these agreements may result in higher repayments than those under the initial contract and/or with the borrower possibly owing more than initially borrowed.

[139] The concerns that resolving mortgage loans in arrears for more than two years would be at best problematic and that weakened borrowers may be particularly vulnerable to future shocks despite their willingness to meet the terms of their repayment agreements were already raised in 2018 (see Donnery et al (2018)). The Covid-19 pandemic only amplifies such concerns.

Section 4 – Some general lessons from the crisis

100. **The Irish experience highlights the need for adequate crisis management preparations in non-crisis times.** By definition, crises cannot be fully anticipated. However, detailed contingency planning allows authorities to prepare for them and can help reduce the severity of their impact on financial stability or the real economy. The adoption of a system-wide guarantee was essentially a product of the lack of effective contingency planning. It is when market conditions are normal that authorities are in the best position to anticipate and plan for potential risks by relying on forward-looking, rather than point-in-time assessments. On this basis, authorities can increase their capacity and their readiness to intervene early and consider the full range of possible policy responses should the situation escalate. The effectiveness of an authority's policy response is materially enhanced by predetermining its desired features and potential issues that may arise.

101. **The availability of relevant, reliable and timely information is a prerequisite for an accurate diagnosis of issues within individual banks or within the banking system.** Country authorities need to have access to bank data that is accurate in terms of both quality and quantity and the internal capabilities (in terms of both staff numbers and expertise) to analyse, interpret and more generally make good use of this data. This includes the ability to listen to and, where appropriate, incorporate any contrarian views. The Irish crisis also highlighted the importance of combining micro and macro views and sharing information across departments.

102. **Recognising as early as possible the impact of the bank/sovereign nexus on the range of policy responses is essential.** Fiscal constraints clearly limit the capacity of a sovereign to provide a fiscal backstop to a banking sector that is very large in relation to the country's economy. Bank losses that materialise following an event such as the collapse of a property market may exceed the public backstop's financial capabilities. In particular, measures to reduce the fiscal costs of dealing with a banking crisis (eg LMEs, bail-ins of private sector creditors, asset disposals) can clearly help to address the sovereign-bank loop by reducing the impact on the sovereign. The piecemeal approach to the recapitalisation of banks in Ireland highlights the constraints that can build up and potentially overburden the state. An upfront recognition of both the resources needed to address the crisis and the sovereign's limited resources would have allowed the Irish authorities to narrow down the possible response options. It could also have limited the scope for market stress to build up and avoided measures that were seen as insufficient, and therefore helped to preserve confidence in the sovereign's ability to address the crisis.

103. **ELA is only one component of a wider crisis management framework, has a limited role and it is not meant to replace or delay the implementation of other measures.** Authorities need to carefully consider the calibration of their ELA response, and incentives have to be in place to provide for a timely exit from what is meant to be a temporary arrangement. As part of a central bank's detailed contingency planning, early preparation of legal documentation and collateral prepositioning helps to ensure that the central bank's interests are protected. In Ireland, the gone-concern banks were funded through ELA for an extended period, and while comfort was provided by the state against potential losses, the arrangement in itself is an exception since ELA is generally understood as being reserved for going-concern banks experiencing temporary liquidity issues. In the end, a novel solution was required in order for ELA to cease and for the CBI to be repaid. The availability of a bank resolution framework at the time would have meant that the ELA could have been used for its true purpose, for liquidity issues only, and not to entirely fund banks that had lost public and market confidence.

104. **When restructuring banks, an early assessment of each bank's longer-term viability is needed to help select the appropriate policy tools in a timely manner.** Although crisis situations make the assessment of banks' viability harder, the crisis response benefits greatly from an early identification of unviable banks with unsustainable business models. The separation of viable banks from others helps to accelerate the return to normality and reduces the cost to the taxpayer. In the Irish case, as the cause of the crisis was initially misdiagnosed as being one of liquidity, it took some time for the separation of

going- and gone-concern banks to be made. In addition to determining the viability of each bank individually, a response to a systemic banking crisis would ideally include an assessment of the desired structure of the banking sector and, to the extent possible, contribute to a sufficiently competitive sector.

105. **It is highly preferable to use fully marketable (both tradable and liquid) instruments when recapitalising banks.** The use of non-marketable recapitalisation instruments does little to restore market confidence and will only delay the inevitable financial cost associated with those problem banks. The term funding of such instruments by the central bank introduces significant risks for the central bank balance sheet and by locking the central bank in, essentially provides a subsidy to the banking system. Fiscal capacity may limit the extent to which instruments can be funded in the market, but at a minimum any instruments used would need to be structured as if they were issued into the market, that is, rank at least equal to other issued instruments, be based on market terms and issued at market rates.

106. **An AMC can be an effective way of dealing with bad assets, but its overall performance heavily depends on benefits from economies of scale and the availability of funding.** NAMA achieved significant benefits from economies of scale through the central management of the larger land and development loans. Such benefits are unlikely to be achieved from the inclusion of portfolios of large numbers of small-value loans. The loan by loan valuation approach adopted by NAMA has, over time, proven to be successful and its valuations prudent, with significant profits now expected for the Exchequer. However, NAMA's results were also helped by the funding structure, one which relied central banks' willingness to provide funds against a wide range of eligible collateral for an extended period at very low interest rates. Finally, the success of an AMC needs to be balanced against the recapitalisation needs of the banks and possible fiscal implications.

107. **Improvements in culture and governance are an important part of the crisis response.** An environment where a culture of challenge is allowed, and the decision-makers are open to a candid review of risks, and to a thorough discussion of the potential implications of specific risks and the ways to address or mitigate them, is highly beneficial for both banks and authorities. A complement to this is the assessment of the fitness and probity of bank management, and an individual accountability regime for banks. Symmetrically, banking sector authorities need to implement an effective enforcement framework, which will allow them to follow up their requests to the banks to enforce rules and regulations.

108. **A supervisory authority enforcing enhanced and comprehensive international standards increases the resilience of the financial system.** Since the GFC, global standards and guidance have been developed in the areas of prudential regulation, bank recovery and resolution, macroprudential policies and governance and conduct frameworks. Implementing these international benchmarks and standards can increase the resilience of the banking sector, and enhance the capacity of the authorities to prepare for and respond to a crisis situation. In addition, the implementation of global standards on resolution enable authorities to bail-in bank creditors in order to increase the contribution of the private sector in covering the costs of a crisis, and commensurately reduce the need to rely on public funds.

109. **Managing a banking sector crisis involving the mortgage market requires a careful consideration of the societal trade-offs that are implied.** Each country needs to strike a balance between creditor rights and consumer protection. While a balance privileging creditor rights implies accepting a higher social cost, one that is tilted in favour of the customer will have an impact on the profitability of the sector and possibly also on financial stability as it might limit banks' resilience and their ability and willingness to extend affordable credit to the economy. A strong emphasis on consumer protection may dilute the prudential objective behind the disposal of NPLs, which is to restore banks' ability to lend to the economy. Authorities may need to consider a wider range of public measures to support borrowers using fiscal balances, thereby allowing banks to reduce their stock of NPLs.

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Annex – Timeline of the crisis and recovery in Ireland

Timeline of the crisis and recovery in Ireland Table A1

Date	Event
Institutional developments prior to the banking crisis	
1 January 1973	Ireland joins the European Economic Community.
1 January 1999	Ireland becomes a member of the euro area and adopts the euro as its currency.
22 April 2003	Renaming of the Central Bank of Ireland and creation of the financial regulator (IFRSA) within the new Central Bank and Financial Services Authority of Ireland (CBFSAI).
Key reference dates in the banking crisis and the international environment	
14 September 2007	Bank of England grants liquidity support facility to Northern Rock plc.
22 February 2008	Northern Rock bank is nationalised.
16 March 2008	Bear Stearns acquired by JPMorgan Chase.
17 March 2008	Collapse in Irish bank share prices, the so-called "St Patrick's Day Massacre".
15 September 2008	Lehman Brothers files for bankruptcy.
30 September 2008	The Irish government announces the Irish bank guarantee covering the six domestic credit institutions.
21 December 2008	EUR 5.5 billion bank recapitalisation plan, by way of preference shares, is announced for AIB, BOI (EUR 2 billion each) and Anglo (EUR 1.5 billion).
15 January 2009	Irish government announces nationalisation of Anglo and deferral of planned recapitalisation.
11 February 2009	Remaining recapitalisations of AIB and BOI are announced (following an earlier government announcement on 21 December 2008); amounts are revised upwards to EUR 3.5 billion for each bank. These are financed through the National Pensions Reserve Fund.
27 February 2009	Publication of the Code of Conduct on Mortgage Arrears.
15 June 2009	EUR 4 billion recapitalisation of Anglo in the form of ordinary shares using cash from the Exchequer.
30 June 2009	Irish government announces draft National Asset Management Agency legislation.
22 November 2009	The National Asset Management Agency Act 2009 is passed into law. NAMA comes into operation on 21 December 2009.
March 2010	First NAMA tranche transfers commence (average discount of 50%).
30 March 2010	PCAR 2010 results announced. The capital requirements are as follows: AIB EUR 7.4 billion, BOI EUR 2.7 billion, EBS EUR 0.9 billion.
	Promissory notes issued into Anglo (EUR 8.3 billion) and INBS (EUR 2.6 billion).
	Government announces EUR 875 million recapitalisation package for EBS.
	EUR 100 million of capital is placed in INBS and EBS by way of special investment shares. The state now controls both INBS and EBS.
April 2010	Irish government converts EUR 1.6 billion of its preference shares in Bank of Ireland into common stock, which increases the government's holding in BOI to 36%.
28 May 2010	Promissory notes issued into Anglo are increased by a further EUR 2 billion.
May 2010	EU/IMF programme of economic assistance is agreed for Greece.
17 June 2010	EUR 250 million capital provided to EBS by way of promissory note.
17 July 2010	The Central Bank Reform Act, 2010, establishing the Central Bank of Ireland as a single, fully integrated structure, is passed into law.
23 August 2010	Second NAMA tranche transfer completed (average discount of 56%). Promissory notes issued into Anglo increased by a further EUR 8.58 billion. INBS effectively nationalised.

10 September 2010	AIB announces sale of its Polish subsidiary.
30 September 2010	Irish government announces additional capital requirements for AIB following NAMA transfers and cost associated with Anglo is potentially EUR 34 billion.
15 October 2010	Letter of the ECB President to the Irish Minister for Finance on the provision of liquidity by the Eurosystem and the Central Bank of Ireland to Irish banks.
22 October 2010	BOI announces sale of Bank of Ireland Asset Management.
4 November 2010	AIB announces disposal of its stake in M&T.
19 November 2010	Letter of the ECB President to the Irish Minister for Finance on the provision of liquidity by the Eurosystem and the Central Bank of Ireland to Irish banks and the need for Ireland to agree to an adjustment programme.
28 November 2010	Irish government announces EUR 85 billion "Troika" Programme.
15 December 2010	Remaining EUR 530 million of 30 March recapitalisation announcement injected into EBS by way of special investment shares. EBS is nationalised.
23 December 2010	EUR 3.8 billion recapitalisation of AIB in the form of ordinary shares using cash from the National Pensions Reserve Fund. The state now controls a majority stake in AIB.
31 December 2010	Promissory notes issued into Anglo and INBS are increased by EUR 6.42 billion and EUR 2.70 billion respectively. The total promissory notes held by Anglo and INBS increases to EUR 30.6 billion.
24 February 2011	The majority of the deposits held in Anglo and INBS are transferred to AIB and PTSB respectively.
31 March 2011	Results from PCAR 2011 announced.
31 March 2011	Announcement that AIB and EBS are to be combined to form the second pillar bank (in addition to BOI). AIB signs agreement to acquire EBS on 26 May 2011.
July 2011	EUR 1.2 billion capital injection into BOI in the form of ordinary shares, using cash from the National Pensions Reserve Fund.
July 2011	EUR 1 billion capital injection from the Exchequer into BOI, made by way of contingent capital notes.
1 July 2011	Irish Bank Resolution Corporation (IBRC) is established following transfer of INBS into Anglo.
1 July 2011	Announcement of capital injections into AIB stating: (i) National Pensions Reserve Fund Commission (NPRFC) to acquire EUR 5 billion newly issued ordinary shares; (ii) EUR 6.1 billion capital injection to be made by the NPRFC and the Department of Finance; and (iii) EUR 1.6 billion capital injection to be made by the Exchequer in the form of contingent capital notes. The state's holding in AIB now increases to 99.8%.
6 July 2011	Irish state recapitalisation of IL&P comprising: (i) EUR 2.3 billion in ordinary shares; (ii) EUR 400 million in contingent capital notes; and (iii) standby state investment of EUR 1.1 billion (to be used only to the extent that the asset disposals and voluntary LMEs do not raise that amount). The state now controls 99.2% of IL&P.
12 July 2011	Moody's downgrades Irish sovereign rating to "junk" status.
October 2011	Final tranche transfer to NAMA completed (average discount of 60%).
October 2011	Sale of government shareholding in BOI to private investors' right for EUR 1 billion, which reduces the state's holding to a 14% minority investment.
28 October 2011	Adoption of the Central Bank and Credit Institutions (Resolution) Act 2011.
1 January 2012	Implementation of the CBI's revised Consumer Protection Code.
March 2012	NAMA completes transfer of tranches 3–9.
26 December 2012	Enactment of the Personal Insolvency Act 2012.
7 February 2013	Liquidation of IBRC.
18 July 2013	Sale of Irish Life Group and rebranding of remaining bank to Permanent TSB.
15 December 2013	Ireland exits EU/IMF programme.
23 December 2013	Enactment of the Credit Reporting Act 2013.

23 December 2013	Publication of the revised Corporate Governance Code for Credit Institutions and Insurance Undertakings.
4 November 2014	Commencement of the ECB’s Single Supervisory Mechanism.
17 December 2014	Joint Committee of Inquiry into the Banking Crisis commences.
26 January 2016	Publication of the report of the Joint Committee of Inquiry into the Banking Crisis.