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The financial resilience of Irish CRE borrowers

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Abstract

In this *Note*, we use a range of granular datasets to provide novel insight into the financial resilience of Irish CRE borrowers. We show that the pass-through of tighter financial conditions to CRE borrowers since 2022 has been moderate, with the balance-weighted average interest rate rising by approximately 225 basis points by end-2023. A gradual loan refinancing schedule has also provided borrowers with scope to adjust to the shock. Nonetheless, some borrowers have suffered balance sheet damage due to asset price declines and some are vulnerable to further deteriorations in market conditions. Book leverage estimates suggest that most borrowers have scope to absorb losses on their asset portfolios without encountering acute balance sheet distress. Loan-to-value ratios on bank CRE loans similarly point to balance sheet resilience, though pockets of vulnerability exist, including in the office and retail segments. A further shock, due for example to shifts in interest rate expectations or market dislocation due to fire sales, would test the ability of some borrowers to service and refinance their debts. Measures of borrower distress ticked up in 2023.

1 Introduction

The commercial real estate (CRE) sector faces significant headwinds in the form of a higher interest environment and a structural slump in demand for certain types of assets. Higher interest rates have weighed on capital values and present a potentially large debt service shock for borrowers. In addition, a significant and persistent shift towards work-from-home practices and changing consumption patterns have resulted in a fall in demand for office and retail assets.

The shock hitting the CRE sector could transmit to the Irish domestic economy through three main channels. First, distress among indebted CRE businesses could result in credit losses for bank and non-bank lenders, lowering credit supply to Irish households and firms and dampening productive real activity. Second, price declines could prompt a disorderly round of assets sales, particularly among leveraged entities such as property funds. Third, asset value declines could lead to balance sheet impairment for non-real estate firms. Our focus and the framing of our analysis is rooted in the first of these three channels.[2]

In this *Note*, we study the financial resilience of Irish CRE borrowers using a range of granular datasets covering loan exposures, published financial accounts, and other corporate registry information. First, we measure the size of interest rate shock experienced by borrowers up to December 2023. Second, we establish the refinancing schedule of CRE loans over the coming years. Third, we study the balance sheet health of CRE borrowers and analyse the loan-to-value (LTV) ratios on their loans. Fourth, we present up-to-date information on CRE loan performance and the appointment of receivers.

We find that the pass-through of tighter financing conditons to Irish CRE borrower interest rates since 2022 has been moderate, with their balance-weighted average rate rising from 4 per cent in December 2021 to 6.2 per cent in December 2023. A gradual loan refinancing schedule out to 2028

[1] We thank Mark Cassidy, Stephen Dowling, Vas Madouros, Fergal McCann, Laura Moretti, Cian O'Neill, Stephen Sweeney, and Maria Woods for helpful comments and discussion. The views we express in this Note are our own and do not necessarily represent the views of the Central Bank of Ireland.

[2] For a more complete assessment of financial stability risks to Ireland stemming from the CRE downturn, see the Central Bank's Financial Stability Review 2024-I *Special Feature* release.

has also provided borrowers with scope to adjust to the shock. Nonetheless, certain borrowers have suffered balance sheet damage due to asset price declines and some are vulnerable to further deteriorations in market conditions.

Book leverage estimates show that Irish CRE borrowers broadly have scope to bear losses associated with declining asset values. Loan-to-value (LTV) ratios at end-2023 similarly show that most bank borrowers could absorb further asset valuation declines without reaching high LTV levels. But there are pockets of the CRE market, mainly among Office and Retail borrowers, where LTV ratios are more elevated and for whom the market outlook remains uncertain. Refinancing challenges are likely to be most acute for borrowers in these sectors. A further shock, due for instance to shifts in interest rate expectations or market dislocation due to fire sales, would test the ability of some borrowers to service and refinance their debts.

Borrower distress metrics ticked up in 2023. A composite indicator of distress – capturing transitions of performing loans to loan delinquency, forbearance, or non-performance – rose from 1.2 per cent in 2022H2 to 6.7 per cent in 2023H2. There are notable differences in outcomes across asset classes. Residential loans, the largest sub-portfolio, saw an increase of from 1.6 to 2.9 per cent in the same period. Office loans, the second largest sub-portfolio, saw a larger rise from 1.2 to 10.4 per cent. The main driver of increased distress does not appear to be a rise in loan delinquency or arrears. Banks largely appear to be making negative determinantions on some borrowers' ability to repay at maturity or to refinance within reasonable debt-service and leverage limits. Nonetheless, the number of CRE firm receiverships initiated in early 2024 remained low and comparable to recent years. While some receivership cases in late 2023 and early 2024 were large in scale, lenders are not yet seeking to secure possession of underlying collateral assets on a wide basis.

This *Note* contributes to recent academic and policy debate on CRE market developments and associated financial stability risks. Academic literature is examining how structural shifts in demand for CRE assets may affect market dynamics (Gupta et al., 2022; van Nieuwerburgh, 2022), how the CRE market shock might continue to weigh on pricing as leases gradually expire (Glancy and Wang, 2023), and how asset price declines might impact non-financial corporate investment (Horan et al., 2023). In January 2023, the European Systemic Risk Board issued a recommendation on CRE vulnerabilities in Europe. Our work is contributing to the Central Bank of Ireland's wide-ranging interrogation of vulnerabilities in the CRE sector, as well as our routine financial stability assessment of risks facing the domestic economy.

2 The interest rate shock

The significant tightening of financial conditions since 2022 raises questions about its impact on the debt servicing capacity of CRE borrowers and their ability to refinance their loans at maturity.

Interest rates have risen for Irish CRE borrowers (Chart 1).[3] The balance-weighted average interest rate paid by borrowers rose from 4 per cent in December 2021 to 6.2 per cent in December 2023. The rise for a typical CRE borrower was more modest, with the median rate paid rising from 5.1 per cent to 6.5 per cent over the same period.

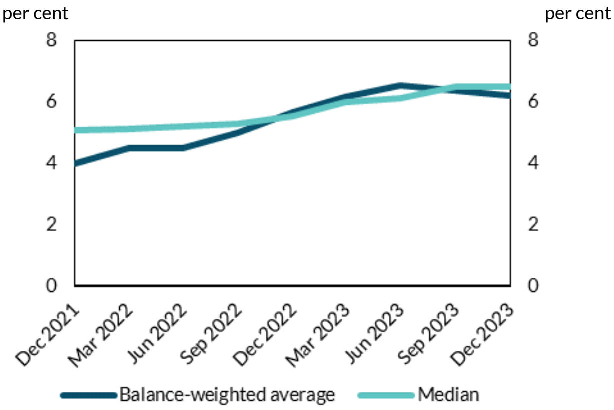
Bank and non-bank borrowers CRE have experienced similar interest rate increases (Chart 2). This is despite the funding models of non-banks likely being more pro-cyclical and rate-sensitive than that of deposit-taking banks.[4] The balance-weighted average interest rate among firms that borrow solely from banks rose from 2.9 per cent to 5.3 per cent between December 2021 and December 2023. Firms that borrow exclusively from non-banks saw a similar magnitude of increase from 5.9

[3] We use the Central Credit Register to observe the loan exposures of Irish CRE companies and generate a balance-weighted interest rate for each corporation across all of their loan contracts. The total share of loan balances in our sample that are owed to non-bank lenders is approximately 35 per cent.
[4] See Moloney et al. (2023) for a discussion of non-bank lender balance sheets in Ireland.

per cent to 8.1 per cent over the same period, though they started from a higher base. Firms with a mix of bank and non-bank lenders had a more modest rise from 4 to 5.2 per cent.

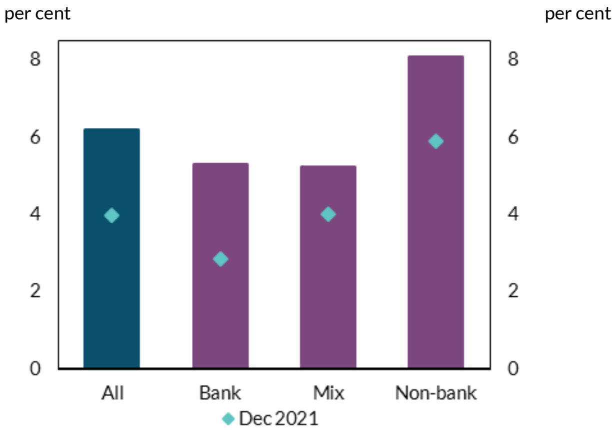
The pass-through of monetary policy to CRE borrowers has clearly been moderate to date, both for bank and non-bank borrowers. While the ECB increased its policy rates by 450 basis points between July 2022 and September 2023, the increase in balance-weighted average interest rate for Irish CRE borrowers was closer to 225 basis points. The median increase was just 140 basis points. A mix of fixed and floating rate loans has helped to dull the impact of tighter conditions on interest rates, similar in some regards to the dynamic at play in the residential mortgage market since 2022 (Byrne et al., 2023). Lenders also have discretion on the credit spreads they apply to many CRE loans. They may face conflicting incentives in setting these spreads if higher rates were to push borrowers beyond debt service convenant thresholds or into financial distress outright.

Chart 1: The pass of interest rate increases to CRE borrowers has been moderate



Source: Central Credit Register
Notes: The balance-weighted average and median interest rate paid by Irish CRE borrowers between December 2021 and December 2023.

Chart 2: Bank and non-bank borrowers have experienced similar interest rate increases



Source: Central Credit Register
Notes: The balance-weighted average interest rate paid by Irish CRE borrowers in December 2021 and December 2023 by lender group. 'Bank' refers to borrowers that exclusively borrow from banks, 'Mix' to those that borrow from banks and non-banks, and 'Non-bank' to those that borrow exclusively from non-banks.

Interest rates on domestic CRE bank loans have risen across all asset classes (Chart 3).[5] The balance-weighted average interest rate increased the most in the Residential and Industrial asset classes, rising by 325-350 basis points between December 2021 and December 2023. The Residential average went from 2.3 per cent to 5.6 per cent in this period, while the Industrial average rose from 2.6 per cent to 6.1 per cent. Retail and Other (comprising mainly of 'mixed commercial') loans saw the lowest increases of approximately 190 basis points, while the rate for Office loans went from 2.7 per cent to 5.4 per cent.

Pass-through has been more modest on loans that have yet to mature (Chart 4). Looking solely at loans that had an outstanding balance in both December 2021 and December 2023, we observe a balance-weighted average rate increase of 175 basis points. This is in line with expectations, given that some borrowers were on fixed rates for the duration of this period. There are broadly three cohorts within this group of borrowers: those that experienced no shock at all to their interest rate, those that experienced approximately a 75-100 basis point shock, and those that received a more substantial 400-450 basis point shock.

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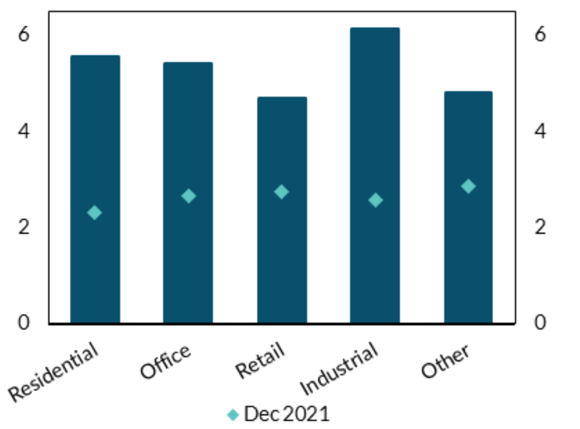
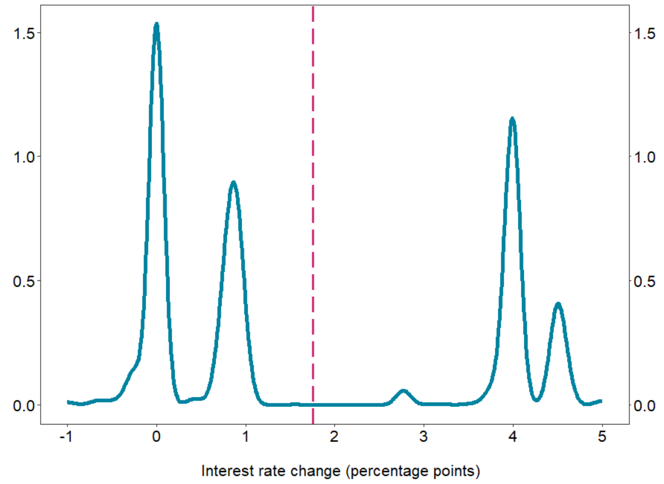
[5] We use supervisory loan-level data for Irish domestic banks to investigate differences in interest rates across CRE asset classes.

Chart 3: Interest rates have increased across all asset classes



Source: Central Bank of Ireland
Notes: The balance-weighted average interest rate paid by domestic bank Irish CRE borrowers by asset class in December 2021 and December 2023.

Chart 4: Interest rate pass-through has been more modest on loans that have yet to mature

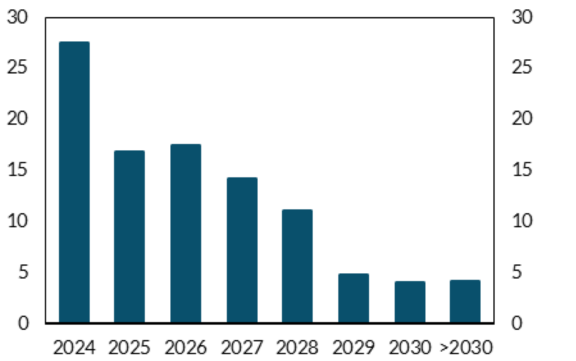


Source: Central Bank of Ireland
Notes: The distribution of interest rate changes between December 2021 and December 2023 on domestic bank loans owed by Irish CRE borrowers with a balance still outstanding in December 2023.

3 The loan refinancing schedule

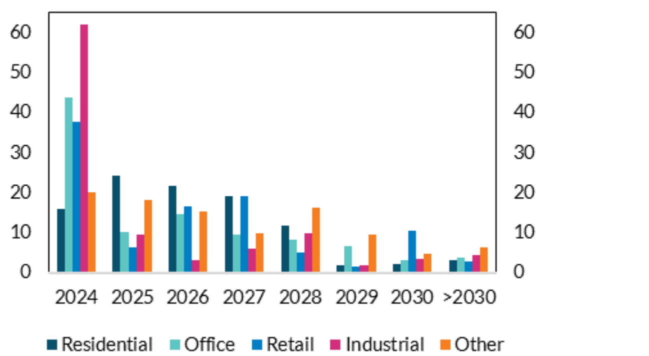
A key issue for CRE borrowers is their ability to repay or refinance debts at maturity. CRE loan balances may not be fully amortising over the course of the contract's term, leaving balloon payments that must either be repaid or refinanced. In an environment of higher interest rates and substantially diminished asset values in certain sectors, borrowers may find it challenging to meet interest coverage and LTV requirements with their existing lender or with alternative lenders. This has the potential to result in borrower distress and, given lender credit policies and risk appetite, the prospect of asset repossession or other loan workout solutions.

Chart 5: Domestic bank CRE loans typically need to be repaid or refinanced by 2028



Source: Central Bank of Ireland
Notes: The share of performing domestic bank Irish CRE outstanding balances by loan maturity year.

Chart 6: A significant share of office and retail loans will need to be repaid or refinanced in 2024



Source: Central Bank of Ireland
Notes: The share of performing domestic bank Irish CRE outstanding balances by asset class and loan maturity year.

Domestic bank CRE loans typically need to be repaid or refinanced by 2028 (Chart 5). This relatively gradual refinancing schedule is providing many borrowers with time to adjust to the shock. A relatively high share of loan balances – a little over a quarter – are scheduled to mature in 2024, with a significant share of office, retail, and industrial loan balances scheduled to reach maturity (Chart 6).

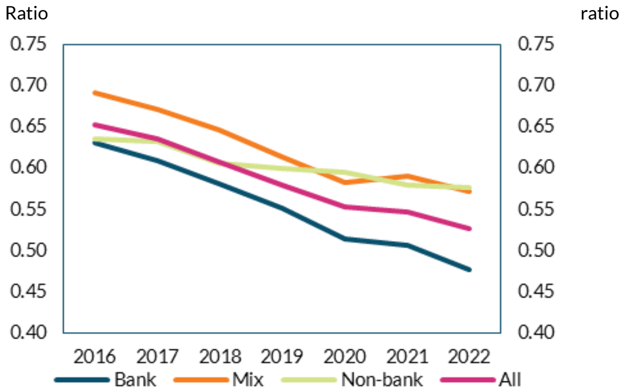
4 Balance sheet health

Investment demand for CRE assets has declined since 2022, mainly due to a 400-500 basis point rise in safe asset yields and only partial changes in commercial rents. This has placed significant downward pressure on asset valuations, with office and retail asset prices in Ireland falling significantly in 2023. The observed decline in values to date and continued weak market sentiment mean that highly leveraged borrower balance sheets may come under strain. We next look at two key indicators of balance sheet health: the book leverage of CRE borrowers based on their published financial accounts and the LTV ratios on their bank loans.

Book leverage – the ratio of a borrower's total liabilities to total assets – provides a key accounting measure of balance sheet health. Borrowers with modest book leverage ratios have a greater capacity to bear asset valuation declines without getting into balance sheet distress or negative equity. Unsustainably high leverage may coincide with higher levels of refinancing difficulties, strategic default, asset repossessions, and distressed asset sales. As an approximate benchmark, international evidence shows that the median book leverage ratio of a non-financial corporation entering bankruptcy is approximately 0.8 (Asis et al., 2021; Campbell et al., 2008).

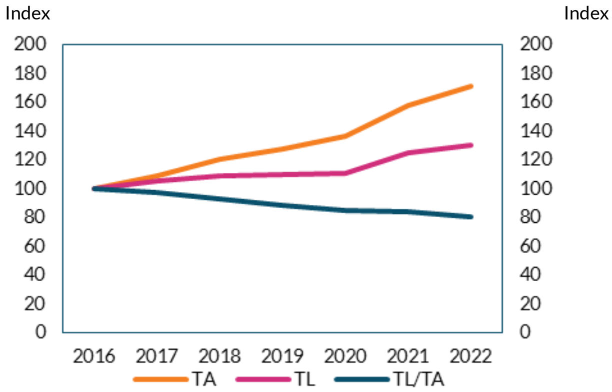
The median book leverage ratio of Irish CRE borrowers in 2022 was 0.51 (Chart 7). That is, the book value of their liabilities was half the book value of their liabilities. This measure was lower for bank borrowers at 0.47 and higher for non-bank borrowers at 0.54. This suggests that many CRE borrowers, particularly bank borrowers, had scope to bear losses on their asset portfolios when CRE prices came under further pressure in 2022.

Chart 7: Book leverage was falling for Irish CRE borrowers up to 2022



Source: Central Credit Register, CRO
Notes: The median ratio of total liabilities to total assets of Irish CRE companies with outstanding borrowings in December 2023 by lender type. 'Bank' refers to borrowers with loans owed solely to banks, 'Mix' to borrowers with bank and non-bank loans, and 'Non-bank' to borrowers with only non-bank loans.

Chart 8: Asset values rose at a faster rate than liabilities up to 2022



Source: Central Credit Register, CRO
Notes: Total assets and total liabilities of Irish CRE borrowers, indexed to 2016. 'TA' refers to total assets and 'TL' to total liabilities.

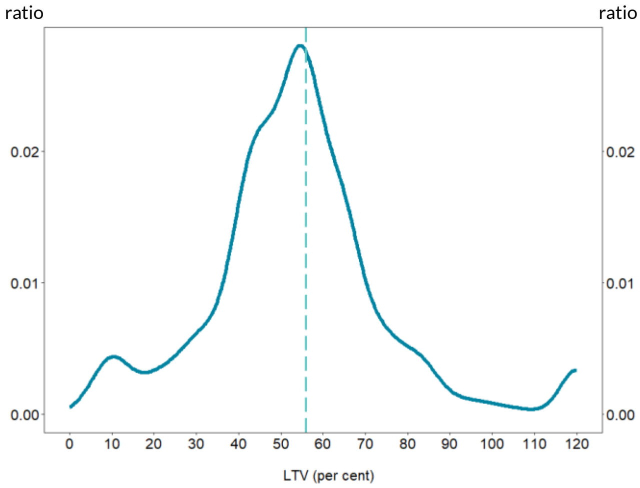
The book leverage of Irish CRE borrowers trended downwards between 2016 and 2022.[6] Median leverage was 0.66 in 2016 and fell steadily to 0.51 in the balance sheet year 2022. In the latter three years, the overall downward trend was driven mostly by bank borrowers. The leverage of non-bank and mixed lender borrowers fell only marginally in these years.

Asset growth explains falling book leverage in the years up to 2022 (Chart 8). For the stock of CRE borrowers in 2023, their asset values rose 71 per cent from 2016 to 2022 and their liabilities rose by 30 per cent. These borrowers were growing in scale and accruing greater nominal debt levels over recent years, notwithstanding the fall in leverage.

Care should be taken when interpreting this downward trend in book leverage. Asset growth is a function of several factors including credit availability, expectations of rental income, and discount rates. Shocks to discount rates (e.g., due to a tightening in monetary policy) or to expected rental income (e.g., due to changing work patterns) have the potential to sharply reduce asset values. The sensitivity of values to such shock is likely also higher when exiting a low interest rate, reach-for yield environment. Book leverage is thus useful primarily as a gauge of how much capacity firms have to bear losses before encountering balance sheet insolvency, rather than as a directional signal of increasing or decreasing resilience.

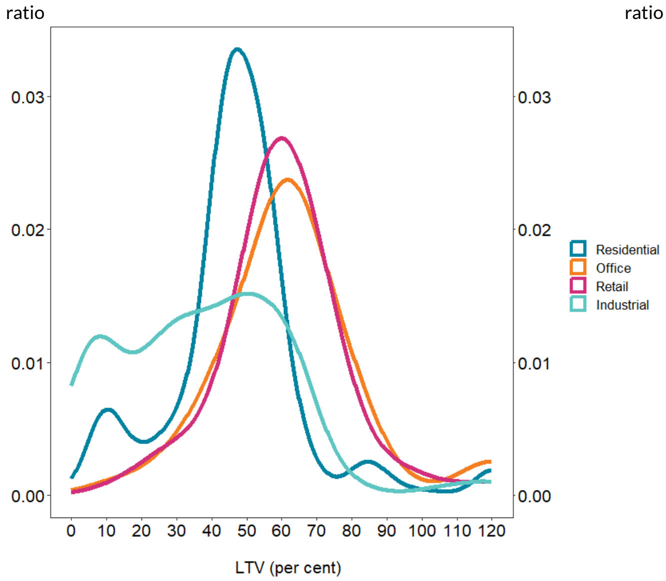
LTV ratios are the second metric we examine. We estimate LTV ratios using loan- and collateral-level information, assessing the internal asset valuations placed on assets by banks, and updating valuations where appropriate using relevant MSCI sub-indices up to December 2023.

Chart 9: CRE borrowers had a balance-weighted average LTV of 56 per cent in December 2023



Source: Central Bank of Ireland
Notes: The estimated balance-weighted loan-to-value ratio distribution of domestic bank Irish CRE exposures at December 2023.

Chart 10: Office and Retail borrowers have higher LTVs than Residential or Industrial borrowers



Source: Central Bank of Ireland
Notes: The estimated balance-weighted loan-to-value ratio distribution of domestic bank Irish CRE exposures by asset class at December 2023.

The balance-weighted average LTV ratio of Irish CRE borrowers was 56 per cent at December 2023 (Chart 9). If we assume that CRE borrower assets are primarily real estate in nature, this LTV figure is broadly in line with what we might expect given our book leverage estimates above for bank borrowers. It again signals that CRE bank borrowers had scope to bear significant losses, without exhausting their equity, and that loss-given-default outcomes for banks are likely contained under

[6] Corporate financial accounts are generally submitted to the CRO nine to twelve months after the relevant balance sheet date and must subsequently be processed for inclusion in financial databases. As many firms have year-end balance sheet dates, 2022 is the most recent balance sheet year available for our analysis.

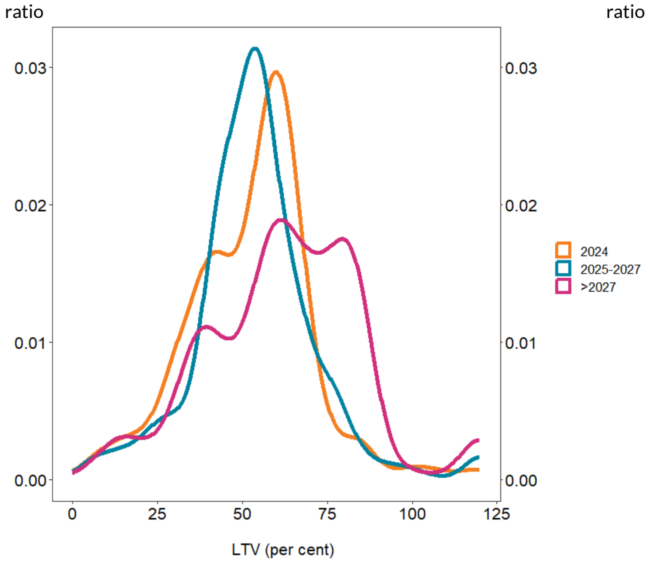
present market conditions. The ability of bank CRE borrowers to refinance at maturity within lender credit policies is a more open question. 15 per cent of loan balances have LTVs above 70 per cent and 9 per cent have LTVs above 80 per cent.

Office and Retail borrowers have higher LTV ratios than Residential or Industrial borrowers (Chart 10). The balance-weighted average LTV for Office and Retail borrowers was 67 and 61 per cent, respectively. This compares with 49 per cent for Residential and 38 per cent for Industrial borrowers. 27 per cent of Office loan balances have LTVs above 70 per cent and 13 per cent have LTVs above 80 per cent. Retail figures are somewhat elevated. 22 per cent of loan balances in that sector have LTVs above 70 per cent and 7 per cent above 80 per cent.

While high LTVs present a risk for both borrowers and lenders, the ability of borrowers with elevated LTV ratios to refinance at maturity can be facilitated by further equity investment. In many cases, this could be a relatively modest investment as a share of the asset's value or previously committed equity. It would, however, require that borrowers are financially healthy enough to put forward fresh equity and that they are committed to retaining ownership of the underlying asset.

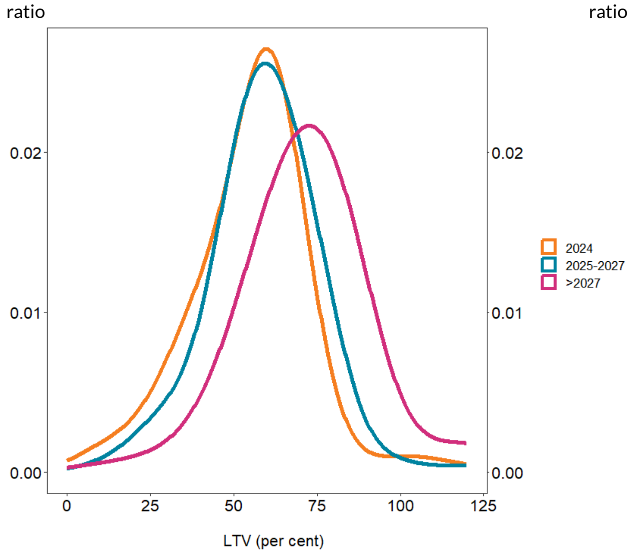
Loans that are due to refinance sooner generally have average or below average LTVs (Chart 11). The balance-weighted average LTV for loans maturing after 2027 (65 per cent) is significantly above that of loans maturing in 2024 (53 per cent) or intermediate years (55 per cent). Similarly, the share of loans with LTVs above 70 per cent in this post-2027 cohort is also disproporationately high.

Chart 11: Loans that are due to refinance sooner generally have average or below average LTVs



Source: Central Bank of Ireland
Notes: The estimated loan-to-value ratio distribution of domestic bank Irish CRE exposures by loan maturity year at December 2023.

Chart 12: Office and Retail loans with the highest LTVs broadly have longer time to maturity



Source: Central Bank of Ireland
Notes: The estimated loan-to-value ratio distribution of domestic bank Irish office and retail CRE exposures by maturity year at December 2023.

Office and Retail loans with longer time to maturities have the highest LTVs (Chart 12). We look at these loans in isolation due to their higher LTVs and weaker market outlook. The balance-weighted average LTV within this cohort is 55 per cent per cent for loans maturing in 2024, 59 per cent for those maturing in the years 2025 to 2027, and 75 per cent for loans maturing post-2027.

The pattern of higher LTV loans having longer time-to-maturity provides some mitigation for short-term refinancing pressures among the most stretched borrowers. To the extent that the headwinds facing CRE firms are cyclical in nature, these borrowers may hope to weather a period of elevated interest rates and see a recovery in asset prices were interest rates to fall and CRE market conditions improve in advance of refinancing.

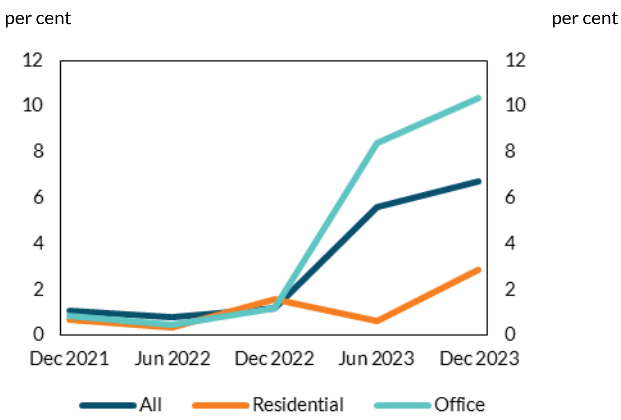
5 Are we seeing signs of financial distress?

Using supervisory loan-level data for bank CRE exposures, we construct a composite indicator of borrower distress. This captures transitions of performance loan balances to state a state of significant loan delinquency, forbearance, or non-performance.

Our measure of CRE borrower distress ticked up in 2023 (Chart 13), rising from 1.2 per cent in 2022H2 to 6.7 per cent in 2023H2. There are notable differences in outcomes across asset classes. Residential loans, the largest sub-portfolio, saw a modest increase of from 1.6 to 2.9 per cent in the same period. Office loans, the second largest sub-portfolio, saw a much larger rise from 1.2 to 10.4 per cent.

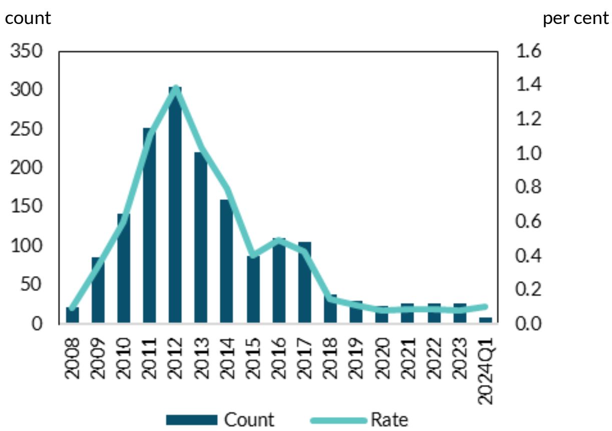
The main driver of increased distress does not appear to be a rise in loan delinquency or arrears. Borrowers do not appear to be missing payments in large numbers or accruing substantial arrears. Instead, banks largely appear to be making negative determinantions on some borrowers' ability to repay at maturity or to refinance within reasonable debt-service and leverage limits.

Chart 13: Measure of CRE borrower distress ticked up in 2023



Source: Central Bank of Ireland
Notes: The share of performing domestic bank Irish CRE loan balances transitioning to distress, measured as a composite indicator of loan delinquency, forbearance, and performance.

Chart 14: The count of CRE firm receiverships remains low



Source: CRO; CSO
Notes: The number and share of CRE firms entering receivership.

Insolvency filings provide another potential signal of distress among CRE firms. Balance sheet damage associated with falling asset prices may result in loan covenant breaches, failed refinancings, and shigher rates of strategic default where loans enter negative equity. Importantly, this can occur even in the absence of cashflow difficulties.

Receivership is an important tool for lenders in the event that a borrower enters repayment difficulty. A secured lender can appoint a receiver to take possession of a specific collateral asset (often a piece of real estate) or a pool of assets owned by a corporate borrower. Monitoring this insolvency channel is of specific interest when considering the adverse outcomes for CRE borrowers. The repossession and potential sale of CRE assets by lenders also has the potential to amplify price declines.

The count of CRE firm receiverships remained low in 2024Q1 and was comparable to recent years (Chart 14). Approximately 0.1 per cent of active CRE firms had a receiver appointed to them in 2024Q1, on an annualised basis. This is essentially unchanged from the rate observed between 2018 and 2023, and an order of magnitude below the peak of distressed loan resolution in 2012. Using data from the CCR collected since 2019, we can observe that some receivership cases in late

2023 and early 2024 are relatively large and this provides suggestive evidence of an uptick in receivership activity among larger borrowers. However, the low count of receivership cases signals that lenders are not yet seeking to secure possession of underlying collateral assets on a wide basis.

6 Conclusion

In this *Note*, we examine a range of granular datasets to study the financial resilience of Irish CRE borrowers. First, we measure the size of interest rate shock experienced by borrowers up to December 2023. Second, we establish the refinancing schedule of CRE loans over the coming years. Third, we study the balance sheet health of CRE borrowers and analyse the loan-to-value (LTV) ratios on their loans. Fourth, we present up-to-date information on CRE loan performance and receiverships.

We show that the pass-through of tighter financial conditions to CRE borrowers since 2022 has been moderate, with the balance-weighted average interest rate rising by approximately 225 basis points by end-2023. A gradual loan refinancing schedule out to 2028 has also provided borrowers with some scope to adjust to the shock. Nonetheless, some borrowers have suffered balance sheet damage due to asset price declines and some are vulnerable to further deteriorations in market conditions.

Our results show that Irish CRE borrowers in 2022 broadly had scope to bear losses associated with declining asset values. Loan-to-value (LTV) ratios at end-2023 similarly show that most bank borrowers could absorb further asset valuation declines without reaching elevated LTV levels. But there are pockets of the CRE market, mainly among Office and Retail borrowers, where LTV ratios are more elevated and for whom the market outlook remains uncertain. Refinancing challenges are likely to be most acute for borrowers in these sectors. A further shock, due for instance to shifts in interest rate expectations or market dislocation and fire sales, would test the ability of some borrowers to service and refinance their debts.

Borrower distress metrics ticked up in 2023. The main driver of increased distress does not appear to be a rise in loan delinquency or arrears. Borrowers do not appear to be missing payments in large numbers or accruing substantial arrears. Instead, banks largely appear to be making negative determinantions on some borrowers' ability to repay at maturity or to refinance within reasonable debt-service and leverage limits.

Nonetheless, the number of CRE firm receiverships initiated in early 2024 remained low and comparable to recent years. While some cases in late 2023 and early 2024 were large in scale, lenders are not yet seeking to secure possession of underlying collateral assets on a wide basis.

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