Financial Stability Notes

Cures and Exits: the drivers of NPL resolution in Ireland from 2012 to 2017

Fergal McCann and Niall McGeever

No. 6, 2018

Cures and Exits: the drivers of NPL resolution in Ireland from 2012 to 2017

Fergal McCann and Niall McGeever

Central Bank of Ireland

Abstract

Non-performing loan (NPL) balances in the Irish retail banking system declined from €85bn in 2013 to around €25bn in 2017. In this *Note*, we document how this decline came about using regulatory return data and loan-level data for all property-related lending segments. Firstly, we highlight that NPL resolution is a gradual process: the majority of NPL balances in one year remain as NPLs a year later. Secondly, we show that loan "cure" (the return of previously-defaulted balances to Performing Loan status) is the key driver of NPL reduction in the residential mortgage segment. This is particularly true for principal dwelling home mortgages, where loan restructuring has played a pivotal role. In contrast, loan exit — through liquidations, write-offs, and sales — accounts for a large majority of the NPL reduction in the commercial real estate segment, where concerns about borrowers' access to housing are less central to the policy discussion. Buy-to-Let (BTL) mortgages, on the other hand, share some of the characteristics of each of the aforementioned asset classes: Exit plays a relatively more important role for BTLs than for PDH mortgages, while Cure plays a greater for BTLs than it does for CRE loans.

1 Introduction

The stock of non-performing loan (NPL) balances in the Irish retail banking system has declined significantly in recent years. NPL balances hit a peak of €85bn in 2013 and subsequently fell to €25.6bn by the end of 2017.[1] This equates to an NPL ratio at 2017Q4, as reported by the Central Bank of Ireland's Macro-Financial Review 2018:1, of 13.75 per cent. All major lending segments experienced substantial declines in NPL balances over this period. In a European context, however, NPL ratios still remain high in Ireland; ESRB (2017)

We thank John Cullen, Edward Gaffney, Darren Greaney, Míchéal O'Keefe and Terry O'Malley, as well as internal seminar participants, for their comments. The views expressed in this note are those of the authors and do not necessarily reflect the views of the Central Bank of Ireland.

Email: fergal.mccann@centralbank.ie and niall.mcgeever@centralbank.ie

[1] These data are for the five main Irish retail banks, and follow the Quarterly Summary Financial Return (QSFR) definition of NPLs. The QSFR definition has now been replaced, with all future Central Bank of Ireland reporting on NPLs following the European Banking Authority definition used in FINREP returns.

report that, at end-2016, Ireland's NPL ratio was the sixth highest among 29 European countries.

In this *Note*, we examine how the decline in NPL balances came about. First, we report aggregate regulatory return data on NPLs across different lending segments. Second, our primary empirical investigation uses a sample of loan-level data collected from four major Irish retail banks to examine NPL dynamics for all major property-related lending segments. In each year of our loan-level sample, we identify NPLs and then track the performance of these loans 12 months into the future. In each case, all NPLs from year t are placed in one of three categories in year $t+1$: remaining NPL, returned to performing ("Cure"), or exited the balance sheet. This provides a simple and effective way of illustrating the drivers of NPL resolution from the perspective of the bank balance sheet.

It is important to note that reductions in bank NPL balances do not necessarily imply an improvement in the position of financially distressed borrowers. For example, loan sales might reduce a bank's NPL exposure without materially changing the financial circumstances of borrowers; nonetheless, consumer protections afforded to borrowers remain intact upon transfer of the loan from bank to purchaser. In this sense, our focus in this work is on the resolution of NPLs on Irish bank balance sheets rather than household or firm balance sheets.

A key takeaway from our analysis is that NPL resolution is a gradual process; the majority of NPL balances at any year t remain as NPLs at $t+1$. We show that, where NPL resolutions occur, the principal driver varies by lending segment. Cures – non-performing balances transitioning to performing status – drive most of the NPL reduction in the mortgage lending segment. This is particularly the case for primary dwelling house (PDH) mortgages where a substantial programme of loan modification occurred in accordance with the Central Bank of Ireland's Mortgage Arrears Resolution Process (MARP) framework.

In contrast, loan exits – through write-offs, sales, and liquidations – are the key driver of NPL reduction in the commercial real estate (CRE) segments. Mortgage loans for investment purposes (Buy to Let, BTL) appear to lie somewhere between PDH and CRE loans on this spectrum: BTL resolution has involved more exit than for PDH mortgages, but substantially more cure than has been the case for CRE loans.

Our results may prove informative to policymakers in other jurisdictions as Irish banks are not alone in Europe in having large stocks of NPL balances, (ESRB, 2017). A wide range of supervisory commentary and guidance has placed substantial pressure on banks to reduce their NPL ratios across the euro area in recent years. The *Addendum to the ECB Guidance to banks on non-performing loans: supervisory expectations for prudential provisioning of non-performing exposures* published by the ECB in April 2018 sets out supervisory expectations for NPL reduction on all loans becoming NPL from April 2018 on: provision coverage is expected to be 100 per cent within two years of a default event for an unsecured loan, and seven years for a secured loan.[2] Recently, the ECB has also issued communications on the

[2] https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.npl_addendum_201803.en.pdf.

resolution of the stock of NPLs, stating that supervisory guidance in this area will vary, with similar approaches being adopted for groups of banks with similar NPL ratios and other financial features.[3] Within these supervisory parameters, the precise path, both in terms of time horizon and the resolution method deployed, for resolving the NPLs already outstanding on banks' balance sheets, remains a matter for each individual bank.

A core aim of this *Note* is to place emphasis on the various ways in which NPL resolution can take place. The most appropriate method will vary by bank, by country, and by asset class, depending on the depth of financial distress among borrowers, the collateral realization regime, as well as a range of other socio-political factors.[4]

The Irish experience of variation across asset classes may in this context be particularly informative: despite being faced with a restrictive collateral realization regime, our analysis shows that the Irish banking system made substantial progress in reducing primary dwelling mortgage NPL balances while keeping these loans on their balance sheet.[5] One lesson from the Irish experience is that such progress is unlikely to be achieved without meaningful engagement in loan restructuring programs by both borrowers and lenders (McCann, 2017, Donnery, Fitzpatrick, Greaney, McCann, and O'Keeffe, 2018). O'Malley (2018b) has shown that primary dwelling mortgages exiting long term arrears via loss of ownership are disproportionately likely to have not engaged with the MARP, whereas for those engaging with their lender, Cure has been a much more common outcome. The macroeconomic context must also be understood when viewing the growth in sustainable mortgage restructures in recent years; substantial increases in house prices and falls in unemployment in Ireland since 2013 improved the possibilities for successful loan restructures as many borrowers' financial circumstances improved with the rising economy.

In commercial lending asset classes, where socio-political constraints to collateral realization and loan sales were less salient, the research presented here suggests that loan exit (whether through company liquidation, write-off, or portfolio sale) was the preferred resolution channel in the Irish case. Our analysis also highlights the interesting case of

[3] "Bank-specific supervisory expectations are based on a benchmarking of comparable banks and guided by individual banks' current NPL ratio and main financial features. The aim is to ensure continued progress to reduce legacy risks in the euro area and achieve the same coverage of the stock and flow of NPLs over the medium term" https://www.bankingsupervision.europa.eu/press/pr/date/2018/html/ssm.pr180711.en.html

[4] See a recent speech by Central Bank of Ireland Deputy Governor Ed Sibley, which refers to the mix of options available to lenders engaging in NPL resolution: *"In the three years to December 2017, about one quarter of the €45bn of NPL reduction in the Irish retail banks was achieved through portfolio sales. The remainder was due to on-going restructuring, workouts and write-offs. Similar proportions could be expected for the next three years. Portfolio sales are a legitimate and necessary approach for banks to use to address non-performing mortgage loans. "*. https://www.centralbank.ie/news/article/irish-mortgage-market-2018-and-beyond-ed-sibley.

[5] O'Malley (2018a) has shown that default rates in Ireland increased substantially as a result of weakness in the collateral enforcement regime present between 2011 and 2013. Analysis from researchers attending court sittings has separately highlighted the slow pace of progress of repossession cases through the Irish courts, https://www.irishtimes.com/opinion/inside-the-property-repossession-courts-where-only-one-in-five-borrowers-turn-up-1.2177202.

BTL mortgages, which share some of the characteristics of both primary dwelling and CRE loans.

Our work builds on past research on NPLs in Ireland. This work has generally focused on individual lending segments in isolation and has placed particular emphasis on residential mortgages. McCann (2017) and Kelly and McCann (2016) look in detail at mortgage NPL dynamics in Ireland, highlighting the various macroeconomic and loan-level factors that explained the transition to high levels of mortgage arrears experienced during the Irish crisis, as well as the central role of mortgage modification in the recent recovery. Donnery, Fitzpatrick, Greaney, McCann, and O'Keeffe (2018) discuss the wider economic implications of NPLs, as well as an account of regulatory intervention in Ireland on the issue of NPL resolution since 2010. Our work is distinct from these contributions in that it draws on loan-level data from all major property-related lending segments and provides an overview of NPL resolution from a systemic perspective.

2 Data

We begin by setting the context using aggregate regulatory return data on the NPL balances of the five main retail Irish banks. These data are collected by the Central Bank of Ireland under the Quarterly Summary Financial Return (QSFR) reporting requirements. These data are broken down into five lending segment categories; CRE, SME-Corp, Mortgages, Consumer, and Other. Loans are defined as NPL in these data when they are in default (arrears of greater than 90 days) or are deemed unlikely to pay. Note that, as of mid-2017, the Central Bank has moved to a broader definition of NPL, consistent with that provided by the European Banking Authority. In order to provide a consistent time series from 2012, we will persist with the QSFR definition of NPL for the charts in Section 3.

Our primary empirical analysis uses loan-level data collected by the Central Bank of Ireland from the major Irish retail banks. This collection process consists of banks submitting data in regular tranches every six months. Each submission of data provides a snapshot of outstanding lending at a point in time. The data include details on each loan's balance, performance status, and the lending segment through which the loan was originated. In this *Note* we focus on the three major property-related lending segments: principal dwelling home (PDH) mortgages, buy-to-let (BTL) mortgages and CRE loans. In the PDH and BTL analysis, we base our analysis on the submissions of a consistent sample of three banks (Allied Irish Banks, Bank of Ireland, Permanent TSB) so as to maintain comparability across banks and segments through time. In the CRE analysis, we include four banks, with one lender's data only being included in 2016.

3 NPL trends by lending segment

In this section, we use the QSFR regulatory return data to analyse aggregate NPL balances from 2012 to 2017. Figure 1a shows the evolution of total NPL balances for the five main

Irish retail banks across a set of five lending segments. The Mortgage segment here refers to both PDH and BTL loans combined, while the SME-Corp category groups SME and corporate loans together. These data have previously been reported in the Central Bank of Ireland's Macro-Financial Review and Donnery, Fitzpatrick, Greaney, McCann, and O'Keeffe (2018).

A striking pattern in these data is the decline of total NPL balances from approximately €85bn in 2013 to €25.6bn in 2017.[6] This large decline is evident across all lending segments, but is most pronounced in the CRE segment. NPL balances in this segment fell from €37bn in 2012 to €4bn in 2017. The stock of SME and Corporate NPL balances peaked at €15.5bn in 2013. This figure fell sharply in subsequent years and stood at just over €3bn in 2017.

Mortgage NPL balances peaked at €31bn in 2013. This total declined steadily over the next four years and stood at €17.6bn at the end of 2017. While this decrease has been substantial, it has come at a slower pace than that observed in the commercial lending segments. The result is that mortgages made up 69 per cent of outstanding NPL balances at the end of 2017.

Another way of examining the NPL position of the Irish banks is to consider NPL ratios. An NPL ratio is simply the proportion of all balances in a given set which are non-performing. Figure 1b shows NPL ratios for Mortgage, SME-Corp, and CRE segments.

NPL ratios declined substantially between 2014 and 2017. The CRE segment is again the most striking case. The NPL ratio for this segment fell from 70 per cent in late 2013 to 21.5 per cent in 2017. The SME-Corp NPL ratio also fell significantly from around 30 per cent in 2014 to 7.7 per cent in 2017.

The NPL ratio for mortgages hit a peak of just over 20 per cent in 2014 before falling gradually to 14 per cent in 2017. Previously, Figure 1a showed that mortgage NPL balances peaked in late 2013. This slight timing discrepancy is explained by the fact that performing loan balances were also falling in early 2014 so that the NPL ratio stayed roughly constant. The NPL ratio fell as the decline in NPL balances began to outpace the decline in performing balances.

It is important to note the distinction between studying NPL balances in monetary terms and the NPL ratio within each segment. While the 2017 CRE NPL ratio of 21.5 per cent is still quite elevated, we also see from Figure 1a that the quantity of CRE NPL balances was down to €4bn by 2017. The mortgage NPL ratio was low relative to other segments for much of the sample period. However, the scale of outstanding mortgage balances in Ireland is such that a 14 per cent ratio in 2017 makes mortgages easily the largest component of

[6]The Macro-Financial Review 2018:1, reports that NPLs at Irish retail banks were €30.6 at end-2017. The difference between this figure and our reported €25.6bn relates to the aforementioned difference in the definition of default between the QSFR and that recommended by the EBA and reported in FINREP returns. Given that the EBA-recommended definition was only incorporated into Central Bank of Ireland publications in 2017, we include the QSFR data to allow a consistent comparison from 2012 to 2017.

total outstanding NPL balances.

4 Cures and Exits

In this section, we use our sample of loan-level data to look more closely at the drivers of NPL resolution in Ireland. Our strategy is to look at how individual NPLs evolved year-to-year from 2012 to 2017, to highlight an important feature of NPL resolution: there are many ways in which NPL balances may be reduced, and the mix between these may vary across banks and asset classes. In each year of our sample, we identify all NPLs and then track the status of these loans 12 months into the future. This status can take on one of three possible values. The figures presented here do not give a full decomposition of NPL balances over time: due to our focus on resolution, we only report on the annual transition of NPLs outstanding on balance sheets at any given year-end; we do not report on the new inflows into NPL status during the year.

1. First, the NPL may still be non-performing. We refer to this category of loans as "Remain". Loans may be in this category for the simple reason that arriving at resolution strategies (whether they involving retention on the balance sheet, realization of collateral, or loan sale) is complex and time-consuming in many cases.

2. Second, the NPL may have transitioned to performing status; we assign these loans to the "Cure" category. Cures occur in two ways: either a loan is restructured and has completed the probationary period while continuing to make contracted repayments, or improved financial circumstances allow the borrower to clear arrears balances and begin full repayments without modification. McCann (2017) has estimated that 90 per cent of cured mortgages in Ireland between 2010 and 2016 had a restructuring arrangement in place.

3. Finally, the NPL may leave the loan book. We refer to this category as "Exit". We do not have sufficient information to ascertain the exact mechanism behind a loan exit. A company in default may enter insolvency or liquidation, leading to the write-off of the loan from the bank's perspective. A mortgage may exit through legal repossession, voluntary surrender of property, or transfer to schemes such as Mortgage to Rent. Loans may also be written off as part of wider restructuring arrangements for corporate borrowers with large and complex portfolios. Loans may also exit through portfolio sales, which have been the subject of much debate in Ireland, particularly when concerning the residential mortgage market. At the time of writing, the majority of portfolio sale activity in the Irish banking system has related to commercial, rather than mortgage lending, despite a recent increase in mortgage loan sales during the summer of 2018.

Figure 2 shows the time series of flows in property-related NPL balances in our sample from 2012 to 2016. The graph takes the total NPL balances across the PDH, BTL and CRE segments at the end of each year, and looks forward twelve months to classify all NPLs into one of the three categories defined above. The first feature to note is that, in each year, the

majority of NPL balances retain their NPL status one year later. In recent years, between 60 and 70 per cent of NPL balances at the end of year t are NPL at the end of year $t + 1$. Some features that create natural time delays in loans leaving NPL status include:

- In the mortgage portfolio, borrower's engagement in the resolution process is essential to the achievement of resolution outcomes that involve retention of homeownership.[7]
- For regulatory reasons, loans that have been restructured often remain classified as NPL for a probation period of one to two years. Given the importance of mortgage modification in the response to the Irish mortgage arrears crisis, this will create a natural drag on reductions in mortgage NPL balances. In many cases, restructured mortgages will appear with an arrears balance of zero, and will be reported in Central Bank of Ireland statistical returns as not being in arrears, but from a regulatory perspective will be treated as an NPL.[8]
- Cases where lenders attempt collateral realization through the legal system in Ireland have generally experienced substantial delays since the onset of the financial crisis.
- Loan sales do not happen overnight; they rely on the existence of adequate financial market demand and can involve substantial ancillary services and costs (legal, consultancy, sales) for banks attempting to broker sales.

Secondly, Figure 2 is noteworthy for revealing that, across all property-related lending of Irish banks, Exit has been the predominant form of NPL resolution between 2012 and 2017. From 2014 to 2017, between 20 and 25 per cent of NPL balances have been reduced via Exit, while between 5 and 10 per cent of NPLs are reduced via Cure.

Figure 3 presents separate plots illustrating the drivers of NPL resolution individually for each of our three lending segments: PDH mortgages, BTL mortgages and CRE loans. It is immediately clear that the Cure-Exit mix varies across lending segments.

Loan exit is the principal driver of NPL resolution in the CRE segments. While around 10 per cent of the end-2012 CRE NPL balances in our data had exited the loan book by end-2013, this number had risen to close to 40 per cent by 2016, reflecting a substantial increase in the pace of NPL deleveraging at the reporting banks. In an average year of our sample, Exits account for 89 per cent of the reduction in CRE NPL balances. The distinct lack of loan cure in this segment may be partially explained by the depth of negative equity and financial distress experienced by many property developers in this sector in Ireland during the crisis. Additionally, the lack of a direct link between CRE loans and households' access to housing, implying less salient socio-political barriers to collateral realization, may also explain why banks' strategies were skewed towards loan exit in this sector. The inter-

[7] McCann (2017) has estimated that 39 per cent of long-term primary dwelling mortgage arrears cases in Ireland had not engaged with their lender as of December 2016.

[8] This regulatory treatment of restructured mortgages is the primary explanation for the concurrence of rapid reduction of mortgage arrears rates (for example, from 12.9 per cent of primary dwelling accounts in arrears of greater than 90 days in 2013Q3 to 6.7 per cent in 2018Q1) with the slower reduction of NPL balances reported in this paper.

national market for purchasing distressed loan portfolios may also have been more liquid in recent years for commercial investment properties than for Irish home mortgages.

Figures 3a and 3b show that, relative to CRE, Cures play a much larger role in NPL resolution in the mortgage market. Within the residential mortgage segment, there is also an important difference in outcomes between the PDH and BTL markets: Exit has typically been as large as Cure for BTLs (and orders of magnitude larger in 2016), whereas annual Cure rates have generally been between 10 and 20 per cent for PDH mortgages between 2013 and 2016, compared to Exit rates of 5 per cent or lower.

The predominance of Cure as an NPL resolution strategy for PDH mortgages reflects the central importance of the MARP framework in designing sustainable solutions for home-owners in arrears, as well as the importance for borrowers of engaging with the framework.

5 Conclusion

NPL balances in the Irish banking system have fallen significantly since 2013. This has come from a mix of loan cures and loan exits. We have shown how NPL balances have evolved over time across lending segments and demonstrated that the Cure-Exit mix varies by lending segment.

Exits drive NPL resolution in the CRE segment. In contrast, Cures drive NPL resolution in the PDH mortgage segment and account for half of resolution in the BTL mortgage segment. By this metric, BTL loans appear to represent something of a hybrid between a primary dwelling and an investment loan.

These findings can provide useful context for debates across the euro area about the timely resolution of the large stock of non-performing debt still outstanding on many banks' balance sheets in mid-2018.

References

DONNERY, S., T. FITZPATRICK, D. GREANEY, F. MCCANN, AND M. O'KEEFFE (2018): "Resolving non-performing loans in Ireland: 2010–2018," Quarterly Bulletin Signed Articles Q2:2018, Central Bank of Ireland.

ESRB (2017): "Resolving non-performing loans in Europe," Public document, European Systemic Risk Board.

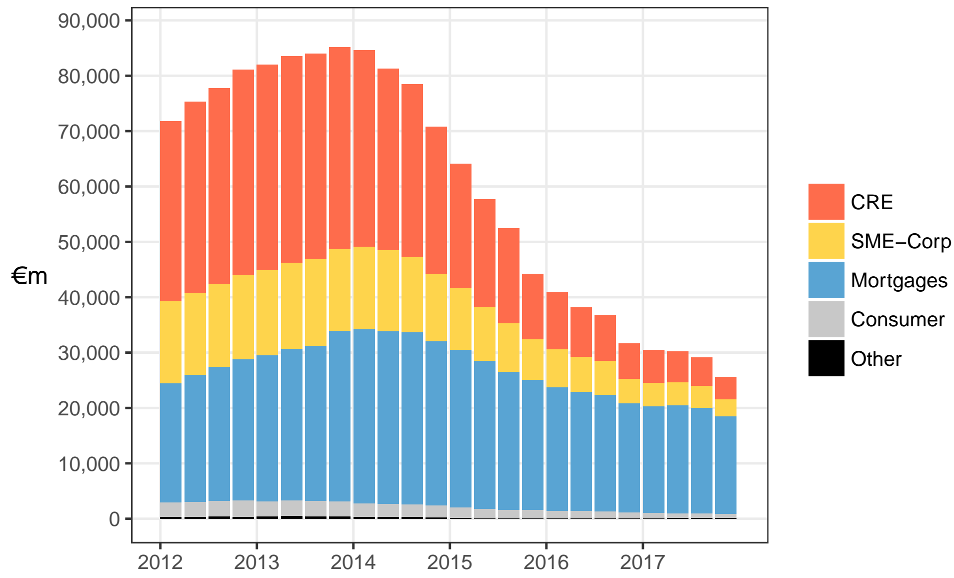
KELLY, R., AND F. MCCANN (2016): "Some defaults are deeper than others: Understanding long-term mortgage arrears," *Journal of Banking & Finance*, 72(C), 15–27.

MCCANN, F. (2017): "Resolving a Non-Performing Loan crisis: The ongoing case of the Irish mortgage market," Research Technical Papers 10/RT/17, Central Bank of Ireland.

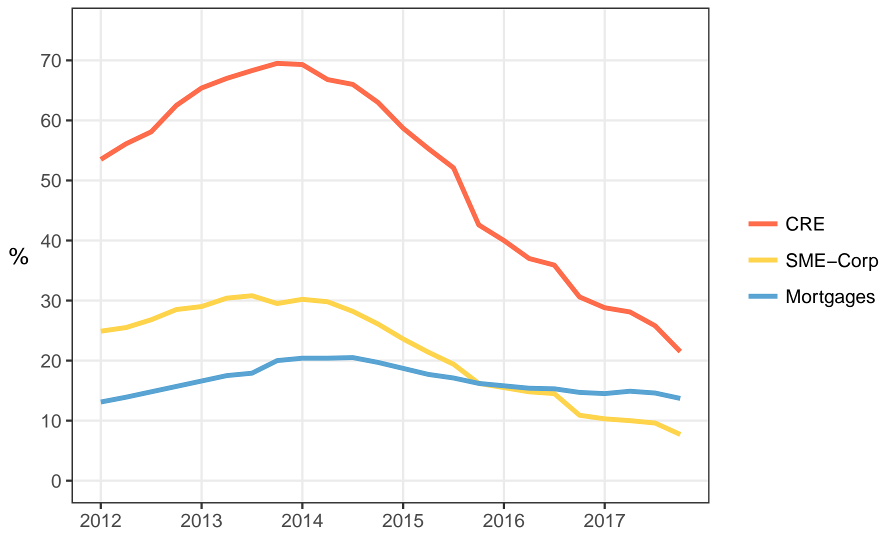
O'MALLEY, T. (2018a): "Did the Dunne Judgment Lead to More Mortgage Defaults?," Economic Letters 1/EL/18, Central Bank of Ireland.

——— (2018b): "Long term mortgage arrears in Ireland," Financial Stability Note 2018, No. 7, Central Bank of Ireland.

Figure 1: NPL trends by lending segment



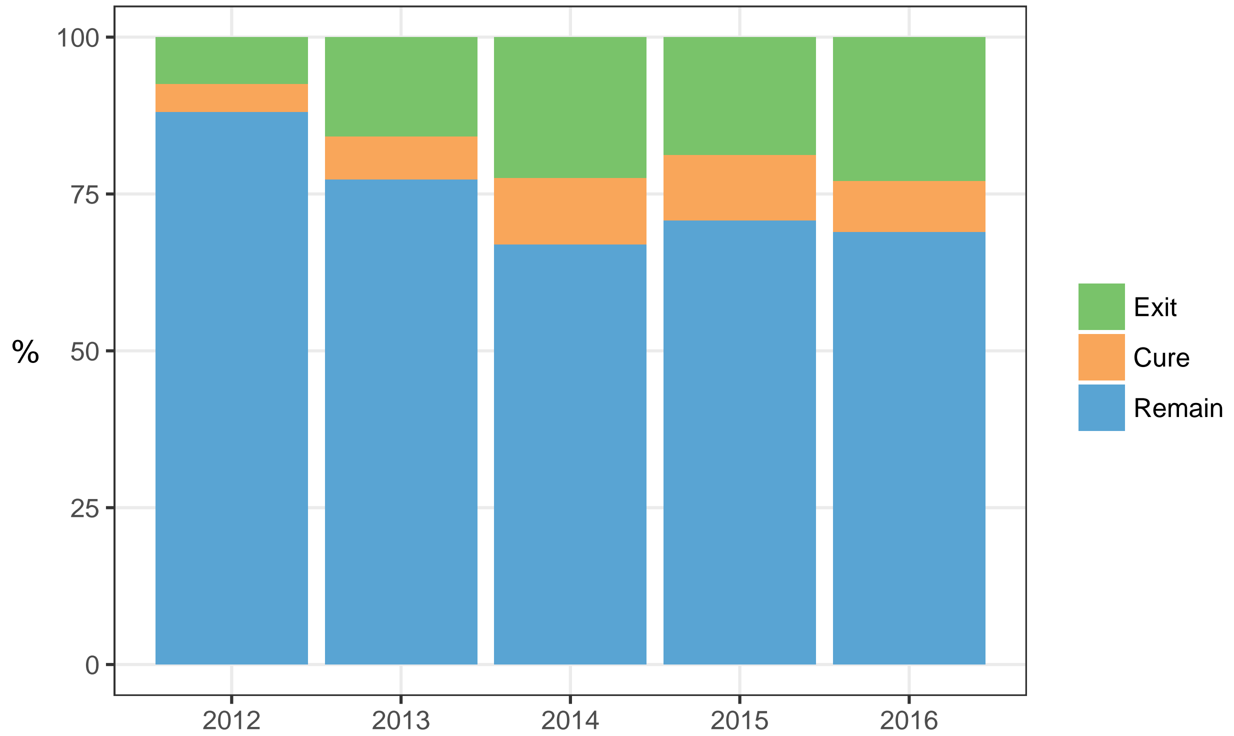
(a) NPL balances



(b) NPL ratios

Source: Central Bank of Ireland QSFR returns for five major Irish retail banks

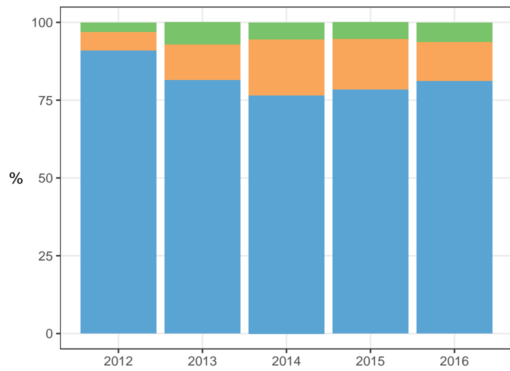
Figure 2: NPL resolution: percentage of NPL balances flowing annually



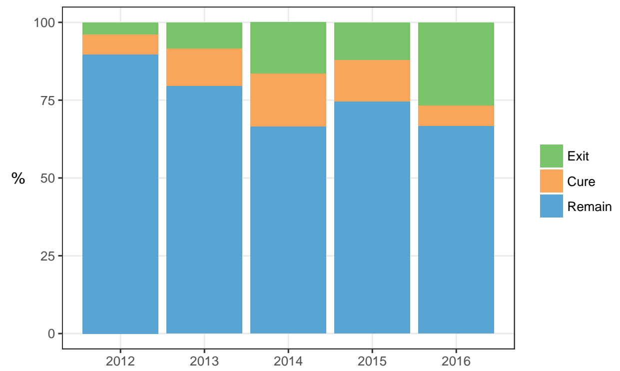
Sample: all mortgage and CRE NPL balances at four Irish retail banks

Source: Central Bank of Ireland loan level data; authors' calculations

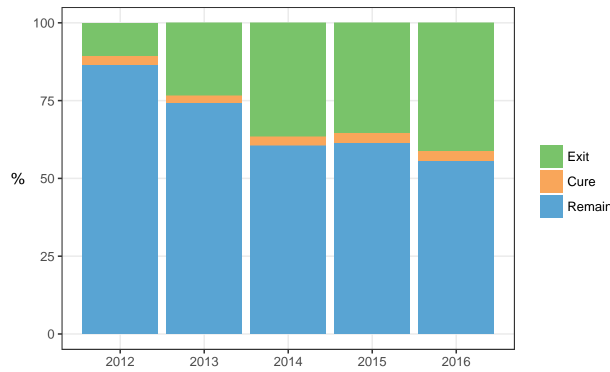
Figure 3: NPL resolution by lending segment: percentage of NPL balances flowing annually



(a) PDH Mortgage



(b) BTL Mortgage



(c) CRE

Source: Central Bank of Ireland loan level data; authors' calculations

T: +353 (0)1 224 6000
www.centralbank.ie
publications@centralbank.ie

Bosca PO 559, Baile Átha Cliath 1, Éire
PO Box 559, Dublin 1, Ireland