DAVY

Ireland's deteriorating mortgage arrears crisis

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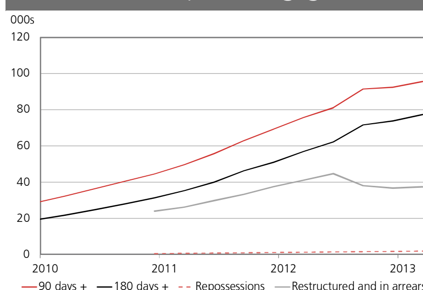
DAVY VIEW

Irish mortgage arrears are now at our expected peak of 16.5% by value with further increases expected. We believe banks' loan losses on delinquent mortgage loans will still be within our range of past estimates, helped by the stabilisation in the housing market. But repossessions and debt write-downs, via split mortgages, will have to rise to provide more clarity on banks' true loan losses.

Irish owner-occupier mortgage arrears



Source: Central Bank of Ireland

Regulatory framework evolving to encourage resolution

Owner-occupier mortgage arrears are set to exceed our forecast for a peak of 16.5% by value in mid-2013 despite rising employment. It appears that mortgage payment discipline has weakened. A growing culture of strategic non-payment of debt has followed a confused regulatory response, including inappropriate constraints in contacting delinquent borrowers and delays in new legislation to address the 2011 Dunne ruling that removed the credible threat of repossession.

The US experience of dealing with delinquent mortgage debt suggests that debt write-downs and repossessions in Ireland will have to rise. 40% of mortgage modifications implemented by the US government-sponsored enterprises (GSEs) include principal write-down. Debt write-down is the most effective loan modification to restore performance. As the GSEs have adopted principal reductions, re-default rates on modified loans have fallen precipitously from 42% to 15%. Around one-third of distressed borrowers in Ireland are not in employment. New evidence suggests that for 25% of distressed borrowers, the ratio of mortgage repayments to income is over 60%. So even debt write-downs may not be sufficient for a large cohort of borrowers. In addition, the older age profile of buy-to-let (BTL) investors, many retired, suggests that interest only adjustments will not be sustainable for that group. Repossessions will have to rise, particularly in the BTL sector, to provide a credible threat against strategic non-payment of arrears.

A potential flood of repossessed properties has been described as a threat to the housing market and economic prospects. The US experience suggests these fears are overdone. Indeed, in those US states where the path to repossession is shorter, housing markets have typically found their floor more quickly and started to recover earlier. Ireland's inert policy response to the mortgage arrears crisis is changing. Threats of 'specific provisioning guidance' from the Central Bank are intended to incentivise banks to restructure loans. Banks currently view capital preservation and the roll-out of sustainable mortgage solutions as mutually exclusive. Regulatory action penalising poor engagement will change that view. We believe mortgage loan losses can be contained within our original range of estimates. Specifically, the use of split mortgages can help banks avoid large carry costs while guarding against moral hazard concerns regarding strategic non-payment of mortgage debt. Repossessions and sustainable mortgage solutions will also create more certainty around banks' ultimate loan losses, ahead of next year's stress test exercise.

See the end of this report for important disclosures and analyst certification

Introduction

Ireland's mortgage arrears problem is growing

Ireland's mortgage arrears crisis has continued to deteriorate over the past year

Ireland's mortgage arrears crisis has continued to deteriorate over the past year. The owner-occupier (OO) 90+ day arrears rate was 12.3% in Q1 2013; including the 42,235 mortgage loans already restructured and not in arrears, 'problem loans' account for 17.8% of the total. The pace of increase in the 90+ arrears rate has slowed but not as quickly as we expected. In value terms, the OO arrears rate was 16.5% in Q1 2013. With arrears under 90 days close to 6%, the 90+ day arrears rate looks set to rise substantially above our previous forecast to reach a peak of 16.5% in mid-2013. The Buy-to-Let (BTL) 90+ day arrears rate is close to 20% by number and 27.7% by value. Long-term arrears continue to mount with 35,000 OO and BTL accounts in arrears for more than two years.

These developments are especially disappointing given the stabilisation in labour market conditions. With employment rising by 1.1% in the year to Q1 2013, job cuts can no longer be blamed for the persistent and extended rise in arrears rates. Unfortunately, a confused regulatory approach, far too favourable to delinquent borrowers, has encouraged a weakening in payment discipline. Ireland now has significant numbers of solvent borrowers who can service their mortgage debt but choose not to do so.

A growing culture of strategic non-payment of mortgage debt is not too surprising given the confused regulatory responses

Strategic non-payment of mortgage debt is probably more concentrated in the BTL sector, evident in banks' appointment of rent receivers to ensure rental income is not diverted. However, Central Bank Governor Patrick Honohan recently acknowledged that many delinquent owner occupiers in arrears are solvent. That is, they can pay their mortgages but have been slow to adjust their expenditure to their new circumstances, choosing instead to go into arrears on their mortgages.

Exacerbated by a confused regulatory response

Without the credible threat of repossession and with limitations in contacting delinquent borrowers, it is not surprising that a weakening in mortgage payment discipline has emerged

The initial iterations of the Code of Conduct on Mortgage Arrears (CCMA) placed severe limitations on banks in contacting delinquent borrowers, breaking the golden rule that early engagement can avoid longer-term arrears. Furthermore, the government has only just passed legislation to address the 2011 Dunne ruling – preventing banks' from repossessing properties associated with delinquent loans. Without the credible threat of repossession and with limitations in contacting delinquent borrowers, it is not surprising that a weakening in mortgage payment discipline has emerged, especially with politicians encouraging unrealistic expectations for debt forgiveness.

Despite headline-grabbing initiatives, concrete action to address non-performing loans (NPLs) has been lacking. The new Personal Insolvency Regime is not yet up and running, with the first applications now delayed again until August 2013. Commentary from Central Bank officials suggests that the focus is now on resolving NPLs outside the Personal Insolvency Regime through negotiations between borrowers and lenders. A new pilot scheme to co-ordinate lenders for those distressed borrowers with multiple debts has recently been announced. While this new scheme could have a positive impact, its arrival so late in the crisis and following past initiatives illustrates the lack of progress thus far.

The most significant development has been the new Mortgage Arrears Resolution Targets (MART) from the Central Bank. This sets out a time schedule for banks to resolve non-performing mortgage loans, both OO and BTL. However, the targets look ambitious, envisaging that 50% of non-performing mortgage loans will be offered

sustainable solutions by end-2013, substantially all by end-2014, with a 75% success rate. Media reports suggest disagreement persists between the Regulator and banks on the form of mortgage modifications sufficient to yield sustainable solutions. It remains to be seen how credible Central Bank threats of *'specific provisioning guidance'* will ultimately be in incentivising banks to restructure mortgage debt more aggressively.

US experience suggests that debt write-downs are the most effective loan modification tool and higher repossessions do not necessarily weigh on house prices

In this report we compare the US experience of resolving distressed mortgage debts with that of Ireland. First and foremost, the main solution to delinquency in the US has been for banks to foreclose and sell properties – over 4m foreclosures have now been completed. Government programmes to help resolve mortgage debt without resorting to foreclosure have had limited success. Just 1.5m households have received help under the Home Affordable Modification Program (HAMP) and 2.9m mortgage modifications have been completed since the start of the mortgage crisis. Furthermore, re-default on these modifications has been high.

The HAMP programme was amended to allow more aggressive restructuring of mortgage debt – including principal write-down. Principal write-downs were negligible in 2009 but now account for 40% of mortgage modifications by government-sponsored enterprises Fannie Mae and Freddie Mac. Almost half of their mortgage modifications reduce monthly payments by at least 30%. Over the same period, re-default rates after nine months have fallen from 42% in 2009 to just 15% in 2012. Principal write-down has also been increasingly adopted by private service providers in the US as the most effective way to restore loan performance. According to S&P, $45bn of US non-agency mortgage debt has now been written off with the average principal reduction close to 30%. Furthermore, loans that received principal reduction maintained the highest levels of performance – 75% set against an average of under 50% on other modifications.

In Ireland, both repossession and principal write-downs remain negligible. In some respects, there are similarities to US 'judicial' states where the legal path to repossession is lengthy, leading to delays in foreclosure. Economic activity and housing markets have recovered more quickly in non-judicial states where banks have acted more rapidly to repossess and sell properties associated with delinquent loans. Furthermore, recent Federal Reserve research points to a significant negative externality with respect to lengthy judicial processes extending the foreclosure process. Specifically, delinquent borrowers are unlikely to keep properties in good repair during foreclosure, putting further downward pressure on house prices.

Ireland appears to have the worst of both worlds – a housing bust comparable to the non-judicial states such as Nevada and Arizona but also a dysfunctional legal and regulatory framework closer to judicial states like New Jersey

This is relevant for Ireland, where a potential flood of repossessed properties is often perceived as a threat to both house prices and wider economic prospects. Indeed, the emergence of cash buyers in Ireland – comprising over 50% of housing market transactions in early 2013 and allowing the market to clear despite weak mortgage lending – suggests that the danger of increased housing supply from potential repossessions has been overstated. In summary, Ireland appears to have the worst of both worlds – a housing bust comparable to the non-judicial states such as Nevada and Arizona but also a dysfunctional legal and regulatory framework closer to judicial states like New Jersey, preventing the debt overhang from being resolved and extending the drag on the economy from the housing bust.

A 'carrot and stick' approach will eventually follow the new mortgage arrears resolution targets

Ireland's guidance to banks on how to treat non-performing debt differs markedly to the US – leading to inertia. In the US, personal property secured loans are typically charged off to their collateral value once 180 days past due. Subsequent recoveries, in excess of the collateral value, are only recognised when they are received. This regulatory approach encourages banks to work through delinquent loans, providing clarity on collateral values, cure rates, carry costs and market discounts as properties are sold. In contrast, Irish banks' charge-offs remain negligible, longer-term arrears continue to mount and WITH few repossessions and debt write-offs. In this stasis, Irish banks' provisioning rests on untested assumptions – specifically a repossess and sell model – with no actual repossessions against which to compare. This creates uncertainty. Many investors do not necessarily regard Irish banks as being well capitalised despite their high provisions and Tier 1 capital ratios. Ireland's regulatory framework has encouraged little action in dealing with non-performing mortgage debt.

The Central Bank's new MART targets for resolving non-performing mortgage debt are clearly intended to prompt action. However, the target for 50% of mortgages in arrears to be concluded by end-2013 and 100% by end-2014 are ambitious.

The Central Bank's new MART targets for resolving non-performing mortgage debt are clearly intended to prompt action. However, the target for 50% of mortgages in arrears to be concluded by end-2013 and 100% by end-2014 are ambitious. Media reports suggest that disagreement persists regarding what comprises a sustainable solution to non-performing mortgage debt. It remains to be seen how credible the Central Bank's threat of 'specific provisioning guidance' on remaining non-performing loans is. Nonetheless, we expect that the Central Bank will gradually move to a 'carrot and stick' approach – toughening capital and provisioning guidelines on non-performing mortgage debt while perhaps allowing modest cure rate assumptions on split mortgage solutions. At present, banks perceive capital preservation and the roll-out of sustainable restructurings as mutually exclusive outcomes. Regulatory action that penalises poor engagement or a bias towards unsustainable restructuring solutions will alter this view.

Judging the likely success of mortgage modifications in Ireland in restoring performance is fraught with difficulty. There have been few data published on the income and employment characteristics of households in arrears. However, the Central Bank Governor indicated in a recent speech that close to two-thirds of delinquent borrowers are in employment – citing an as yet unpublished survey. This suggests that the vast majority of delinquent borrowers can be restored to performance with the right modification. However, the one-third in unemployment will prove more difficult to address. A recent Central Bank study of 55,000 standard financial statements indicates that the ratio of mortgage repayments to income is close to 40%. But the distribution around the 40% average is skewed upwards. For many borrowers, the mortgage ratio to income is above 60%, so even aggressive reductions in monthly mortgage payments may not be sufficient for around one-third of borrowers to restore performance sustainably.

The US experience suggests that Irish lenders will slowly move to debt forgiveness as the most effective tool to restore loan performance

The US experience suggests that Irish lenders will slowly move to debt forgiveness as the most effective tool to restore loan performance. At the same time, repossessions must rise from exceptionally low levels – especially in the BTL sector. The Governor's recent comments suggest that split mortgages will be used as a pathway for debt write-downs while guarding against moral hazard concerns. Tougher regulatory guidance will slowly encourage banks to reduce provisions, charge-off non-performing mortgage loans and realise true loan losses.

Owner occupier loan losses will be close to PCAR adverse scenario losses, but Buy-to-Let losses will most likely exceed expectations

The recent stabilisation in house prices and our analysis of borrower profiles suggest that OO loan losses may be kept close to the PCAR adverse outcome so long as sustainable restructuring outcomes favour bilateral engagement between borrowers and banks over the more costly legal repossession route

Our analysis suggests that 'problem' loans can be roughly split into three equal groupings: (i) a borrower's stress is likely to be temporary and either an interest-only (IO) or term extension offering is sustainable; (ii) borrowers require some element of a principal write-down (i.e. split mortgage) to adjust for their lower income thresholds; and (iii) severely distressed borrowers where principal reduction is likely to have an insufficient impact and alternative methods such as mortgage to rent schemes, trade-downs and repossessions are the likely outcome.

Mortgage arrears continue to rise, but the recent stabilisation in house prices and our analysis of borrower profiles suggest that OO loan losses may be kept close to the PCAR adverse outcome so long as sustainable restructuring outcomes favour bilateral engagement between borrowers and banks over the more costly legal repossession route.

However, more concerning are developments in the BTL sector. A significant driver of BTL mortgage arrears has been the switch of contractual terms from IO payments to both principal and interest (P&I). It now appears that a higher proportion of BTL loans have yet to switch to P&I than we had anticipated. For example, our analysis of Bank of Ireland's (BKIR) full-year 2012 results shows that 48% of BTL mortgages were IO, although 11% were under a formal forbearance agreement. So 37% have to switch to P&I.

BTL losses are likely to surpass the PCAR adverse loss estimates of €3.3bn. However, due to the staggered nature of switches from IO to P&I, these losses will only emerge over time.

If we extrapolate this figure across the covered banks, €7.85bn BTL loans may yet switch to P&I. A survey from the Irish Property Owners Association (IPOA) suggests the age profile of BTL investors is old, with almost 40% over the age of 60 and just 12% under 40. So IO modifications are especially unlikely to be a sustainable solution for delinquent BTL loans. Although rents are rising, they are still 18% off their peak. The abolition of tax reliefs and the new property tax will exacerbate the pressures on BTL investors. We will look for further detail on BTL portfolios from forthcoming results from banks, but our view is that BTL losses are likely to surpass the PCAR adverse loss estimates of €3.3bn. However, due to the staggered nature of switches from IO to P&I, these losses will only emerge over time.

1. Ireland's growing mortgage delinquency problem

Mortgage delinquency has continued to grow despite better-than-expected labour market conditions – strategic default is now a problem

Irish mortgage loan performance has continued to deteriorate in 2012 and 2013. The 90+ day arrears rate was 12.3% for OO and 19.7% for BTL in Q1 2013. The pace of arrears formation has slackened but not as quickly as we had hoped. In Q1 2013, the 90+ day arrears rate for OO was 16.5%. This is where we had expected mortgage arrears to peak in mid-2013. But given that earlier stage arrears under 90 days are currently 6.7% by value (6% by number), the 90+ days arrears rate looks set to rise above our expected peak. Furthermore, labour market developments have been better than expected. Employment rose 1.1% in the year to Q1 2013. Hence, strategic non-payment of arrears seems to be a growing problem.

Table 1: Irish mortgages, 90+ day arrears - percentage of outstanding loans

	Q4 2009	Q4 2010	Q4 2011	Q1 2012	Q2 2012	Q3 2012	Q4 2012	Q1 2013
Owner-occupier								
Number	3.6	5.7	9	9.9	10.6	11.5	11.9	12.3
Value	4.5	7.4	12	13.3	14.1	15.1	15.8	16.5
Davy forecast (value)				*13.3*	*14.7*	*15.6*	*16.1*	*16.4*
Restructured, not in arrears								
Number		4.5	4.8	5.1	5.3	5.5	5.3	5.5
By value		5.1	5.4	5.6	5.8	6.4	6.1	6.1
Total problem loans								
Number	3.6	10.2	13.8	15	15.9	17	17.2	17.8
Value	4.5	12.5	17.4	18.9	19.9	21.5	21.9	22.6
Buy-to-let								
Number					16.6	17.9	18.9	19.7
Value					23.9	25.5	26.9	27.7
Restructured, not in arrears								
Number					7.4	9.3	8.9	8.8
Value					7.7	10.6	10.2	10.4
Total problem loans								
Number					24.0	27.2	27.8	28.5
Value					31.6	36.1	37.1	38.1

Source: Central Bank of Ireland, Davy estimates

BTL 90+ day arrears are close to 20%, with long-term delinquency a growing problem with 35,000 in arrears for 720 days

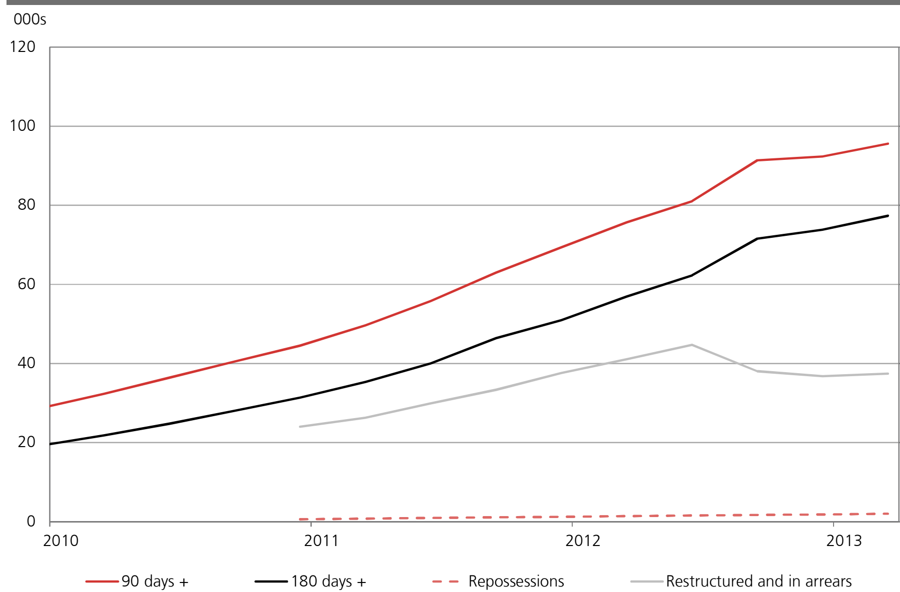
BTL arrears data were published in late 2012 for the first time – confirming a far larger delinquency problem. Falling employment, erosion of tax reliefs and rental values have contributed to 19.7% of BTL borrowers in 90+day arrears. In addition, many BTL tracker mortgages during the peak years 2005-2008 were contractually bound to shift to P&I payments after a period of five years. Banks have been unwilling to refinance these loans at the original loss-making tracker rates. Clearly, many BTL borrowers have struggled to meet principal repayments or service new higher standard variable IO rates. In addition, strategic default has probably been highly concentrated among BTL loans – evident in the appointment of rent receivers by banks.

Long-term mortgage delinquency is also a growing problem. In total there were 35,000 mortgage accounts in arrears for more than 720 days in Q1 2013 (3.4% and 6.0% of

OO and BTL loans respectively). The proportion of OO in 180+ day arrears has grown sharply, up from 6.6% at end-2011 to 10% in Q1 2013.

Ireland's long-term mortgage delinquency problem reflects inertia in finding effective solutions to NPLs. Figure 1 illustrates that repossessions in Ireland have been negligible, around 2,000 between 2009 and 2012. If Ireland had replicated the UK's rates of repossession, the total should have been in excess of 33,000. Banks have been constrained from repossessing delinquent loans both by the 2011 Dunne judgement and because of uncertainty regarding the Personal Insolvency Regime. At the time of writing, legislation to address the Dunne judgement has passed both houses of the Oireachtas (parliament) but has not yet been signed into law.

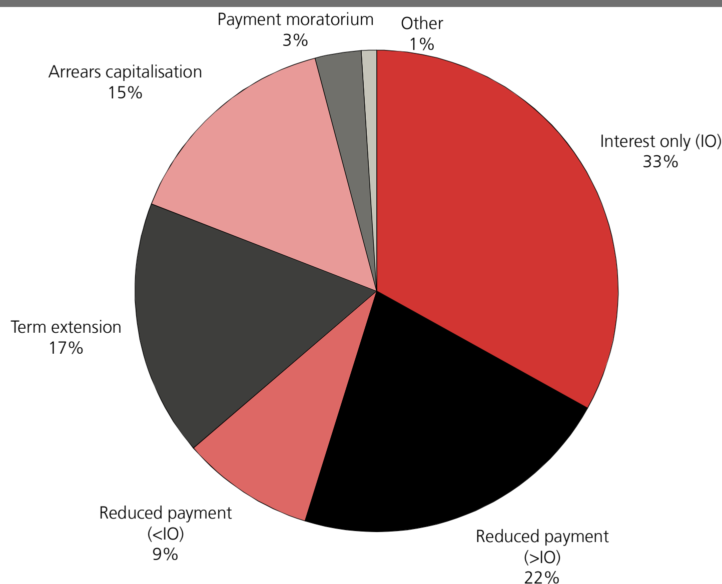
Figure 1: Irish owner-occupier mortgage arrears



Source: Central Bank of Ireland

Banks' mortgage loan modifications have had limited success in restoring performance. Of 79,989 mortgages classified as restructured in Q1 2013, only 42,235 were not in arrears. This suggests re-default rates are close to 50%. That said, the latest Central Bank arrears data suggest a 75% success rate, with the caveat that not all restructures are necessarily sustainable. Figure 2 shows short-term measures such as IO (33%) and reduced payments (31%) have dominated loan modifications. More sustainable modifications such as split mortgages have been less prevalent. Debt write-downs have been negligible.

Figure 2: Restructured owner-occupier mortgage accounts, Q1 2013



Source: Central Bank of Ireland

Inertia has led to high provisions on banks' balance sheets set against burgeoning non-performing loans

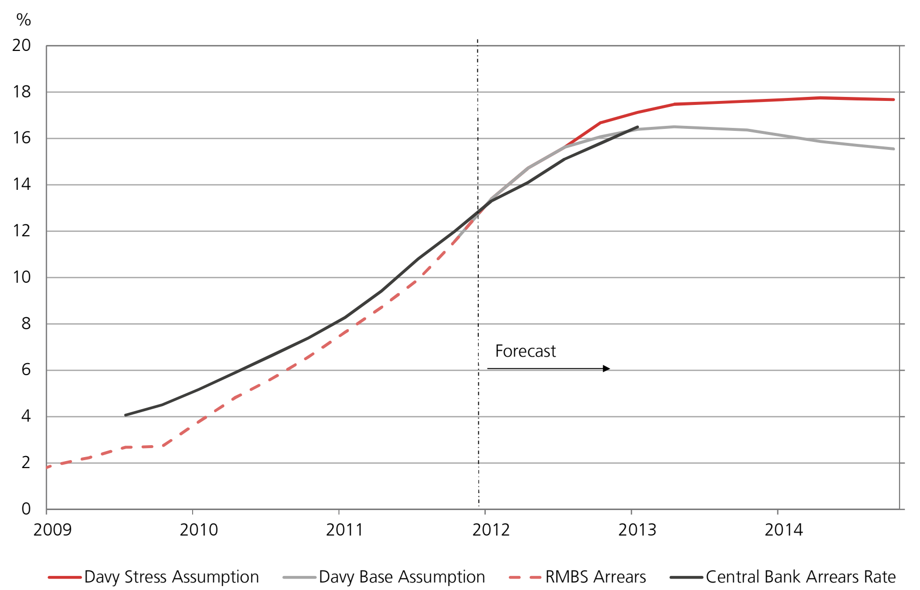
Irish banks were recapitalised following the 2011 Financial Measures programme to ensure they could meet losses from delinquent mortgage loans. The PCAR estimated expected future losses based on a repossess and sell methodology. However, since the PCAR review, there has been little repossession of properties associated with delinquent loan performance. Similarly, sustainable forbearance solutions to successfully restore loan performance have been lacking and charge-offs on banks' balance sheets have been negligible. In summary, although Irish banks have high Tier 1 capital ratios, investors do not necessarily consider them to be well capitalised. The lack of loss recognition has meant the adequacy of provisioning remains uncertain.

Strategic default among borrowers in the absence of repossessions and in the run-up to the introduction of the Personal Insolvency legislation may explain some of the rise in arrears in recent quarters

In addition, the concentration of employment growth in part-time work and in a limited number of sectors means the positive effects of the recent rise in employment may not yet be feeding into a decline in arrears

In our August 2012 mortgage arrears report, '*Irish owner occupier mortgage arrears - Pace of arrears formation slows*', we modelled the future path of arrears. Our model predicted a peak 90-day arrears rate (by balance) of 16.5% for OO mortgages. In Q1 2013, the arrears rate stood at 16.5%, with the early arrears formation data pointing to further growth in 90-day arrears rate in the coming quarters – closer to our stress assumption of 17.8%. At the same time, labour market developments have been a good deal more positive than we expected, suggesting arrears should be beginning to fall by now. Employment grew on an annual basis for two consecutive quarters to Q1 2013. This breakdown in the relationship between labour market developments and the arrears rate could be related to a couple of factors. Firstly, strategic default among borrowers in the absence of repossessions and in the run-up to the introduction of the Personal Insolvency legislation may explain some of the rise in arrears in recent quarters. The Central Bank Governor has alluded to instances of strategic default rather than employment as a driver of arrears in recent comments. Secondly, the concentration of employment growth in part-time work and in a limited number of sectors such as agriculture means the positive effects of the recent rise in employment may not yet be feeding into a decline in arrears.

Figure 3: Davy forecasts versus actual arrears



Source: Central Bank of Ireland; Davy estimates

2. An inert policy response to the mortgage arrears crisis

Initial government recommendations were short on concrete policy actions to address the mortgage arrears crisis

Ireland's mortgage arrears problem was recognised by government early on in the financial crisis. The October 2009 programme for government indicated 'a view to expanding the options available for dealing with debt situations, including for example, the use by banks and lenders of more flexible mechanisms to avoid foreclosure'. This commitment pre-empted a range of activities with few concrete actions. Two separate government reports in July 2010 and September 2011 recommended that banks develop a mortgage arrears resolution process and engage in forbearance where appropriate but recognised that repossession of properties associated with delinquent loans was inevitable. These reports were short on concrete detail and firm regulatory guidance on which mortgage modifications would restore loan performance. For example, the September 2011 'Keane Group' report placed the onus on lenders to develop new modifications such as trade down mortgages, split mortgages and sales by agreement.

The Central Bank's code of conduct and the 2011 Dunne judgment have been significant impediments for banks in dealing with delinquent loans

The Central Bank has revised its CCMA on several occasions since 2009. The initial iterations in 2010 placed limits on Irish banks in contacting delinquent borrowers – a bizarre response to the growing mortgage arrears crisis. Policy efforts received a new injection of inertia following the July 2011 Dunne judgment. This judgement identified a lacuna in the legislation, severely constraining banks from repossessing delinquent properties. New legislation to address this problem was scheduled to be completed by end Q1 2013. However, after further delays, the latest EU/IMF Memorandum of Understanding indicates the legislation should pass by the time of the Dáil (one of the houses of the Irish parliament) summer recess. For now, the legal basis underpinning the Irish mortgage market, guaranteeing banks' rights to collateral, remains undermined by the Dunne judgement

Table 2: Timeline of measures to address Ireland's mortgage arrears crisis

		90+ day owner occupier arrears by value
February 2009	Code of Conduct on Mortgage Arrears (CCMA) introduced	n/a
October 2009	Commitment in Programme for Government to expand options for dealing with debt situations	4.5%
February 2010	CCMA amended: Lenders to wait at least 12 months before applying to courts to commence enforcement	5.2%
February 2010	Mortgage Arrears and Personal Debt Expert Group established	5.2%
July 2010	Mortgage Arrears and Personal Debt Expert Group established issues interim report	6.6%
December 2010	CCMA amended: Lenders must establish Mortgage Arrears Resolution Process (MARP) Lenders cannot initiate more than three unsolicited communications with a borrower per month	7.4%
March 2011	Prudential Capital Assessment Review (PCAR) of Irish banks	8.3%
July 2011	Justice Dunne ruling identifies legal lacuna preventing repossessions	10.8%
September 2011	Keane Report: Inter-Departmental Mortgage Arrears Working Group	10.8%
December 2011	Budget 2012 extends mortgage interest relief for 2004-2008 vintage	12.0%
December 2011	Central Bank publishes Impairment Provisioning and Disclosure guidelines	12.0%
June 2012	Launch of the Mortgage to Rent scheme	14.1%
June 2012	Publication of the Personal Insolvency Bill	14.1%
December 2012	Personal Insolvency Act passes through both houses of Oireachtas	15.8%
March 2013	Insolvency Service of Ireland (ISI) established, Central Bank publishes Mortgage Arrears Resolution Targets	16.5%
April 2013	ISI publishes Guidelines on Minimum Living Standards	n/a
May 2013	Central Bank publishes Pilot Scheme for Multi-Debt Restructuring and new guidelines on loan provisioning	n/a
June 2013	CCMA Amended: Limitations on contact with delinquent borrowers removed	n/a
July 2013	Land & Conveyancing Bill to address Dunne ruling passes both houses of the Oireachtas	n/a
July 2013	Media reports suggest disagreement between lenders and Central Bank on sustainable loan modifications to non-performing mortgage debt	n/a

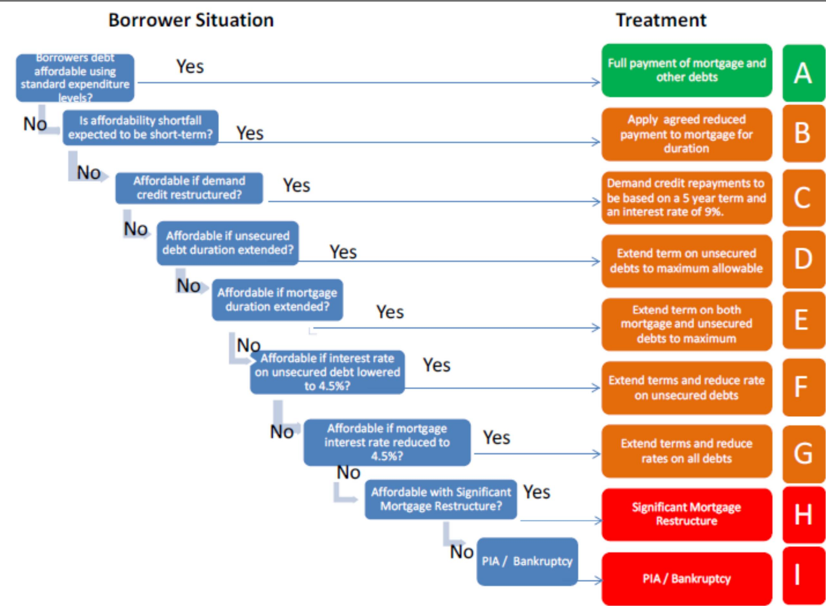
Source: Davy

Unfortunately, double-digit 90+ day arrears rates have preceded meaningful action to address Ireland's debt crisis. The Personal Insolvency legislation provides a non-judicial framework to renegotiate unsustainable debts. Although secured creditors retain a veto on any negotiated debt settlement, they do so against reformed bankruptcy arrangements, where the length of bankruptcy has been cut from ten years to three years. The new Insolvency Service of Ireland has published the first guidelines on assessing minimum living expenses. These minimum living expenses are conditional on childcare and housing costs.

In May 2013, the Central Bank of Ireland published a new pilot framework for co-ordinated resolution of multiple debts, albeit excluding BTL loans

In May 2013, the Central Bank of Ireland published a new pilot framework for co-ordinated resolution of multiple debts, albeit excluding BTL loans. The framework includes a 'waterfall', which places the emphasis on terming out and reducing interest on unsecured debts, ahead of secured debt. This provides more clarity on how to co-ordinate the treatment of unsecured debt than under the Personal Insolvency Arrangement (PIA). But there is no information on how radical solutions such as split mortgages, trade-down mortgages or moving to a PIA should be implemented.

Figure 4: Central Bank pilot scheme, multiple debts resolution waterfall



Source: Central Bank of Ireland

A recent speech by the Governor of the Central Bank focused on split mortgages

A recent speech by the Governor of the Central Bank focused on split mortgages – where a portion is warehoused to restore performance. Here the base loan must be sustainable over the life of the arrangement and not only at the onset. The Governor made explicit reference that the new payment schedule must leave the borrower with sufficient funds to at least equal minimum Reasonable Living Expenses, as set out by the Insolvency Service. The Governor emphasised conditionality with respect to the warehoused portion of a split mortgage. For example, where a borrower's circumstances improved through wage increases, the claw-back mechanism should be limited to 50%. A higher claw-back percentage would provide a disincentive for borrowers to improve their income. Furthermore, recourse on the warehoused loan at maturity should, at the very least, be limited to the collateral value, and a sustainable arrangement should typically provide for lifetime security of tenure. That is, the borrower may remain in the property until death in exchange for reasonable rent payments.

Our interpretation of the Governor's comments is that split mortgages will be a pathway towards debt write-downs for unsustainable mortgages, albeit with conditional arrangements based on future income prospects as a safeguard against moral hazard. At the same time, a clear definition of a sustainable mortgage solution has yet to be provided. Hence, in the following section we consider the US experience of mortgage modifications in the recent past to inform how the Irish situation may develop.

3. The US experience of restructuring mortgage debt

The US HAMP has had limited success, with just 1.5m homeowners receiving assistance through the programme

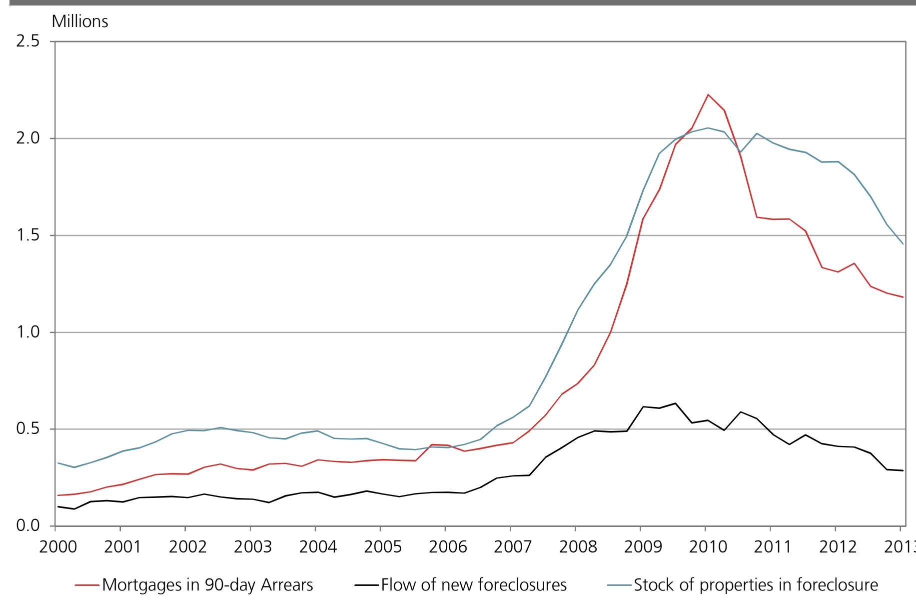
The main programme to help restructure delinquent US mortgage loans has been the Home Affordable Modification Program (HAMP). The scheme was intended to reach up to 7-8m US households but has disappointed expectations. Just 1.5m homeowners have received an assistance action through the HAMP, with just 1.1m permanent modifications. HAMP has often been unfavourably compared with the Depression-era Home Owners Loan Corporation (HOLC), which bought and restructured around 1m mortgages, or 20% of US mortgages, in the 1930s.

In contrast, the Office for the Comptroller of the Currency (OCC) reports that 2.9m mortgage modifications (including non-HAMP) had been completed up to the end of 2012. This compares with the 29m first lien mortgages in the OCC panel data and 41m total mortgage accounts[1]. Of the 2.9m modifications, 15% were in the process of foreclosure, 22% in arrears and just 45% currently performing.

The main approach to delinquent mortgage performance in the US has been for banks to foreclose and sell properties

The big picture is that the main approach to delinquent mortgage performance in the US has been for banks to foreclose and sell properties. Since 2008, there have been approximately 4.1m completed foreclosures in the US. Furthermore, at-end 2012, there were almost 1.5m foreclosures in process. As of February 2013, the 90+ day arrears rate was 2.9% (1.2m households), albeit down from a peak of 5% in 2010.

Figure 5: US mortgages in foreclosure and in 90+ day arrears



Source: US Mortgage Bankers Association; Thomson Reuters Datastream

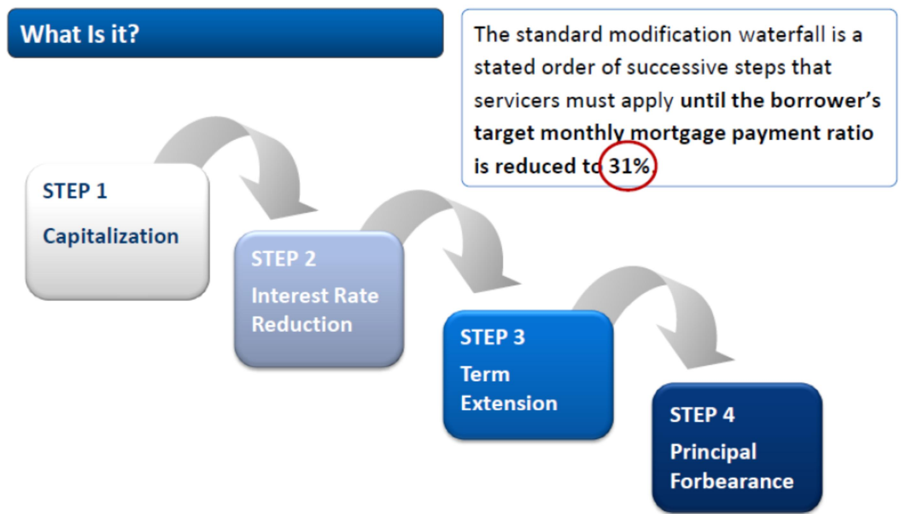
Several shortcomings have been identified with the HAMP, negating its effectiveness. A costly re-negotiations process and high probability of re-default have discouraged both lenders and borrowers from participating – instead moving to foreclosure. Furthermore, tight eligibility criteria excluded many distressed mortgage holders from availing of the HAMP. For example, the unemployed were not eligible for HAMP modifications.

[1] Source for this figure is the Mortgage Bankers Association.

Over time, principal write-downs and larger reductions in monthly mortgage payments have become more prevalent

Despite excluding the most risky borrowers, re-default rates on HAMP modifications have been high – 42% after nine months in 2009 and 2010. These high re-default rates reflected insufficient cuts to monthly mortgage payments. The HAMP included a step-by-step guide to reduce monthly payments to 31% of gross income. But these adjustments did not allow for other credit payments. In early years, post-HAMP debt repayment burdens averaged 60% of disposable incomes when taking account of other loans[2].

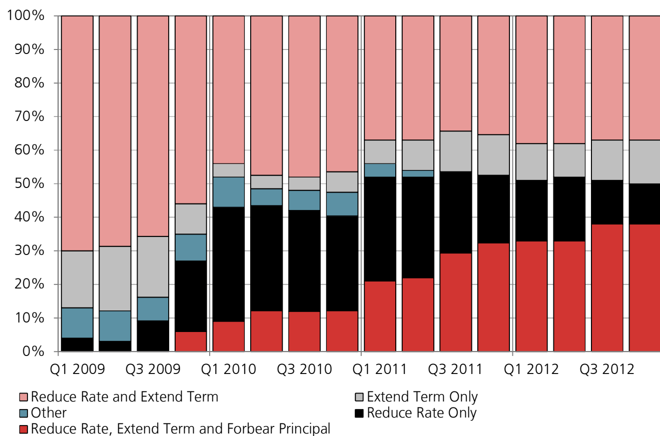
Figure 6: US HAMP modification waterfall



Source: US Treasury Department, Making Home Affordable Presentation, February 2012

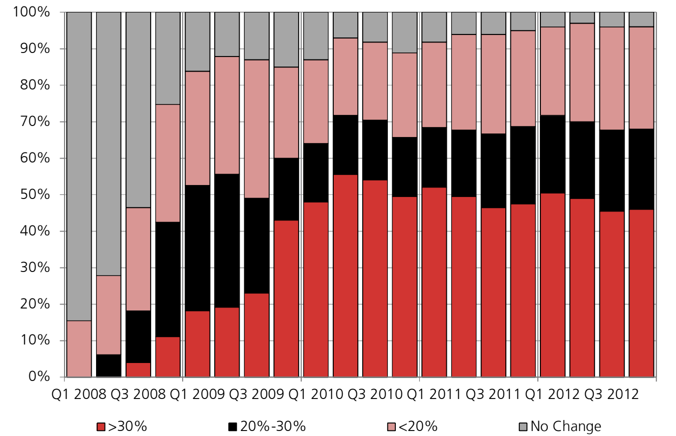
Given these shortcomings, the HAMP was amended twice, both in October 2010 and February 2012. In 2010, The Principal Reduction Alternative (PRA) allowed for write-downs of debt. The 2012 amendment broadened the eligibility for principal write-downs and tripled the financial incentives for lenders.

Figure 7: Types of loan modification



Source: Federal Housing Agency

Figure 8: Size of payment change

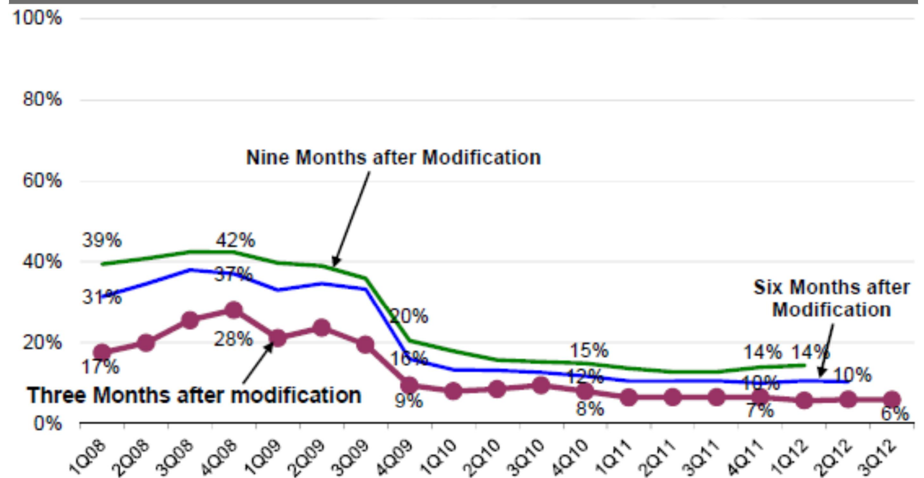


Source: Federal Housing Agency

[2] See 'Dealing with Household Debt', IMF World Economic Outlook, April 2012

The above charts illustrate the type of loan modifications on mortgages serviced by government-sponsored enterprises (GSEs) Fannie Mae and Freddie Mac[3]. The proportion of new loan modifications including debt write-downs increased from close to zero in 2009 to almost 40% in Q4 2012. Over the same period, the per cent decline in monthly mortgage payments increased substantially. In Q4 2012, almost 50% of new loan modifications reduced monthly payments by more than 30%. Debt write-downs had reached 20% of total loan modifications in Q4 2012 in the aggregate OCC panel data. More aggressive cuts in monthly mortgage (principal and interest) repayments have clearly led to falling re-default rates, from 42% in 2009 (after nine months) to 14% in the most recent data.

Figure 9: 60+ day re-default rates on GSE modified loans



Source: FHA Mortgage Report

Of course, an improving US economy helped push down re-default rates. Nonetheless, Table 3 illustrates that consistently through 2011 and 2012 loan modifications with higher reductions in monthly payments were less likely to default.

Table 3: Six month re-default rates on mortgage modifications by payment reduction

	Decreased by 20% or more	Decreased by 10-20%	Decreased by less than 10%	Unchanged	Increased	Overall
Q2 2011	9.8%	18.3%	24.8%	13.8%	34.3%	16.2%
Q3 2011	8.9%	15.0%	22.2%	10.2%	30.5%	14.1%
Q4 2011	8.6%	15.0%	22.2%	26.6%	30.0%	13.5%
Q1 2012	9.9%	14.7%	23.0%	26.1%	31.2%	14.1%
Q2 2012	9.1%	11.2%	22.3%	7.7%	30.9%	12.5%
Total	**9.2%**	**15.1%**	**23.1%**	**11.6%**	**31.7%**	**14.3%**

Source: OCC Mortgage Metrics Report, Q4 2012

The HAMP has had some success. Around 75% of HAMP modifications reduced monthly mortgage (principal and interest) payments by more than 20%. This compares with a 57% average in the OCC panel. Similarly, debt write-downs accounted for 25% of HAMP modifications in H2 2012, higher than the 20% in the overall OCC panel data. These more aggressive restructures have had a positive impact on loan performance.

[3] These loan modifications are not exclusively HAMP modifications.

Re-default rates on HAMP modifications have persistently averaged around half of those on non-HAMP adjustments (albeit in part due to tighter eligibility excluding riskier borrowers).

Table 4: Modification actions by investor and product type, Q4 2012, %

	Fannie Mae	Freddie Mac	Government guaranteed	Private investor	Portfolio	Total
Capitalisation	90.9	96.3	80.2	89.5	71.9	84.4
Rate reduction	67	80.2	97	48.9	76.5	73.2
Rate freeze	4.2	2.7	0.3	7.3	4.2	3.8
Term extension	80.9	87	95.5	11.7	39.7	58.8
Principal reduction	0.1	0	0.1	48.9	35.5	20
Principal extension	31.1	43.3	0.1	32.3	10.5	20.5
Not reported	2.2	1	0.1	1.6	1.1	1.2

Source: OCC Mortgage Metrics Report, Q4 2012

The US experience shows lenders increasingly moving towards principal forgiveness as the best method to lower re-default rates on modified mortgages

The above table illustrates that in total 20% of US mortgage modifications in the OCC panel included principal write-downs. One quirk of US policy has been that both Fanny Mae and Freddie Mac (accounting for 60% of the mortgage market) were not allowed to participate directly in principal write-downs. That said, mortgages serviced for private investors by the GSEs were allowed to be written down, accounting for the 40% of GSE loan modifications illustrated in Figure 9. Concerns on moral hazard held back the GSEs from extending principal write-downs across their entire portfolio of mortgage lending – limiting the success of the HAMP. In addition to principal write-downs, 73% of modifications include interest rate reductions and 58% term extensions.

In summary, the US experience shows lenders increasingly moving towards principal forgiveness as the best method to lower re-default rates on modified mortgages. This has been true not only of the GSEs; private service providers have also moved towards debt write-down[4]. S&P reports that since 2009 services have forgiven principal on approximately $45bn of outstanding non-agency mortgages. Furthermore, loans that received principal reduction maintained the highest level of performance (76%), with on average less than 50% for other modifications performing.

State-sponsored programmes have had limited success, largely due to the exclusion of Fannie Mae and Freddie Mac from directly participating in debt write-down programmes. Foreclosure and sale has been the predominant solution to delinquent mortgage performance in the US. Nonetheless, the limited number of mortgage modifications implemented by the HAMP also point to debt forgiveness as the most effective tool to restore loan performance.

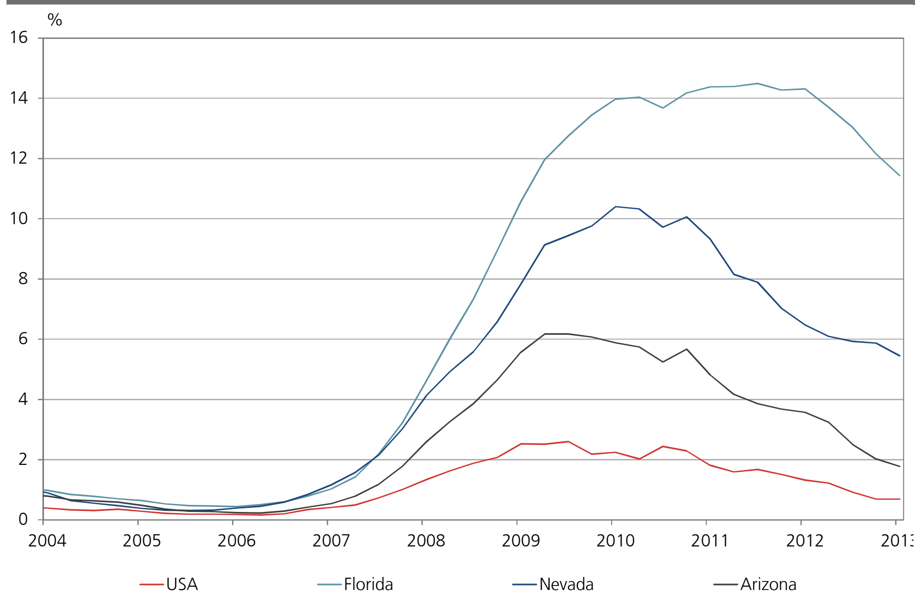
[4] See 'Principal Forgiveness, Still the Best Way to Limit U.S. Mortgage Re-defaults, Is Becoming More Prevalent.' Standard and Poors, April 26th 2013.

The key difference between the Irish and US experiences is the use of foreclosure as a means of dealing with delinquent loans

4. US mortgage crisis – assessing the spill-overs from foreclosure

The key difference between the Irish and US experiences is the use of foreclosure as a means of dealing with delinquent loans. In the US, approximately 4.1m foreclosures have been completed since 2008, with the national foreclosure rate peaking at 2.6% in Q3 2009. This has since fallen to 0.7% in Q1 2013 as the housing market and wider economy have recovered. However, in the worst-affected states, foreclosure rates peaked as high as 15% of all loans.

Figure 10: Foreclosure rates in selected US states



Source: Thomson Datastream

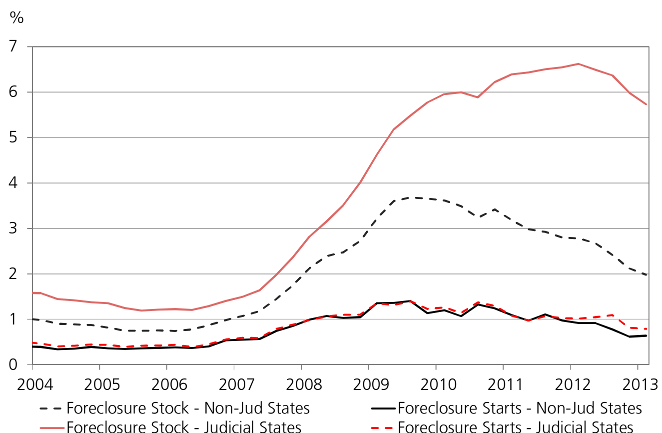
In just over half of all states, the foreclosure process is a relatively quick one – lenders issue a notice of default to the delinquent borrower with the property auctioned to the highest bidder[5]. This process usually takes less than 100 days with some states, such as Texas, taking less than a month to complete the foreclosure process. States with swift foreclosure processes are termed as 'non-judicial' as the lender does not require a court order to seize the property. In other 'judicial' states, lenders must sue the borrower in a state court to initiate a foreclosure. In these states, the process can take up to two years to complete (as is the case in New York and New Jersey).

Cases bogged down in the courts system mean that the stock of mortgages in the process of foreclosure has remained stubbornly high in judicial states compared to non-judicial states. Overall, the stock of foreclosures in process peaked at 3.7% in non-judicial states with arrears peaking at 10.4% in Q4 2009. In judicial states, arrears also peaked at 10.4% in 2009, but foreclosures continued to rise long after – peaking at 6.6% in Q1 2012. Research by the Fed[6] suggests that protracted foreclosures processes have weighed on the housing market in judicial states.

[5] Judicial states are: Connecticut, Delaware, Florida, Hawaii, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Nebraska, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Vermont, Wisconsin.

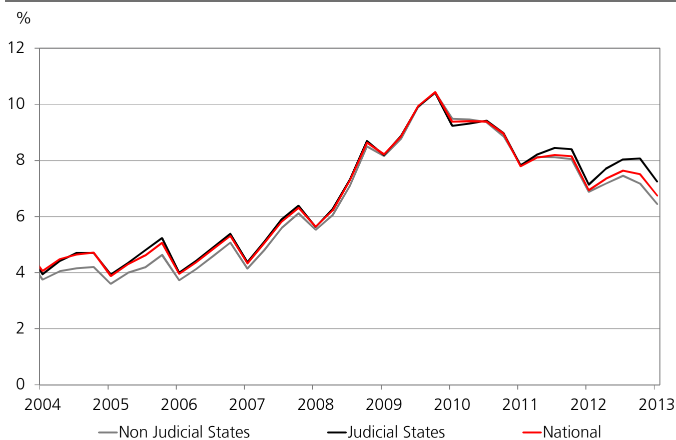
[6] See http://www.frbatlanta.org/pubs/wp/12_11.cfm

Figure 11: Foreclosure rates in judicial states much higher than NJ states



Source: MBA, Davy calculations

Figure 12: despite a similar flow of delinquent mortgages



Source: MBA, Davy calculations

The implications for the housing market in states with differing foreclosure laws can be compared across states with similar housing market collapses.

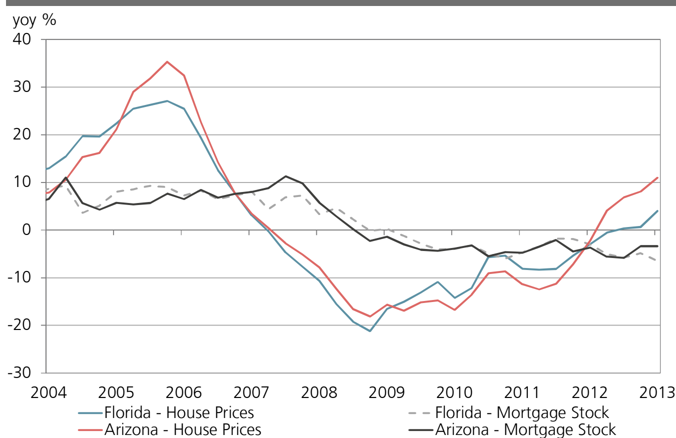
In 'non-judicial' Arizona, prices fell 45% from peak and unemployment peaked at 6.1%. The foreclosure rate peaked at 6.2% in Q1 2010; 90-day arrears peaked at 7.1% in the same quarter. House prices bottomed out in Q2 2011 45.6% from peak and have since appreciated by 13.9%. 'Judicial' Florida experienced a similar house price bust (-43.6%) and peak unemployment rate (6%) to Arizona, but foreclosures peaked at a massive 14.5% six quarters later than Arizona in Q3 2011. The correction in house prices was much more protracted with the market bottoming out one year after Arizona in Q2 2012 despite both states reaching peak in Q4 2006.

Table 5: Tale of two states: judicial Florida vs. non-judicial Arizona

	Florida (Judicial)	Arizona (non-judicial)
90-day arrears peak	7.0% (Q4 2009)	7.1% (Q4 2009)
Foreclosures peak	14.5% (Q3 2011)	6.2% (Q1 2010)
Unemployment peak	6.0%	6.1%
House prices		
Peak-to-trough	-43.6% (Q2 2012)	-45.6% (Q2 2011)
Since trough	+4.7%	+13.9%
Mortgage lending		
Peak-to-trough (Q1 2013)	-17.9%	-17.8%
Q1 2013	-2.4% (-6.5% yoy)	-0.1% (-3.4% yoy)

Source: Thomson Datastream; MBA

Figure 13: House prices and mortgage stock, year-on-year %



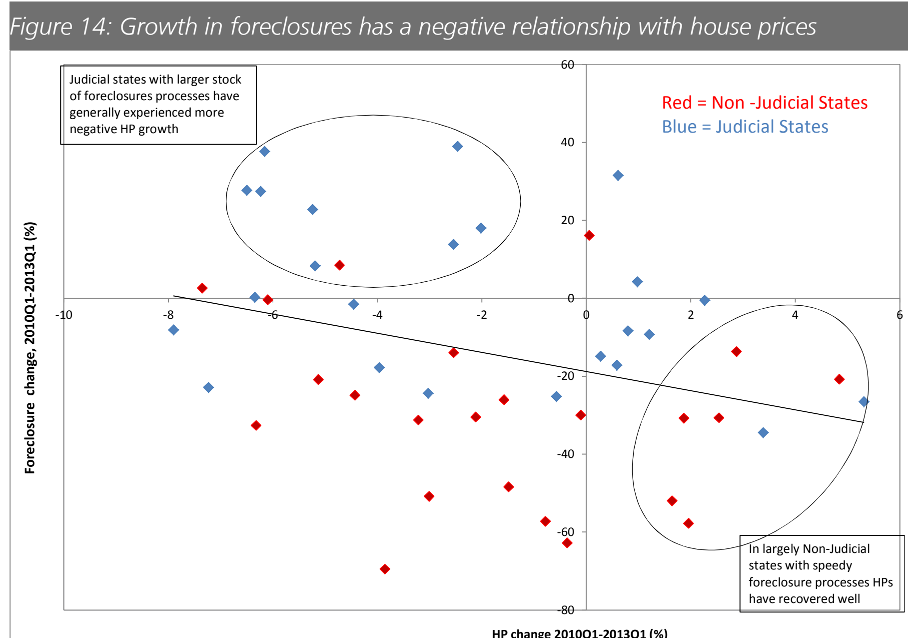
Source: Thomson Datastream

So it appears the speed of repossession and sale in non-judicial Arizona helped the housing market find its floor quicker than in Florida. The fall in the stock of mortgages has also begun to stabilise in Arizona as the contraction in lending accelerates in Florida. In Q1 2013, the stock of mortgages fell 0.1% (-3.4% yoy) in Arizona compared to a 2.4% fall (-6.5% yoy) in Florida. However, the quicker resolution of the delinquent mortgages has had little effect on lending in non-judicial states. In Q1 2013, the

combined stock of mortgages fell 1.5% (-4.4% yoy) in non-judicial states compared with a 1.4% fall (-4.7% yoy) in judicial states.

The growth in foreclosures has a negative relationship with house prices

Figure 14: Growth in foreclosures has a negative relationship with house prices



Source Thomson Datastream

Nationally, foreclosure starts (flow) peaked at end-2009. Figure 14 illustrates the growth in the stock foreclosures in process since that time and shows that the growth in foreclosures has a negative relationship with house prices. In states with larger rises in the stock of foreclosures, house prices have been largely weaker than states with fewer foreclosures. The biggest declines in house prices in that period have come in mainly judicial states. In short, it appears that having a large 'shadow inventory' of homes in the process of foreclosure pushes down on house prices.

A recent paper by Geradi, Rosenblatt and Willen (2012) from the Federal Reserve of Atlanta finds that statistically the impact of the foreclosure process is small but peaks before the distressed properties complete the foreclosure process. So it is not clear that the repossession and sale of a delinquent property necessarily has a large second round negative impact on house prices. Crucially, the authors note that the estimates are very sensitive to the condition of the distressed properties. House price growth tends to be positive when properties are in "good condition". They argue that policies that extend the foreclosure process have a negative externality. That is, distressed borrowers are far less likely to keep up good repair of their homes during the foreclosure process – leading to negative effects on house prices when they are eventually foreclosed.

Housing markets tend to recover more quickly in those states where the transition from delinquency to foreclose tends to be quick

In summary, the US evidence suggests that policies that delay dealing with delinquent loans may not be desirable. Housing markets tend to recover more quickly in those states where the transition from delinquency to foreclose tends to be quick. Second, negative externalities such as the lack of investment by delinquent borrowers to keep properties in good repair may exacerbate the fall in house prices.

5. Profiling Ireland's households in arrears

Few data been published on the income and employment characteristics of Irish households in long-term arrears. This is crucial information in assessing the likelihood that modifications can be successful in restoring loan performance. In this context, it is worth remembering that the US HAMP excluded the unemployed from loan modifications and provided strict criteria on verifying a borrower's income.

The 2011 Census shows a sharp increase in population, both unemployed and with a mortgage

The 2011 Census data show that of 1.6m households, 593,513 were mortgage holders. Of these, the head of the household in 459,805 cases was employed, equal to 79% of the total (down from 83% in 2006). In total, there were 50,792 households with a mortgage where the head of household was unemployed, up sharply from just 14,757 in 2006. The Census was taken in April 2011 and compares to the 55,763 OO mortgage accounts in 90+ day arrears at that time, although this total had increased to 95,554 by Q1 2013.

Table 6: Employment status of mortgaged households, Census 2011

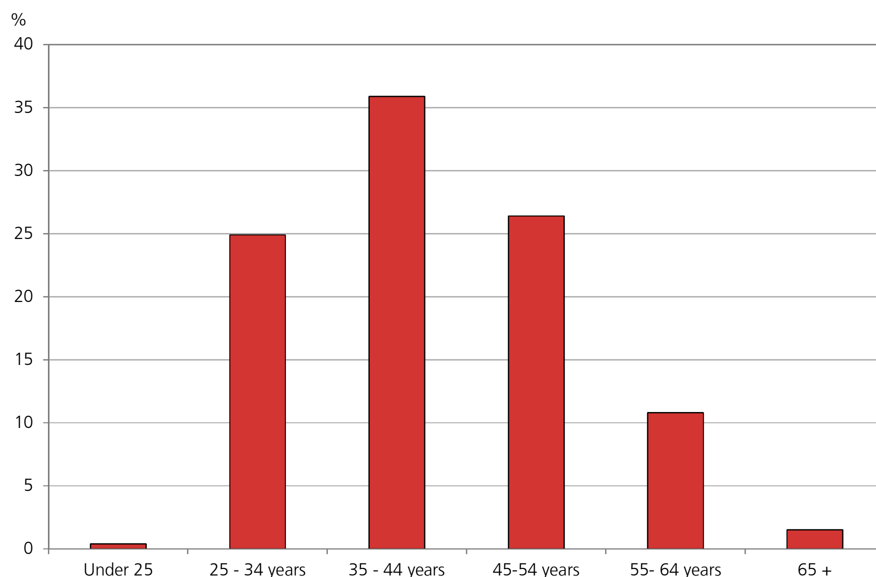
	2006	2011	% change
All	593,513	583,148	-1.7
Working	495,216	459,805	-7.2
Unemployed	14,757	50,792	244.2
Not in labour force	83,540	72,551	-13.2

Source: CSO

The incidence of negative equity and mortgage arrears has been concentrated in the 35-44 age group

A breakdown of mortgaged households by age groups shows that 75% of mortgage holders were over 35 in the most recent household budget survey. This is not too surprising as mortgage lending peaked in 2007 and 2008 but dropped away sharply thereafter. There have been few younger, first-time buyers taking out mortgage debt.

Figure 15: Age distribution of mortgaged households in Ireland



Source: CSO

A key question looking forward is the extent to which mortgage arrears have been caused by unemployment or cuts in disposable incomes (independent of employment cuts). Recent evidence published by the Central Bank indicates that the latter effect may be the dominant factor pushing up on mortgage arrears. If so, this suggests that banks

may be more likely to achieve performance from delinquent loans via mortgage modifications. Loan performance is extremely difficult to achieve when caused by unemployment.

Recent evidence suggests cuts in real disposable incomes have played a larger role in mortgage arrears formation than previously thought

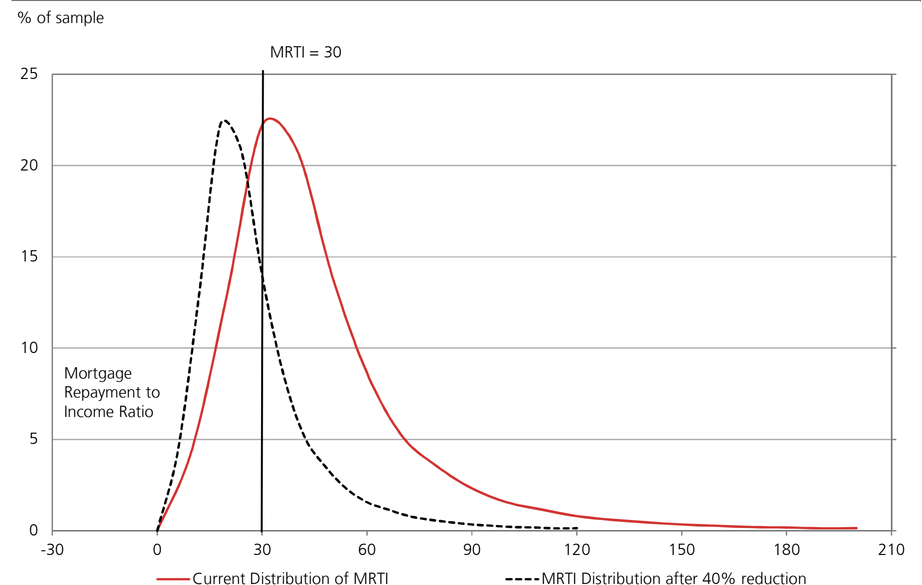
The Irish Mortgage Advice and Budgeting service (MABS) recently published a survey of 6,000 clients taken in August 2012. Of these, 37.4% were unemployed, 17.8% not in the labour force and 44.8% in employment. Sixty percent were aged 41-65 years and 36% were 26-40. However, this older age profile compared to the Household Budget Survey suggests that the MABS data may not be representative. Nonetheless, according to the MABS survey, average post-tax disposable income (deducting essential expenditures comprising utilities, food, child costs) among distressed borrowers was €9,250 per annum or €777 per month. This compares with the monthly 3% interest bill on a €200,000 mortgage of €500.

A November 2010 Central Bank study[7] gave an estimate of the mortgage repayments to income (MRTI) ratio for 420,000 mortgage loan accounts (around 50% of the total stock). For 80% of these accounts, the MRTI ratio was less than 25% of income. However, for those accounts in arrears, the ratio was close to 50%.

New evidence suggests the ratio of mortgage repayments to income may be above 50% for many borrowers in arrears

A more recent Central Bank study analysed 55,000 standard financial statements collected in 2012[8] relating to borrowers participating in the Mortgage Arrears Resolution Process (MARP). Here, the MRTI ratio was 41%, well above the 20% average in the Household Budget survey. However, the 55,000 sample did not contain a high proportion of borrowers in long-term arrears. So the 41% average is likely to be an underestimate. Also, the distribution of the MRTI was skewed above the 41% average (see Figure 16). Among these 55,000 distressed borrowers, the incidence of unemployment was 40% – probably those where the MRTI is over 100%. Indeed, for 17% of borrowers, the MRTI ratio is higher than 60%.

Figure 16: The distribution of the mortgage repayment to income ratio



Source: Central Bank of Ireland

[7] See 'What Lies Beneath? Understanding Recent Trends in Irish Mortgage Arrears, Lydon and McCarthy.
[8] See Economic Letter, Vol 2013, No.2 'Do Households with Debt Problems Spend Less' by Reamonn Lydon.

A condition of the HAMP is that the MRTI ratio should be reduced to 30%. In the above chart, we illustrate the impact of a 40% reduction in mortgage repayments across the distribution. **This would still leave 25% of borrowers above the 30% MRTI threshold.** It is worth remembering that the standard financial statements sample is probably downward biased because of the lack of long-term arrears cases. Later on in this report we assume that for one-third of borrowers, even debt-write downs may not be sufficient to restore loan performance. That said, the standard financial statements data suggest that there is already one-third of borrowers for whom the MRTI is already below 30% – suggesting loan performance can be restored relatively quickly for this group. That said, some of these may already have received a mortgage modification.

The results from the standard financial statements sample tally with recent comments from Central Bank Governor Patrick Honohan that almost two-thirds of those in arrears are employed, citing an as yet unpublished survey. According to the Governor, the preliminary findings suggest that 'income declines un-associated with unemployment have contributed significantly to the incidence of mortgage arrears'. Furthermore, although median household income for those in arrears is about €10,000 less than those who are not, it is still around €45,000.

New evidence suggests that many borrowers in arrears are not insolvent and may be in 'strategic default', slow to adjust their spending patterns

Indeed, the Governor indicated that a significant proportion of arrears cases have the capacity to come back on track and are not insolvent. This suggests that many households, faced with lower incomes, have been slow to adjust their expenditure patterns, instead falling into arrears on their mortgage payments. Hence, 'strategic-default' may have been a significant factor pushing up on arrears. Hopefully, long promised legislation to restore a credible threat of repossession, together with reform of the CCMA, may help restore performance among this category of delinquent borrowers.

In summary, both the information on income patterns and the Governor's comments on the employment status on households point to a hard core of distressed borrowers, close to one-third of the total, where even debt-write-downs may be insufficient to restore performance. At the same time, the Governor's comments suggest that strategic default, rather than employment cuts, accounts for a significant portion of mortgage arrears. Given the right incentives – not least a credible threat of repossession – loan performance for this group should be restored.

6. Irish banks' loan-loss provisioning rules under scrutiny

Central Bank guidelines promote convergence and conservatism

The Irish Central Bank published best practice provisioning and disclosure guidelines in December 2011. This aimed to minimise the differences in the covered banks' approaches to impaired loans and provisioning and to encourage them to adopt as conservative an approach as possible within the confines of accounting rules. Despite this, in an update to these guidelines in May 2013, the Central Bank noted that the covered banks adopt differing impairment triggers. Furthermore, it noted that although some covered banks apply reasonably conservative impairment triggers, others could apply conservative triggers much earlier to reflect macro-economic deterioration.

The covered banks apply an 'incurred loss' provisioning approach, as per IAS 39, if there is objective evidence that a bank will be unable to collect all amounts due on a loan according to the original contractual terms. This accounting standard has received much criticism and the Irish Central Bank makes reference to the significant expected losses identified in the Irish banking system in excess of the stock of impairment provisions as identified in the 2011 PCAR stress tests. The Central Bank acknowledges that a more conservative approach to the identification of impairment triggers, the evolution of property prices, macro-economic conditions and the treatment of forborne loans helps bridge the gap between an 'incurred loss' approach and an expected loss approach.

Impairment triggers for evidence of potential loss

According to the Central Bank guidelines, an impairment trigger for loss assessment of a residential mortgage loan should be identified under the following conditions:

- where a loan is classified as non-performing, if more than 90 days past due or where it presents a risk of not being paid back in full without collateral realisation, regardless of any past-due amount or number of days past due;
- where a forbearance request is received from the borrower;
- a deterioration in the debt service capacity;
- a material decrease in rents received on a BTL property;
- macro-economic triggers such as changes in unemployment, property prices, industry or national/local economic conditions that indicate a measurable decrease in estimated future cash flows of the loan asset class.

The following table summarises the disclosures of impairment triggers for residential mortgages for the three covered banks as per their FY2012 annual reports. The Central bank's classification of a NPL also matches PTSB's definition and is equivalent to a 'defaulted' loan in the case of BKIR.

Table 7: Irish banks' identification of impaired loans

Definitions	BKIR	ALBK	PTSB
Past due, not impaired	**Past due at least 1 day, not impaired**	**Customer misses a contractual payment**	**Past due at least 1 day, not impaired**
Impaired	Objective evidence of impairment	Objective evidence of impairment*	Objective evidence of impairment
Defaulted/NPL	Defaulted = impaired + resi mortgages past 90 days	n/a	NPL = impaired + past 90 days
Impairment assessment triggers for mortgages	-Past 90 days	-Past 90 days	-Past 90 days
	-forbearance request	-forbearance request	-breach of contract
	-notify insolvency or bankruptcy	-inability to meet obligations	-significant financial difficulty
	-offer of voluntary sale	-other evidence of loss events	-concession is granted
			-probable bankruptcy
			- exceptional events

** Of the ROI residential mortgage portfolio that was impaired at December 31st 2012, €1.8bn or 23% was not past due*

Source: Company reports

Differing thresholds for specific or collective impairment treatment

Where a loan impairment trigger is breached, it is assessed for impairment either on a 'specific' basis or on a 'collective' basis, depending on whether the loan is either individually significant or not. The table below highlights the different banks' thresholds for individual assessment as well as their various reported input assumptions and sensitivities for their provisioning models. Also, although banks no longer accrue interest on impaired loans either under individual or collective assessment, they do accrue interest due to the unwinding of the discount rate on their provisions, which reflects the substantial impaired balances yet to be worked out.

Table 8: Irish banks' provisioning for impaired loans

	BKIR	ALBK	PTSB
Individual assessment	Mortgages > €1m*	Mortgages above €500k/EBS €750k	Mortgages >€5m & or past 90 days due
Provisioning model	55% HPI	55% HPI	55% HPI
	10% carry costs + additional legal and disposal costs	10-20% realisation costs	n/a
Impaired loan interest	Element of accrual	Element of accrual	Element of accrual
(not just mortgages)	Reflects EIR unwind	Reflects EIR unwind	Includes EIR unwind
	Overall €231m In 2012/€202m in 2011/€201m in 2010	Overall €392m (net of provisions in 2012/€236m in 2011/€296m in 2010	Overall €69m in 2012/
			€80m in 2011
Sensitivities:			
House Price Index	Extra 2% above 55%	Extra 5% below assumed values costs €240-280m	Extra 10% above 55%
	costs €75-€85m	n/a	costs €520m
Loss emergence period	Extra month costs €10-€15m		Extra month costs €26m
	Extra 3 months costs €10m-€15m	n/a	
Time to sale	n/a		n/a
	n/a	n/a	
Cure rate		n/a	5% reduction = +€49m
Foreclosure costs			Extra 5% = €116m

** although may choose to individually assess loans below this level*

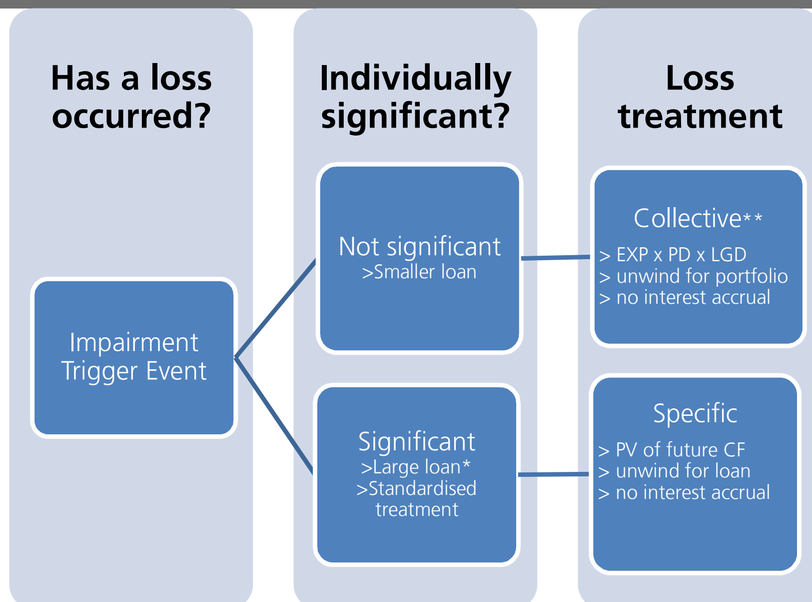
Source: Company annual reports/20Fs; bank disclosures

For an individually assessed loan, a provision is calculated based on an estimation of the present value of a loan's estimated future cash flows, discounted at the loan's original effective interest rate. The estimated recoverable amount of the loan is measured on the fair value of observable market data and whether the loan is expected to be foreclosed on or not. In contrast, for loans that are not classed as individually significant, they are pooled together with loans of equivalent credit risk characteristics. The bank then applies a provisioning methodology based on its own historical loss experience, although this should be adjusted to reflect current economic conditions.

These collective models allow for banks to model for cure rates and success of forbearance treatments, which affords significant subjectivity in their provisioning approaches. This is especially the case in the Irish experience where historic loss experience bears little resemblance to the current out-turn of delinquencies and the landscape for resolution of delinquent loans is both developing and fraught with uncertainty.

Banks' collective assessment models also factor in a further layer of provisions for performing loans based on their probability of moving into a non-performing pool over a defined length of time ("emergence period"). This provision is referred to as incurred but not reported (IBNR).

Figure 17: Impairment process overview



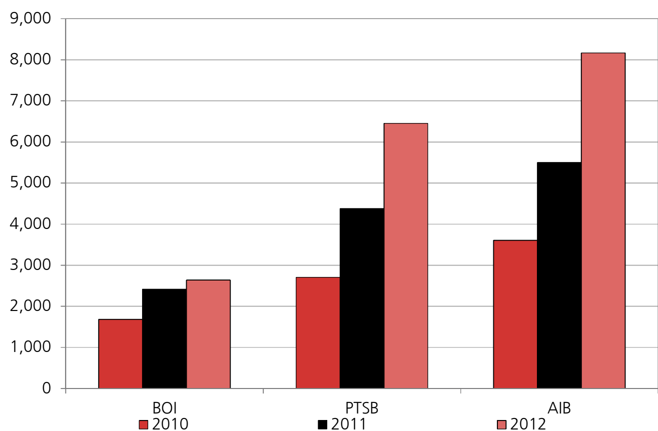
*Banks may also choose to individually assess loans below their disclosed threshold for individual assessment

Source: Central Bank; Davy

7. US-style provisioning would increase provisions up-front but incentivise the work-out of problem loans

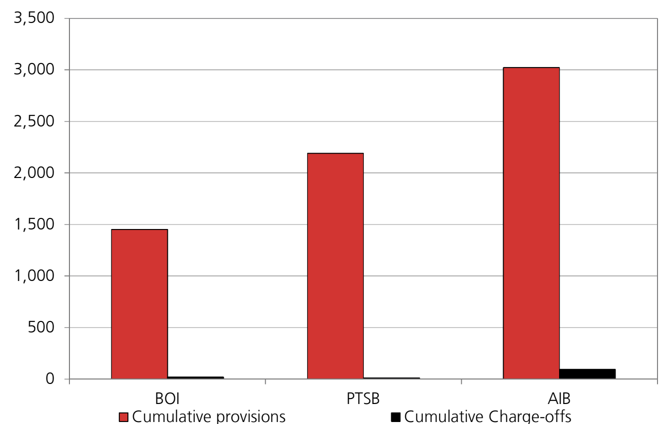
Irish banks' stocks of loan loss provisions have increased substantially over the last few years as NPLs have grown and collateral values have fallen. These provisioning levels based on an IFRS 'incurred loss' approach are built off models for collateral value recovery, which include both the time to recovery and the cost of recovery, additional cash-flows as well as an allowance for cure-rates. In contrast to these large stocks of provisions, banks' charge-offs of these provisions (the utilisation or removal of loan loss provisions off balance sheets) have been negligible. A charge-off does not necessarily equate to debt forgiveness but does reflect evidence of a work-out of delinquent loans.

Figure 18: ROI residential mortgages NPL development (€m)*



Source: Company accounts
* NPL is defined as either an impaired loan or a loan past due

Figure 19: Cum. provisions (2010-2012) and charge-offs (€m)



Source: Company accounts

US rules are more prescriptive when it comes to defining and charging off an impaired loan. Loans are defined as impaired if it is probable that contractual cash flows will not be received (including interest). Troubled debt restructurings and loans past 90 days due are also classed as impaired. When a loan is impaired, US banks stop accruing interest and reverse any uncollected income. Personal property-secured loans are typically charged off to their collateral value, less costs to sell, when they reach 180 days past due. Subsequent recoveries in excess of written-down values are only recognised when they are received. The US approach therefore incentivises the early work-out of delinquent loans such that a bank can gain from either the cure of delinquent loans or through the greater collateral value recovery (in excess of charge).

Irish banks' provisioning models therefore give credit to a cure-rate up front as opposed to the US approach where cures must be proven via a workout, with recoveries added back. The quicker work-through of problem loans in the US also results in provisioning/charge-offs more in tune with actual on-the-ground experience. In Ireland, banks rely on theoretical assumptions as the policy and legislative backdrop develops.

Our interpretation of the banks' loan loss methodologies suggests they adopt a cure rate of between 25% and 35% and an additional forced sale/disposal cost assumption of between 8% and 14% in aggregate. If Irish banks were to move to a US-style charge-off approach, the loss of an up-front cure-rate would lead to further losses (a cure rate may be realised in time, 'written back' via recoveries). An assumed immediate recovery of collateral as opposed to a discounted future value would provide some

offset, while it is unclear whether banks would require any additional losses for forced sale/disposal costs as the quantum of this will depend on whether banks pursue a legal route or engage bilaterally with borrowers.

The following table details the aggregated non-performing ROI residential mortgage balances and loan loss provisions for the covered banks as reported at end FY2012. In total, the banks had €17.3bn of NPLs with provisions of €6.7bn booked against them (39% coverage). The weighted average loan-to-value for NPLs was 138%, which suggests a trough NPL LTV of 153% based on the banks' provisioning assumptions of a 55% peak-to-trough decline (50% decline reported end FY2012). A trough LTV ratio suggests a simple collateral loss of 35% [(153%-100%)/153%]. On the assumption of a 3% interest rate (2.95% average reported for domestic banks in FY2012) and a four-year period for recoveries (S&P input), this indicates a further present-value discount of €1.165bn. This seems a reasonable assumption when contrasted with the banks' reported annual net interest income from the discount unwind on all loan loss provisions.

We use the above information to derive aggregated cure rate and realisation variables. If a cure rate of 25% is assumed, then of the €17.3bn of NPLS, €12.96bn will face losses at a rate of 35%, equal to €4.507bn. If the present value discount of €1.165bn is added to this, then the resultant additional realisation cost is €994m or 8% of the €12.96bn of non-cured loans. If we increment the cure-rates to 30% and 35%, realisation costs also adjust to 11% and 14% respectively. These cure-rates and realisation costs also look reasonable when contrasted with some of the banks' provisioning commentary. PTSB provided some detail on the sensitivity of losses to cure-rates, which implied to us a c.30% cure rate, while BKIR (10%) and ALBK (10-20%) have both provided detail on additional realisation costs.

This analysis allows us to gauge the pro-forma impact on the banks' ROI residential mortgage losses from a move to a US-style charge-off of early stage arrears (in an Irish context). A charge-off approach ignores the cure-rate and the future present-value discount, but the key unknown in an Irish context is the additional realisation cost. If we assume a realisation cost at the low end of expectations of 10% on the basis of greater engagement between banks and borrowers, then loan loss provisions rise by €1.07bn to €7.74bn, a 16% increase on FY2012 cumulative provisions. If instead we assume a realisation cost of 20% if banks pursue a more legal route, then loan loss provisions would increase by €2.8bn to €9.46bn, a 42% increase.

Table 9: Analysis of FY2012 ROI mortgage provisions (€m)

	Total	AIB	PTSB	BOI
NPLs (€m)	17,276	8165	5501	3610
Provisions (€m)	6,666	3023	2191	1452
NPL LTV	138%	132%	149%	133%
PTT NPL LTV	153%			
Collateral loss	35%			
Mortgage interest rate	3.00%			
Time to recovery years	4			
Present value discount (€m)	1,165			
Cure rate	**25%**	**30%**	**35%**	
Loans for work-out (€m)	12,957	12,093	11,229	
collateral loss	35%	35%	35%	
Collateral value loss (€m)	4,507	4,206	3,906	
PV discount (€m)	1,165	1,165	1,165	
Realisation cost (residual) (€m)	994	1,295	1,595	
Realisation cost (%)	**8%**	**11%**	**14%**	
Total provisions (€m)	6,666	6,666	6,666	

Source: Davy

Table 10: Uplift to provisions from US-style losses

Additional sale/realisation costs	Pro-forma losses €m	Uplift to existing €m	% increase
10.0%	7,737	1,071	**16%**
12.5%	8,169	1,503	**23%**
15.0%	8,600	1,934	**29%**
17.5%	9,032	2,366	**35%**
20.0%	9,464	2,798	**42%**

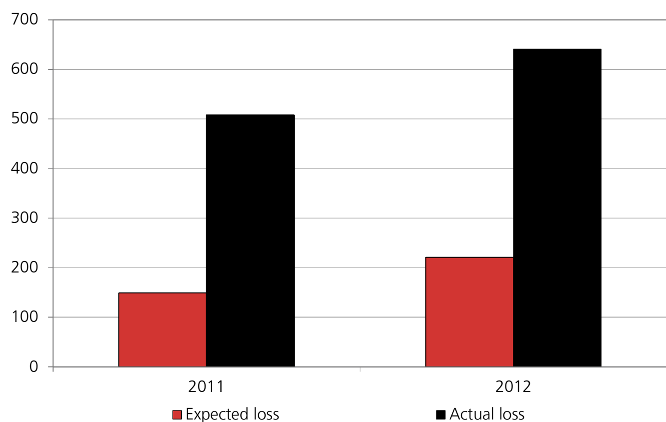
Source: Davy

Pillar 3 disclosures question the effectiveness of internal models

The banks provide analysis of their actual loss experience and contrast it with their prior year forecast expected loss for their internal-ratings based (IRB) portfolios in their pillar 3 documentation. One year ahead expected loss assessments use through-the-cycle estimates of default probabilities based on the grade profile of the loan books at a point in time to derive expected losses. The calculation does ignore any future changes to the external credit environment as well as changes to the grade profile of the book in the relevant year.

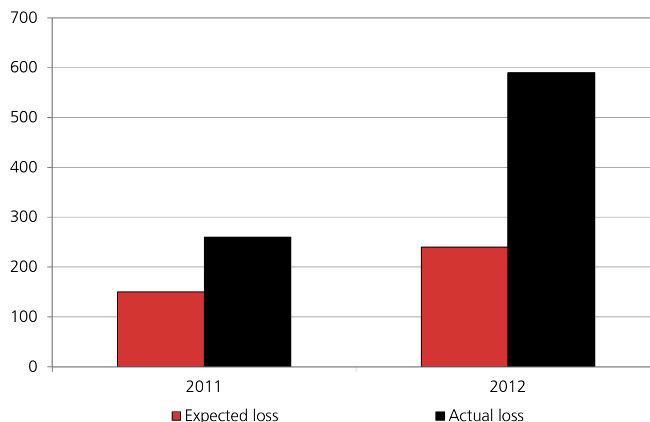
The following charts highlight the difference between the banks' internally modelled year-ahead expected losses for their IRB residential mortgage portfolios versus their actual reported losses in FY2011 and FY2012 – note that PTSB has yet to publish its FY2012 pillar 3 document. The sizeable differences in out-turns further question the appropriateness of banks' internal models that are based on historical loss experience when set against unprecedented stress in Irish mortgage portfolios and a developing landscape for their resolution.

Figure 20: ALBK's expected vs. actual losses for IRB residential mortgage portfolios (€m)



Source: ALBK pillar 3 reports

Figure 21: BKIR's expected vs. actual losses for IRB residential mortgage portfolios (€m)



Source: BKIR pillar 3 reports

Analysis of the banks' Pillar 3 documents is also useful to understand the differences in risk-weightings that the banks apply to these portfolios. In an Irish context, we believe that regulatory changes to mortgage risk-weightings may evolve as a policy tool to incentivise sustainable restructurings. Internationally, risk-weightings have seen greater scrutiny due to a greater emphasis on bank leverage ratios (with a focus on non-risk-weighted asset bases), publications from the BIS and the EBA of differences between banks' RWA treatment and also regulatory intervention. In May, the Swedish regulator raised Swedish banks' mortgage risk-weight floor from 5% to 15%. In June, both the Danish and UK regulators directed their respective banks to raise more capital as a result of a more conservative approach to RWAs. In relation to mortgages specifically, the UK regulator has set a floor of 15%.

The covered banks each apply an IRB approach to risk-weightings for their Irish residential mortgage exposures, with the exception that ALBK's EBS mortgages are subject to a standardised approach. Under the IRB approach, banks, subject to regulatory approval, use their own estimates of certain risk components to derive risk-weightings such as the probability of default, loss-given default (for mortgages only) and exposure at default. The banks also have a range of risk-weights split across various different groups of mortgages split by similar credit profiles. In contrast, the standardised approach prescribes a 35% risk-weighting for mortgages with a LTV of less than 75% and a 75% weighting for mortgages above a 75% LTV as well as for BTL mortgages.

The following chart shows the disclosed risk-weightings for the banks' IRB residential mortgage portfolios. ALBK has the highest ratio at 50% in FY2012, up from 47% in FY2011. PTSB reported a 28% ratio in FY2011, while BKIR reported a 15% ratio in FY2012, up from 14% in FY2011. We note, however, that in the case of BKIR and PTSB, these ratios include a significant portion of UK mortgages, c.50% and 20% respectively.

The table below shows the banks' disclosures of their grade profiles (in order of increased stress). In the case of BKIR, its highest grade mortgages have a risk weight as low as 3%, but its lowest grade (non-defaulted) mortgages have a weighting of 69%. In the case of PTSB, its highest grade risk weighting is 11%, with a weighting of 52% for its lowest grade (non-defaulted). Given the banks' UK books are better performing, this

suggests that the banks' ROI risk weightings are in excess of the aggregated mortgage risk weightings.

Figure 22: Covered banks' IRB residential mortgage risk-weightings

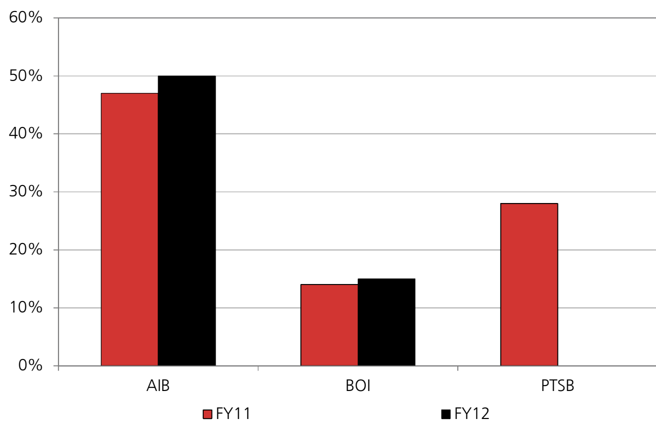


Table 11: Analysis of IRB mortgage credit profiles

	BOI - FY12			PTSB - FY11	
Grade	**Total exposures**	**Risk-weight**	**Grade**	**Total exposures**	**Risk-weight**
1-4	18,943	3%	Excellent	17971	11%
5-7	20571	14%	Satisfactory	4822	23%
8-9	3857	32%	Fair	3681	52%
10-11	4149	69%	Defaulted	4296	0%
Default	4332	0%			

Source: Pillar 3 documents

8. Restructurings to accelerate ahead of stress tests

Focus has been capital preservation given uncertain policy backdrop

The capital requirements for Irish banks under the 2011 PCAR analysis adopted a 'repossession and forced sale' approach for delinquent Irish residential mortgages. Similarly, the banks' current provisioning methodologies also apply a 'repossession and forced sale' outcome for delinquent mortgages after an allowance for a cure rate. However, with only 2,000 OO cumulative repossessions to date and developing policy responses to OO arrears which facilitate the retention of the family home, evidence of sustainable arrears restructurings and their subsequent performance is required to assess certainty of bank provisioning levels.

Restraints on contact with delinquent borrowers, the impediments created by the Dunne judgement on repossession and the slow implementation of the Personal Insolvency Regime have served to delay meaningful action by lenders

Banks have been heavily criticised for their focus on short-term restructuring approaches that protect their capital bases, illustrated by low levels of charge-offs. This slow response, protecting capital, also reflects an uncertain regulatory policy. Restraints on contact with delinquent borrowers, the impediments created by the Dunne judgement on repossession and the slow implementation of the Personal Insolvency Regime have served to delay meaningful action by lenders. In this context, innovative approaches by lenders could have contributed to misplaced borrower expectations for debt relief.

Push for sustainable restructures should inform 2014 stress tests

The Irish Central Bank has outlined quarterly targets for sustainable mortgage arrears resolution. These targets apply across the domestic banking sector[9] for all mortgage loans over 90 days in arrears including BTL. According to the Central Bank, a sustainable solution is:

- where the borrower is co-operating and the bank is satisfied the arrangement will enable the customer to meet the original or amended terms over the remaining life of the mortgage;
- a personal insolvency arrangement;
- if an arrangement could not be reached or is not appropriate, that the property securing the loan has been voluntarily sold or, failing that, where the institution takes possession of the property.

The ambitious restructuring targets demand that 20% of arrears cases as of end-Q1 2013 are offered sustainable solutions by end Q2, 30% by end Q3 and 50% by 2014. The Minister of Finance indicated that the vast majority will have a solution proposed by end-2014. Targets for acceptances of solutions are also to be set by the Central Bank, but the details have not been disclosed. However, the Central Bank is looking for a 75% success rate by Q1 2014 for restructured mortgages.

The targets for sustainable loan modifications come ahead of the scheduled stress tests in 2014. Successful implementation of sustainable loan modifications will help provide more clarity around banks' ultimate loan losses. If the stress tests are conducted in Q2 2014 – and banks meet their targets – we may have two quarters of completed modifications ahead of the stress tests. The following table illustrates the scale of the challenge. Based on the targets, approximately 65,000 modifications are scheduled to be offered by end-2013 and with 39,000 offers concluded. Based on the 75% threshold

[9] ACC Bank plc, Allied Irish Bank plc (inc. EBS), Bank of Ireland, KBC Bank Ireland plc, Permanent Tsb plc and Ulster Bank Ireland Limited

for successful implementation, banks are expected to have 29,250 modified loans to performance by Q1 2013.

Table 12: Irish Central Bank's mortgage arrears restructuring targets

	Percentage balance							Numbers						
	Q2-13	**Q3-13**	**Q4-13**	**Q1-14**	**Q2-14**	**Q3-14**	**Q4-14**	**Q2-13**	**Q3-13**	**Q4-13**	**Q1-14**	**Q2-14**	**Q3-14**	**Q4 14**
Proposed [Target 1]	20%	30%	50%	**75%**	**90%**	**100%**	**100%**	**26,000**	**39,000**	**65,000**	**97,500**	**117,000**	**130,000**	**130,000**
Concluded [Target 2]	n/a	n/a	**30%**	**50%**	**75%**	**100%**	**100%**	n/a	n/a	**39,000**	**65,000**	**97,500**	**117,000**	**130,000**
Terms met [Target 3]	n/a	n/a	n/a	75%	75%	75%	75%	n/a	n/a	n/a	**29,250**	**48,750**	**73,125**	**87,750**

Source: Central Bank; Davy

Much of the restructurings already in place will not qualify under the proposed targets in our view

This time scale looks ambitious. Recent media reports point to further disagreement between banks and the Regulator on how sustainable solutions are defined. To date, the balance of modifications has favoured short-term forbearance resolutions. For many delinquent mortgages, short-term measures may indeed be sustainable solutions. However, our analysis of re-default rates from the US experience indicates that significant principal modification will be required to achieve the success rates required by the Central Bank. As such, much of the restructurings already in place will not qualify under the proposed targets in our view.

Central Bank intervention will be required to ensure engagement

The Central Bank has indicated that more rigorous 'specific provisioning guidance' will apply to loans still in arrears in 2014. Supervisory audits will confirm whether loans are sustainably performing or not. Furthermore, banks that fail to meet resolution targets within specified timeframes may be subject to additional regulatory and supervisory actions. The Central Bank has outlined several steps to incentivise engagement by banks. These take the form of additional regulatory requirements from 2014 for remaining NPLs.

- a requirement to set the present value of future cash flows at zero other than those arising from the disposal of collateral for the purpose of calculating the banks' impairment provisions, without exception, for all loans in arrears greater than 90 days which have not been subjected to restructured arrangements on a sustainable basis;
- specific provisioning policy or additional capital requirements;
- a standard cost to obtain and sell collateral may be imposed in the event of foreclosure as well as the average time to foreclose for the purposes of preparing impairment calculations;
- covered institutions will be expected to hold a recent independent valuation on collateral, where the mortgage loan balance outstanding exceeds €750,000. This threshold shall be reduced to €500,000 in 2014 and thereafter.

Given the magnitude of the restructuring challenge and the unsatisfactory progress to date, we view further regulatory action as likely to ensure that targets are met

Thus far, Central Bank commentary has focussed on more stringent regulatory guidance on NPLs. However, a 'carrot and stick' approach could still emerge. For example, regulations could allow a cure rate (albeit a low one) in the loss modelling when adopting split mortgages. Given the magnitude of the restructuring challenge and the unsatisfactory progress to date, we view further regulatory action as likely to ensure that targets are met. At present, banks perceive capital preservation and the roll-out of sustainable restructurings as mutually exclusive outcomes. Regulatory action that penalises poor engagement or a bias towards unsustainable restructuring solutions will alter this view.

Our scepticism is reinforced by the surprise roll-out in early 2013 of the Central Bank's pilot scheme for the resolution of multiple distressed debts. The scheme will involve 750 borrowers and is intended to enhance co-operation between secured and unsecured creditors (excluding BTL loans). However, the new scheme merely illustrates that, even at this late stage, debtor engagement to resolve NPLs is lacking. Also, the implementation of this scheme has not been without its problems, including opposition from the Irish League of Credit Unions and, more recently, the surprise withdrawal of MABS from the running of the scheme.

Split mortgages may offer a lengthy route to debt forgiveness

Our analysis of the standard financial statements data suggests that for one-third of stressed cases, temporary restructuring solutions such as an IO, term extension or arrears capitalisation may be an appropriate outcome. However, for the remaining two-thirds, the outcome will involve split mortgages, mortgage-to-rent schemes and repossessions, especially where borrowers are uncooperative.

The split mortgage concept may provide a sustainable outcome and also allow home-owners to retain possession of the family home

The split mortgage concept may provide a sustainable outcome and also allow home-owners to retain possession of the family home. From a bank's perspective, a split mortgage may be preferable as it avoids legal and other costs associated with personal insolvency or bankruptcy. Should banks repossess and sell properties, they may have to sell at a discount on the market. There has been a clear fear that a flood of repossessed properties could force down house prices further. A split mortgage also retains the potential upside from an economic recovery and improvement in a borrower's circumstances. Thus far, banks appear publicly more receptive to the split mortgage solution.

Significantly, the Central Bank Governor recently noted that a bank's recourse at the end of a term of a split mortgage should at most be limited to the collateral value. Split mortgages may serve as a pathway to limited debt forgiveness – to incentivise borrower engagement. Also, a split mortgage would need to allow borrowers to maintain incomes in excess of the Insolvency Service of Ireland's minimum Reasonable Living Expenses in order to be a viable alternative to insolvency. The Central Bank Governor has also suggested that claw-back of any improvement in a borrower's income should be limited to 50%.

The accounting treatment for split mortgages is uncertain. The banks publicly differ on the interest rate they intend to charge on the 'warehoused' portion. Prudent accounting would suggest that the entire 'warehoused' component should be charged off, with any future upside treated as a write-back on a charged-off loan. The allowance of a cure-rate for banks' provisioning methodologies may prove contentious ahead of any tangible evidence of the success of the split mortgage concept. As discussed above, some small cure rate may be desirable to incentivise banks to adopt split mortgage modifications.

On the assumption of a full charge-off of the warehoused portion of a split mortgage, in aggregate a bank would be better off than repossessing the property. If we assume a weighted average LTV of 130% for non-performing OO loans, based on the covered banks' FY2012 results (on 50% peak-to-trough house price fall) and a MRTI of 50% derived from the standard financial statements, we arrive at a 40% principal loss if the loan is restructured to arrive at a performing portion that is based on a 30% MRTI repayment capacity, with the 'warehoused' portion fully charged off. This 40% loss compares with an equivalent loss if we mark-to-market the value of the collateral (assumes a 60% peak-to-trough fall, which we believe is more accurate) but avoids the

additional (and largely uncertain) costs associated with legal fees and any forced-sale discounts.

Fear that borrowers may lose their tracker rate is overdone

The recently published revised CCMA drew much media commentary over the suggestion that delinquent home-owners could lose their tracker mortgage rates as part of any restructuring solution offered by the bank. However, the CCMA clearly states the following:

"a lender must not require the borrower to change from an existing tracker mortgage to another mortgage type, as part of any alternative repayment arrangement offered".

The CCMA does state, however, that in certain circumstances the retention of a tracker mortgage rate may not apply. This would only apply after the consideration of the various outlined restructuring options and where none of the options that would allow the borrower to retain his/her tracker interest rate are appropriate and sustainable for the borrower's individual circumstances. Furthermore, an alternative repayment arrangement must both be (a) affordable for the borrower and (b) offer a long-term sustainable solution, consistent with the Central Bank policy on sustainability.

In our view, it is not in the banks' interest to seek to push delinquent home-owners off their low interest tracker rates (with the possible exception in the case of delinquent borrowers who refuse to engage as a threat to encourage dialogue)

In our view, based on the above, it is not in the banks' interest to seek to push delinquent home-owners off their low interest tracker rates (with the possible exception in the case of delinquent borrowers who refuse to engage as a threat to encourage dialogue). However, in the main, if mortgage restructurings offer a long-term sustainable solution that looks at a borrower's repayment capacity, then any increase in the rate of interest for the borrower increases the magnitude of the principal write-down of the mortgage and the bank's resulting loss. Hype concerning threats to borrowers' retention of tracker mortgages is an unwelcome sideshow to the sustainable restructuring effort.

The example below illustrates this. The table depicts a delinquent home-owner tracker mortgage with 30 years term outstanding, a current interest rate of 1.5% (ECB +100bps) and where mortgage repayments currently account for 50% of a household's disposable income. This 50% MRTI figure is taken from our earlier analysis of delinquent borrowers. If we adopt a 30% MRTI ratio as a sustainable threshold (based on international experience), then with household disposable income held constant, the required principal write-down to arrive at the MRTI threshold increases from 40% if the tracker rate is left in place to as high as 62% if the rate is increased to 5%.

Table 13: Sensitivity of principal write-downs to varying mortgage interest rates

Interest rate	1.50%	1.50%	2.00%	2.50%	3.00%	3.50%	4.00%	4.50%	5.00%
Mortgage balance	€200,000	€120,000	€111,908	€104,582	€97,938	€91,900	€86,403	€81,391	€76,812
Disposable income	€16,656	€16,656	€16,656	€16,656	€16,656	€16,656	€16,656	€16,656	€16,656
Mortgage repayment	€8,328	€4,997	€4,997	€4,997	€4,997	€4,997	€4,997	€4,997	€4,997
o/w Interest	€3,000	€1,800	€2,238	€2,615	€2,938	€3,216	€3,456	€3,663	€3,841
o/w Principal	€5,328	€3,197	€2,759	€2,382	€2,059	€1,780	€1,541	€1,334	€1,156
MRTI	50%	30%	30%	30%	30%	30%	30%	30%	30%
Principal write-down	NA	40%	44%	48%	51%	54%	57%	59%	62%

Source: Davy

Irish house prices have over-corrected, but the overhang of distressed properties may constrain price appreciation

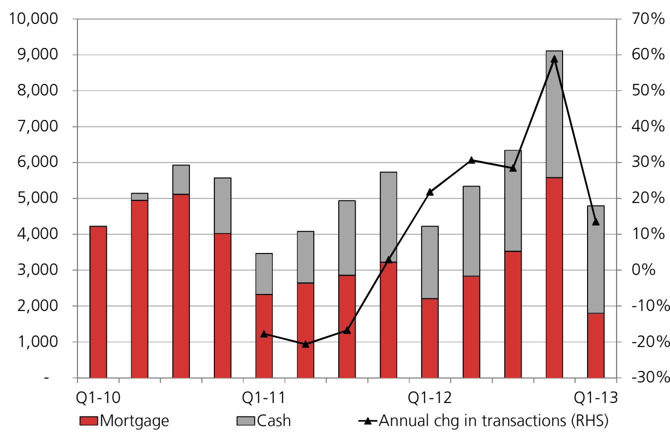
The Central Bank has acknowledged that in some cases, especially in the case of BTL mortgages and where borrowers are uncooperative, that repossessions of the properties will be inevitable. The fact that delinquent properties have not come to the market in significant quantities casts a doubt over the strength of the property market recovery.

The supply of properties that may come to the market is substantial. This is most obvious in the case of BTL mortgages, where at end Q1 there were 29,400 (19.7%) of BTL cases in arrears greater than 90 days, 9,300 (6.2%) in arrears between one and two years and a further 8,900 (6%) in arrears greater than two years. Non-cooperative home-owners are also set to face legal proceedings once the banks' ability to seek repossession is restored through new legislation later this summer. In aggregate, non-cooperative borrowers (including BTL) appear to account for somewhere between[10] 23,700 (19%) and 43,700 (35%) of total mortgage arrears cases across the sector.

However, our analysis of the US experience suggests that an increase in repossessions may not necessarily result in further downward pressure on house prices

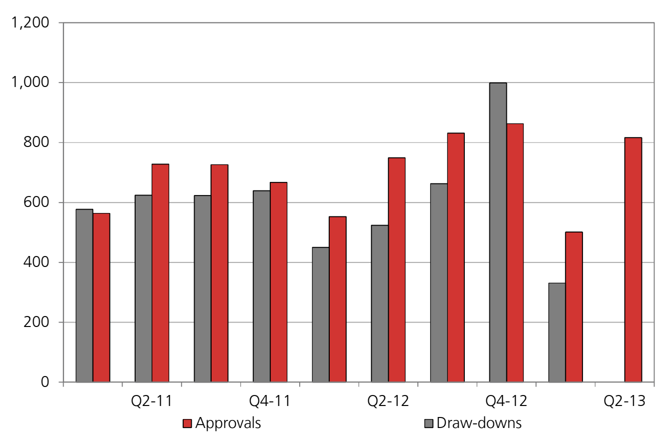
However, our analysis of the US experience suggests that an increase in repossessions may not necessarily result in further downward pressure on house prices. We are encouraged by the improvement in confidence and purchasing activity in the housing market (despite the end FY2012 distortion with the mortgage interest relief expiry), in particular, the strength of cash buyers – which have accounted for close to half of transactions over the last year (the impact of a 12% savings rates in recent years). This suggests that a release of delinquent supply to the market (particularly in urban areas) can be absorbed and also further build confidence in the sector's recovery; in the absence of such a release, many potential buyers will remain sceptical of the house price recovery.

Figure 23: Quarterly property transactions by type



Source: Property Price Register; Irish Banking Federation

Figure 24: Mortgage approvals vs. drawdowns (€m)



Source: Irish Banking Federation

[10] At year-end, BKIR noted that 19% of total arrears cases were involved in legal proceedings, split 15% in the case of OO & 27.4% for BTL. In the case of ALBK, c.20% of arrears cases were not engaged with their arrears support unit at year-end. More recently, at the RBS Investor Round Table on Ulster Bank, Ulster Bank indicated that 35% of its arrears cases are currently making no payments at all.

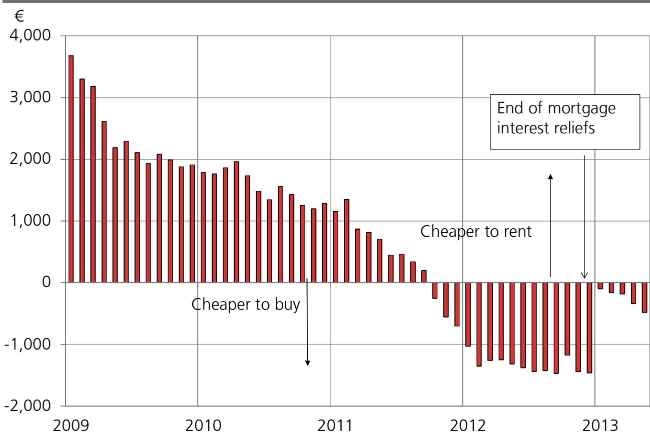
Our confidence in the ability of the market to absorb an increased supply is based on the fact that property prices have over-corrected

Our confidence in the ability of the market to absorb an increased supply is based on the fact that property prices have over-corrected. This is highlighted in the chart below, which suggests that the monthly cost of servicing a mortgage is now cheaper than renting. According to this reading, this has been the case in Dublin since August 2011 and nationally from November 2011. However, we caveat that an increase in mortgage issuance is required alongside any increase in supply. Moreover, the end of mortgage interest reliefs in January 2013 means the gap between the two has narrowed significantly.

Not all repossessed properties will hit the marketplace in any case as some banks may choose to keep properties on their books, accrue rental income and instead release properties into the market over time. The recent launch of a commercial REIT in Ireland also gives us hope that structures might be put in place to absorb delinquent residential properties.

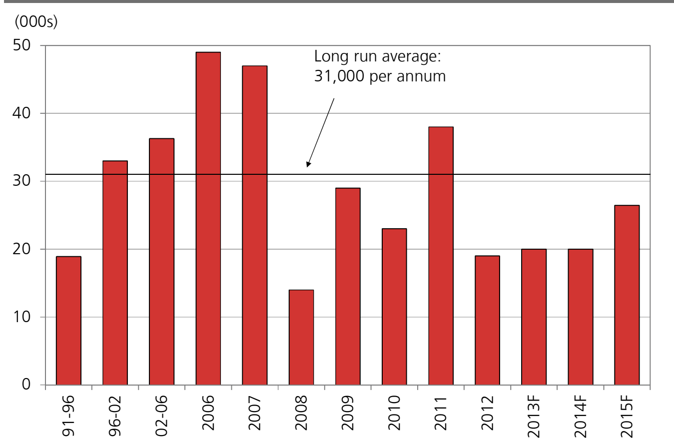
Household formation collapsed from a peak of nearly 50,000 in 2006 and 2007 to 15,000 in 2008 but stood at 20,000 in 2012. Given continued high emigration of c.10,000 per annum in the natural first-time buyer bracket of 25-34, household formation is expected to continue at this level for the next few years. But this contrasts with household completions of 8,488 in 2012. As such, household formation will provide a natural support to increased housing supply.

Figure 25: House price-to-rent ratio (x)



Source: Central Statistics Office; Davy estimates

Figure 26: Annual household formation (000s)



Source: Census of population; Euroconstruct

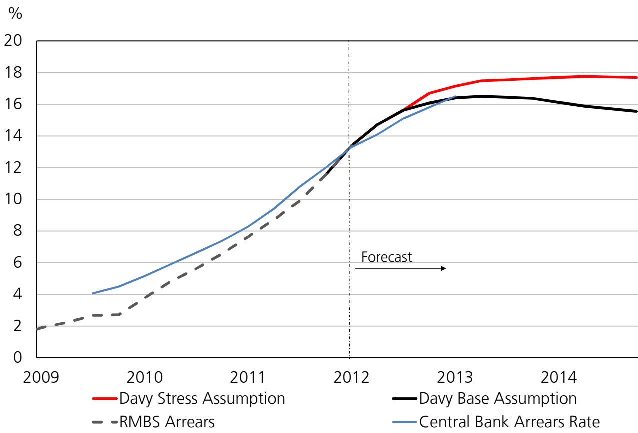
Owner-occupier arrears trending closer to our adverse outcome

Last summer we attempted to model the progression of OO mortgage arrears through the use of a statistical regression model, conditioned on our economic projections. This model was based on a statistical relationship between labour market variables and a time series of a 90-days+ arrears rate (by balance) included in the Moody's Irish RMBS dataset, scrubbed to remove its BTL component. The choice of the Moody's dataset reflects the fact that the Central Bank data series only goes back as far as Q3 2009. Our model predicted that the arrears rate would increase from 13.4% in Q1 2012 to a peak of 16.5% in Q3 2013 in a base scenario and 17.8% in an adverse scenario. This contrasts with a reported industry arrears balance of 16.5% at end Q1 2013 and suggests that the arrears rate will likely peak closer to our adverse scenario.

However, we acknowledge that our predictive labour market variables are in actual fact closer to our forecast inputs for our base scenario. This reflects a more recent

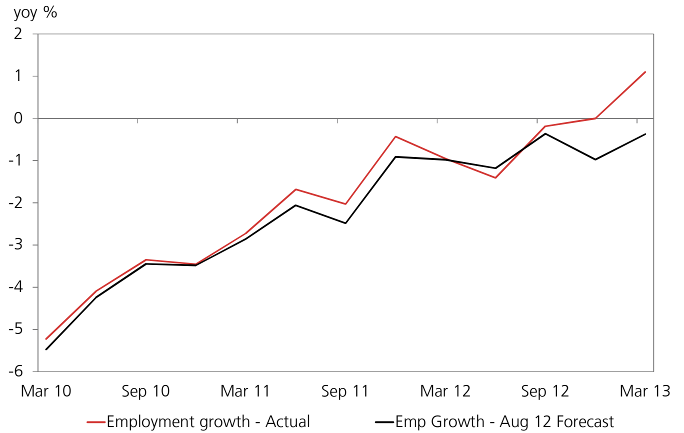
breakdown in strength between labour market variables and arrears that we identified in our report and has persisted. We noted that while our model was able to account for 10.9ppts (87%) of the 12.5ppts increase in the arrears rate between Q1 2007 and Q1 2012 (see below), it was less successful in predicting the arrears increase from Q4 2010 to Q1 2020, where it accounted for 5ppts (71%) of the 7ppts increase. The banks themselves have highlighted this breakdown and cited borrower engagement restrictions, repossession difficulties and media hype regarding potential debt forgiveness as key factors.

Figure 27: Davy OO arrears projections above base assumption



Source: Davy calculations; Moody's Investors Service; Irish Central Bank

Figure 28: But labour market better than expected



Source: Davy calculations

In our analysis of bank provisions, for OO arrears we contrasted the covered banks' end 2011 NPL balances and grew them by a proportionate increase in our sector arrears rate, i.e. an average NPL on OO loans grew from 10.8% at end-2011 to 16.6%, derived by multiplying this by the proportionate change in the modelled sector rate from 11.56% to 17.8% in the period. We then assumed a cure rate of 30% (derived from longer-term arrears regression analysis) and arrived at a loss rate contrasting 60% and 65% peak-to-trough house price declines alongside realisation costs of 10% and 20%. This was applied to NPL LTV balances at end 2011 but adjusted for the relevant PTT house price declines.

Table 14: Base scenario analysis of covered banks' loan losses

	60% PTT house price decline/10% realisation cost					**65% PTT house price decline/10% realisation cost**				
	Peak NPLs	*Cure rate*	*wtd. avg NPL LTV*	*Aggregate loan loss*	*BS provisions*	*Peak NPLs*	*Cure rate*	*wtd. avg NPL LTV*	*Aggregate loan loss*	*BS provisions*
OO	15.4%	40%	155%	45%	3,014	15.4%	40%	177%	53%	3,552
BTL	36.0%	0%	174%	52%	4,330	36.0%	0%	199%	60%	4,924
Total	20.4%		163%	48%	**7,344**	20.4%		186%	56%	**8,476**

	60% PTT house price decline/20% realisation cost					**65% PTT house price decline/20% realisation cost**				
	Peak NPLs	*Cure rate*	*wtd. avg NPL LTV*	*Aggregate loan loss*	*BS provisions*	*Peak NPLs*	*Cure rate*	*wtd. avg NPL LTV*	*Aggregate loan loss*	*BS provisions*
OO	15.4%	40%	155%	55%	3,679	15.4%	40%	177%	63%	4,217
BTL	36.0%	0%	174%	62%	5,155	36.0%	0%	199%	70%	5,749
Total	20.4%		163%	58%	**8,835**	20.4%		186%	66%	**9,966**

Source: Davy

Table 15: Adverse scenario analysis of covered banks' loan losses

	60% PTT house price decline/10% realisation cost					**65% PTT house price decline/10% realisation cost**				
	Peak NPLs	*Cure rate*	*wtd. avg NPL LTV*	*Aggregate loan loss*	*BS provisions*	*Peak NPLs*	*Cure rate*	*wtd. avg NPL LTV*	*Aggregate loan loss*	*BS provisions*
OO	16.6%	30%	155%	45%	3,793	16.60	30%	177%	53%	4,470
BTL	38.8%	0%	174%	52%	4,671	38.8%	0%	199%	60%	5,312
Total	22.0%		163%	48%	**8,464**	22.0%		186%	56%	**9,782**

	60% PTT house price decline/20% realisation cost					**65% PTT house price decline/20% realisation cost**				
	Peak NPLs	*Cure rate*	*wtd. avg NPL LTV*	*Aggregate loan loss*	*BS provisions*	*Peak NPLs*	*Cure rate*	*wtd. avg NPL LTV*	*Aggregate loan loss*	*BS provisions*
OO	16.6%	30%	155%	55%	4,630	16.6%	30%	177%	63%	5,307
BTL	38.8%	0%	174%	62%	5,562	38.8%	0%	199%	70%	6,202
Total	22.0%		163%	58%	**10,192**	22.0%		186%	66%	**11,510**

Source: Davy

Our previous analysis of standard financial statements suggests that a 30% cure rate looks appropriate. However, these data are based on both arrears and pre-arrears cases. Also, given the Central Bank's criticism regarding the sustainability of mortgage restructurings to date, it is more appropriate to therefore base our analysis on problem loan, a combination of loans in arrears 90 days+ as well as forborne loans that are not in arrears. Given the stabilisation in house prices, we believe a 60% decline from the peak in house prices looks appropriate. Also, the prospect of loan restructurings without significant legal costs, forced sales etc. suggests that realisation costs may be at the lower end of expectations.

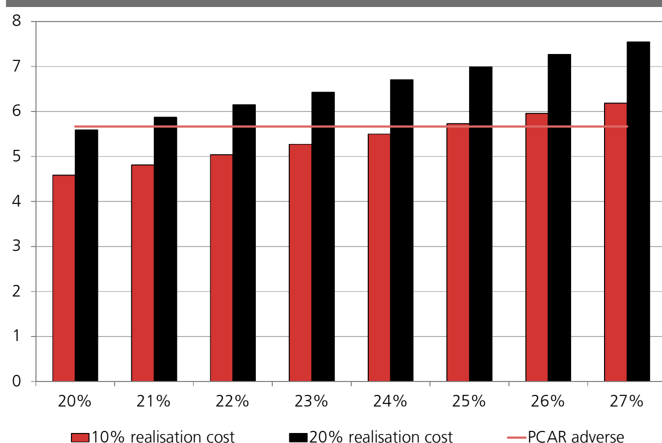
At end Q1 2013, the balance of problem OO loans reached 22.6% for the sector – 16.5% 90 days+ arrears and 6.1% forborne not in arrears. The analysis below indicates that if this problem loan rate stabilises over the next few quarters and the realisation cost associated with the restructuring of unsustainable non-performing mortgages is kept at the low end (i.e. 10% vs. 20%), then ultimate loan losses should end up close to adverse PCAR loan loss projection of €5.7bn – at end 2012, covered banks' OO loan loss provisions were €2.44bn. This assumes a peak-to-trough decline in house prices of 60% as well as a cure rate of 30%. For example, if problem loans peak at 25%, loan losses would reach €5.7bn against a realisation cost of 10%. If a higher realisation cost of 20% is adopted, losses would increase to nearly €7bn. This delta highlights the importance of working through problem loans to more credibly inform bank provisioning models. It also highlights the importance of bank engagement with delinquent borrowers to arrive at a sustainable outcome where possible that does not involve either personal insolvency or bankruptcy.

Table 16: OO loan-loss sensitivity analysis

		Realisation cost				
		0%	5%	10%	15%	20%
	20%	3,576	4,080	4,583	5,087	5,591
	21%	3,754	4,284	4,813	5,342	5,871
	22%	3,933	4,487	5,042	5,596	6,150
Peak problem loan rate	23%	4,112	4,691	5,271	5,850	6,430
	24%	4,291	4,895	5,500	6,105	6,709
	25%	4,470	5,099	5,729	6,359	6,989
	26%	4,648	5,303	5,958	6,613	7,268
	27%	4,827	5,507	6,188	6,868	7,548

Source: Davy

Figure 29: OO loan-losses relative to PCAR adverse



Source: Davy

Buy-to-let mortgage arrears a much greater concern

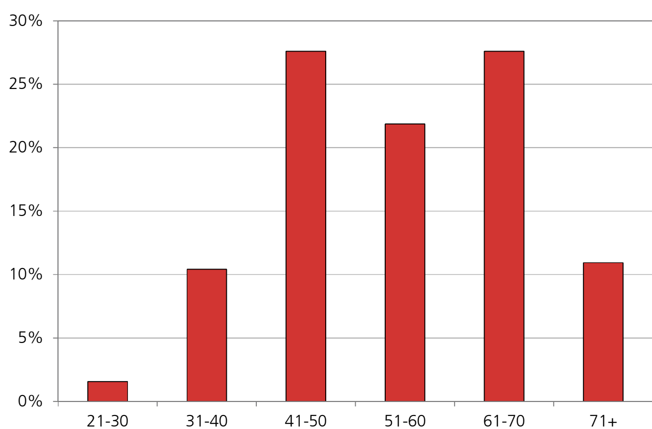
In the case of BTL mortgages, our analysis simply assumed that BTL mortgage arrears continued to grow at a rate twice that of OO mortgages. This has remained the case in the intervening quarters; at end Q1 2013, the BTL arrears rate was 27.7% and the BTL problem loans rate was 38.1%. Our previous regression analysis assumed arrears would increase to 36% in a base scenario and 39% in an adverse scenario. Similar to OO mortgages, we modelled for BTL losses against 60% and 65% PTT house price declines and realisation costs of 10% and 20%. Unlike OO mortgages and given the forecast difficulty due to a lack of historic data, we ignored any cure rate to err on the side of caution.

Aside from macro-economic factors, a key driver of the increase in BTL arrears is the repayment shock from the switch-over from BTL mortgages' original IO repayment terms to full P&I repayment. We had assumed that this would largely conclude through the remainder of 2012 and 2013. This was based on the fact that the bulk of BTL mortgages originated between 2004 and 2008 and an IO period typically lasted five years.

However, the continued build-up in BTL arrears and modifications indicates that there is a higher proportion of BTL left to switch than previously anticipated. Our analysis of BKIR's FY2012 results appears to confirm this. At end FY2012, 48% of BTL mortgages were paying IO, although 11% of these were under a formal forbearance arrangement (mostly IO), which suggests that c.37% of outstanding BTL mortgages were left to switch to full P&I. If we extrapolate this figure across the covered banks, this implies a further €7.85bn BTL mortgages are set to switch.

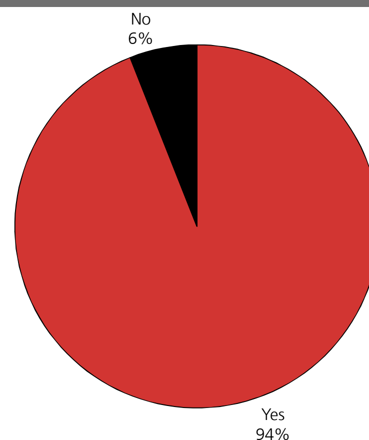
Much of the Central Bank analysis on borrower profiles has focused on OO mortgages. Even the Central Bank arrears statistics for BTL go back only as far as June 2012. The charts below are taken from a survey carried out by the IPOA (which represents c. 5,000 landlords) of its members in 2011. This showed that the majority of landlords were bank-financed (94%) and a significant proportion was of retirement age, with 11% over the age of 70 and a further 27.5% over the age of 60. In all, only 12% of respondents were below the age of 40.

Figure 30: Age profile of IPOA members



Source: IPOA

Figure 31: Proportion of IPOA members with borrowings



Source: IPOA

This analysis is interesting as the older age profile questions the appropriateness of IO restructures given a lesser ability to supplement rental income through other means as well as the sustainability of IO mortgages that are yet to switch. Rental income is growing, with private rents up nearly 11% from their trough at end 2010 (CSO), but rents are still some 18% off their peak. In addition, tax reliefs that for many underpinned their investment decision are either reduced or removed, and this income pressure is further exacerbated through rates of taxation and higher added charges such as property tax.

In all, this analysis indicates that BTL losses are expected to surpass PCAR adverse loss estimations of €3.33bn – cumulative losses were already at €3.2bn at end FY2012. However, due to the staggered nature of IO switches, these losses will emerge over time and weigh on the banks' ability to return to a normalised loan-loss environment. Many BTL borrowers are currently servicing IO repayments subject to their original contract terms and will not be recognised as NPLs despite the high incidence of negative equity.

Appropriate action should contain mortgage losses

In summary, in last year's report on mortgage arrears we presented a range of mortgage loss outcomes for the covered banks that applied cure rates, carry cost and house price assumptions against separate base and adverse projections for arrears growth. In this analysis, we highlighted how cumulative mortgage losses could reach between €8.5bn and €11.5bn in our adverse arrears scenarios. This contrasts with PCAR adverse loan losses of €9bn. At the time we took a view that the banks' capital levels would be sufficient to cover these higher loan losses given the banks' surplus capital arising from their successful deleveraging efforts (or abandonment in the case of PTSB).

We believe that cumulative loan losses can be kept within the upper end of scenario estimates. Our model has not fully captured the increase in mortgage arrears due to the breakdown in the correlation of arrears with labour market variables. However, against this, house prices appear to have found a floor, with June house price data recording the first annual gain since early 2008. Proposals for sustainable arrears restructurings such as split mortgages should result in lower losses than through the legal route of repossessions, with its added legal costs as well as forced sale discounts and disposal costs.

A move to sustainable restructurings will lead to an increase in repossessions as well as debt write-downs, although this may take the form of split mortgages. The improvement in housing market activity and prices gives us confidence that the market can absorb an increase in supply without a further downward adjustment in prices, but with the caveat that banks' mortgage lending needs to ease further to enable buyers and complement the substantial cohort of cash buyers.

While offers of debt reduction will be appropriate in many cases, they also need to be well targeted, especially given the significant proportion of strategic defaulters. Strategic defaulters represent a risk to bank capital and to tax-payers' investment in the banks. Although split mortgages may be viewed cynically, they do require full engagement by borrowers and will only result in debt relief in the long term, which should limit the fear of abuse of debt relief by strategic defaulters. Banks should progress with enforcement proceedings, once the ability is soon restored, against strategic defaulters where possible to demonstrate an effective threat for non-engagement and limit moral hazard.

We reiterate the point that the banks' maintenance of high capital ratios alongside higher provisioning of impaired mortgages alone will not fully satisfy investors as to the credibility of Irish banks' capital positions. Successful implementation of the Central Bank's arrears restructuring targets is a requisite to ensure that banks' provisioning approaches are appropriate. The Central Bank outlined threats if targets were not adhered to, and we believe that further action will be required. Real on-the-ground evidence of restructurings, their performance and resultant losses are necessary inputs into a more informed (rather than theoretical) stress test next year.

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