



Banc Ceannais na hÉireann
Central Bank of Ireland

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Financial Stability Notes

New Survey Evidence for Household Resilience to Current Shocks

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Vol. 2023, No. 5

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Central Bank of Ireland

April 2023

Abstract

This Note summarises the findings of a new survey of Irish residents that provides timely insights on financial vulnerabilities in early 2023. As of February this year, 8.7 per cent of borrowers report missing a mortgage payment in the past year. In addition, 4.6 per cent of mortgage holders appear vulnerable on the basis of having missed personal debt payments. Up to this point, financial distress appears to be driven by inflation, with other drivers like illness, changing family circumstances, interest rates, and income losses being also important. Lastly, the survey suggests that the size of liquidity buffers available to support mortgage payments may be limited for some households. In the event of a broader economic downturn, more limited *usable* liquidity buffers may be a key vulnerability for segments of the household sector.

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1 Introduction

Timely information on the financial health of households is particularly important in the current setting of high uncertainty and rapidly evolving shocks. The financial health of households is a key financial stability topic for the Central Bank, given the importance that households' debt and assets play in the macro-financial system and in the wider economy.

The Central Bank conducts regular assessments of financial health for Irish household borrowers. Much of the analysis so far has relied on either aggregate data or household survey data that are typically only available with significant delays.² Central Bank analysis has often carried out micro-simulation of the *potential* impact of future macroeconomic shocks, based on granular data available from before the onset of the shock (e.g. Adhikari and Yao, 2023).

In February 2023, we conducted a survey of Irish residents to ask questions about their financial health and financial buffers. This kind of survey sheds light on the ability of Irish households to withstand financial shocks in the current challenging economic environment, and it complements the existing analysis in [Financial Stability Reviews \(FSR\)](#), which are published by the Central Bank of Ireland twice per year. In particular, the survey fills the information gap in the existing assessment, in that it not only provides updated information on household distress and its drivers, but it also tells us how vulnerabilities are distributed within household sector. Both allow for a significant enhancement to the Central Bank's financial stability assessment toolkit, notwithstanding that statistically such surveys may be less reliable than information coming from formal data submissions from regulated entities, or data collections conducted by the Central Statistics Office.

The main findings from this first iteration of the survey, based on responses in late February 2023, are as follows. First, among those surveyed mortgage households, 8.7 per cent report having missed mortgage payments, of whom 6.7 per cent also had missed another payment type. In addition, 4.6 per cent of mortgage holders are deemed to be close to entering financial distress on the basis of having missed personal debt payments. Second, regarding drivers of missed payments, a majority of people who missed a utility payment selected "higher other bills" as the main risk factor. We interpret this answer as the reflection of costs-of-living or inflation risk. For people who missed loan payments, the risk factors are more mixed. Costs-of-living is still the largest single response, but personal reasons such as illness and divorce are also important in explaining mortgage missed payments. Debt servicing risk has not been a major risk factor so far, due to a combination of

² For example, a widely used household survey – [Household Finance and Consumption Survey](#) – is only available every three years and the latest wave of the survey was conducted in 2020. To circumvent this limitation, economists apply micro-simulation technique to inform policy makers about the current macro-financial situation. See e.g. [Adhikari \(2022\)](#) and Adhikari and Yao (2023).

mortgage fixation and slow pass-through of changes in the European Central Bank (ECB)'s key policy rates to variable rate mortgages. However, Foster, *et al.*, (2023), authors use the same survey to understand how changes in monetary policy affect Irish residents' expectations for unemployment and inflation. They find that further rises of monetary policy rates will have significant negative effects on respondents' financial prospects in the next 12 months, with varying impacts depending on debt holdings. This finding points to a key role for the debt servicing channel in a higher interest rate scenario. Last, I uncover that for many households, the size of *usable* liquidity buffers, defined as perceived financial assets that are available to support mortgage payments, may be limited, with 90 per cent of households that have missed a utility or loan payment reporting that they have less than 3 months of savings to cover their loan payments, while this share is around 40 per cent those who haven't missed any payment. In the event of a broader economic downturn leading to income and job losses, more limited usable liquidity buffers may be a key vulnerability for segments of the household sector.

The structure of this Note is as follows: Section 2 explains the survey design and financial stability questions. Section 3 reports the main findings. In Section 4 we conclude.

2 Survey Design

The survey is designed by the Central Bank of Ireland, with the main focus on Irish residents' expectations of labour market conditions, earnings, inflation, and their financial conditions at the quarterly frequency.³ The survey is an online poll designed to be representative of the national population through weighting on demographic and other factors. In February 2023, there were 1,629 respondents to the survey. Table A1 summarises the main socio-demographic characteristics of the respondents covered by the survey.

In this wave of the survey, a set of questions that focuses on household borrower resilience were added to the regular questionnaire. This survey asks respondents to assess their financial situation, their savings buffers and other information that is important for assessing borrower resilience to financial distress. By contrast, other detailed household economic surveys such as the Household Finance and Consumption Survey (HFCS) collect granular information on households but are not targeted in particular at financial stability assessments.

In the first two questions, interviewees are asked to report whether they have missed payments to their debts, rents and/or utility bills in the past 12 months. With this question, we aim to gain a direct insight on the current level of financial distress in the Irish household sector. To understand the

³ The survey was implemented by Ireland Thinks – a company that specialises in conducting public opinion polls on a nationally representative sample. For more information on the survey design, see also Cunningham *et. al.* (2022)

drivers of household financial distress, we follow up the first question with a question on the reasons for missing payments. The list of answers to this question is designed to be associated with economic risks (inflation, interest rates, the labour market, etc.) in the current macro-financial environment.⁴

In addition, we also have two questions on the level of financial buffers available to borrowers. In particular, we are interested in their self-assessed Debt Service Ratio (DSR; the ratio of their monthly total debt payments to their net incomes) and their buffer of liquid assets that could cover debt payments in the event of losing incomes for a sustained period. These self-reported financial buffers take into account households' reported preferences for using their liquid assets for debt service in times of distress, versus retaining some liquid assets for other purposes or as a precaution against other expenses they could face.⁵

Self-reporting survey data can be a valuable tool for gaining insights into individuals' perceptions and behaviours related to financial stability. It is also important to note that there are several potential pitfalls to be aware of when using self-reporting survey data in economic analysis. Some of these pitfalls include: social desirability bias, memory bias, and lack of validation. In addition, difficulty to measure some formally defined financial terms is particularly relevant to our survey, e.g. it is quite challenging for a person without an economic or finance background to calculate an accurate debt servicing to income ratio during an on-line interview process. Given these potential pitfalls, it is important to interpret the findings in conjunction with other data sources to gain a more complete understanding of the financial stability outlook in the household sector.

3 Main findings

3.1 Current level of financial distress

Table 1 summarises the percentage of respondents who reported a missed payment, either loans, utility bills, or both, in the last 12 months. Because the question refers explicitly to the respondent's household, we interpret the numbers in the Table as representing estimates of the percentage of households in Ireland.

The first row shows the percentage of households who have not missed any payments in the past 12 months. We interpret these numbers as the percentage of financially resilient households in the Irish economy. Over the full sample, 73 per cent of households have not missed any payments on

⁴ This is a multiple-choice question, in which respondents can choose a single reason for missed payments or combine different reasons.

⁵ In Table A2, we list all questions and associated answers in the survey.

debt or utilities, and this number is 78 per cent among mortgage borrowers. The second row reports the percentage of households that missed only utility bills, but not any loan payments.

Table 1: Percentage of interviewed households missing payments

	Mortgager	Non-Mortgager	Full sample	Risk profile
No missed payments	78%	70%	73%	Financially resilient
Missed payments on utility bills ONLY	8.4%	7.7%	7.8%	Moderate risk
Missed payments in personal loans ONLY	0.3%	2.6%	2.0%	High risk
Missed payments on utility AND personal loans	4.3%	11.6%	9.4%	
Missed payments on mortgage/rent ONLY	2.0%	1.7%	1.8%	In distress
Missed payments on mortgage/rent AND something else	6.7%	6.2%	6.4%	

Notes: all numbers in the table are calculated with survey weights.

This type of missed payments is likely caused by a temporary liquidity shortage, and is not necessarily an indication of likely deeper financial distress. 8.4 per cent of households with mortgages are in this “moderate risk” category. In the next two rows, we classify a group of households as “high risk”, as they have missed debt payments on personal loans (including credit cards) or have missed both personal loan and utility payments. We show that, among all households, 11.4 per cent are in the “High risk” category and this share goes down to 4.6 per cent among mortgage borrowers, consistent with other evidence that mortgage holders are, on average, more financially secure than those without a mortgage. Lastly, 8.7 per cent of mortgage borrowers report missing mortgage payments, of whom the majority (6.7 per cent of all mortgagors) also had missed another payment type. These numbers represent the size of overall mortgage distress in the economy based on this survey. Central Bank mortgage arrears statistics show that, as of December 2022, the total share of mortgage accounts in arrears is 6.6 per cent, of which 2.4 per cent of mortgage accounts are in arrears more than 90 days. In addition, scenario analysis outlined in [FSR 2022 H2](#) also shows that, under current macroeconomic shocks, a broader definition of the distress rate could be between 10 per cent and 12 per cent by the end of 2022.

This summary table provides us a most updated snapshot as of 2023 Q1 on the overall financial condition and different degrees of financial distress among Irish household borrowers. The overall

distress rate of mortgage holders is 8.7 per cent; in addition, 4.6 per cent are at “High risk” of falling into mortgage arrears, should economic the environment deteriorate further.

3.2 Financial distress drivers

The survey also allows us to study the importance of both economic and non-economic drivers in driving financial distress. Table 2 links survey answers to different economic risk factors, which are broadly associated to the current macroeconomic shocks in the economy, including inflation, interest rates and income risks from the labour market. It is, however, also interesting to assess the importance of non-economic factors (illness, divorce, etc.) as reasons for missing payments.

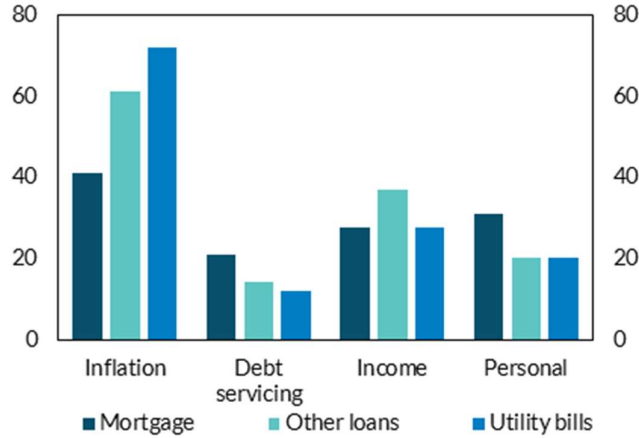
Figure 1 highlights some different risk factors in driving missed payments. We differentiate between missed payments for utility bills and for different types of loans, as they are likely driven by different risk factors. Overall, inflation risk is the most common response for both types of missed payments, with 72 per cent of those who missed utility bill payments reporting inflation as the main risk.

Table 2: Risk drivers of financial distress

	Survey answer options	Risk factors
1	Increase in other bills	Inflation
2	Increase in required payments on loan	Debt servicing
3	Job loss, unemployment, or reduced pay/hours of work	Income
4	Reduced income from self-employment or business	Income
5	Illness, disability or death of a person in your household	Personal
6	Separation, divorce or partner left	Personal

Losses in income are the second largest risk factor driving this type of missed payments. For people who missed loan payments, the risk factors are more mixed. Inflation is still the largest single response, especially for missed personal loan payments. Interestingly, non-economic factors, such as illnesses, divorce, also play an important role in driving missed mortgage payments. About one in three households who report having missed mortgage payments cite personal life changes as the trigger. This finding is consistent with other literature on mortgage defaults, e.g. based on a household survey in the US, Robertson, Egelhof and Hoke (2008) find that half of all respondents (49%) indicated that their foreclosure was caused in part by a medical problem, including illness or injuries, unmanageable medical bills, lost work due to a medical problem, or caring for sick family members. Debt servicing risk has not been a major risk factor so far based on the survey data, but it is somewhat a more important risk factor for mortgage than other missed payments.

Figure 1: Risk factors in driving missed payments



Notes: The bars in the chart represent shares of samples, who choose certain risk factors as their reasons for missing payments in the last 12 months. We compare the group of missing loan payments and the group of missing utility bills. Because this is a multiple choice question, the sum of shares in the respective group is not equal to 100.

As discussed in [FSR 2022 H2](#), higher levels of the ECB’s key policy rates have yet to translate into widespread increases in mortgage borrowing costs, due to a combination of fixation and relatively slow pass-through on variable rate mortgages, compared to other Euro area countries. There may be less insulation against higher borrowing costs in the coming months as lenders increase their pass-through of policy rates to their lending rates. Further, Adhikari and Yao (2023) show that, even in cases where ECB interest rate increases are being directly passed through to customers, a combination of factors would mitigate the impacts. Those factors include healthy pre-shock loan-to-income and debt service ratios, along with robust nominal income growth. As a result, the interest rate channel is unlikely to drive widespread increases in financial distress in 2023, although some cohorts of borrowers will be more vulnerable.

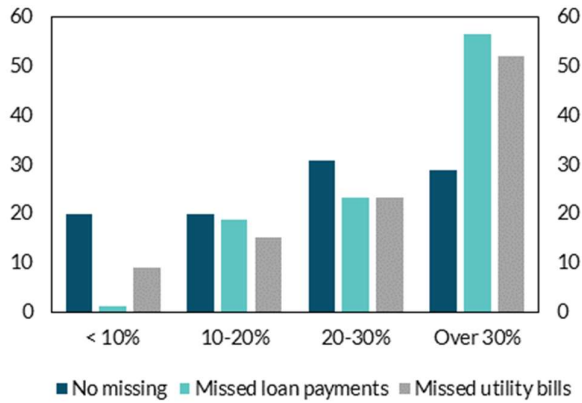
3.3 Financial buffers for absorbing future shocks

For financial resilience assessments, it is also important to understand the availability of financial buffers for absorbing future shocks. The survey asks two questions about DSR and number of months of savings that are available to cover debt payments in the event of loss income for a sustained period. Both measures are commonly used in the assessment of household borrower resilience.

Figure 2 shows the key result regarding the debt service burden relative to net income. We compare the DSR between households without any missed payments and two groups with different degrees of financial impairment. As expected, the “no-miss” group direct a smaller share of income to debt service than financially impaired households do. Twenty per cent of “no-miss” households report that their debt repayments are less than 10 per cent of their take-home income, but this share is

only 1 per cent for those who have missed loan payments, and under 10 per cent for those who missed utility bills in the last 12 months.

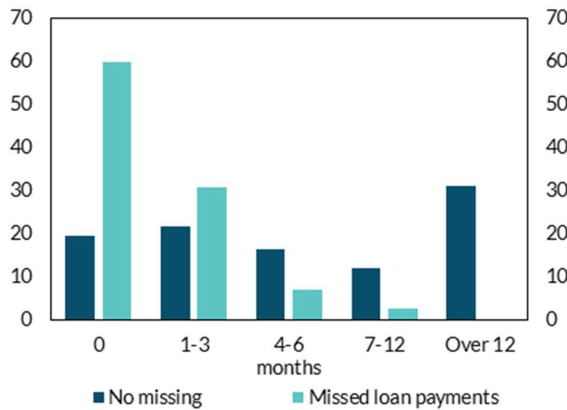
Figure 2: Debt service to income ratios



Notes: The bars in each group show the percentage of households in the respective group that select into each DSR bucket. The sum of bars in each group is 100.

At the other extreme, a DSR over 30 per cent is a commonly used indicator for debt servicing capacity being under stress. The survey data show that, the share of “no-miss” group in this category is 29 per cent, but it is almost doubled for the financially impaired groups. This result highlights that difficulty in meeting loan repayments is strongly associated with DSRs beyond certain sustainable levels.

Figure 3: Financial buffers reported by the survey



Notes: The bars in each group show the percentage of households in the respective group that select into each savings buffer bucket. The sum of bars in each group is 100.

In Figure 3, we report the result from the survey question on the reported number of months of savings buffer available to cover debt repayments. For those who didn’t miss any payment, 31 per cent report that they have savings that can cover more than one year of their debt payments. By contrast, about 90 per cent of households that have missed a loan payment report having less than 3 months of savings to cover their loan payments, while this share is around 40 per cent in the “no-

miss” group. This evidence shows that, more limited usable liquidity buffers may be a key vulnerability for some in the event of further negative shocks.

It is important to note that the savings buffer reported in this survey differs in a crucial way from those calculated based on financial data in other economic surveys, such as the HFCS.⁶ In those quantitative surveys, the total value of liquid assets is measured, and is typically assumed in models to be available to support the servicing of debts. In practice, people may prefer to retain some liquid assets for other emergencies, even in cases where they are at peril of missing mortgage payments. On the other hand, an important caveat, that telephone/online surveys may be less statistically reliable than formal statistical surveys or data collection processes, must also be emphasised here. As a result, we treat the savings-buffer reported in this survey as a warning that the “usable” liquidity to mitigate default risk in the household sector may be smaller than other survey evidence suggests. Further analysis in this area is needed to understand better usage of household savings in an event of mortgage distress.

4 Conclusion

This *Note* summarizes the key findings of a recently conducted survey on Irish residents. We show that, among surveyed mortgage households, 8.7 per cent of mortgage borrowers report missing mortgage payments, and additionally 4.6 per cent of mortgage holders are deemed to be close to entering financial distress on the basis of having missed personal debt payments, should the economic environment worsen further. Households are reporting, as of February 2023, that financial vulnerability has resulted mainly from inflation pressure, with smaller contributions from losses in income. By contrast, debt servicing risk has not been a major risk factor so far, potentially due to a combination of fixation and slow pass-through on variable rate mortgages, or to the strong financial position of those experiencing the largest increases in interest rates so far. Complementing aggregate data that suggest that the household sector in total has experienced a surge in savings since the Covid-19 pandemic, our survey shows that there is a sizable group of households reporting having fewer than three months’ worth of debt repayments available in the form of savings. These findings suggest that, liquidity buffers may be unavailable to mitigate future financial shocks for some cohorts, if income shocks arise in future.

⁶ For example, in [FSR \(2022 H2\)](#), Chart 64 reports the average savings to monthly mortgage payment ratio is 13 months, which 8 months for households in the lowest income quintile and 17 months for households in the highest income quintile.

Appendix

Table A1. Summary of the distribution of survey samples

	Data (unweighted)	Data (weighted)	Target
Gender (n=1623)			
<i>Female</i>	49%	49%	50%
<i>Male</i>	51 %	51%	50%
Age (n=1629)			
<i>18-24</i>	4%	10%	11%
<i>25-34</i>	10%	17%	17%
<i>35-44</i>	13 %	20%	21%
<i>45-54</i>	20%	18%	18%
<i>55-64</i>	28 %	15%	14%
<i>65+</i>	25%	20%	18%
Education (n=1629)			
<i>Less than leaving cert</i>	7%	14%	15%
<i>Leaving cert</i>	13%	24%	26%
<i>Post-leaving cert qualification</i>	23%	14.%	14%
<i>Third level degree</i>	57%	48%	45%
Region (n=1629)			
<i>Connacht-Ulster</i>	18%	18%	18%
<i>Dublin</i>	27%	29%	28%
<i>Leinster</i>	29%	27%	27%
<i>Munster</i>	26%	26%	27%
Income* (n=1515)			
<i>Less than €20,000</i>	17%	23%	24%
<i>€20,000 - €30,000</i>	15%	16%	17%
<i>€30,000 - €50,000</i>	31%	30%	30%
<i>€50,000 - €80,000</i>	23%	21%	20%
<i>Over €80,000</i>	14%	10%	9%
Employment status (n=1629)			
<i>Full-time student</i>	2%	7%	7%
<i>Homemaker</i>	4%	5%	6%
<i>Retired</i>	24%	17%	16%
<i>Unable to work</i>	3%	7%	7%
<i>Unemployed</i>	2%	5%	6%
<i>Working full time</i>	52%	47%	46%
<i>Working part time</i>	13%	12%	12%
Sector of employment*(n=1052)			
<i>Construction</i>	5%	7%	7%
<i>High-customer facing services</i>	17%	30%	32%
<i>Low-customer facing services</i>	19%	18%	18%
<i>Manufacturing</i>	9%	12%	13%
<i>Public sector and civil service</i>	40%	28%	26%
<i>Other</i>	10%	5%	4%

Notes: The poll was weighted according to: Age, Gender, Education, Region, Income, Working Status, Sector of Employment and the joint distribution among Region, Gender and Income.

Table A2. Main financial stability questions

	Question	Answer options
Q1.	In the past 12 months, have you or your household missed more than one payment on any of the following categories?	A. None of the below B. Rent or mortgage C. Personal loans (including car loans) D. Any utility bills, including Electricity / home heating /phone / internet / TV bill etc. E. Other please specify: ___ F. Not sure G. Prefer not say
Q2.	Which of the following reasons help explain why payments have been missed? Please state as many reasons as are relevant.	A. Job loss or reduced pay/hours of work B. Illness, disability or death of a person in your household C. Separation, divorce or partner left D. Reduced income from self-employment or business E. Increase in required payments on loan F. Increase in other bills G. Other loss of income (specify) _____ H. Other unexpected expenses (specify) _____ I. Prefer not say
Q3	How many months' worth of total loan payments can be covered by your savings, in the event that you lost your income for a sustained period?	A. 0 months B. 1-3 months C. 4-6 months D. 7-12 months E. >12 months F. Not sure G. Prefer not say
Q4	Using the following ranges, could you state roughly what percentage of your household's net (take-home) income is used to pay for your loans (both mortgage and other personal loans)?	A. None, I do not have any loans/mortgage B. Under 10% C. 10-20% D. 20-30% E. Over 30% F. Not sure G. Prefer not say

References

Adhikari, T. (2022), Inflation and mortgage repayments: the household expenditure channel. Financial Stability Notes, Vol. 2022, No. 6, Central Bank of Ireland

Adhikari, T. and Yao, F. (2023), Household resilience to expenditure and debt service channels under current inflationary conditions, Financial Stability Notes, Vol. 2023, No. 3, Central Bank of Ireland

Byrne D., McCann, F and Gaffney, E. (2023), The interest rate exposure of mortgaged Irish households, Financial Stability Notes, Vol. 2023, No. 2, Central Bank of Ireland

Cunningham K., Garabedian G., and Zekaite, Z. (2022), A snapshot into inflation and earnings expectations by Irish residents, Economic Letter, Vol. 2022, No. 2, Central Bank of Ireland

Foster S., Nocera A. and Zekaite Z. (2023), Expected effects of higher interest rates – Irish residents' perspective, memo, Central Bank of Ireland

Robertson, Christopher T. and Egelhof, Richard and Hoke, Michael, Get Sick, Get Out: The Medical Causes of Home Mortgage Foreclosures (August 18, 2008). Health Matrix: Journal of Law-Medicine, Vol. 18, No. 65, 2008



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