Exploring **Financial Wellbeing and Literacy Disparities** across Population Groups in Ireland

Indecon

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Introduction

This is the second in a series of reports based on a national survey undertaken by Ipsos MRBI in 2023 on financial wellbeing and financial literacy in Ireland. The Phase I report, published by the Competition and Consumer Protection Commission (CCPC) and Indecon in 2023, captured the initial findings of the research.

In Phase II, a deeper analysis of the data was carried out, using quantitative analysis methods to draw distinctions and similarities between specific groups. This report is the outcome of these analyses. A technical annex is attached, which should be read in conjunction with this report. The national survey, which formed the basis for these reports, used a standardised toolkit developed by the OECD for the purpose of assessing financial literacy and wellbeing among OECD member states.

These reports aim to provide insight for the CCPC, policymakers and other stakeholders working in financial literacy and wellbeing and guide policy towards groups that would benefit from additional efforts to improve their financial literacy and wellbeing. Some key findings published in the Phase I repot are shown below.

Summary of Phase I report conclusions
❑ 58% of people were satisfied with their current financial situation, though one in seven had too much debt.
❑ One in three respondents were just getting by financially.
❑ One in eight could only cover their costs for a month or less in the event of an income shock.
❑ 86% of households said that they save, with men more likely to engage in higher risk saving.
❑ 77% reported access to the State Pension, with 9% only having access to State Pension or no pension arrangement at all.
❑ One in four respondents said they did not shop around before buying a financial product.
❑ Most respondents, including older users, used the internet for banking and financial planning.
❑ One in five were the victim of some type of financial fraud.
❑ The survey showed a high level of financial literacy in Ireland though gaps between key groups also existed.
Source: https://www.ccpc.ie/business/research/market-research/financial-well-being-in-ireland-financial-literacy-and-inclusion-in-2023/

Phase II main findings

Financial literacy – Exploring Financial Wellbeing and Literacy Disparities across Population Groups in Ireland

The OECD methodology uses three measurements to establish an overall metric for financial literacy: financial knowledge, financial behaviour, and financial attitudes. In their recent analysis Ireland scored higher than the overall OECD and EU average in financial literacy.[1] This was most apparent in the areas of financial behaviour and financial knowledge. This report (Exploring Financial Wellbeing and Literacy Disparities across Population Groups in Ireland) dives deeper into Ireland's high score, highlighting significant differences between groups, and spotlighting those groups that might benefit from additional resources.

The financial literacy modelling results can be interpreted as follows:

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[1] Not all EU countries participated in the survey, so the EU average relates only to participant countries.

❑ **Gender**: Men consistently scored higher than women in terms of financial literacy, and this remains the case when we considered income, education, and a range of other factors.

❑ **Economic status**: People who are unemployed or inactive had significantly lower financial literacy scores than people who are employed. Those who are inactive (this group includes retired people and students) reported similar levels of financial wellbeing as people in employment, but lower financial literacy.

❑ **Household composition**: People who live alone and people who live with family but without partners, had the lowest levels of financial literacy, while people who live as part of a couple (either with or without children), and people who are lone parents had similar levels of financial literacy.

❑ **Income**: People with high incomes had the highest financial literacy. People with middle and lower incomes had lower levels of financial literacy. However, the lower and middle-income groups did not have significantly different levels of financial literacy from each other, suggesting a difference between high earners and everyone else.

❑ **Education**: People with a third-level education[2] had significantly higher financial literacy than both secondary and primary-level educated groups. This remains the case even when controlling for demographics and income, suggesting that respondents' formal educational attainment level is strongly associated with financial literacy.

❑ **Holding of financial products**: People who own advanced financial products (stocks and bonds for example) reported significantly higher financial literacy than people who do not own the same types of financial products. This finding suggests that more experience with financial products is associated with greater literacy.

❑ **Price comparison services**: Finally, people who use price comparison services and websites[3] reported significantly higher financial literacy than people who do not use such services.

Financial wellbeing – quantitative analysis

The OECD's financial wellbeing measure is based on a specific set of questions designed to explore the respondent's objective circumstances (ability to cover a major expense, ability to cover expenses with income, ability to cover expenses in case of income loss, and having money left over at the end of the month) and their subjective perceptions about their finances (a series of subjective statements on finances and debt)[4]. Indecon conducted a range of statistical models to analyse group differences in financial wellbeing, which are presented in the body of the report as well as the technical annex. These results can be interpreted as follows:

❑ **Gender**: Men, on average, reported higher levels of financial wellbeing than women. However, controlling for economic, demographic, and literacy factors closes this gap (in the final models this gap is no longer statistically significant).

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[2] This measure compares people with tertiary and post tertiary education to those with secondary, primary, or no formal education. This measure does not consider apprentice level training as a third level qualification. For more information see question QD9 in the OECD's questionnaire, which can be found at https://www.oecd-ilibrary.org/docserver/cbc4114f-en.pdf?expires=1723629343&id=id&accname=guest&checksum=8B6ACD730C56336965D1BD2D72ED2107

[3] Specifically, this variable considers people who used price comparison website when buying financial products in the last two years. Financial products include pensions, investment accounts linked to the stock market, and car finance products like hire purchase.

[4] A more detailed discussion of this measure is available at https://www.oecd.org/en/publications/2023/12/oecd-infe-2023-international-survey-of-adult-financial-literacy_8ce94e2c.html

❑ **Economic and family status**: Unemployed respondents and lone parents had lower levels of financial wellbeing despite controlling for a range of other factors. This suggests that unemployed persons and lone parents may be a social risk group with challenges unique to them.

❑ **Income**: Income is unsurprisingly positively correlated with financial wellbeing, with higher earners reporting significantly better levels of financial wellbeing, all else being equal. The effect did not disappear when financial literacy, demographics, and resources like education were taken into consideration.

❑ **Financial products**: As more complex models in the technical annex show, people who hold advanced financial products reported better financial wellbeing than people who do not. Further, people with Buy Now Pay Later (BNPL)[5] products reported a significantly worse level of financial wellbeing than people without such loans. Here too, the effect remains even after controlling for income, education, and other demographic factors.

❑ **Financial literacy and wellbeing**: All results, including the more complex models in the technical annex, show that those with higher financial literacy reported higher financial wellbeing. This indicator is an important and statistically significant determinant of wellbeing. In short, financial literacy has a strong effect, and this effect remains significant when we correct for a range of challenges in our model.

International findings

The survey outputs were also analysed in terms of differences between selected countries in the Euro area. This was based on an analysis of the scores of the OECD survey and relevant macroeconomic indicators. These results can be interpreted as follows:

❑ **Financial literacy**: Countries with higher levels of disposable income per household[6] had higher scores in financial literacy, though there is a wide dispersion in scores, suggesting that other factors are at play. Since previous research of micro-data has found a positive correlation between a household's financial literacy and its income, this finding captures a similar effect at country level.

❑ **Financial wellbeing**: Countries with higher levels of disposable income per household also had higher scores in financial wellbeing.

Ireland reported higher financial wellbeing and literacy than many other countries with higher disposable incomes.

For both financial wellbeing and literacy scores, the dispersion of Irish scores (the differences between groups within Ireland) was on a par or below other OECD countries. As such, Ireland's high score on both measures is attributed to higher wellbeing and literacy scores across society generally.

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[5] Buy Now Pay Later (BNPL) is a form of consumer credit which has been growing in recent years. It represents a type of short-term unsecured borrowing that allows consumers to purchase goods now and pay for them at a future date. See: Central Bank (2023), "*Buy Now Pay Later: Consumer Insights Update*". Note, only a small number of people in the survey had such products.

[6] Disposable income is adjusted to reflect households' purchasing power and their ability to invest or save for the future.

Conclusions

A summary of the conclusions from phase II report is shown below.

	Summary of conclusions
1	Ireland's first National Financial Literacy Strategy provides a unique opportunity to impact people's financial wellbeing by improving financial literacy levels.
2	There is no significant difference in the financial wellbeing of men and women when their levels of financial literacy are similar. However, on average, men have higher levels of financial literacy. Therefore, improving women's financial literacy could help close the wellbeing gap between men and women.
3	The association between using Buy Now Pay Later (BNPL) products and lower levels of financial literacy and wellbeing highlights the importance of ensuring consumers clearly understand this credit option.
4	The use of price comparison services to shop around is linked to higher financial literacy. The availability and accessibility of these tools may be crucial for those reporting lower financial literacy and wellbeing.
5	Certain key groups are likely to experience gaps in their financial wellbeing, even if their financial literacy is improved.
6	Higher education is associated with both higher financial wellbeing and higher financial literacy across all statistical models in the report.
7	While complex financial products are more easily accessible, many people appear to lack the required knowledge to manage them effectively.
Source: Indecon	

1   Introduction and background

1.1   Introduction

This report, submitted to the Competition and Consumer Protection Commission (CCPC) by Indecon International Consultants, provides an analysis of financial wellbeing and financial literacy in Ireland in 2023. It is based on a national survey undertaken by Ipsos MRBI using an Organisation for Economic Co-operation and Development (OECD) toolkit. The work was undertaken in two phases, and this present report represents the second phase of this project.

The overall aim of both phases was to provide an evidence base for the CCPC, policy makers, and other stakeholders working in financial literacy and financial wellbeing. The Phase I report, which was published in July 2023, captured the initial findings of the research, and is available to download.[7] For the second phase of the project, relationships determining financial wellbeing and financial literacy were studied in more detail, using advanced econometric models.

1.2   Methodology

In 2009 the OECD/INFE (International Network on Financial Education) began to develop a toolkit[8] for measuring levels of financial literacy and inclusion. This toolkit provided a standard survey questionnaire and methodology for measuring financial literacy, inclusion, resilience, and wellbeing over time and in an internationally comparable way.

This report (as with the Phase I report) uses Ireland's data from the OECD's 2023 version of the survey.[9] In most participating countries, data was collected by national authorities or research institutions. In Ireland, data was collected by Ipsos MRBI and was overseen by the Competition and Consumer Protection Commission. Data collection took place between 16 December 2022 and 1 March 2023. Survey interviews consisted of a random sample of the population and were completed by phone. There were 1,505 individuals in the sample.

The OECD/INFE toolkit

The measures for financial wellbeing and financial literacy used in this report are based on the guidance from the OECD/INFE (International Network on Financial Education) toolkit. The toolkit provides instructions for defining and assessing financial wellbeing and literacy, drawing extensively from established surveys and existing research. A brief summary and discussion of the methodology across the key areas of investigation is shown below, though more background on the development of the toolkit is set out in the Phase I report. The financial literacy methodology is set out clearly in the table 1.1.

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[7] https://www.ccpc.ie/business/research/market-research/financial-well-being-in-ireland-financial-literacy-and-inclusion-in-2023/

[8] OECD. (2022), OECD/INFE Toolkit for Measuring Financial Literacy and Financial Inclusion 2022, Retrieved from www.oecd.org/financial/education/2022-INFE-Toolkit-Measuring-Finlit-Financial-Inclusion.pdf

[9] More information about the survey is available here https://www.oecd.org/publications/oecd-infe-2023-international-survey-of-adult-financial-literacy-56003a32-en.htm

Table 1.1: Summary of OECD methodology	
Financial knowledge	The financial knowledge score is calculated (out of 7, or when normalised, out of 35) as the number of correct responses to seven purely factual questions. The questions test an understanding of concepts such as inflation, interest rates and diversification.
Financial behaviour	The financial behaviour score measures the propensity of respondents to exhibit various behaviours that are considered by the OECD to be financially savvy. These include aspects relate to budgeting, saving, borrowing, and paying bills on time. The financial behaviour score is calculated out of 9 (or when normalised, out of 45).
Financial attitudes	The financial attitudes score is computed as the average response across two or three[10] statements. The questions are asked on a scale of completely agree (1) to completely disagree (5). For example, respondents may be asked whether they agree with the statement "I keep a close personal watch on my financial affairs". The response ranges are rescaled from 0 to 4 (or when normalised, out of 20),[11] and a higher score is indicative of better financial attitudes although the questions are arguably somewhat subjective.
Financial literacy	The overall financial literacy score is calculated as the sum of the three scores described above. The score, out of 20, may be normalised to 100.
Source: OECD	

The financial literacy measure combines assessments of financial knowledge, financial behaviour, and financial attitude, as outlined in the OECD Toolkit (OECD, 2022). The financial knowledge score evaluates respondents' understanding of basic financial concepts. This measure includes the "Big Three" financial literacy questions developed by Lusardi and Mitchell (2014)[12] on understanding inflation, compound interest or interest rates, and risk diversification, which were adapted to ensure applicability to OECD countries. The score ranges from 0-35. The financial behaviour score measures a person's likelihood of engaging in behaviours considered by the OECD to be 'financial savvy', ranging from 0 to 45. The financial attitude score measures respondents' agreement with three statements related to money spending and saving: (1) "I find it more satisfying to spend money than to save it for the long term"; (2) "Money is there to be spent"; and (3) "I tend to live for today and let tomorrow take care of itself". Using a scale of completely agree (1) to completely disagree (5), a higher score indicates a more positive financial attitude, and this score ranges from 0 to 15. The overall financial literacy score is calculated as the sum of the three scores described above. More information on the methodology is available in the technical appendix.[13]

The financial wellbeing measures used are guided by the latest INFE/OECD guidelines. They consolidate established indicators for financial wellbeing from previous research into an overall score

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[10] In some countries only two statements may be given.

[11] It should be noted that that in the 2018 version of the toolkit the financial attitudes score was on a scale of 1 to 5 rather than 0 to 4. This means that for a given set of responses the estimated financial attitudes score in the 2020 research would be one higher than it would be if calculated using the 2022 methodology.

[12] See Kaiser and Lusardi (2024) for a recent review: Kaiser, T., & Lusardi, A. (2024). Financial literacy and financial education: An overview.

[13] https://www.ccpc.ie/business/wp-content/uploads/sites/3/2024/09/2024.09.27-Indecon-Report-Technical-Appendix.pdf

in index format. More specifically, financial wellbeing is based on a series of questions that explore respondents' current and future finances, objective circumstances, and their subjective perception of their own financial wellbeing.

Relevant aspects of the analysis include questions on retirement planning and debt burden. Other indicators, such as the respondent's ability to pay for a major expense equivalent to the respondent's monthly income, have been demonstrated to be reliable measures of financial wellbeing.[14]

Each question is coded as a binary variable. Answers which indicate positive financial wellbeing are given a value of 1; answers which are neutral/negative to wellbeing (or missing) are given a value of 0. The overall score for financial wellbeing is obtained by combining objective and subjective questions into an overall standardised score out of 100.

1.3 Report structure

The remainder of the report is structured as follows:

❑ Section two summarises previous policy research in the fields of financial literacy and financial wellbeing.

❑ Section three summarises the findings of the Phase I report from July 2023 and explores group differences.

❑ Section four reports the main findings of the Phase II study based on Indecon's detailed analysis of group comparisons.

❑ Section five reports on the main findings of the cross-country analysis.

❑ Section six concludes with a summary of the findings of the research.

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[14] Lusardi and Streeter, 2023

2   Policy research on financial wellbeing and literacy

2.1   Introduction

This section summarises the theoretical and empirical discussion on financial wellbeing and financial literacy, along with the policy context for their association.

2.2   Existing policy research

Financial literacy is an important predictor of financial wellbeing. In terms of theory, works by Lusardi and Mitchell (2014), Hsu (2016), and Devalande, Rohnwedder, and Willis, (2008) have developed an understanding as to why financial literacy matters to financial wellbeing. They propose that financial literacy should be seen as a form of human capital, which gives people the confidence and ability to understand and test new aspects of wealth accumulation.

Empirical work has largely supported the predictions made by these theories. Authors find that financial literacy is higher in older respondents, men, educated groups, and employed respondents (Lusardi and Messy, 2023; Lusardi and Streeter, 2023; Samuelsson et al., 2024; Boislair et al., 2024; Bucher-Koenen et al., 2023; and Lusardi and Mitchell, 2014). These relationships hold in data from the US, Canada, Sweden, and Austria. Research in Spain suggests that certain self-employed workers do better than the employed (Muñoz-Céspedes et al., 2023).

In terms of financial wellbeing, researchers consider a range of outcomes, but often highlight similar group differences to that of financial literacy. In general, men score higher than women; older respondents score higher than younger respondents; and workers score higher than the unemployed or the inactive, although an exception exists for retired respondents (Boisclair et al., 2024; Kempson et al., 2017; Botha et al., 2024; and Lusardi and Streeter 2023).

This theoretical and empirical work has informed the OECD's approach to financial wellbeing, which sees financial literacy programmes as the key to achieving financial wellbeing or good financial health (Gubbins and Heyer, 2022; INFE, 2022). In early policy debates the OECD argued that households needed financial education to manage *"the responsibility and risk for financial decisions, especially in the field of retirement savings"* (OECD 2005). Although financial wellbeing was not explicitly mentioned, retirement planning was often considered a key aspect to good financial health.

In 2012, further support for the promotion of financial literacy to improve wellbeing came from the G20, when leaders recognised the OECD's recommendations and supported the evaluation of financial programmes across the OECD (2013). The OECD further developed and refined its definition of financial literacy, noting that financial wellbeing is an explicit outcome of improved literacy and knowledge, when it stated that *'knowledge and understanding of financial concepts and risks […] and the skills […], motivation and confidence […] to apply such knowledge and understanding in order to […] improve the financial well-being of individuals and society'*. In 2020, the OECD further adopted the Recommendation on Financial Literacy, initially developed by the OECD/INFE, which mentions financial wellbeing as a goal. In particular, the recommendation defines financial literacy as *'a combination of financial awareness, knowledge, skills, attitudes and behaviours necessary to make sound financial decisions and ultimately achieve individual financial well-being'* (OECD,2021, see also OECD, 2024).

Several articles have questioned policy recommendation which stem from the positive association between financial literacy and financial wellbeing. West et al., (2021) argue that income is a stronger predictor of financial wellbeing than financial literacy. In a sample of university students, the authors find that older students and those with higher incomes report higher levels of financial wellbeing, even when financial literacy is considered. They conclude that although financial literacy and financial wellbeing are associated, there are limits to how much financial literacy can be improved.

Further, Henchoz (2016) outlines three issues that she has with the policy recommendations which stem from a positive association between financial literacy and financial wellbeing. The extent to which financial literacy can be improved is debateable, as is the assumption that poor financial wellbeing is the result of a lack of information. Lastly, she notes that the policy recommendation that improved financial literacy will improve financial wellbeing has yet to be tested.

Elsewhere, Brown et al., (2018) use language differences between children in the German–French language border within Switzerland to highlight socialisation differences in financial literacy. Group differences between German speaking and French speaking children in the region favour Germans in terms of financial literacy. The authors argues that at least some portion of the result stems from financial socialisation rather than a difference in education. Although this conclusion stems from a simple survey analysis, it suggests that German children experience more socialisation with money (through pocket money and early bank accounts) than French students, giving them an advantage in understanding financial concepts.

In summary:

❑ There is much existing research on the area of financial wellbeing and literacy, and their interaction. Research shows that financial literacy can be considered a form of human capital, which gives people the confidence and ability to understand and test new aspects of wealth accumulation.

❑ Researchers consider a range of outcomes when it comes to financial wellbeing, but often highlight similar group differences to that of financial literacy. In general, men score higher than women; older respondents score higher than younger respondents; and workers score higher than the unemployed or the inactive, though an exception exists for retired respondents.

3. Phase I report – key findings and analysis of group differences

This section summarises the key findings of the Phase I report and contains analyses of group differences evident in the data.

3.1. Phase I report: key findings

The Phase I report, published by the CCPC and Indecon in 2023, captured the initial findings of the research using Irish data. Some of the key findings of this report were as follows:

❑ 58% of respondents reported that they were satisfied with their current financial situation, though one in seven reported carrying too much debt. Those with lower levels of education and young people reported lower levels of satisfaction.

❑ 33% of respondents reported that they were "just getting by financially". This rose to half of respondents with lower levels of educational attainment. Most respondents always (37%) or often (23%) had money left over at the end of the month.

❑ One in eight respondents reported that they could only cover their costs for a month or less in the event of an income shock. Most people believed they could sustain their living expenses for three months or more in the case of a financial shock. Lone parents, those who live with family, and those in other households (including house-sharing), were the least likely to have significant financial buffers in place.

❑ The percentage of households who save was high overall (86%). The more passive forms of saving such as savings or deposit accounts were the most common form, though there were a range of savings vehicles used. Men were more likely to engage in higher risk saving, like buying stocks and shares, or investing in crypto.

❑ Two-thirds of respondents had financial assets to fund retirement, while 73% planned to use a private or occupational pension in retirement. 9% of people said they would only have access to state supports in retirement. Women reported being more reliant on their spouse or children in retirement.

❑ Just over half of respondents who had recently purchased a financial product shopped around before purchasing the product or service (54%). However, a significant portion chose the first available option without considering any alternatives (23%).

❑ Most consumers, including older consumers, used websites and apps for banking and financial planning. Most commonly, these were used to check balances and transactions, pay bills online, and to buy goods and services online.

❑ One in five respondents were the victim of some type of financial fraud. A similar proportion of respondents (one in five) reported a problem with a legitimate provider, such as difficulty opening a bank account, accessing a loan, or making an insurance claim.

❑ While there was a broad understanding of many financial concepts, key gaps were evident in, for instance, the nature of contract signatures and the impact of risk. On average, men scored higher than women, while older respondents scored significantly higher than younger respondents.

3.2. Phase I report: group differences

The rest of this section is devoted to the findings of a simple review of group differences in the data. Respondents are categorised in terms of economic status, income, household composition, gender, age, and educational attainment. These represent the starting point for the more detailed analysis described in section 4.

Many of the differences below can be explained by resources or demographics. For example, some people with a third-level education may have higher incomes or live with a partner who can contribute to the household finances. In turn, some respondents with a low level of education may still be young, living with their parents, and on the path to completing their third-level degree.

Table 3.1: Average financial wellbeing and financial literacy by characteristics of respondents		
Characteristics of respondent	**Mean financial literacy**	**Mean financial wellbeing**
Economic status Employed	72.3	63.5
Self-employed	71.7	66.8
Unemployed	62.0	38.0
Inactive	66.5	65.7
Other	61.7	56.3
Income Up to €2,750 a month	64.5	52.0
Between €2,750 and €4,500 a month	71.9	64.4
€4,500 or more a month	74.5	75.2
Household composition Lives alone	65.3	61.7
Couple no kids live alone	71.3	71.6
Couple with kids (any age)	72.8	63.7
Lone parent does not live with relative	68.5	52.0
No partner no kids with relative	68.1	61.3
Other including house-sharing couples	68.3	53.0
Gender Female	67.7	62.0
Male	71.7	64.9
Age categories 18-29	68.0	54.0
30-39	72.6	61.8
40-49	71.5	59.4
50-59	70.9	62.5
60-69	70.1	69.0
70-79	67.3	75.1
80+	63.6	77.1
Education Tertiary	73.1	68.8
Secondary	66.2	55.7
Primary or less	57.9	53.4
Total	**70.1**	**63.8**
Source: Indecon analysis of Ipsos MRBI data		

Economic status

Employed and self-employed respondents demonstrated the highest levels of financial literacy. The lowest levels of financial literacy were among the unemployed and those whose status is 'other'. Self-employed and 'inactive' respondents had the highest levels of wellbeing, while unemployed people had the lowest levels. 'Inactive' includes students and people in retirement, many of whom may be expected to have fewer financial obligations. The financial wellbeing scores reported by employed respondents was slightly behind, but they demonstrated the highest level of financial literacy. Meanwhile, unemployed respondents had lower levels of literacy and significantly lower wellbeing than the other groups.

Income

The data clearly shows that those with higher earnings scored better in both financial literacy and financial wellbeing.

Household composition

There were significant differences in financial literacy between household composition groups. Couples, either with or without children, had highest levels of financial literacy, while those who live alone had the lowest literacy. Financial wellbeing also differed between household composition groups, with couples without children reporting the highest levels of financial wellbeing, and lone parents reporting the lowest. Couples with children reported significantly lower financial wellbeing than couples without children, and their wellbeing was on par with people who live alone. Once again, couples with children, although demonstrating high financial literacy, did not rank as highly for financial wellbeing.

Gender and age

Men scored higher on average in both financial literacy and financial wellbeing. In terms of age, respondents aged 30-39 had the best financial literacy, while those aged 80 and over had the worst. However, wellbeing was highest for those aged 70 and over, and lowest for those aged 18-29.

Education

Respondents with third-level education showed, on average, higher literacy than those without. They ranked the highest in terms of financial wellbeing also, although there was very little difference between respondents with second-level educations and those with only a primary education.

3.2.1. Financial literacy metrics by group

As noted previously, financial literacy is made up of three specific measures: financial knowledge, financial behaviour, and financial attitudes. These factors also differed by the groups discussed in Table 3.1. As before, we do not consider the theoretical drivers of these differences. These are explored further in Section 4.

Table 3.2: Average financial knowledge, behaviour and attitude by characteristics of respondents				
Characteristics of respondent		**Financial knowledge (/35)**	**Financial behaviour (/45)**	**Financial attitude (/20)**
Economic status	Employed	27.9	32.9	11.4
	Self-employed	28.3	31.8	11.7
	Unemployed	23.7	28.7	9.5
	Inactive	25.5	30.2	10.8
	Other	24.0	28.0	9.7
Income	Up to €2,750 a month	24.5	29.7	10.3
	Between €2,750 and €4,500 a month	27.7	32.7	11.5
	€4,500 or more a month	29.6	33.1	11.8
Household composition	Lives alone	25.3	29.7	10.3
	Couple no kids live alone	27.9	32.1	11.3
	Couple with kids (any age)	28.4	32.7	11.7
	Lone parent does not live with relative	25.6	31.5	11.4
	No partner no kids with relative	25.3	31.8	11.0
	Other including house sharing couples	25.7	31.9	10.8
Gender	Female	25.0	31.6	11.2
	Male	28.5	32.0	11.2
Age categories	18-29	24.9	32.4	10.7
	30-39	27.5	33.3	11.8
	40-49	27.9	32.5	11.1
	50-59	27.6	31.9	11.3
	60-69	27.5	31.3	11.3
	70-79	26.5	29.8	11.0
	80+	25.1	28.1	10.4
Education	Tertiary	28.6	32.9	11.6
	Secondary	25.2	30.3	10.7
	Primary or less	20.8	28.7	8.4
Total		**27.1**	**31.8**	**11.2**
Source: Indecon analysis of Ipsos MRBI data				
Note: Financial knowledge ranges from 0-35, Financial behaviour ranges from 0-45, and financial attitude ranges from 0-15.				

Economic status

Self-employed and employed respondents demonstrated the highest level of financial knowledge while unemployed and respondents in 'other' arrangements scored lowest. This difference was less pronounced in terms of financial behaviour, although employed and self-employed respondents still scored higher than other categories. In terms of financial attitudes, employed and self-employed respondents also scored highest.

Income

High earners had the strongest scores in knowledge, behaviour and attitudes. Low earners meanwhile saw lower scores across all three metrics, which suggests there is a strong association between income and each of the three markers.

Household composition

Group differences in financial literacy were mostly the result of differences in financial knowledge. Couples with and without children reported the highest level of financial knowledge, while people who live alone and people who live with family, demonstrated the lowest. In terms of financial behaviour, there were similar scores for all household groups except for respondents who live alone who reported lower levels of financial behaviour on average. This was also true for measures of financial attitudes.

Gender

The main source of gender difference in financial literacy was in financial knowledge, where men scored higher than women. The gender difference in financial behaviour and financial attitudes was minimal.

Age and education

Financial knowledge was highest among people in their 40's, and lowest among people in their teens and their 80's. Finally, in terms of education, those with a third-level education scored higher on every measure, while those with a low education had lower scores across the three measures.

3.2.2. Financial resilience and attitudes to debt

An important aspect of financial wellbeing is financial resilience, or the ability to resist, cope, and recover from sudden financial shocks like a large expense or a loss of income.[15] Our survey indicated that most people (66%) can cover both a large expense and a sudden drop in income (Figure 3.1). There was a minority of people (14%) who cannot cover a shock to their finances.

Financial resilience also varied significantly when considered in relation to people's opinions on their level of debt. Those who completely disagree (74%) or disagree (69%) with the statement *"I have too much debt right now"*, were the most likely to assert that they can cover both types of sudden financial shocks. Those who completely agreed (45%) that they had too much debt, and those who gave a neutral answer (46%) were the least equipped to cover financial shocks.

Although respondents who were neutral on debt are similar to the group who with too much debt in terms of financial resilience, our analysis suggests they are very different, in socio-economic terms.

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[15] More information on this definition is available here https://web-archive.oecd.org/2021-10-26/614407-G20-OECD-INFE-report-supporting-resilience-through-digital-financial-literacy.pdf

The neutral group is far more likely to be highly educated and is more likely to have a high income. This may be because people who have a mortgage and car payments, although highly leveraged in terms of debt, would not describe the debt as unnecessary or excessive.

Figure 3.1: Financial resilience by attitudes to debt

Source: Indecon analysis of OECD Ireland data
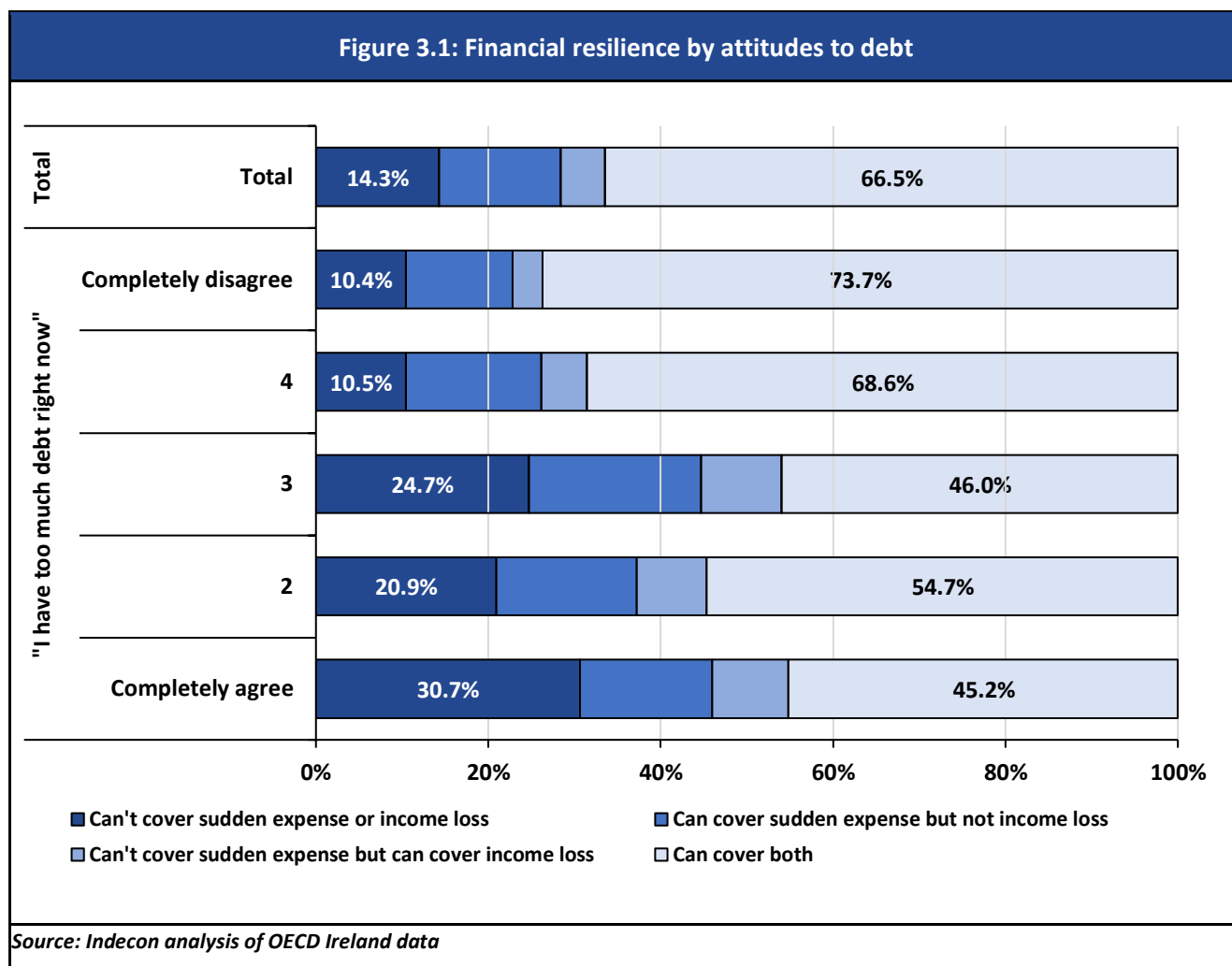
3.3. Ireland's score against OECD

This section considers Ireland's financial literacy and financial wellbeing scores in an international context, by comparing them to the OECD and EU averages. In terms of financial literacy, Ireland scored higher than both the overall OECD average, and the EU average.[16]

As can be seen in Figure 3.2 below, Ireland scores better in financial behaviour and financial knowledge. However, the Irish score for financial attitudes is not particularly different from the EU and overall OECD averages.

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[16] Note that not all EU countries participated in the survey, so the EU average relates to those that did.

Figure 3.2: Financial literacy, knowledge, behaviour, and attitudes for Ireland, overall OECD average, and EU average

Source: Indecon analysis of OECD Ireland data
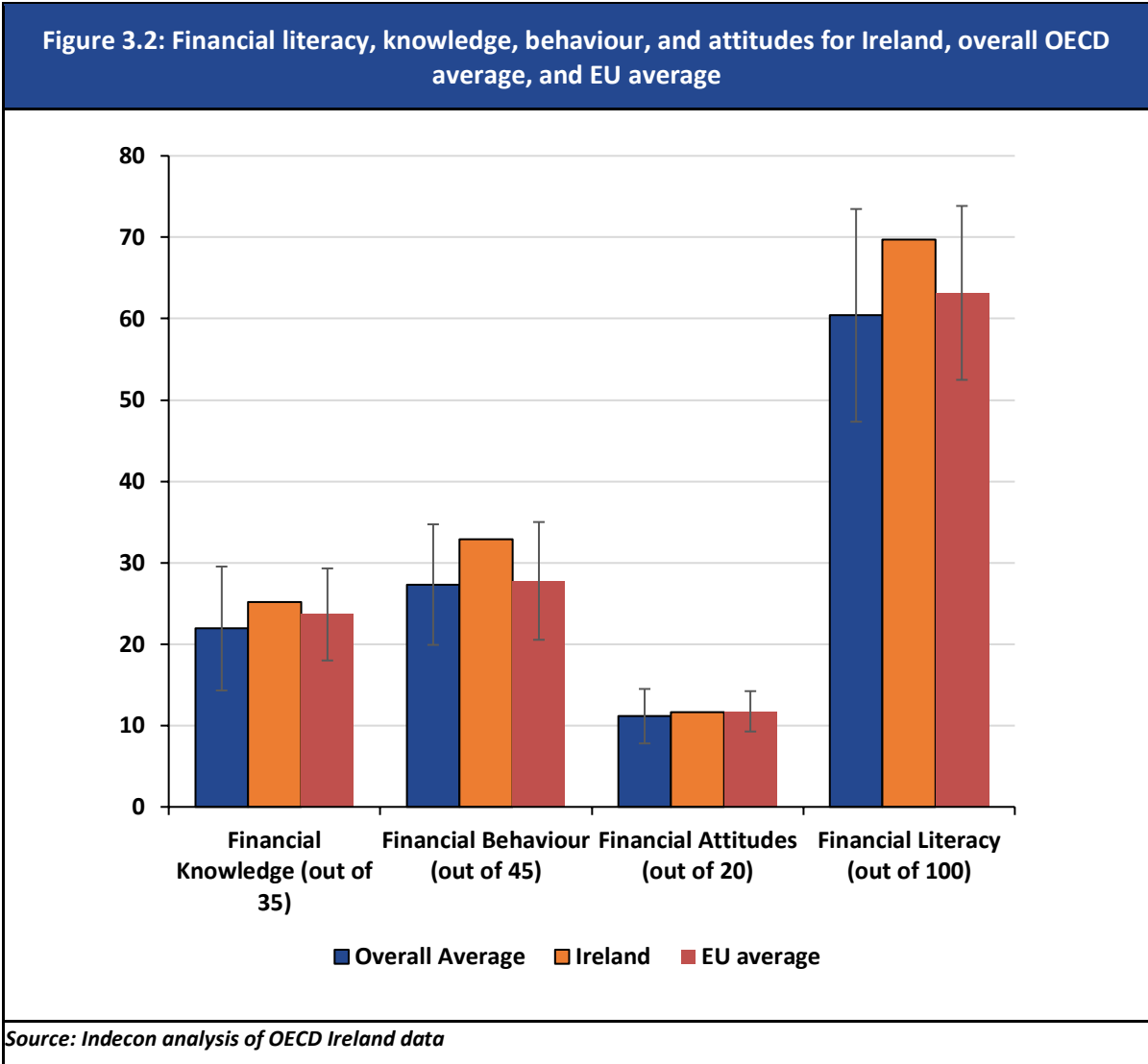
Regarding financial wellbeing, Ireland consistently scored above average in each permutation of financial wellbeing, either subjective, objective, or both. This is true for both the OECD overall average, and the EU average.

Figure 3.3: Financial wellbeing by type in Ireland, overall OECD report, and EU average

Source: Indecon analysis of OECD Ireland data
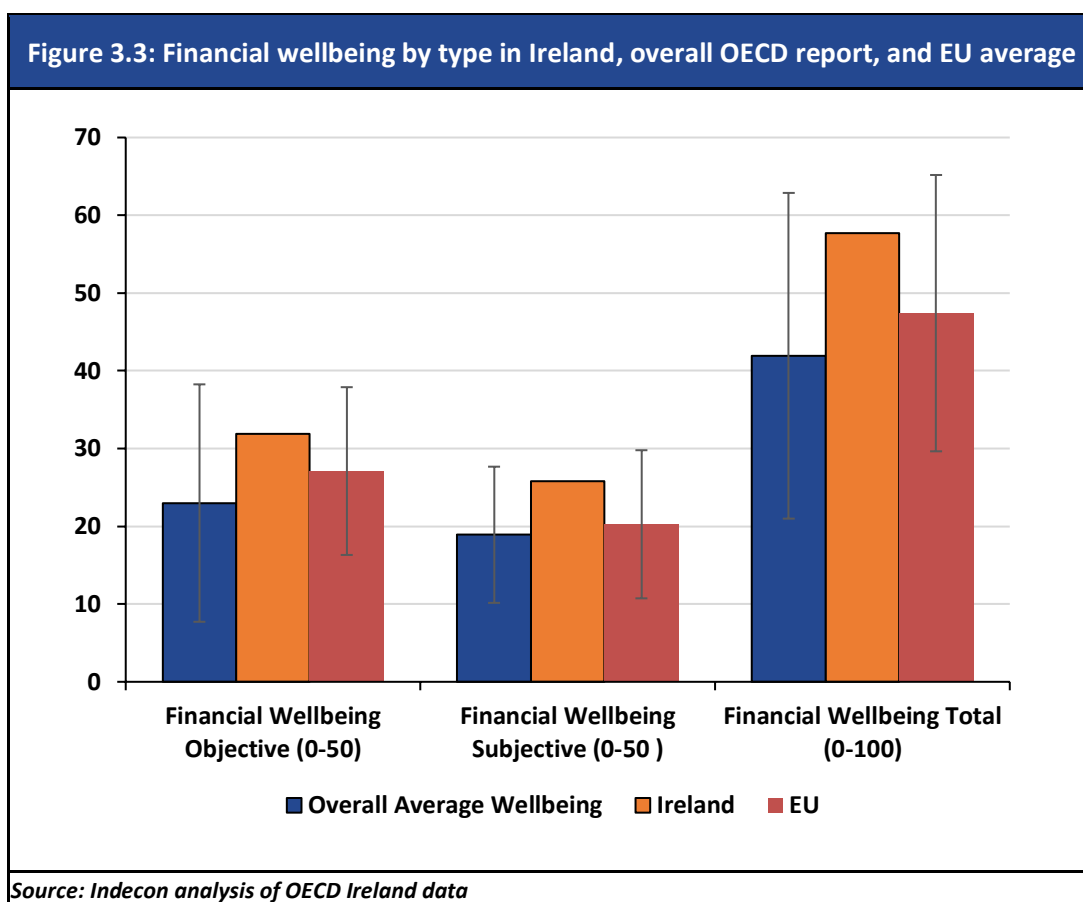
Further, each group in Ireland scored higher in terms of financial wellbeing than the corresponding OECD average for that group (results not shown, see Table 4.5 in the annex of OECD/INFE 2023 International Survey of Adult Financial Literacy[17]). If we consider gender, age, education, economic status and income groups, respondents in Ireland report higher wellbeing than the OECD average. This also includes vulnerable groups such as low earners; in every case, the results for Ireland are higher than the OECD average. It is important to note that a like for like comparison is not possible, because data on similar jurisdictions to Ireland is not always available.

3.4. Summary of key findings

In this section we explored group differences in the data collected in Ireland based on the OECD toolkit. We also compared the Irish data to other OECD countries. A summary of the key findings are as follows:

❑ In terms of financial literacy, Ireland scores higher than the overall OECD average, and the EU average. Financial literacy scores are based on metrics for knowledge, behaviour and attitudes. Ireland's performs better than average in financial behaviour and financial

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[17] https://www.oecd.org/en/publications/oecd-infe-2023-international-survey-of-adult-financial-literacy_56003a32-en.html

knowledge. The Irish score for financial attitudes is quite close to the EU and overall OECD averages.

❑ Regarding financial wellbeing, Ireland consistently scores above average in each permutation of financial wellbeing, either subjective, objective, or both. This is true for both the OECD overall average, and the EU average.

4. Phase II report - Comparison between specific groups: Quantitative analysis

4.1. Introduction

The analyses presented in the Phase I report, the subsequent OECD report, and the previous section are based on comparing simple averages across population subgroups. While this method can be very helpful in understanding the broader outcomes of the survey, it can also leave important questions unanswered or lead to incorrect conclusions.

The first challenge is that simply comparing score averages may not accurately reflect fundamental differences between two groups. Other factors that could influence the scores may not be immediately apparent. For example, when trying to understand why older people have lower financial literacy scores than middle-aged people, we should consider that older people tend to have lower levels of educational attainment. This could be the reason for their lower financial literacy levels, rather than their age. Further analysis of the data is needed to fully understand this.

A second challenge is that while simple averages can indicate associations, we can't assume that one factor leads to the other. For example, higher financial literacy scores are associated with higher scores in financial wellbeing. However, it is not clear whether financial literacy drives financial wellbeing or vice versa. More sophisticated studies and tests are needed to understand this.

4.2. Financial wellbeing – model results

In this section, we will examine group disparities in financial wellbeing, as defined by the OECD. We will begin by presenting simple group averages, followed by three models that illustrate differences in estimated financial wellbeing among groups. Our main focus is to test, present and discuss the basic differences in financial wellbeing and determine whether these differences can be attributed to economic, demographic, and financial literacy factors[18].

The first column in Table 4.1 shows average financial wellbeing scores (ranging from 0-100) by group. These are unadjusted averages without any controls.

The second column in Table 4.1 lists the difference in financial wellbeing using a statistical model which controls only for economic variables (economic status and income). Our results show that when we consider only economic measures, financial wellbeing is about 7.3% higher for the self-employed when compared to the employed (the base category). They also show that financial wellbeing is about 16.4% higher for the inactive when compared to the employed. In terms of income, we find that medium earners and high earners report 32.0% and 51.1% higher financial wellbeing than low earners.

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[18] In the technical annex, we include additional models that consider certain statistical biases and list additional information and key details.

Table 4.1: Variation in financial wellbeing by characteristics of respondent					
Characteristics of respondents		**Average financial wellbeing (1)**	**Estimated Variation**		
			Economic variables (2)	**Incl. demographics (3)**	**Incl. financial literacy (4)**
Economic status	**Base category: Employed**	63.5			
	Self-employed	66.8	0.073*	0.028	0.026
	Unemployed	38.0	-0.400***	-0.363***	-0.305**
	Inactive	65.7	0.164***	-0.003	0.026
	Other	56.3	0.264*	0.087	0.187
Income	**Base category: Up to €2750 a month**	52.0			
	Between €2750 and €4500 a month	64.4	0.320***	0.281***	0.222***
	€4500 or more a month	75.2	0.511***	0.441***	0.372***
Household Composition	Lives alone	61.7		-0.036	0.004
	Base Category: Couple no kids live alone	71.6			
	Couple with kids (any age)	63.7		-0.142***	-0.142***
	Lone parent does not live with relative	52.0		-0.306***	-0.278***
	No partner no kids with relative	61.3		0.151**	0.166***
	Other including house sharing couples	53.0		-0.079	-0.048
Gender	**Base Category: Female**	62.0			
	Male	64.9		0.058*	0.009
Age	**Age**			0.010***	0.010***
Education	**Base Category: Tertiary**	68.8			
	Secondary	55.7		-0.228***	-0.170***
	Primary or less	53.4		-0.353***	-0.208**
Financial literacy	**Log of Financial Literacy**				0.825***
Details	**Constant/Overall average**	63.9	3.710***	3.412***	-0.048
	N		1,325	1,325	1,325

Source: Indecon analysis
Note: Stars denote statistical significance. * p<0.10, ** p<0.05, *** p<0.01. The estimates are based on a linear OLS regression. The dependent variable is the log of financial wellbeing.

The third column in Table 4.1 shows the difference in financial wellbeing using a statistical model that takes into account demographic factors (such as household composition, gender, age, and education)

and economic measures (economic status and income). In this third column, we no longer see significant differences between self-employed and employed individuals, and between inactive people and the employed. It suggests that this effect is explained by demographic factors rather than economic measures. In other words, including additional demographic variables in our model has explained the gap in financial wellbeing between these self-employed or inactive people and employed respondents (as seen in column 2 of Table 4.1, which is no longer present in column 3 of Table 4.1). However, there is still a significantly negative association between financial wellbeing and being unemployed when compared to employed individuals. Furthermore, looking at column three in Table 4.1, we can see that differences in financial wellbeing between low earners and high earners remains significant, along with the difference between low earners and medium earners.

According to the data presented in column 3 of Table 4.1, demographic factors have a significant impact on financial wellbeing, which will be further discussed later. The findings reveal that when we consider only economic and demographic measures, financial wellbeing is about 14% lower for couples with children when compared to couples without children (which serves as the base category of that variable). They also show that financial wellbeing is 31% lower for lone parents when compared to couples without children. Finally, the analysis shows that financial wellbeing is 15% higher for individuals living with their parents and without partners or kids when compared to couples without children.

Column 3 of Table 4.1 also shows that there are gender and age differences in financial wellbeing, despite the model controlling for economic and other demographic variables. Our results show that financial wellbeing is 5.8% higher for men than it is for women and 1% higher for each increase in age. The estimate captures the average difference of a group that is 1 year older than a comparison group.

Column 3 of Table 4.1 also compares group differences in education. Once again, this model takes into account only the economic and demographic differences between these education groups, but education itself shows significant effects. Our results show that financial wellbeing is 22.8% lower for people with a secondary degree and 35.3% lower for people with a primary degree when compared to people with a third level degree.

Lastly, we present one more model, shown in column 4 of Table 4.1, which considers economic, demographic, and financial literacy estimates together. This final model is almost identical to the last one we presented and discussed in column 3 of Table 4.1. The only difference is that this model controls for the log of a person's financial literacy, along with the other controls. Our results show that financial wellbeing is 0.83% higher for groups with 1% higher financial literacy. In short, groups with higher levels of financial literacy also have higher levels of financial wellbeing. As with age, it is important to note that this estimate does not mean that improving your financial literacy by 1% is associated with a 0.83% increase in financial wellbeing. Instead, the estimate is capturing the average difference of a group that has 1% higher levels of literacy than another comparison group. Controlling for this measure appears to close the gender difference in financial wellbeing but has left the remaining differences significant. One point of interest is the impact of financial literacy on education. In column 4 of Table 4.1 we see that the estimates for education have fallen after the inclusion of financial literacy, though they remain significant.

4.2.1. Summary of group differences

Economic status

Unemployed respondents have lower financial wellbeing than employed respondents, even when controlling for various socio-demographic factors. The unemployed are a social risk group with challenges that are unique to them. While greater financial literacy may help, being unemployed will likely still be associated with lower financial wellbeing.

Income

Income unsurprisingly has a significant and positive effect on financial wellbeing. This effect does not disappear when we considered financial literacy, demographics, and resources like education. People with middle and lower-income levels have lower financial wellbeing than people with higher incomes. The effect also remained in our more complex models.

Household composition

Table 4.1 shows that lone parents and couples with children have lower financial wellbeing than couples without children. In general, when we hold demographics and financial literacy constant, we find that people who live with children, either as a couple or as a lone parent, have similar levels of financial wellbeing, which was lower than people who lived as a couple without children. As such, having children is associated with lower financial wellbeing. Some sociodemographic studies consider that one-parent families are "among those most at risk of poverty in Ireland"[19]. Although we find that poor wellbeing for lone parents is not female-specific, it should be noted that the overwhelming majority (86%) of lone-parent households are headed by women, as shown in the 2022 Census. [20]

Gender

Our findings show that men, on average, have higher financial wellbeing than women. However, when we control for financial literacy levels between men and women, the gender gap in financial wellbeing disappears (in the final models, the gap is no longer statistically significant). Therefore, improving women's literacy could help to close the gap in wellbeing between men and women.

Education

Our findings show that tertiary educated groups have higher financial wellbeing than secondary educated groups or primary educated groups. This finding remains significant even when we control for economic, demographic, or literacy measures.

Holding of financial products

More sophisticated models (presented in the accompanying technical appendix) suggest that respondents who hold financial products report higher financial wellbeing than people who do not. In our analysis, holding advanced financial products (such as stocks and bonds) was associated with higher financial wellbeing. We also found that people with Buy Now Pay Later (BNPL)[21] products

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[19] See this report by the National One Parent Family Alliance for further information
https://data.oireachtas.ie/ie/oireachtas/committee/dail/33/joint_committee_on_social_protection_community_and_rural_development_and_the_islands/submissions/2023/2023-07-12_submission-national-one-parent-family-alliance_en.pdf

[20] Almost 220,000 family households (17%) were headed by one parent in 2022. This included 186,487 one-parent mother families, and 33,509 one-parent father families.
https://www.cso.ie/en/csolatestnews/pressreleases/2023pressreleases/pressstatementcensus2022resultsprofile3-householdsfamiliesandchildcare/

[21] Buy Now Pay Later (BNPL) is a form of consumer credit which has been growing in recent years. It represents a type of short-term unsecured borrowing that allows consumers to purchase goods now and pay for them at a future date. See:

reported significantly worse financial wellbeing than people without such loans. This effect remains even after controlling for income, education, and other demographic factors. Holding these products is particularly associated with poorer financial wellbeing. This can't be explained by other factors and merits close monitoring.

Financial literacy

Finally, people with higher financial literacy report higher financial wellbeing. This indicator is an important and statistically significant determinant of wellbeing. In short, financial literacy has a strong effect, and this effect remains significant even when we correct for a range of challenges in our model. In our technical annex we present a set of more advanced models. In all of these, financial literacy is positively associated with financial wellbeing.

4.3. Financial literacy – model results

This section considers group differences in financial literacy, as defined by the OECD. We again list simple group averages, followed by three models which show group differences in estimated financial literacy (previously this was wellbeing). In the technical annex, we list additional models for financial literacy which consider certain statistical biases but for this section we will only test for basic differences in financial literacy, and whether these differences can be explained by economic, demographic, and financial wellbeing (previously financial literacy) measures.

The first column in Table 4.2 shows average financial literacy scores (ranging from 0-100) by group. These are unadjusted averages without any controls.

The second column in Table 4.2 lists the difference in financial literacy using a statistical model that only takes into account economic variables (economic status and income). The findings indicate that when we consider only economic measures, financial literacy is 9% lower for unemployed individuals and 5% lower for inactive respondents when compared to employed individuals. Additionally, the analysis shows that the financial literacy of individuals in other economic status groups is approximately 12.9% lower than that of employed individuals. In terms of income, the results reveal that individuals with medium and high earnings report 10% and 13% higher financial literacy, respectively, compared to individuals with low earnings.

Central Bank (2023), "*Buy Now Pay Later: Consumer Insights Update*". Note, only a small number of people in the survey had such products.

Table 4.2: Variation in financial literacy by characteristics of respondent				
Characteristics of respondents		**Average Financial literacy (1)**	**Estimated Variation**		
			Economic variables (2)	**Incl. demographics (3)**	**Incl. financial wellbeing (4)**
Economic status	**Base category: Employed**	72.3			
	Self-employed	71.7	-0.005	-0.002	-0.003
	Unemployed	62.0	-0.090**	-0.084**	-0.055*
	Inactive	66.5	-0.052***	-0.034**	-0.034**
	Other	61.7	-0.129*	-0.122*	-0.128*
Income	**Base Category: Up to €2750 a month**	64.5			
	Between €2750 and €4500 a month	71.9	0.103***	0.070***	0.050***
	€4500 or more a month	74.5	0.132***	0.080***	0.050***
Household composition	Lives alone	65.3		-0.045***	-0.042***
	Base category: Couple no kids live alone	71.3			
	Couple with kids (any age)	72.8		0.002	0.012
	Lone parent does not live with relative	68.5		-0.031	-0.010
	No partner no kids with relative	68.1		-0.015	-0.026
	Other including house sharing couples	68.3		-0.039**	-0.033*
Gender	**Base category: Female**	67.7			
	Male	71.7		0.060***	0.056***
Age	**Age**			-0.0004	-0.0004
Education	**Base Category: Tertiary**	73.1			
	Secondary	66.2		-0.072***	-0.055***
	Primary or less	57.9		-0.175***	-0.150***
Financial wellbeing	**Financial wellbeing**				0.071***
Model details	**Constant/Overall average**	70.8	4.179***	4.194***	3.951***
	N	-	1,335	1,335	1,335
Source: Indecon analysis					
Note: Stars denote statistical significance. * p<0.10, ** p<0.05, *** p<0.01. The estimates are based on a linear OLS regression. The dependent variable is the log of financial literacy.					

In Table 4.2, the third column shows the variation in financial literacy when controlling for demographics (such as household composition, gender, age, and education) as well as economic measures (like economic status and income). Even after accounting for these factors, there are still

significant differences in financial literacy between unemployed and employed individuals, inactive individuals and the employed, and between other economic status groups and the employed. This indicates that demographic factors alone do not explain the disparities in financial literacy among these groups.

Demographic factors have their own effects on financial literacy, as shown in column 3 of table 4.2. Our findings indicate that individuals living alone have approximately 4.5% lower financial literacy compared to couples without children (the base category). Similarly, our results show that financial literacy is 3.9% lower for other household groups, such as those who are house sharing, in comparison to couples without children.

There are gender differences but no age differences in financial literacy. Our results show that financial literacy is 6.0% higher for men than women. However, there do not appear to be differences in financial literacy across different age groups. This means that older and younger individuals show similar levels of financial literacy when other factors are constant.

We also compared educational differences within groups. Once again, this model controls only the economic and demographic differences between education groups, and education itself shows significant effects. Our findings indicate that financial literacy is 7.2% lower for individuals with a secondary degree than for people with a third-level degree. Moreover, financial literacy is 17.5% lower for people with a primary degree compared to those with a third-level degree.

Finally, we introduce another model, displayed in column 4 of Table 4.2. This model takes into account economic, demographic, and financial wellbeing estimates together. This final model is nearly the same as the one discussed in column 3 of Table 4.2, except that it controls for a person's financial wellbeing, along with the other controls. Our findings indicate that financial literacy is 0.071% higher for groups with 1% higher financial wellbeing. In other words, groups with higher levels of financial wellbeing also tend to have higher levels of financial literacy. As with age, it is important to note that this estimate does not mean that improving your financial wellbeing by 1% is associated with a 0.071% increase in financial literacy. Instead, the estimate is capturing the average difference of a group that has 1% higher levels of wellbeing than another comparison group. Controlling for this measure does not eliminate any differences in the other measures.

4.3.1. Summary of group differences

Economic Status

People who are unemployed or inactive have significantly lower financial literacy scores than people who are employed. People who are inactive also report lower financial literacy, despite scoring higher in financial wellbeing (this result is shown in Table 4.1). This group includes retired people and students, many of whom may have different financial obligations when compared to those who state they work.

Income

People with low incomes have the lowest levels of financial literacy. However, higher and middle-income groups have similar levels of financial literacy when compared to each other[22], suggesting a difference between low earners and everyone else in terms of financial literacy. However, in our advanced models, we find almost no difference in financial literacy between income groups.

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[22] The analysis for this finding is not shown in this report. When we tested this, we found that the difference was not statistically significant.

Household Composition

People who live alone and people who live with relatives (captured in the group "no partner, no kids, and with relatives") have the lowest levels of financial literacy. People who live as part of a couple (either with or without kids) and people who are lone parents have similar levels of financial literacy.

Gender

Men score higher than women in financial literacy. This effect remains when income, education, and a range of other factors are considered. We see this gap throughout our analysis, as we will later show.

Age

We found no association between age and financial literacy. Older groups report similar levels of literacy when compared to younger groups.

Education

People with a third-level education had significantly higher financial literacy than both secondary and primary-level educated groups. This effect remains even when controlling for demographics and income, suggesting that respondents' education is strongly associated with financial literacy, as expected and as argued in existing research.

Holding of Financial Products

People who own advanced financial products report mixed results.[23] People who own basic and advanced financial products report significantly higher financial literacy than people who do not own the same types of financial products. This finding suggests that more experience with financial products is associated with greater literacy.

Limitations

Research suggests that literacy is shaped by wellbeing, and wellbeing is shaped by literacy. In econometrics, this simultaneous effect is called endogeneity, and it is an issue which causes biased estimates. This issue can be addressed through more sophisticated statistical models, which we include in the technical appendix. As stated throughout, subsequent tests detected the presence of bias in the data for Ireland. This is also discussed in the accompanying Technical Appendix under the section on 'endogeneity'. When we account for this issue, we find the financial literacy and financial wellbeing remain statistically significant. This means that there is an association between literacy and wellbeing, even when we take out forms of statistical bias.

4.4. Additional checks on financial literacy

This section presents three additional checks on financial literacy which emerged from further analysis.

4.4.1. Financial literacy and gender

Our previous findings revealed that men score better than women in financial literacy, even after controlling for various socio-economic factors such as education and income. Table 4.3 contains a list

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[23] https://www.ccpc.ie/business/wp-content/uploads/sites/3/2024/09/2024.09.27-Indecon-Report-Technical-Appendix.pdf

of financial knowledge questions by gender, listing the rate of correct answers and the rate of times a respondent said they didn't know the answer, by gender. The goal of the table is to show whether women are more likely to choose "don't know" as an answer.

Notably, women were, in some cases, more than twice as likely as men to select *Don't Know*. For the simple interest rate question (an open response), 19.8% of females selected the option *Don't Know*, compared to 7.9% of males. For the risk diversification question, 13.6% of females chose *Don't Know*, versus 5.2% of males. Similar results were also observed by Lusardi and Streeter (2023)[24] among respondents in the US. Previous research conducted by Bucher-Koenen et al. (2021)[25] found that this may be due to both a lack of confidence and a lack of knowledge.

Table 4.3: Distribution of responses (%) to financial knowledge questions by gender				
	Female		**Male**	
Question in the OECD/INFE Survey	**Correct**	**Don't Know**	**Correct**	**Don't Know**
Inflation question	70.1%	8.1%	77.7%	4.6%
Understanding interest rate question (open response)	91.4%	6.4%	94.2%	3.5%
Simple interest rate question (open response)	64.3%	19.8%	79.5%	7.9%
Compounding interest rate question	39.2%	8.8%	59.2%	3.7%
Return-risk question	88.9%	2.5%	92.7%	1.1%
Inflation and cost of living question	97.9%	0.7%	98.3%	0.6%
Risk diversification question	60.8%	13.6%	77.1%	5.2%

Source: Indecon analysis
Note: questions refer to the OECD/INFE Toolkit for Measuring Financial Literacy and Financial Inclusion 2022 (OECD, 2022). Please see pages 30-32 of the Toolkit, specifically variables QK1-QK7.

We further examined women's reluctance to guess the answer to financial literacy questions by excluding respondents who selected *Don't Know* as an answer. Our findings suggest that the gender gap in financial literacy persisted and was strongest for more difficult questions (such as the compounding interest question). More specifically, the gender gap measured using a sample with all

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[24] Lusardi, A., and J. L. Streeter. "Financial literacy and financial well-being: Evidence from the US," Journal of Financial Literacy and Wellbeing, (2023) 1(2), 169-198.

[25] Bucher-Koenen, T., P. Fessler, and M.A. Silgoner. "Households' Financial Resilience, Risk Perceptions, and Financial Literacy–Evidence from a Survey Experiment" ZEW-Centre for European Economic Research Discussion Paper (2023).

respondents was not statistically different from the gender gap measured after excluding respondents who selected *Don't Know*.

However, regarding the questions on inflation, simple interest rates, return-risks, and risk diversification, our findings show the gender gap reduced after excluding respondents who selected *Don't Know*. This finding aligns with previous empirical research (Tranfaglia et al., 2024),[26] which found that removing respondents who selected the option *Don't Know*, increased the share of correct responses for women, further shrinking the literacy gender gap for these questions.

Gender and additional socio-economic factors

Controlling for additional socio-economic factors (age, education, economic status, income, household composition), our findings show that the gender gap in financial literacy persists for individuals with secondary and tertiary education. In fact, for individuals with tertiary and secondary education, being male is associated with an increase of 5.3 and 6.2 percentage points in the predicted financial literacy score, compared to being female. On the other hand, the effect of gender on financial literacy for individuals with primary or less education is not statistically significant.

Table 4.4: Variation in financial literacy score across education levels by gender	
Education level	**Increase in financial literacy (for males relative to females)**
Tertiary	**5.3**
Secondary	**6.2**
Primary (or less)	7.5

Source: Indecon analysis

Note: the results presented in this table are marginal effects estimated from an OLS linear regression. The marginal effects represent the change in the log of the financial literacy score when gender changes from the base level (female). Statistically significant estimates are in bold.

4.4.2. Financial literacy and financial products

Additionally, it is important to understand the variations in financial literacy depending on the specific assets held, as people's understanding of financial matters may not always match the complexity of the products they are dealing with. This allows us to identify if vulnerable consumers are at greater risk when it comes to their financial and investment decisions. Table 4.5 below presents the average financial literacy scores for respondents based on the type of financial products they hold.

Basic financial products

Overall, individuals who owned basic financial products demonstrated higher financial literacy scores compared to those who did not. The average scores for respondents who held basic financial products, such as pensions, credit cards, and savings accounts, range from 70.9 to 72.1, whereas non-holders have lower scores ranging from 61.8 to 68.2. More than half of respondents owned basic financial products, with ownership ranging from 59.5% (for a credit card) to 94.2% (for a current account).

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[26] Anna Tranfaglia, Alicia Lloro and Ellen Merry (2024). "Question design and the gender gap in financial literacy," FEDS Notes. Washington: Board of Governors of the Federal Reserve System, January 02, 2024, https://doi.org/10.17016/2380-7172.3415.

Advanced financial products

For advanced financial products, like investment accounts, and stocks and shares, holders again showed higher literacy scores than the overall average. This ranges between 73.1 and 76.3, compared to 69.2 to 71.1 for non-holders. Data further shows that less than one third of respondents hold more advanced financial products.

New financial products and price comparison websites

Interestingly, respondents who held new financial products showed varied results; for instance, holders of crypto assets have higher literacy scores (75.6) than non-holders (71.3), while holders of Buy Now Pay Later products have lower scores (69.2) compared to non-holders (71.6). Users of price comparison websites (22.9% of respondents) also showed higher financial literacy, averaging 75.3 compared to 68.6 for non-users.

Table 4.5: Average financial literacy score by type of financial product held		Does NOT hold product	Holds product	% of respondents who hold product
	Product type	Does NOT hold product	Holds product	% of respondents who hold product
Owns basic financial products	Pension	65.9	72.1	72.7%
	Credit card	68.2	72.1	59.5%
	Current account	61.8	70.9	94.2%
	Insurance	63.4	72.0	83.4%
	Savings account	64.6	71.8	79.7%
Owns advanced financial products	Investment account	70.8	76.3	24.8%
	Mortgage	69.2	73.4	33.7%
	Loan secured on property	71.1	73.1	8.7%
	Car finance (i.e., hire purchase or PCP)	70.6	72.9	16.1%
	Stocks and shares	69.3	75.4	29.1%
Owns new financial products	Unsecured bank or credit union loan	71.1	70.3	19.7%
	Microfinance loan	73.2	67.4	1.5%
	Prepaid debit card/ payment card (not directly linked to a bank)	70.8	72.9	23.1%
	Crypto assets	71.3	75.6	9.8%
	Products labelled "sustainable"	72.8	74.9	9.4%
	Buy Now Pay Later (BNPL)	71.6	69.2	4.1%
Price comparison websites	Uses price comparison websites	68.6	75.3	22.9%
Average financial literacy		70.1		
Source: Indecon analysis				

4.5.   Summary of key findings

This section summarises the key findings from this chapter alongside the more detailed econometric work conducted in phase II of this project. It should be read in conjunction with the accompanying technical annex.[27] A brief summary of the findings are as follows:

- ❑ In our basic models, men and women have similar levels of financial wellbeing when their economic, demographic, and financial literacy measures are held constant. However, men have higher levels of financial literacy than women all else equal. Interestingly, our advanced models show that, after controlling for differences in financial literacy and other biases, men appear to have lower predicted levels of financial wellbeing.[28]

- ❑ In all models, income is associated with both financial wellbeing and financial literacy. These differences remain even when we control for a range of factors, and even when we use more complicated estimation techniques.

- ❑ In all models, the unemployed are a social risk group that have challenges that are unique to them. While greater financial literacy may help, being unemployed will likely still be associated with lower financial wellbeing. People who are inactive also report similar levels of financial wellbeing when compared to the employed but report lower financial literacy. This group includes the retired and students, many of whom may have different financial obligations.

- ❑ In all models, education is positively associated with financial wellbeing and financial literacy.

- ❑ In all models, having children is associated with lower financial wellbeing but not financial literacy. People who live alone and people who live with family but without partners, have the lowest levels of financial literacy, while people who live as part of a couple (either with or without kids) and people who are lone parents all report similar levels of financial literacy.

- ❑ In our advanced models, individuals who use price comparison services have higher financial literacy compared to those who do not use such services.[29] Price comparison websites are an important resource for people, and increasing financial literacy may lead to increased use of such sites as people try to get reliable financial information before making financial choices.

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[27] https://www.ccpc.ie/business/wp-content/uploads/sites/3/2024/09/2024.09.27-Indecon-Report-Technical-Appendix.pdf
[28] See Tables 1.7 and 1.8 in the supporting Technical Annex.
[29] These results are listed in the technical annex, and do not appear in Table 4.2.

5. International findings

5.1. Introduction

In this section we review in greater detail Ireland's score versus selected countries in Europe, using data from the OECD survey and relevant macroeconomic indicators.

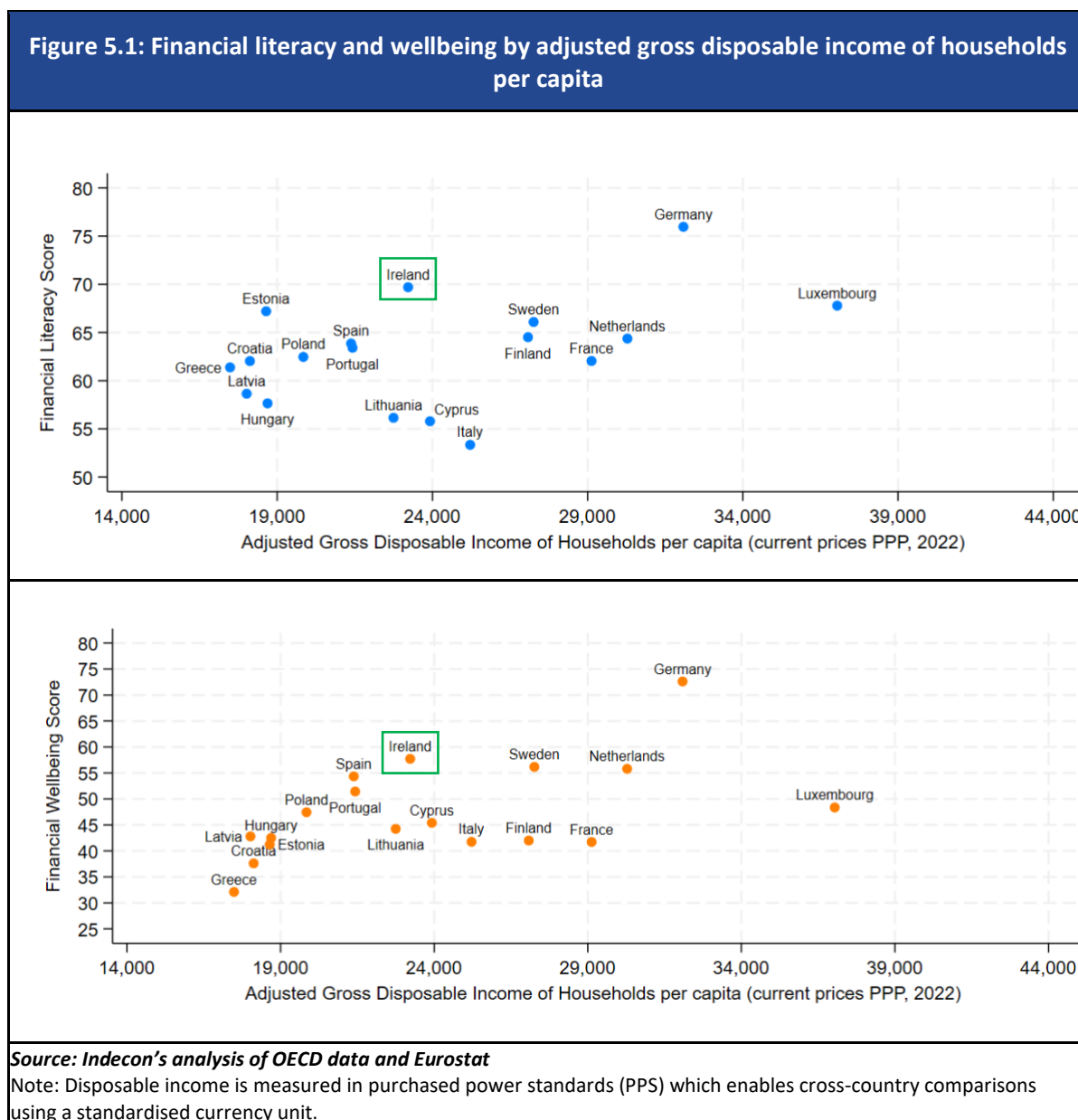## 5.2. Wellbeing and literacy in relation to disposable income

Countries with higher levels of disposable income per household[30] tend to exhibit higher scores in financial literacy, though there is a wide dispersion in scores, suggesting that other factors are at play (Figure 5.1 – panel A). This confirms at a macro-level our previous findings of the positive correlation between financial literacy and income. According to OECD data, Germany and Ireland report the highest scores in financial literacy, at 76 and 69.7, respectively. However, Ireland has significantly lower disposable income per household than several of the countries it outranks in terms of financial literacy. Indeed, Ireland scores higher on financial literacy than would be suggested by its level of disposable income.

The relationship between financial wellbeing and household income per household also appears to be positive, with reported wellbeing increasing for lower income countries (below €24,000[31] per household), before levelling off for countries with higher disposable incomes, such as Finland, Sweden, France, or the Netherlands (Figure 5.1 – panel B). As with financial literacy, Ireland reports higher financial wellbeing than many countries it ranks behind in disposable income per household.

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[30] Disposable income is adjusted to reflect households' purchasing power and their ability to invest or save for the future.
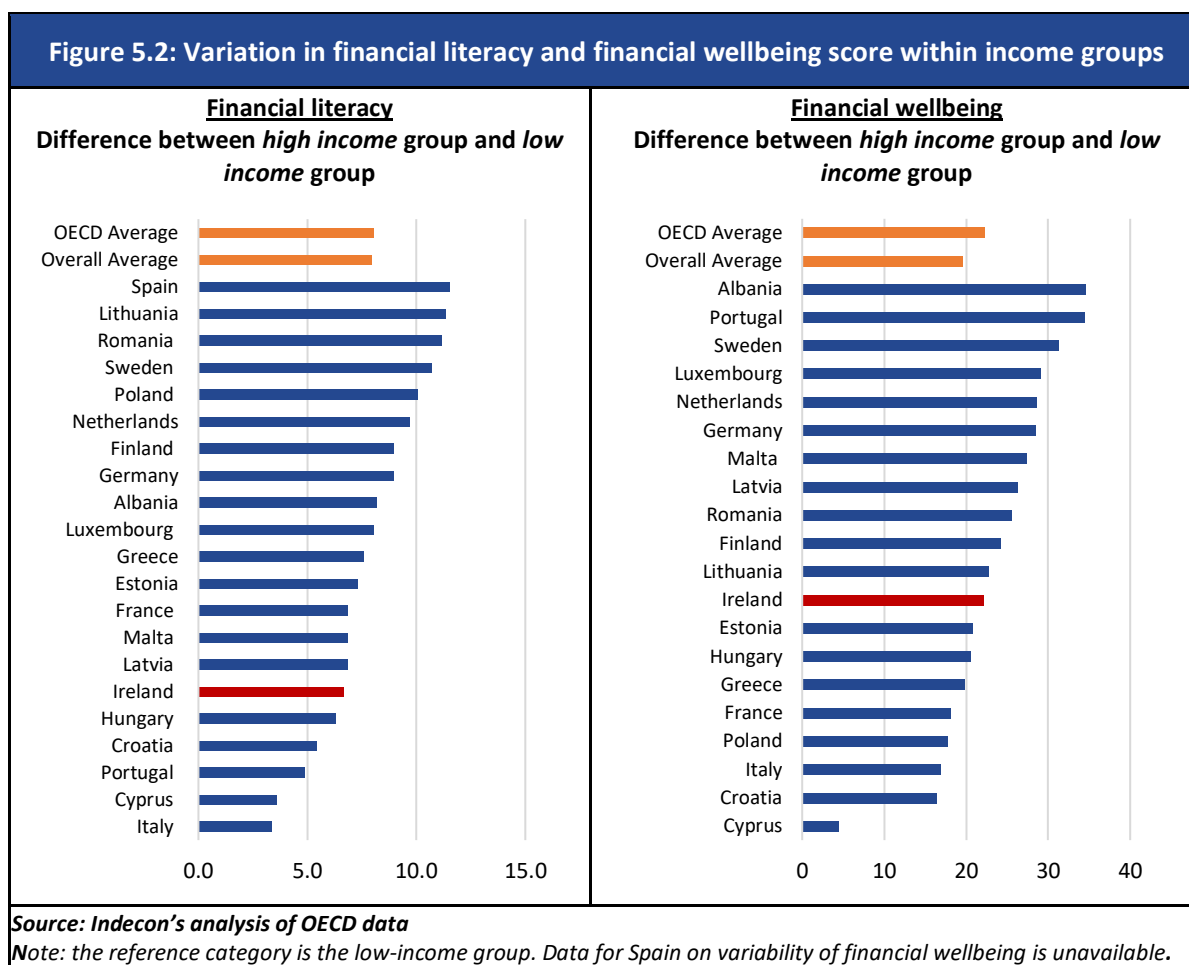[31] Income is adjusted for purchasing power based on a Purchasing Power Standard.

Figure 5.1: Financial literacy and wellbeing by adjusted gross disposable income of households per capita

Source: Indecon's analysis of OECD data and Eurostat

Note: Disposable income is measured in purchased power standards (PPS) which enables cross-country comparisons using a standardised currency unit.

As well as comparing countries based on overall levels of household income, we can examine the differences in financial literacy and wellbeing scores between different income categories within each country.[32] Figure 5.2. below shows that for both financial literacy and wellbeing scores, the extent of the difference between high- and low-income households in Ireland, is at or below other OECD countries. In other words, the gap in wellbeing and literacy that exists between high income and low-income households, is lower in Ireland than in many other countries. As such, Ireland's high score on

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[32] Note that although there is existing data on Financial Wellbeing for Spain, the OECD's analysis of the variation in wellbeing within income groups did not include Spain. (The data shown in Figure 5. can be downloaded from the OECD website, Financial Literacy Survey Adults Annex D Excel File).

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both measures can in part be attributed to a generally high score across different income groups compared to other countries which show a much greater disparity.

Figure 5.2: Variation in financial literacy and financial wellbeing score within income groups

Source: Indecon's analysis of OECD data

Note: the reference category is the low-income group. Data for Spain on variability of financial wellbeing is unavailable.

5.3. Financial knowledge

We next focus on financial knowledge, one of the three components of the financial literacy score along with financial behaviour and financial attitude.

The gender gap in financial knowledge is evident across most selected OECD countries. The overall trend is that males tend to score better in financial knowledge than females. Countries with lower financial knowledge scores tend to exhibit smaller gender gaps compared to those with higher scores (See Figure 5.3:).
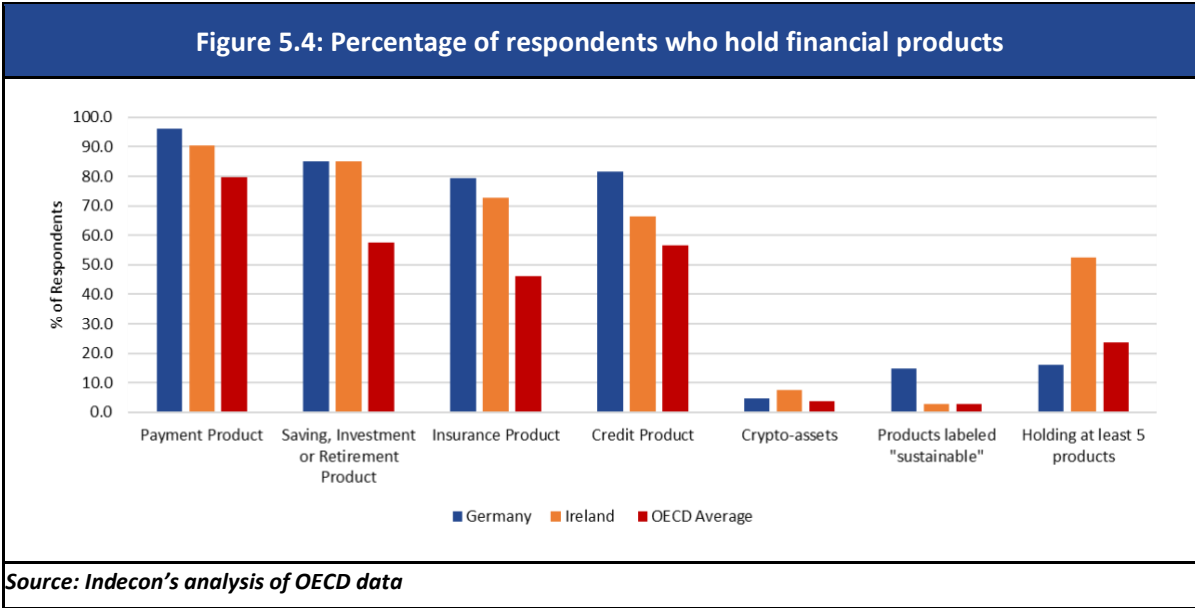
Figure 5.3: Financial knowledge by gender

Source: Indecon's analysis of OECD data
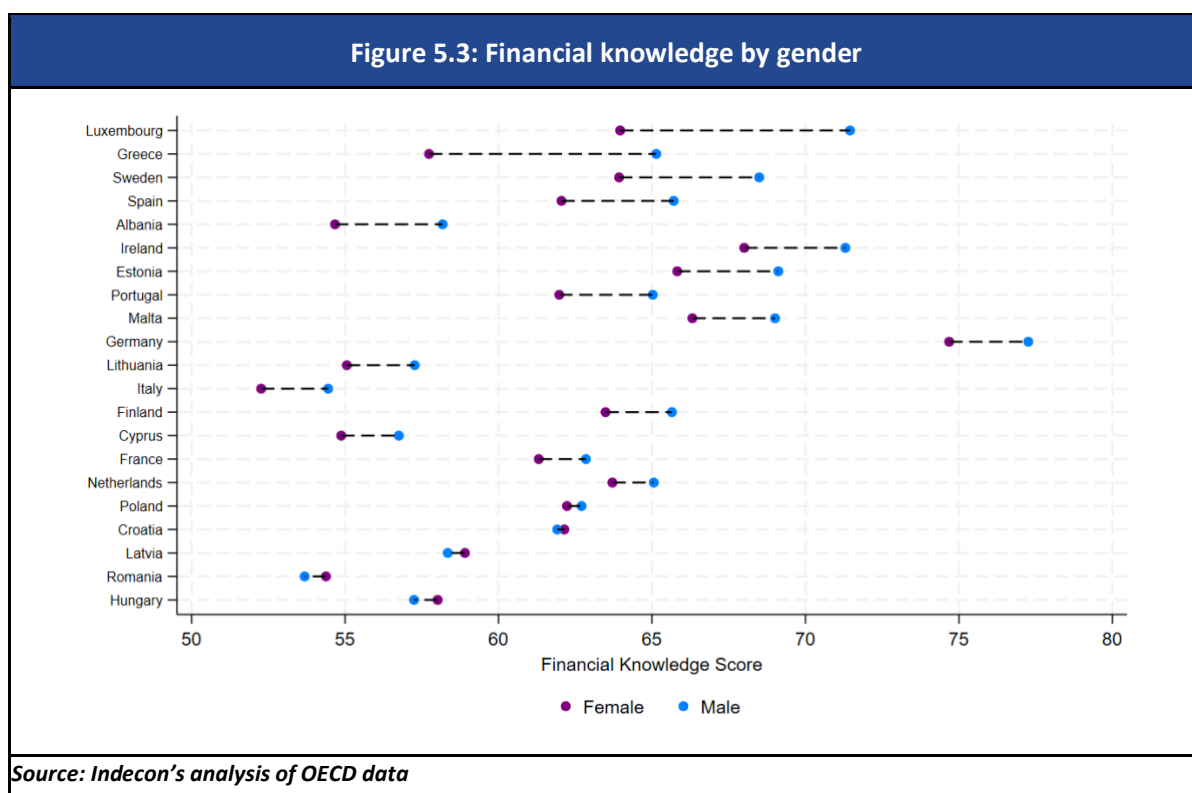
Financial products

We next look at the extent to which respondents use financial products, focusing on Germany (highest scorer) and Ireland. The OECD grouped financial products into the following categories:

- Payment products, like credit cards, payment accounts

- Savings, investment or retirement products

- Insurance products

- Credit products, like mortgages or car loans

- Crypto asset

- Products that are labelled as sustainable

Overall, both Irish and German respondents reported holding a higher number of financial products than the OECD average. (See Figure 5.4:) The most commonly held financial product is a payment product. The findings also show that Germans are more likely to hold credit products than in Ireland. It is also notable that a higher percentage of respondents in Ireland held five products.

Figure 5.4: Percentage of respondents who hold financial products

Source: Indecon's analysis of OECD data

It is crucial to assess whether individuals have sufficient financial knowledge to make well-informed decisions about their financial product choices. Specifically looking at savings, investment, and retirement products, Figure 5.5: shows that only 39.6% of respondents in Ireland who have such products demonstrate an understanding of compound interest compared to 64.8% in Germany. This suggests that continued efforts are needed to ensure that people who hold certain financial products, particularly those associated with more risk, have adequate knowledge.
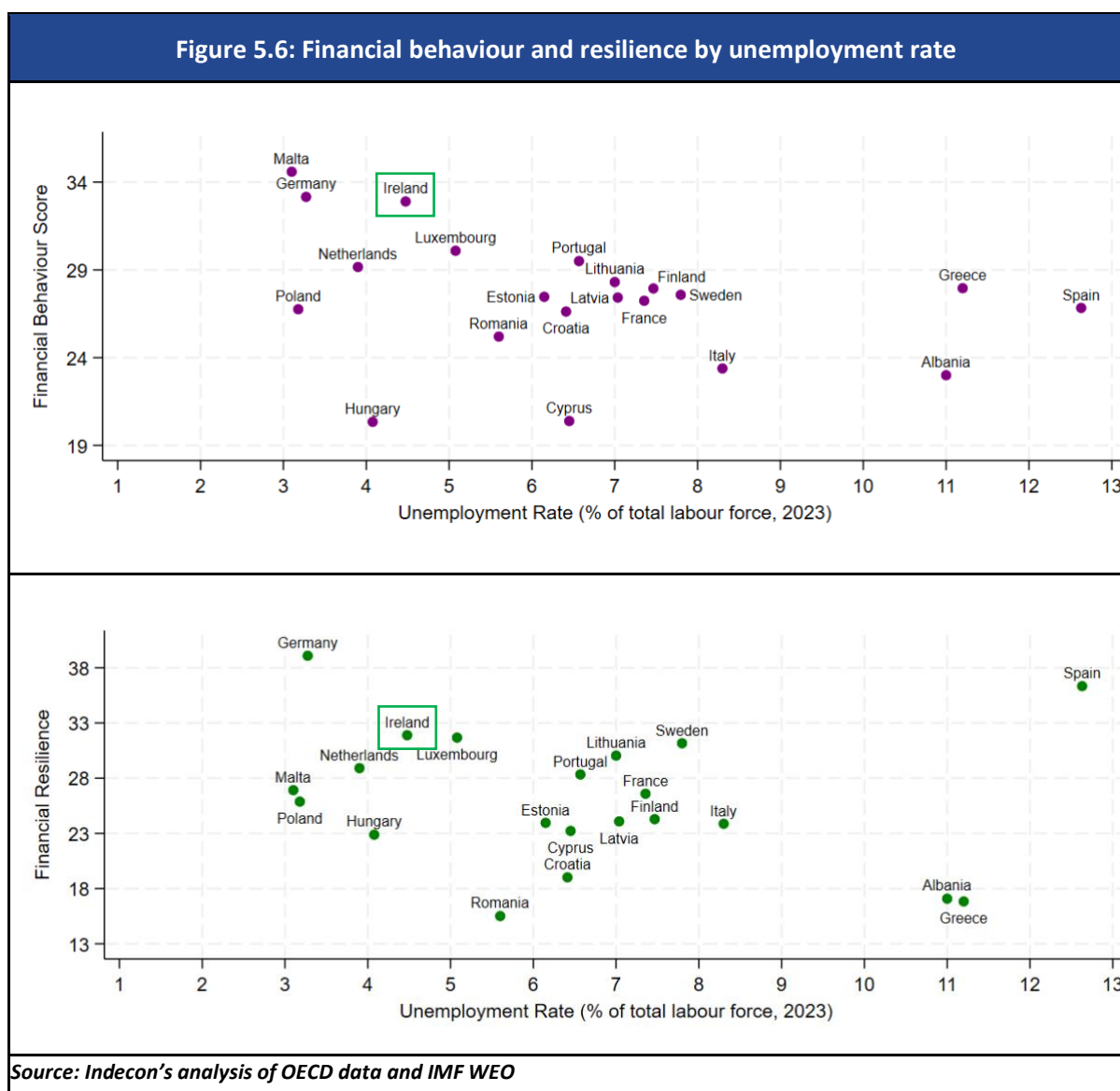
Figure 5.5: Percentage of respondents who hold saving, investment or retirement products and understand compound interest

Source: Indecon's analysis of OECD data
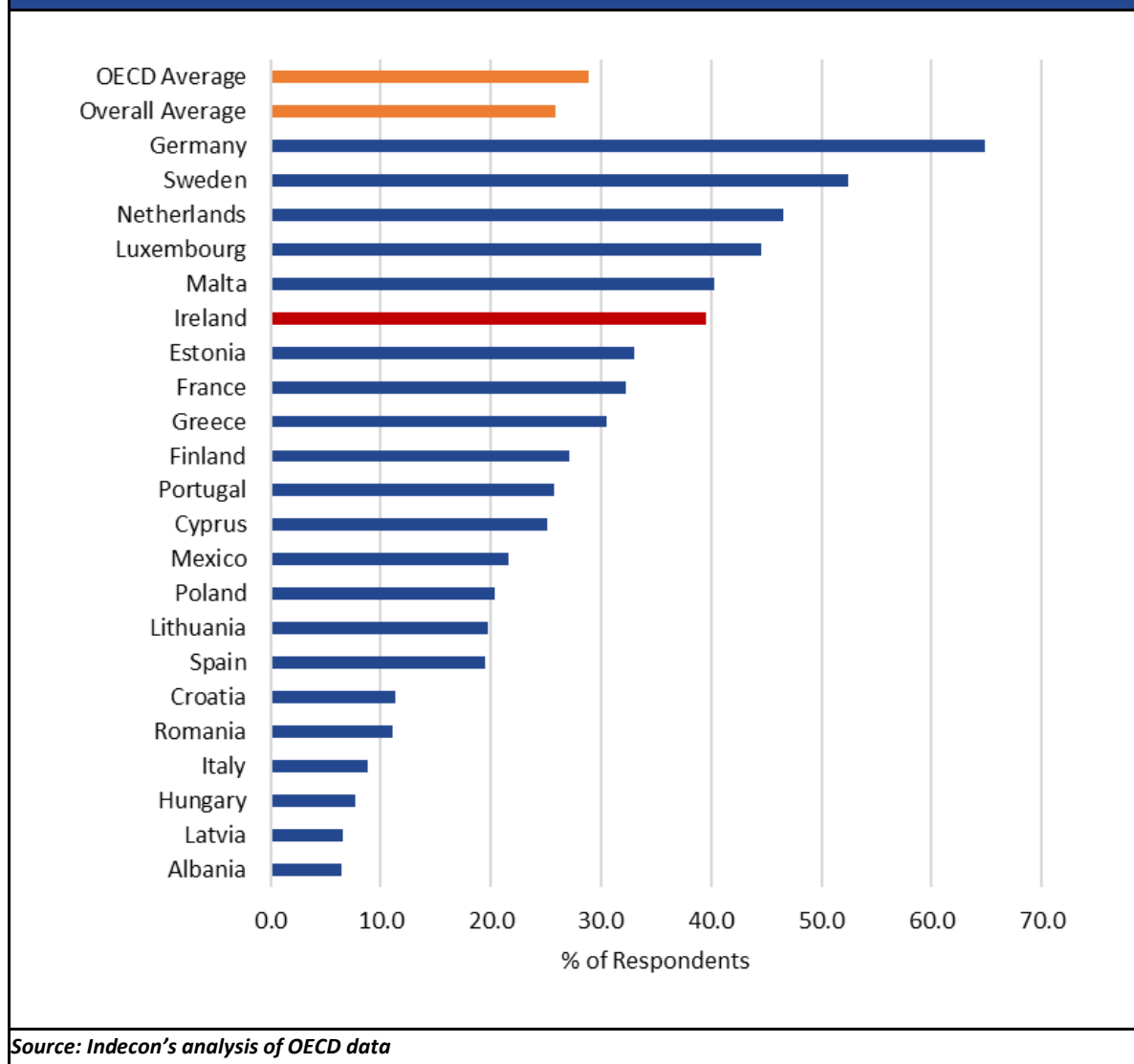
5.4. Financial behaviour, resilience and unemployment

We next look at the relationship between the unemployment rate in each country, and scores for financial behaviour and financial resilience. The financial behaviour score measures behaviours that are considered by the OECD to be 'financial savvy', using questions relating to budgeting decisions, saving, borrowing, and paying bills on time. The graphs in Figure 5.6: query whether better financial behaviours relating to savings, retirement planning or borrowing impact Ireland's high employment rate. There appears to be a weakly negative relationship between financial behaviour and unemployment (as might be expected). There is no clear relationship between financial resilience[33] and the unemployment rate (second panel).

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[33] Financial Resilience is the ability to afford a sudden expense, and the ability to cover expenses after a sudden loss of income. More information is available in the OECD Toolkit.

Figure 5.6: Financial behaviour and resilience by unemployment rate

Source: Indecon's analysis of OECD data and IMF WEO

5.5.   Comparing components of financial behaviour

The financial behaviour score can be further broken down into various components. These are explored in Figure 5.7: . The graph shows the percentage of respondents in Ireland engaging in one of the components of financial behaviour against the top scorer (Germany) in financial literacy, as well as against the OECD average. In comparison to Germany, Ireland is more likely to use financial comparison websites and to keep track of money in the short term.

Figure 5.7: Financial behaviour by component

Source: Indecon's analysis of OECD Ireland data
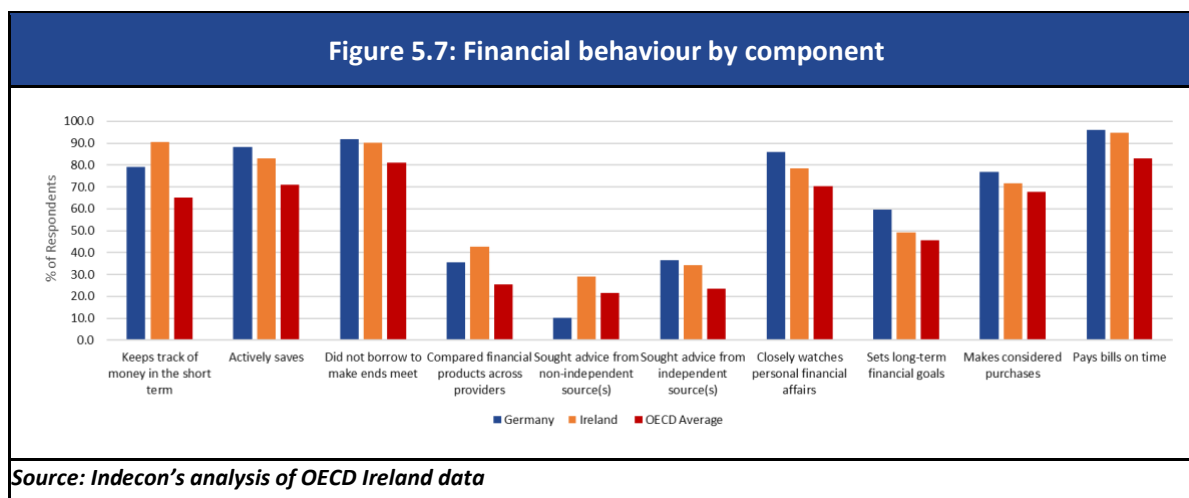
5.6. Summary of key findings

❑ Countries with higher levels of disposable income per household tend to exhibit higher scores in financial literacy, though there is a wide dispersion in scores, suggesting that other factors are at play. Ireland scores higher on financial literacy than would be suggested by its level of disposable income.

❑ The relationship between financial wellbeing and income per household also appears to be positive, with reported wellbeing increasing for lower-income countries (below €24,000 per household) before levelling off for countries with higher disposable incomes.

❑ As well as comparing countries based on overall levels of household income, we can examine the differences in the financial literacy and wellbeing scores between different income-categories within each country. Ireland's high score on both measures can in part be attributed to a generally high score across different income groups compared to other countries which show much greater differences.

6. Conclusions

As stated, the overall aim of both phases of this research project has been to provide an evidence base for the CCPC and other stakeholders working in financial literacy and financial wellbeing. These results increase understanding of socio-economic differences in financial wellbeing, and the benefits (and limits) of financial literacy in improving people's lives.

Key conclusions from this study are shown in the table below and discussed in the subsequent text.

	Table 5.1: Summary of report conclusions
1	Ireland's first National Financial Literacy Strategy provides a unique opportunity to impact people's financial wellbeing by improving financial literacy levels.
2	There is no significant difference in the financial wellbeing of men and women when their levels of financial literacy are similar. However, on average, men have higher levels of financial literacy. Therefore, improving women's financial literacy could help close the wellbeing gap between men and women.
3	The association between using Buy Now Pay Later (BNPL) products and lower levels of financial literacy and wellbeing highlights the importance of ensuring consumers clearly understand this credit option.
4	The use of price comparison services to shop around is linked to higher financial literacy. The availability and accessibility of these tools may be crucial for those reporting lower financial literacy and wellbeing.
5	Certain key groups are likely to experience lower levels of financial wellbeing, even if their financial literacy is improved.
6	Higher education is associated with higher financial wellbeing and higher financial literacy.
7	While complex financial products are more easily accessible, many people appear to lack the required knowledge to manage them effectively.
Source: Indecon	

1. **Ireland's first National Financial Literacy Strategy provides a unique opportunity to impact people's financial wellbeing by improving financial literacy levels.**

There is already a compelling breadth of existing research that shows the important role that financial literacy can have in supporting financial wellbeing. The results of this study support these findings and shine a light on those particular groups who demonstrate lower financial literacy, which is frequently connected to more vulnerable life circumstances.

Providing financial literacy to these groups may require significant involvement, commitment, and effective coordination among numerous stakeholders from the public, private, and third sectors. However, the forthcoming launch of Ireland's first National Financial Literacy Strategy anticipates a promising environment to address the challenge of enhancing financial literacy levels across all segments of the population. Central coordination can ensure that nobody is left behind and that each cohort has access to information, training, and resources adapted to their specific needs and circumstances.

2. **There is no significant difference in the financial wellbeing of men and women when their levels of financial literacy are similar. However, on average, men have higher levels of financial literacy. Therefore, improving women's financial literacy could help close the wellbeing gap between men and women.**

Men, on average, have higher financial wellbeing and financial literacy than women. However, when men and women's financial literacy is held constant, men have lower financial wellbeing than women[34], suggesting women would be especially likely to benefit from greater financial literacy (in terms of financial wellbeing). In other words, women may see a greater return in financial wellbeing, if their financial literacy improves. Women are more likely to take primary responsibility for child rearing, which may eventually affect their participation and income perspectives in the labour market. At the same time, they make important daily decisions about the allocation of household resources and have a major role in transmitting financial habits and skills to their children.

The OECD has identified several ways to improve financial literacy among women. For example, this can be done by addressing the needs of specific subgroups such as younger and older women, women who live on low incomes with reduced access to formal financial products and services, and female small and micro-entrepreneurs. Efforts can also be made regarding specific financial challenges, such as preventing over-indebtedness, helping women plan for retirement, and supporting female entrepreneurship. Improving women's financial literacy could significantly help reduce the financial wellbeing gap between men and women.

3. **The association between using Buy Now Pay Later (BNPL) products and lower levels of financial literacy and wellbeing highlights the importance of ensuring consumers clearly understand this credit option.**

BNPL agreements enable consumers to split their payments into interest-free instalments. Their popularity is rapidly growing, particularly in countries with strong e-commerce environments, increasing inflation, inefficient banking systems, and less stringent regulations[35].

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[34] This finding is taken from the technical appendix, it is not presented in the body of the report.
[35] Bank of International Settlements (2023), "Buy now, pay later: a cross-country analysis."

The report finds that those who hold Buy Now, Pay Later products report significantly worse levels of financial wellbeing than those who do not. Other research conducted by the Central Bank identified potential risks associated with BNPL among consumers. BNPL appears to be related to instances of impulsive shopping or unplanned, excessive spending. 38% of BNPL users agree that BNPL has made them "more likely to purchase things they don't need' and 43% agree they 'often spend significantly more money than planned when they use BNPL"[36].

Given that these products are increasing in use, especially by those with lower financial literacy and financial wellbeing and are often used for purchases that users identify as non-essential, the manner in which this credit option is offered should continue to be monitored carefully. Since BNPL is widely available at the online and physical point of sale, where consumers are usually rushed into purchasing decisions, initiatives aimed to ensure a comprehensive understanding of the implications of using these products, as well as their features and risks, may be critical to help consumers prevent over-indebtedness and financial vulnerability.

4. **The use of price comparison services to shop around is linked to higher financial literacy. The availability and accessibility of these tools may be crucial for those reporting lower financial literacy and wellbeing.**

The evidence suggests that individuals with better financial literacy are more likely to use price comparison services, which is a positive financial habit. Conversely, those with higher wellbeing may not feel the same need to shop around. These findings indicate that improving the financial literacy of individuals with lower financial wellbeing could help them take advantage of price comparison tools and make more informed financial decisions.

Since hands-on experience is one of the most effective ways to learn, ensuring that financial comparison tools are easily accessible and user-friendly could significantly contribute to improving financial literacy for all groups of people, while promoting healthier financial behaviours.

5. **Certain key groups are likely to experience lower levels of financial wellbeing, even if their financial literacy is improved.**

While financial literacy can be beneficial, it is not a silver bullet for improving financial wellbeing. Low earners, the unemployed, and families with children are particularly prone to experiencing poorer financial wellbeing outcomes.

For instance, even after accounting for other factors, individuals who were unemployed had lower financial wellbeing compared to those who were employed. Unemployed individuals face unique challenges as a social risk group, and while greater financial literacy may provide some help, being unemployed is still likely to be associated with lower financial wellbeing.

Therefore, while improving financial literacy is important, it should be seen as just one of many tools aimed at enhancing wellbeing. Other policy tools such as social welfare transfers and measures aimed to reduce the poverty premium also play a crucial role in this regard.

6. **Higher education is associated with higher financial wellbeing and higher financial literacy.**

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[36] Central Bank (2023), "Buy Now Pay Later: Consumer Insights Update"

We find an association between education and better outcomes. Although the exact mechanism behind this association is not fully captured, it is likely that improving education contains the added benefit of financial literacy and wellbeing. The effectiveness of current policies designed to motivate individuals to finish secondary and tertiary education will likely have a substantial effect on their financial literacy and wellbeing in the long run.

7. While complex financial products are more easily accessible, many people appear to lack the required knowledge to manage them effectively.

Only two in five respondents in Ireland who hold a variety of savings products, including sophisticated ones, demonstrate an understanding of compound interest. This suggests that continued efforts are needed to ensure that people which hold certain financial products, particularly those associated with more risk, have adequate financial knowledge.