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## Financial Stability Notes

# Debt service capacity across Irish Borrowers: New survey evidence

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# Debt service capacity across Irish borrowers: New survey evidence

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## Abstract

How has debt service capacity of Irish households evolved in the inflationary and rising interest rate environment? Survey data from September 2023 shows that the majority of household borrowers remain resilient in this environment, but a considerable proportion remain at risk due to low levels of liquid savings useable for debt servicing. We find that one in two mortgage borrowers report having less than three months of savings to service their debts in the event of prolonged income loss. This may be driven by difficulty in saving, as we find 31 per cent of mortgage borrowers report zero monthly savings out of income, while 51 per cent report zero excess savings accumulated during the pandemic. Moreover, the survey suggests that vulnerable borrowers may be more likely to enter arrears or take on further debts if the economic environment stays the same or worsens.

## 1 Introduction

The cost-of-living shock and the tightening of financial conditions through increased interest rates raise challenges for household borrowers, with potential spill-overs to the financial sector and the real economy. As household budgets are currently supported by robust income growth, a key question is whether there are certain groups of household borrowers that would have the capacity to continue servicing debts in events such as prolonged income loss or higher debt refinancing costs.

The COVID-19 pandemic led to a surge in Irish household savings, which resulted in excess deposits estimated to be around €16 billion.<sup>3</sup> To assess debt-service capacity, it is essential to understand how households' "liquid savings" are distributed and whether they could be used to service debts in case of an income loss. In September 2023, the Central Bank of Ireland conducted a follow-up survey to that conducted in February 2023, with new questions that aim to provide more insights into these critical questions for household borrower resilience.<sup>4</sup>

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<sup>3</sup> Recent studies focusing on Irish excess savings (additional to normal savings rate) during the pandemic include: [Lydon and McIndoe-Calder \(2021\)](#), [Saupe and Woods \(2022\)](#) and [Quarterly Bulletin \(2023 Q3\)](#), among others.

<sup>4</sup> For further details of the survey design, see [Cunningham K., Garabedian G., and Zekaite, Z. \(2022\)](#) and [Yao \(2023\)](#). Findings from survey research may suffer from limitations including reporting bias from respondents as a result different social preferences, memory bias, and lack of validation. In particular, this round of survey

The main findings of the survey are: First, current levels of financial distress across Irish mortgage borrower remain contained and are not estimated to have increased since February. We find that in the last 12 months, 7 per cent of mortgage holders missed their monthly payment, while another 12 per cent missed payment on either utility bills or other personal debts but managed to continue their mortgage payment. Second, a significant proportion of mortgage households report having minimal monthly savings, exposing risk to continue servicing their debts if met with an unexpected income shock. We find that 31 per cent of mortgage borrowers report zero monthly saving contributions, while 51 per cent report no excess savings accumulated during pandemic. Third, households already under debt-servicing distress may face future challenges leading to further indebtedness or entering into arrears if the economic environment stays the same or worsens. On the other hand, with higher savings buffers to continue debt payments, households that did not miss bills or payments have more flexibility to adjust their spending if the economic environment stays the same or worsens.

The rest of this Note is organised as follows: Section 2 summarises the current status of household financial distress. Section 3 reports the findings on debt servicing capacity by focussing on liquidity buffers. Section 4 discusses measures that households would choose in response to a continuation or worsening of the current economic environment. Section 5 concludes.

## 2 Current level of financial distress

We measure financial distress in the survey by capturing households' ability to meet their payment obligations on utility bills, loans (both personal and credit card), and housing (mortgage and rent). In the current environment of cost-of-living increases as well as rising interest rates, this measure provides us with a good indicator of financial distress faced by households in Ireland. As in [Yao \(2023\)](#), we categorise households into different categories of financial distress, as described below:

- a. No missed payments: Households who do not miss payments on utility, loans (personal or credit card) and housing (mortgage or rent).
- b. Moderate Risk: Households who miss payments on utility alone, but not on loan payment or housing.
- c. High Risk: Households who only miss debts payments on personal loans (including credit cards) or who miss both personal loans and utility.
- d. Distress: Households who miss payments on housing (mortgage or rent) or miss payments on housing as well as some other payment (utility or personal debt).

We show percentages of respondents in each of the aforementioned categories in the previous 12 months. Because the question refers explicitly to the respondent's household, we interpret the numbers in Figure 1 as representing estimates of percentages of households in Ireland.

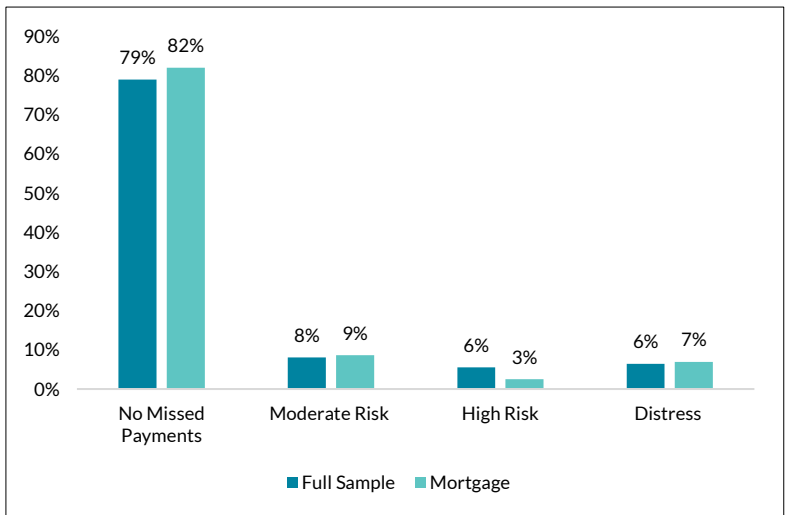
We find that majority of respondents to the survey did not miss payments on any utility, loan or housing in the last 12 months, with proportions around 79 per cent and 82 per cent across the full sample and mortgage borrowers respectively. In the "moderate risk" category, we find relatively low and very similar proportion of households across the full and mortgage borrowers; 8 per cent

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is relatively smaller compared to previous round, which in turn leads to smaller sub-samples for certain categories, thus limiting rigorous statistical analysis.

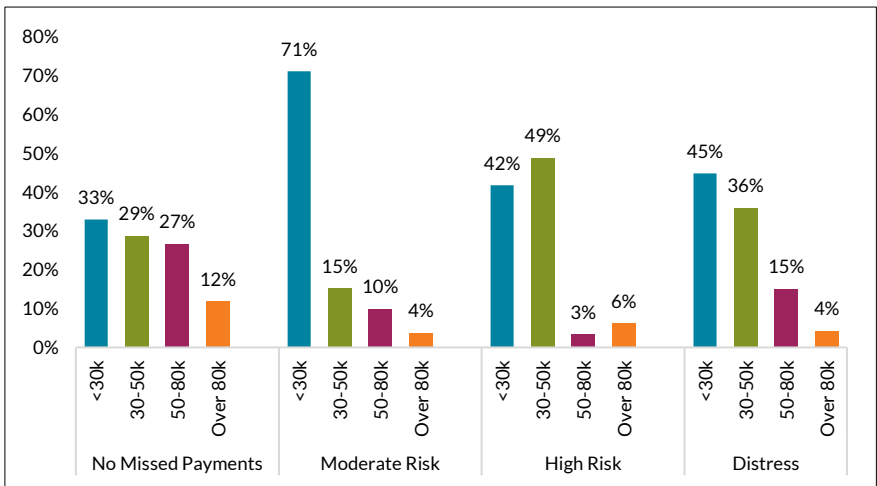
and 9 per cent respectively.<sup>5</sup> The “high risk” category captures the source of potential future distress, when borrowers miss debt payments on personal loans or they miss both personal debts and utility bills. We find that mortgage borrowers are almost half as prevalent in this category as compared to the full sample (3 per cent versus 6 per cent). This divergence indicates relatively better personal debt-servicing capability across mortgage holders. Lastly, we find that 6 and 7 per cent of the full sample and mortgaged sample, respectively, are already in distress by our definition.

Figure 1: Levels of Financial Distress



Note: all numbers in the figure are calculated with survey weights. Risk categories are defined as follows: “Moderate Risk”: Missing utility only; “High Risk”: Missing loan (personal or credit card) only or missing both personal loan and utility. “Distress”: Missing payment on housing (mortgage or rent) or missing payment of housing as well as some other payment (utility or loan).

Figure 2: Distress Rates across Income Distribution



Note: all numbers in the figure are calculated with survey weights. Risk categories are defined as follows: “Moderate Risk”: Missing utility only; “High Risk”: Missing loan (personal or credit card) only or missing both personal loan and utility. “Distress”: Missing payment on housing (mortgage or rent) or missing payment of housing as well as some other payment (utility or loan).

We delve further into financial distress across households by analysing repayment issues across the income distribution, as shown in Figure 2. We find a clear pattern between financial distress and

<sup>5</sup> The availability of moratoria on electricity supply may prompt some households to voluntarily default on utility payments. This poses some limitation on our measure because we may be capturing temporary choices by households that can confound the interpretation of this category of “moderate risk” households.

income distribution such that the majority households within the “high risk” and “distress” categories are from low (<€30,000) and medium income (€30-€50,000) groups.

Overall, the results from Figure 1 and 2 show that the level of household financial distress in the economy remains at around 6 per cent, which is consistent with our estimates in 2023 Q1 reported in [Adhikari and Yao \(2023\)](#) and [Financial Stability Reviews](#). However, there are pockets of vulnerability, especially across mortgage borrowers who face higher debt obligations. As expected, the trends in financial distress are well explained by income distribution of the sample.

### 3 Understanding Household Debt-Servicing Capacity

In the following sub-sections, we focus on survey questions that help us understand households’ debt-servicing capability. We start with regular monthly saving flows and excess pandemic savings, as they indicate the capacity of households to generate savings buffers.<sup>6</sup> Additionally, we also discuss overall measures of liquidity buffers in terms of number of months of savings buffer available to cover loan payments.

Together, these results inform on households’ “line of defence” from their ability to build liquidity buffers to mitigate financial distress. We perform a number of deep-dives to understand how these liquidity buffers vary across different income groups and financial distress categories. This provides us with a clear indication of pockets of household financial risk and debt-servicing vulnerability.

#### 3.1 Monthly Savings Flow

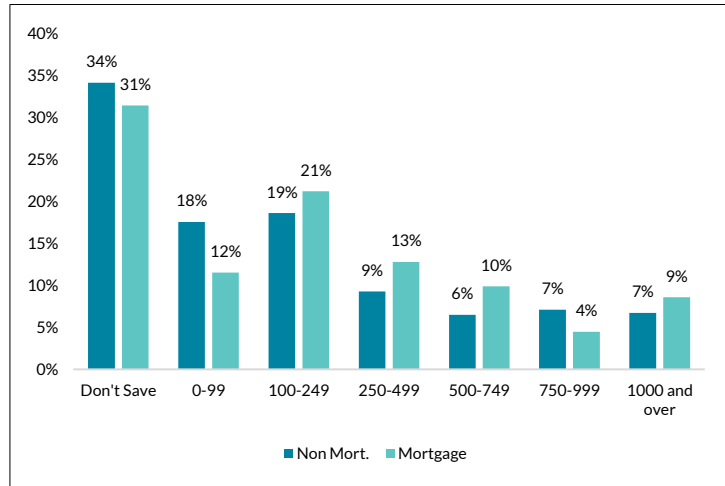
Figure 3 summarises liquid flows of monthly savings across mortgage and non-mortgage respondents reported in the survey.<sup>7</sup> We find sizeable levels of none to low monthly contributions towards liquid savings flow that may put at risk the debt-servicing capacity, if met with unforeseen income shocks. Overall, across 759 non-mortgage respondents, 34 per cent respondents have zero monthly savings flow, while 18 per cent save up to €100 every month. This proportion is 31 per cent and 12 per cent across the sample of 341 mortgage borrowers.

Further, we note that the proportion with saving flows exceeding €100 per month is higher among mortgage borrowers, reflecting a stronger financial position relative to the general population. In particular, this holds for monthly saving ranges €250-499 (13 per cent vs. 9 per cent) and €500-749 (10 per cent vs. 6 per cent), with the exception of €750-999 whereby the proportion of non-mortgage savers is 3 percentage points higher than mortgage savers (7 per cent vs. 4 per cent). Overall, these figures indicate higher financial resilience across mortgage borrowers, evident from their ability to contribute positively towards their monthly savings, thus building a positive liquidity buffer. However, at the same time, high proportion of mortgage borrowers reporting zero monthly saving flows remains a key challenge.

<sup>6</sup> In this analysis, we ignore the fact that households might have other sources of liquid assets to support their debt service capacity, such as receiving financial help from family and friends. It is worth of noting that this type of transfer only redistributes liquidity buffers across different households, without changing the aggregate liquidity buffer at the system level.

<sup>7</sup> See Table A1 for exact question in the survey.

Figure 3: Monthly Savings Flow

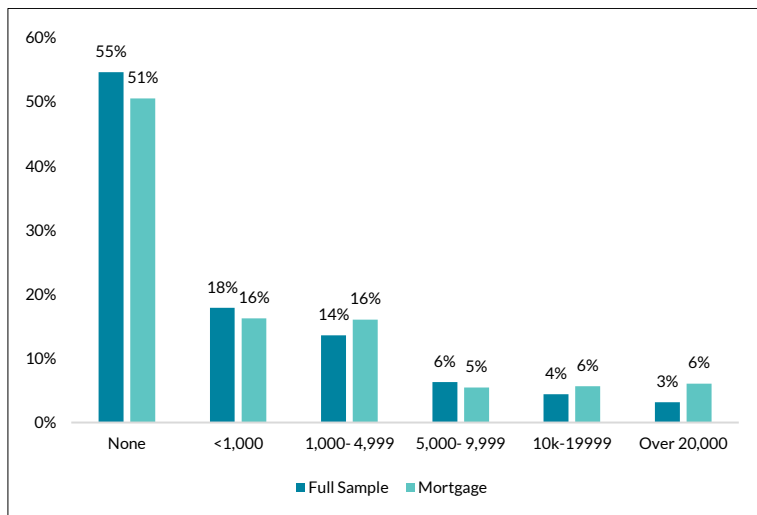


Note: all numbers in the figure are calculated with survey weights.

### 3.2 Pandemic Savings

Our survey provides novel insight on household liquidity buffers by capturing total savings accrued by Irish households during the pandemic, in excess of their normal saving flows.<sup>8</sup> Figure 4 presents the distribution of excess pandemic saving from March 2020. We find that around half of households did not accumulate excess savings during pandemic. Of the 1,089 respondents, 55 per cent report zero excess savings during the pandemic, while 18 per cent of respondents report savings of less than €1,000. However, a significant proportion of households report savings of €1,000-4,999 (14 per cent) and over €5,000 (13 per cent). In comparison, if we focus only on the sample of mortgage borrowers, we do not observe major differences albeit a lower proportion of mortgage borrowers reporting zero excess pandemic savings (51 per cent versus 55 per cent). Excess pandemic savings, as reported by 45 per cent of the full sample, were primarily generated due to large falls in spending rather than growth in income ([Quarterly Bulletin, 2023 Q3](#)).

Figure 4: Distribution of Pandemic Savings Flow



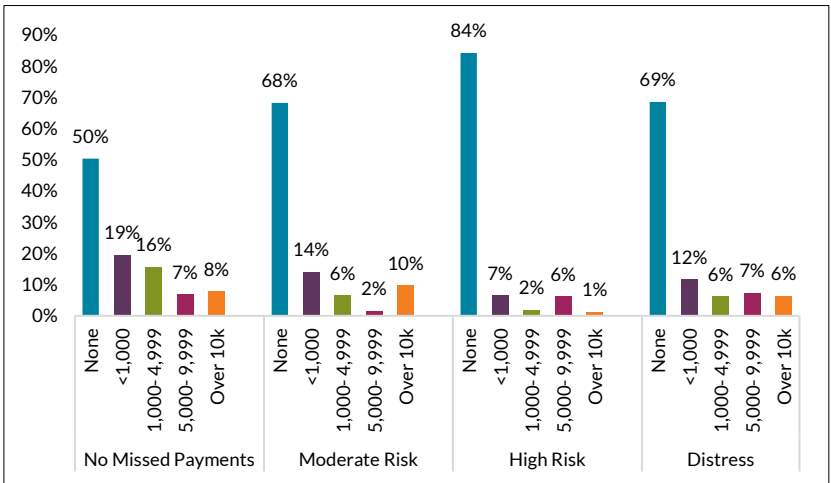
Note: all numbers in the figure are calculated with survey weights.

Figure 5 provides a further deep dive into pandemic savings flow across different levels of household financial distress. As expected, absence of pandemic savings is highest across the

<sup>8</sup> See Table A1 for exact question in the survey.

vulnerable households; 84 per cent in the “high risk” category, followed by “distress” households (69 per cent), and “moderate risk” household (68 per cent). On the contrary, absence of pandemic savings is lowest across households who not miss any payments (50 per cent) with a significant proportion of households in this group amassing pandemic savings over €1,000 (30 per cent) and €1000-€4,999 (16 per cent).

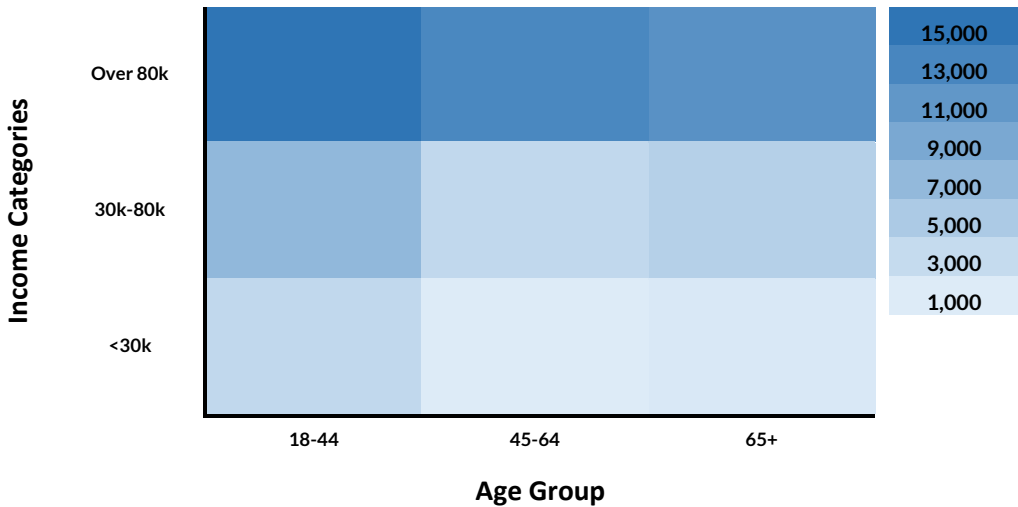
Figure 5: Pandemic Savings Flow across Financial Distress



Note: all numbers in the figure are calculated with survey weights. Risk categories are defined as follows: “Moderate Risk”: Missing utility only; “High Risk”: Missing loan (personal or credit card) only or missing both personal loan and utility. “Distress”: Missing payment on housing (mortgage or rent) or missing payment of housing as well as some other payment (utility or loan).

Finally, Figure 6 provides an estimate of the value of average pandemic savings<sup>9</sup> varying by the income distribution across different age groups of the surveyed respondents. Unsurprisingly, the intensity of pandemic savings is positively correlated with annual income and is highest for respondents with annual income over €80,000 across all age groups. This is in line with [Lydon and McIndoe-Calder \(2021\)](#), who show that high-income households, with comparatively lower marginal propensity to consume were the primary accumulators of pandemic savings.

Figure 6: Average Pandemic Savings by Income and Age Group



Note: The darkness of the shade in the chart indicates level of average pandemic savings, with darker shades represents higher levels.

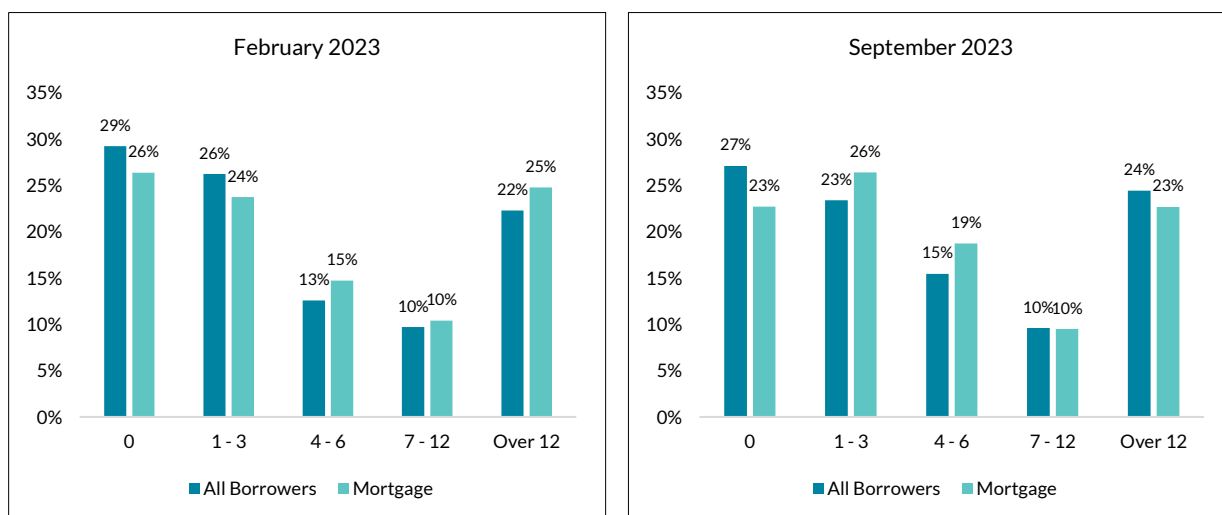
<sup>9</sup> The results should be interpreted with caution as the averages are estimated from the mid-points of the monetary ranges used to capture pandemic savings in the survey. Figure 6 is indicative of average intensity rather than average amounts.

Across different age groups, the intensity of pandemic savings is highest for the youngest cohort (18-44) irrespective of income distribution. This may be driven by more prospective homebuyers in this cohort, trying to maximise their savings during pandemic, amongst other reasons. On the contrary, with usually larger outlay of expenses due to bigger family sizes across the middle age group (45-64), it is not surprising to find relatively lower pandemic savings across lower (<€30,000) and middle income (€30,000-€80,000) distribution.

### 3.3 Financial buffers to cover debt-servicing costs

In this sub-section, we provide results from survey response highlighting the perceived debt-servicing commitment in the event of income loss. In Figure 7, we summarise survey responses on the number of months of savings buffers available to cover debt-servicing costs.<sup>10</sup> We find that the majority of households have positive financial buffers that can support a minimum debt coverage of 1-3 months, the result being similar across the two waves. Further, the proportion of households reporting positive financial buffers is relatively higher across the mortgage sample, especially in the recent wave of survey. This complements our result on monthly savings (Figure 3), where we record higher monthly saving flows for the mortgage sample.

Figure 7: Financial Buffers for Debt Servicing



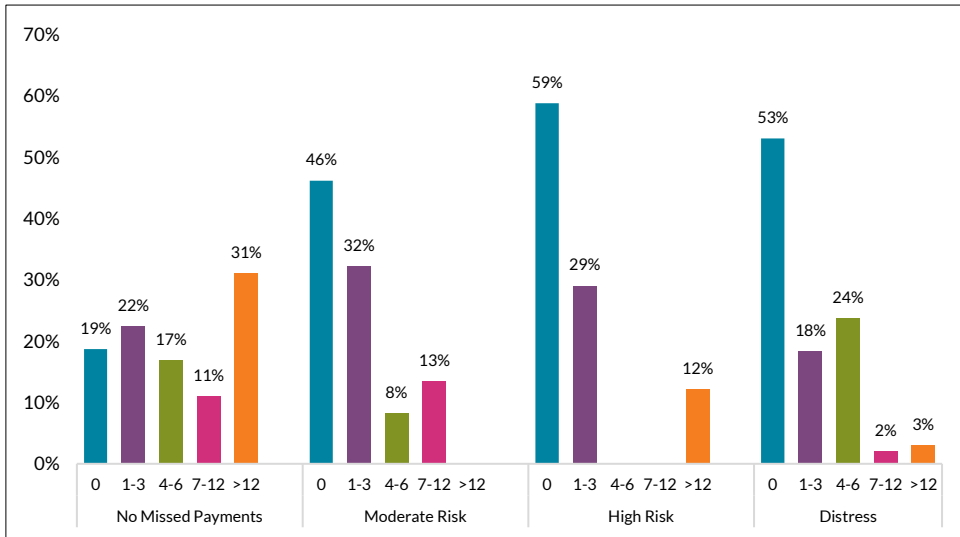
Note: all numbers in the figure are calculated with survey weights.

For the overall sample, we find that absence of any financial buffers (zero month coverage) remains high across the two waves; 29 per cent and 27 per cent in February and September, respectively. Importantly, absence of financial buffers is also high for mortgage borrowers; following the same trend for 26 per cent to 23 per cent across the two waves. This is consistent with our previous result on monthly savings flow (Figure 3), where we observe a high proportion with an inability to save. This clearly highlights the important link between debt-servicing capability and liquidity buffers of households.

<sup>10</sup> Table A2 in [Yao \(2023\)](#).



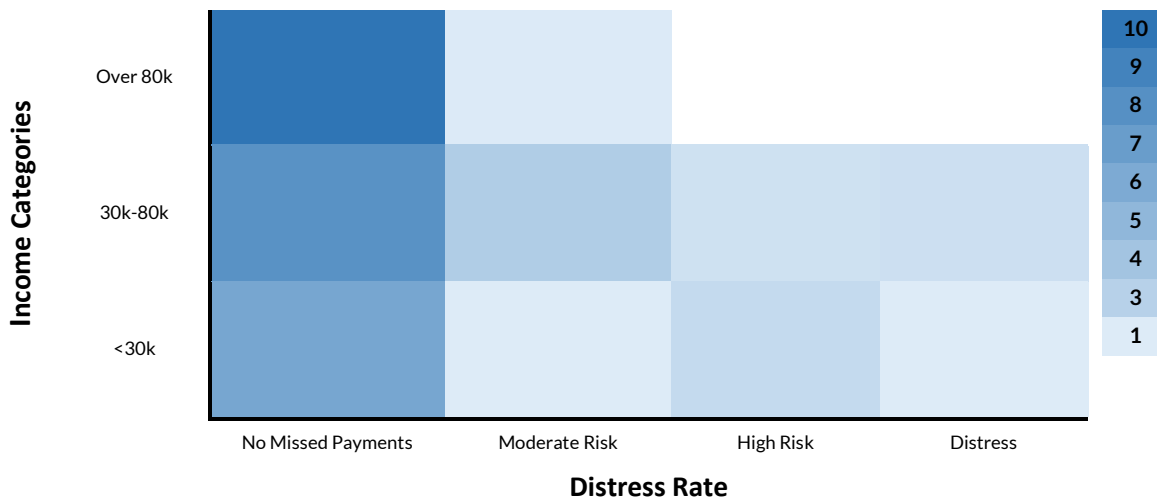
Figure 8: Financial Buffers across Financial Distress



Note: all numbers in the figure are calculated with survey weights. Risk categories are defined as follows: “Moderate Risk”: Missing utility only; “High Risk”: Missing loan (personal or credit card) only or missing both personal loan and utility. “Distress”: Missing payment on housing (mortgage or rent) or missing payment of housing as well as some other payment (utility or loan).

In Figure 8, we look at the prevalence of debt-servicing buffers across financial distress categories. For households who do not miss any payments, around 31 per cent suggest debt coverage of over 12 months with around 22 per cent and 17 per cent reporting debt coverage of 1-3 and 4-6 months respectively. Contrary to this, the vulnerable “distress” and “high risk” households demonstrate very high proportion of zero months of coverage (53 per cent and 59 per cent respectively). This is noteworthy and resonates with very high proportion of households with zero monthly saving flows, as shown in Figure 3.

Figure 9: Number of Monthly Debt Payments Covered by Savings



Note: The darkness of the shade in the chart indicates average number of monthly debt-servicing costs covered by savings, with darker shades represents higher levels. All numbers in the figure are calculated with survey weights. Risk categories are defined as follows: “Moderate Risk”: Missing utility only; “High Risk”: Missing loan (personal or credit card) only or missing both personal loan and utility. “Distress”: Missing payment on housing (mortgage or rent) or missing payment of housing as well as some other payment (utility or loan).

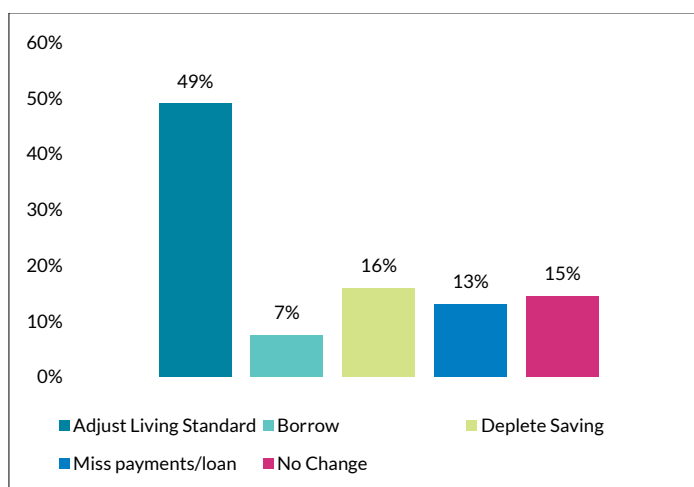
Finally, Figure 9 provides the distribution of financial buffers available for debt servicing<sup>11</sup> across both household financial distress as well as income distribution of respondents. As expected, respondents who do not miss any payments, on average, have higher debt-servicing coverage. This is regardless of their income distribution, whereby their financial buffer remains significantly higher even at the lower end of the income distribution. Contrary to this, vulnerable “high-risk” and “distress” households, on average, have relatively lower financial buffers irrespective of their income distribution.

## 4 Response to Cost-of-living Increases

In addition to liquidity buffers, the 2023 H2 survey also captures measures foreseen by households in response to the cost-of-living increase since the middle of 2022.<sup>12</sup> The survey asks respondents to describe their potential actions to make ends meet if the current economic environment continues or worsens for the next 12 months. In the context of inflation and rising cost of debt, these responses demonstrate potential transmission channels towards wider macro-economic impacts such as lower aggregate demand, savings depletion, defaults, as well as distressed borrowing.

Figure 10 summarises the survey results, whereby the most common response is “adjust living standard” (49 per cent), followed by “depletion of savings” (16 per cent). However, we find significant prevalence of undesired future outcomes; for example, 13 per cent respondents report likelihood of missing payments on loans and utility bills, while a further 7 per cent of respondents anticipate new borrowings to make ends meet.

Figure 10: Response to Continued Cost-of-living Increase



Notes: all numbers in the figure are calculated with survey weights

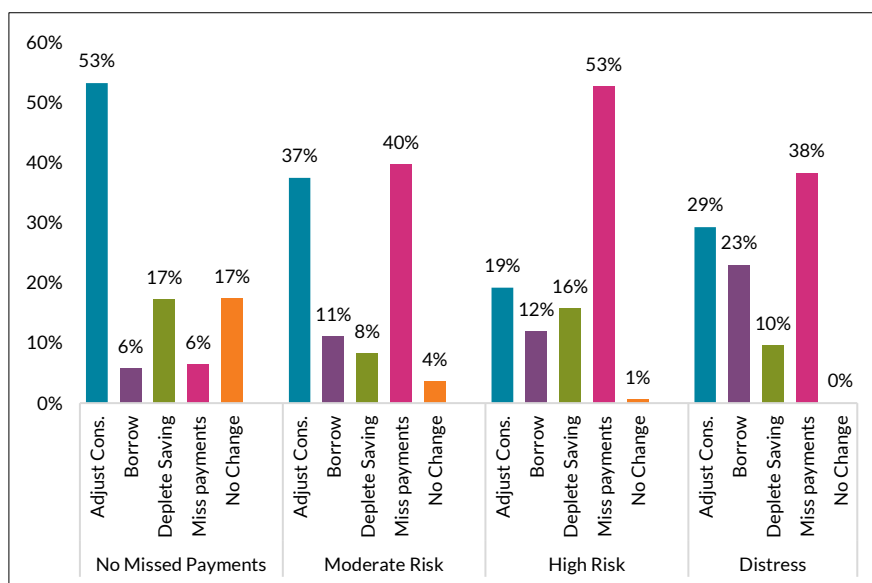
Figure 11 provides a further breakdown of cost-of-living actions across financial distress categories. We find continued risk towards debt-servicing capability amounting to financial distress if the current economic environment continues or worsens for the next 12 months. Amongst the “high risk” and “distress” households, resorting to severe actions such as further borrowing and missing payments remains relatively high in the situation where the current economic environment

<sup>11</sup> The results should be interpreted with caution as the averages are estimated from the mid-points of the months used to capture financial buffers in the survey. Figure 9 is indicative of average intensity rather than average number of months.

<sup>12</sup> See Table A1 for formal survey question.

continued or worsens. On the other hand, financially resilient households who do not miss any payments, primarily suggest adjustment of living standard/consumption (53 per cent),

Figure 8: Response to Continued Cost-of-living Increase by Financial Distress



Note: all numbers in the figure are calculated with survey weights. Risk categories are defined as follows: “Moderate Risk”: Missing utility only; “High Risk”: Missing loan (personal or credit card) only or missing both personal loan and utility. “Distress”: Missing payment on housing (mortgage or rent) or missing payment of housing as well as some other payment (utility or loan)

## 5 Conclusion

The distribution of aggregate liquid savings and debt-servicing capacity has important implications for financial stability. This Note summarizes key findings of a recently conducted survey and shows that considerable proportion of Irish mortgage holders could face risks associated with continued debt servicing in the event of an unanticipated income shock, owing to a lack of reported savings available to service debts in the event that income was insufficient. Financially resilient borrowers have large financial buffers to continue debt servicing as well as more flexibility to reduce their spending if they lose income. However, the anticipated future actions reported as a response to cost-of-living increase includes undesired outcomes such as more borrowing or missing payments on debts, whereby the severity of these actions is much higher amongst households who already face issues of missing payments on debts and housing costs. This survey further confirms the findings from the previous study (Yao, 2023) that, in the event of a broader economic downturn leading to income and job losses, more limited liquidity buffers may be a key vulnerability for up to one half of the household sector.

## References

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

Central bank of Ireland (2023). Quarterly Bulletin 03 Box C: Post-Pandemic excess savings in Ireland by Stephen Byrne, Tara McIndoe-Calder and Kun Wu

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

Lydon R., McIndoe-Calder, T. (2021), Saving during the pandemic: Waiting out the storm? Economic Letter, Vol. 2021, No.4, Central Bank of Ireland

Saupe S. and Woods M. (2022), The Future of Irish Household Deposits: A European Perspective, Economic Letter, Vol. 2022, No. 5, Central Bank of Ireland

Yao F. (2023), New Survey Evidence for Household Resilience to Current Shocks. Financial Stability Notes, Vol. 2023, No.5, Central Bank of Ireland

## Appendix

Table A1. Financial stability questions in this survey

	Question	Answer options
Q1.	Since the pandemic period from March 2020, how much did you save in excess of what you would normally have saved?	<ul style="list-style-type: none"> <li>A. None</li> <li>B. Less than €1,000</li> <li>C. € 1,000 - € 4,999</li> <li>D. € 5,000 - € 9,999</li> <li>E. € 10,000 - € 19,999</li> <li>F. € 20,000 - € 29,999</li> <li>G. € 30,000 - € 39,999</li> <li>H. € 40,000 - € 49,999</li> <li>I. € 50,000 or more</li> </ul>
Q2.	In the next couple of years, what do you plan to do with excess pandemic savings?	<ul style="list-style-type: none"> <li>A. I have no remaining excess pandemic savings (I have already spent the money that I saved)</li> <li>B. Repay debts</li> <li>C. Spend on cars, holidays, education (or other large sum items...)</li> <li>D. Buy property or other long-term investment products</li> <li>E. Spend on home improvements</li> <li>F. Continue to hold as savings</li> <li>G. Others, please specify ____</li> </ul>
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?	<ul style="list-style-type: none"> <li>A. 0 months</li> <li>B. 1-3 months</li> <li>C. 4-6 months</li> <li>D. 7-12 months</li> <li>E. &gt;12 months</li> <li>F. Not sure / Prefer not to say</li> </ul>
Q4	Costs of living in Ireland have significantly increased since the middle of 2022, if economic environment stays the same/worsens in the next 12 month, which of the following describes your household financial situation: To make ends meet, we would ...	<ul style="list-style-type: none"> <li>A. draw on savings</li> <li>B. adjust our standard of living</li> <li>C. borrow money, e.g. credit card, friends, family, etc.</li> <li>D. need to make changes that are not feasible for us. We would miss payments on loans / bills.</li> <li>E. not need to make any changes</li> </ul>
Q5	How much, roughly, do you save per month?	<ul style="list-style-type: none"> <li>A. I don't save</li> <li>B. €1-€99</li> <li>C. €100-€249</li> <li>D. €250-€499</li> <li>E. €500-€749</li> <li>F. €750-€999</li> <li>G. €1000-€1999</li> <li>H. Over €2000</li> <li>I. Don't know / prefer not to say</li> </ul>



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