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ARTICLE

# The state of financial knowledge in the European Union: a new survey

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## Abstract

For the very first time, in the Spring of 2023, the European Commission (EC) carried out a survey across all member states to assess their level of financial literacy. This survey complements other national surveys and fills an important gap because it provides a consistent metric that allows comparisons among the European Union (EU) countries. The motivation behind the EC's survey stems from the need to advance the state of financial literacy to safeguard financial stability and promote important projects, such as the creation of a Capital Markets Union. In this paper, we analyze these new data and confirm findings in the literature about the importance of being financially knowledgeable to achieve good financial outcomes. Unfortunately, the survey also confirms that barely one in two individuals, on average in the EU, is financially literate.

**Keywords:** Financial Literacy; Public Policy; Government Regulation; Capital Markets Union

**JEL codes:** G53; G18; G28

## Introduction

The survey "Monitoring the level of financial literacy in the EU, Flash Eurobarometer 525" is the first pan-European Union (EU) tool to assess the level of financial literacy, providing data for all 27 European Union member states (EU-27). It fills an important gap and allows researchers to compare levels of financial literacy across the EU-27 for the first time. Prior to the release of this dataset, the main available tool for comparing the level of financial literacy in European countries was the Global Financial Literacy Survey, whose data were collected once in 2014 (Klapper and Lusardi, 2020) or the OECD/INFE dataset.[1] Not all OECD members participated in these surveys, which included some EU member states. This prevented both policy makers and researchers from carrying policy and empirical work at the EU level. Naturally, there are many country initiatives that inform the discussion, but they are often not coordinated nor use comparable measures. This is why this initiative by the European Commission (EC) is of important value added and might set the starting point of multiyear dataset of financial literacy for the 27 EU countries.

A shorter version of the paper was prepared at the request of the Belgian Presidency of the Council of the European Union at the informal Ecofin meeting on 23–24 February 2024 in Ghent, Belgium.

[1] See https://www.oecd.org/publications/oecd-infe-2023-international-survey-of-adult-financial-literacy-56003a32-en.htm

The survey was conducted between March and April in 2023. It was requested by the European Commission's Directorate-General for Financial Stability, Financial Services and Capital Markets Union (DG FISMA), and was coordinated by the Directorate-General for Communication (DG COMM). The field work was carried out by Ipsos European Public Affairs[2] and was conducted through online interviews.[3]

Improving financial literacy is a cross-cutting goal that supports many of the policy objectives of DG FISMA, such as speeding up the work on the Capital Markets Union and improving financial stability[4]. Moreover, promoting financial literacy is an important part of improving citizens' financial decision making and its contribution to EU policy objectives. All EU countries now have, or are in the process of, developing national strategies for financial literacy. This dataset is potentially the beginning of an invaluable set of data collection that will accompany these strategies and contribute to their evaluation.

This paper is organized as follows: In section 1, we first provide a description of the survey. In section 2, we analyze the state of financial knowledge in the EU. We then study the relationship between financial knowledge and financial outcomes in section 3. In section 4, we carry out a case study for Belgium using the country microdata, which is much richer than the aggregated data. We conclude with some remarks and comments about the data and suggestions for future work. As mentioned throughout the paper, we only make use of a small part of the available data, and a lot of research can be done using this new survey covering as many as 27 countries.

## Description of the survey

We first describe some important details of the survey such as the sample size and the ways the data are aggregated. Then, we provide an overview of the individual questions.

### *Survey characteristics*

A total number of 26,139 people (18 and older) were interviewed in the EU-27. The country sample size was around 1,000 for all the countries except for Luxembourg, Cyprus, and Malta, whose sample size was around 500. The sampling quota was based on the following variables:

i) age (18–24 years old, 25–34 years old, 35–44 years old, 45–54 years old, 55–64 years old, and 65+ years old);
ii) gender;
iii) level of education; and
iv) geographic NUTS region (this depended on the country size and the number of regions).

The country-level data are obtained from the weighted[5] individual data. The weights are based on the following aggregates' distributions:

[2] See https://www.ipsos.com/en-be/EPA/Description

[3] For a (nonspecified) share of respondents in Luxembourg and Malta, the recruitment was performed through social media networks.

[4] See https://commissioners.ec.europa.eu/document/download/ecf45dea-8d9b-48d5-a67e-632297747852_en?filename=president_von_der_leyens_mission_letter_to_mairead_mcguiness.pdf

[5] The specific weighting technique used was random iterative method (RIM).

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a) gender;
b) education;
c) working status;
d) regions' population.

For the overall aggregates of the EU-27, the data from each member state is weighted based on the proportion of their adult population relative to the total adult population of the EU-27.

The specific socio-economic and demographic variables covered by the survey are detailed in the appendix (see Table 3A). For some components such as age, different levels of disaggregation for the same variable exist.

## Questions covered in the survey: An overview

Financial literacy is a multifaceted aspect including both knowledge and the motivation to apply the knowledge acquired, resulting in better (financial) behavior. The Commission survey asks 15 questions to identify this set of components. We group the questions into four main categories (see Table 1A in the appendix):

a) Self-assessment of financial knowledge
b) Financial knowledge
c) Financial behavior
d) Financial outcomes

### *Self-assessed financial knowledge*

This question is designed as multiple choice, with six possible answers including the "I don't know" option. It aims to assess the self-evaluation of the individual in financial knowledge compared to her adult peers in the same country.

### *Financial knowledge*

Previous literature (Lusardi and Mitchell, 2011) has identified three main economic concepts individuals should have a good understanding of in order to make good financial choices, known as the "Big Three": compound interest, inflation, and risk diversification.

While questions covering these three main concepts have been shown to be good proxies for financial knowledge, extended versions of these three components have also been used in other surveys (OECD, 2014). This is also the case in the Commission survey, which evaluates two additional components of financial knowledge beyond the "Big Three": the relationship between bond prices and interest rates[6], and the relationship between risk and return. These five questions are designed as multiple choice questions, in which only one answer is correct. There is the possibility to answer "I don't know", which we consider to be an incorrect answer.

### *Financial behavior*

A second component of the survey is the measure of behavior. Unlike financial knowledge, the behavior is more qualitative. In the Commission survey, three questions are asked to assess:

[6] This question is part of the question set known as "Big Five".

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i) affordability;
ii) monitoring; and
iii) long-term planning.

Respondents are given a set of options which are classified either as financially savvy or nonfinancially savvy choices. The "I don't know" option is again also allowed for.

#### *Financial outcomes*[7]

The third component measured by the survey is financial outcomes. It assesses the attitudes of individuals with respect to some financial aspects and also their financial decisions.

Five questions were asked in total, covering the following outcomes:

i) having emergency savings;
ii) financial products held now or in the last two years;
iii) confidence in having sufficient money for retirement;
iv) comfort with digital finance; and
v) trust in financial services.

The exact wording of the questions is provided in the Appendix (Table 2A).

Using these questions and the socio-demographic breakdowns, we analyze the level of financial knowledge as well as some cross-question relationships. We do not consider all questions available – further analysis is left for future research.

## Assessing the state of financial knowledge in the EU

### *Main results*

As discussed earlier, in its survey measuring financial literacy across the EU, the EC followed the OECD's definition,[8] according to which financial literacy is a combination of knowledge, attitudes, and behavior. In line with the academic literature, we report the findings on financial knowledge only and examine separately how financial knowledge is linked to financial outcomes.[9]

We assume that respondents are financially knowledgeable if they answer at least three (of the five) financial knowledge questions correctly. This threshold is consistent with other work measuring financial knowledge across countries (Klapper and Lusardi, 2020).

Based on this definition, 52% of respondents on average in the EU are financially knowledgeable, with the lowest level being 36% and the highest 73% for a specific country (Figure 1). This is a worrying finding as the threshold for being financially knowledgeable is low, and the survey measures understanding of fundamental concepts that are of relevance in daily financial decision making.

In the appendix (see A.2), we summarize the results for all five questions.

[7] This is our way to aggregate the other components of the survey into one group. See European Commission (2023) for their respective classification of these variables.

[8] Financial literacy is knowledge and understanding of financial concepts and risks, and the skills, motivation, and confidence to apply such knowledge and understanding to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life (OECD, 2014).

[9] Both the OECD (2023) and European Commission (2023) metrics of financial literacy include measures of financial knowledge and behavior. In this paper, we use only the financial knowledge component to measure financial literacy and then examine how knowledge affects outcomes. This aligns with how academic research uses survey data on financial literacy.

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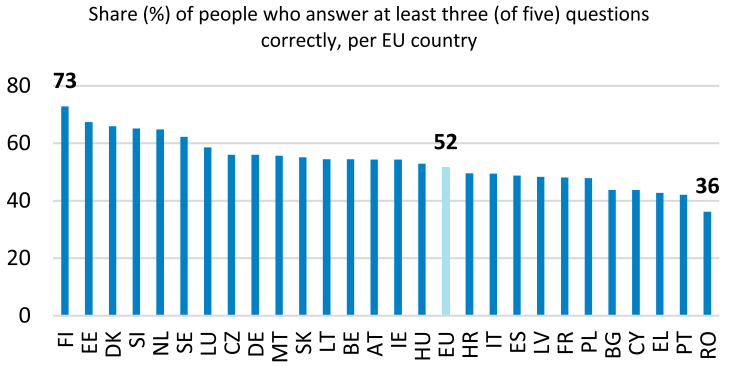


**Figure 1.** Financial knowledge in the EU.[10]
*Source*: European Commission survey (2023).
*Notes*: The measure of financial knowledge is based on five questions. Individuals are financially knowledgeable if they answer at least three questions correctly.

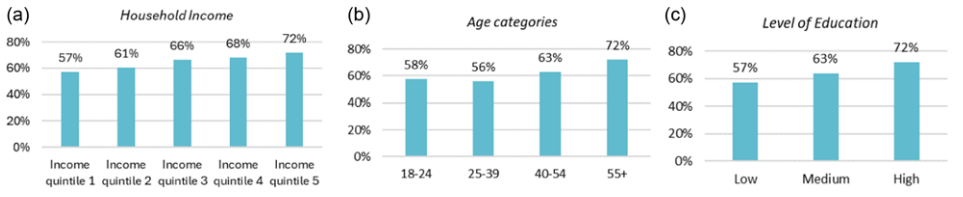


**Figure 2.** Inflation knowledge of different groups, EU, % of respondents answering correctly.
*Source*: European Commission survey (2023).
*Notes*: Levels of education are defined as follows: Low is defined as including up to lower secondary education. Medium is defined as including from upper secondary education up until post-secondary but non-tertiary education. High is defined as including tertiary education up until doctoral level. (Source: International Standard Classification of Education (ISCED) – Statistics Explained (europa.eu)).

Questions 3 (inflation) and 5 (relation between risk and return) were the most understood questions with around 65% of respondents answering them correctly. On the other end of the spectrum, the great majority of respondents showed little understanding of the relationship between interest rates and bond prices: only 20% of the respondents answered this question correctly. This is a question that enables a distinction between low and advanced financial knowledge (Lusardi and Mitchell, 2014).

Given the high levels of inflation in all EU countries, and its disproportionate impact on the poor (Claeys et al., 2024), it is significant that as much as 35% of people on average in the EU do not know how the level of inflation affects their purchasing power. The level of understanding varies across sociodemographic groups (Figure 2). There is a 15 percentage-point gap in the understanding of inflation between the lowest and highest household income brackets. There are similar gaps across age and education; specifically, there is a 14 percentage-point gap between the youngest and the oldest respondents and a 15 percentage-point difference between those with the lowest and highest education levels.

An important and well-documented finding in the literature is the gender gap in financial knowledge (Hasler and Lusardi, 2017). Figure 3 shows an 18 percentage-point gender gap in financial knowledge between men and women. This is in line with what other studies have found (Lusardi and Mitchell 2014, 2023; Klapper and Lusardi, 2020). Women are always more likely (and up to twice as likely, depending on the question) to answer "I do not

[10] The aggregate data are directly reported from the survey, not from microdata. Microdata are available upon request.

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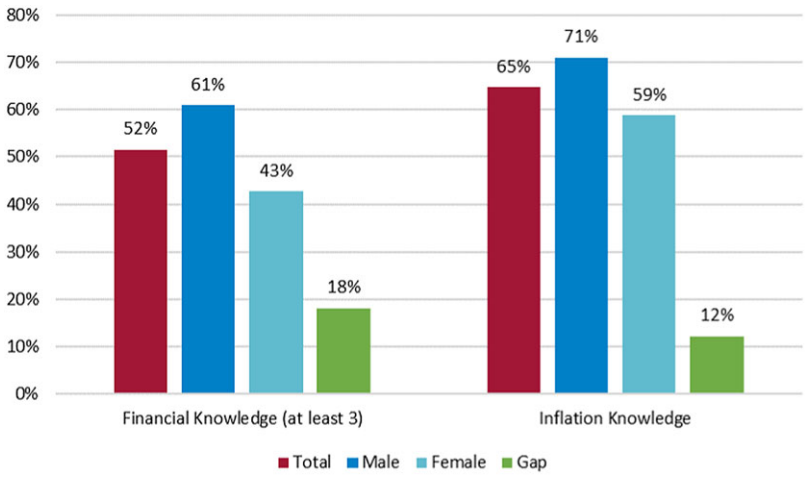


**Figure 3.** The gender gap in financial knowledge in the EU (%).
*Source*: European Commission survey (2023).
*Notes*: Financial knowledge corresponds to the share of respondents who answered at least three (out of five) questions correctly.

know" to the financial knowledge questions. This is consistent across all financial literacy questions and every member state. In 133 out of 135 observations (27 member states multiplied by 5 questions), women used this option more than men. Previous studies have shown that by removing this option, the gender gap can be reduced by as much as a third (Bucher-Koenen et al. 2021).

## *A deeper look into demographics and socioeconomic conditions*

Thanks to the different levels of disaggregation available, it is possible to analyze the level of financial literacy (knowledge and behavior) across different demographic and socioeconomic conditions for each EU country (see Table 3A for an overview of the available variables).

We apply our metric for financial knowledge across gender, age, income, and educational level. In Table 7A–Table 10A in the Appendix, we carry a similar analysis focusing on the inflation question, which is a particularly important topic given the recent high inflation rates across the EU countries.

### *Gender gap*

We find that the gender gap in financial knowledge, consistently favoring men, is recurrent for every single member state (see Figure 4). Eight countries display a gender gap higher than 20 percentage points, with Romania showing the smallest gender gap (smaller than 10 percentage points).

### *Financial literacy across age*

As the number and importance of financial decisions that individuals make increase throughout the lifetime, it is important to explore the relationship between age and financial knowledge. Because this is a single cross section of data, it is not possible to distinguish between age and cohort effects. The data show that financial knowledge increases with age/cohort in most countries, with those older than 55 being more financially knowledgeable. The age gap between those aged 18–24 years and those 55 years

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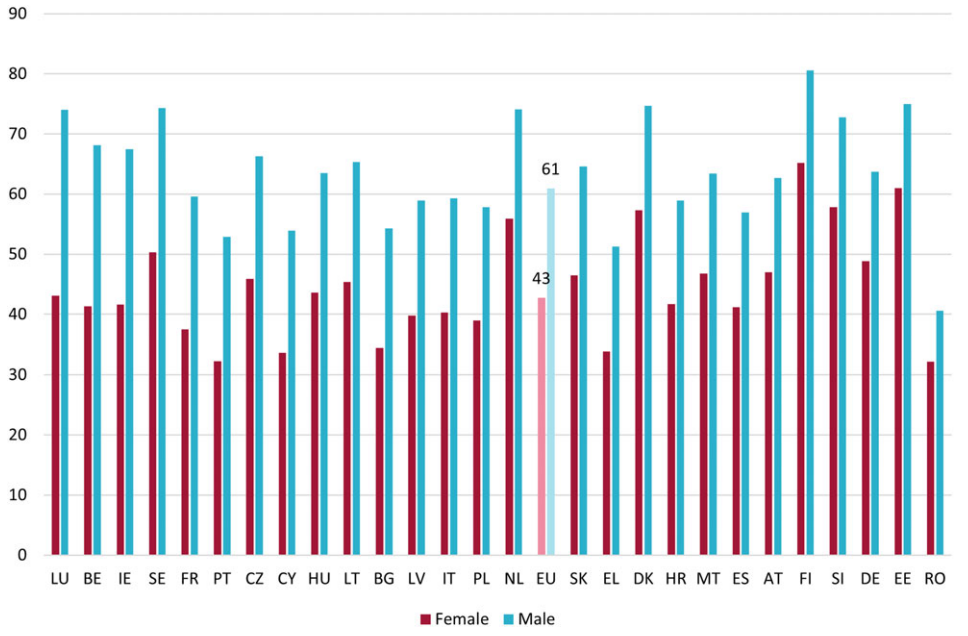


**Figure 4.** Gender gap in financial knowledge.
*Note*: The figure reports financial knowledge for men and women across countries. Countries are sorted by gender gap size.

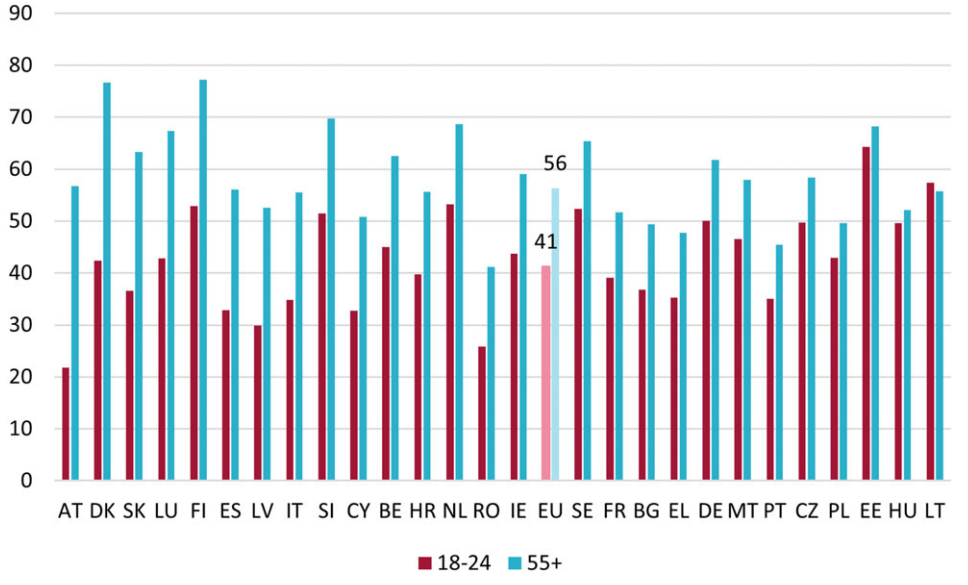


**Figure 5.** Financial knowledge by age group.
*Note*: The figure reports financial knowledge in the EU countries for the young (age 18–24) and the old (age 55+ years). Countries are soted by financial knowledge gap size.

and older is remarkably high across all member states, with the exception of Lithuania, Hungary, or Estonia (see Figure 5). In Denmark and Austria, this age gap is more than 30 percentage points.

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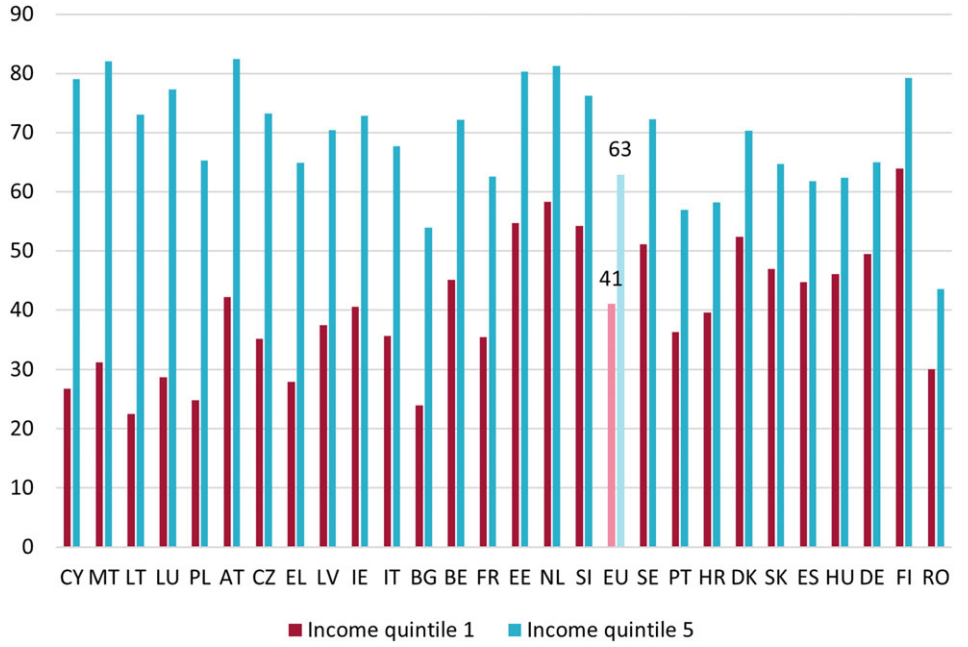


**Figure 6.** Financial knowledge, rich vs poor households.
*Note*: The figure reports financial knowledge for rich and poor households across countries. Countries are sorted by financial knowledge gap size.

### *Financial literacy across income brackets*

There are also large gaps in financial knowledge across income brackets. Figure 6 shows the gap in percentage points between the financial knowledge score for the richest households (5$^{th}$ income quintile) and the financial knowledge score for the poorest households (1$^{st}$ income quintile). Without fail, higher income households score higher than lower income households, although substantial differences exist across member states. For example, Cyprus, Malta, and Lithuania show gaps in financial knowledge across income levels of more than 50 percentage points.

### *Financial literacy across education*

Similarly, highly educated people score higher than lowly educated people across all member states (Figure 7).[11] The average gap in the EU is around 23%, with Austria displaying a gap closer to 50%. Spain is the country with the smallest gap, lower than 10%.

## How does financial knowledge affect financial outcomes?

### *New evidence from the European Commission survey*

The European Commission (2023) survey asked questions pertaining to financial resilience in both the short and long term. We report how financial knowledge is linked to both financial fragility and pension security across EU countries. We picked those questions as they are relevant for both academic research and for policy makers (see also Demertzis

[11] Levels of education are defined as follows: low is defined as including up until lower secondary education. Medium is defined as including from upper secondary education up until post-secondary but non-tertiary education. High is defined as including tertiary education up until and including doctoral level (Source: International Standard Classification of Education (ISCED) – Statistics Explained).

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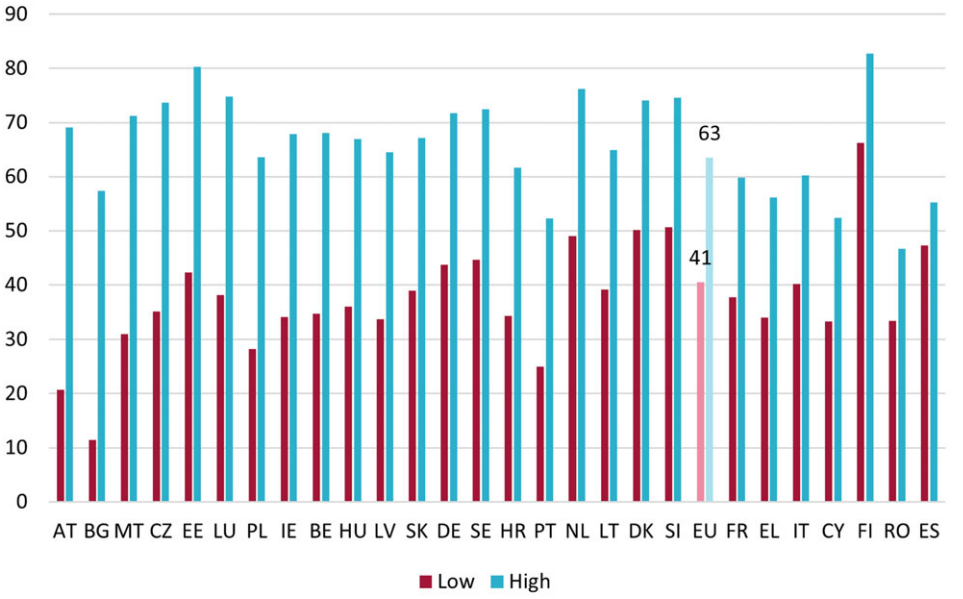


**Figure 7.** Financial knowledge, highest vs. lowest education levels.
*Note*: The figure reports financial knowledge for high and low educational attainment levels across countries. Countries are sorted by financial knowledge gap size.

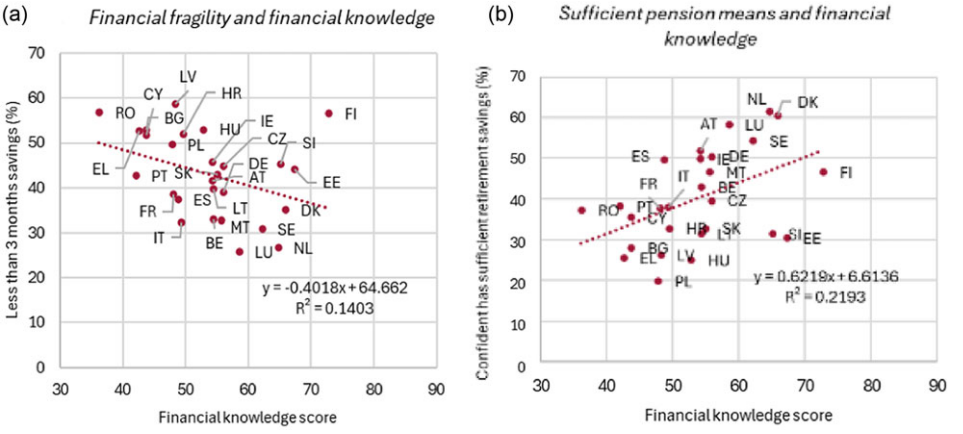


**Figure 8.** Financial knowledge, financial fragility and pension security.
*Source*: European Commission survey (2023).
*Notes*: This figure reports the correlation between financial knowledge (at least three out of five questions answered correctly) and: (a) the % of respondents who self-report having savings of less than three months' worth of income to cover living expenses if their main source of income was lost today; (b) the % of respondents who self-report the degree of confidence to which they have enough money to live comfortably through their retirement years (sum of "very confident" and "somewhat confident").

et al. 2020 and Lusardi and Mitchell 2011, 2014). The appendix includes a summary of the questions and the detailed results. Figure 8(a) shows a negative association between financial knowledge and financial fragility, i.e., the less financially knowledgeable are less likely to have adequate resources to deal with an unexpected loss of income without having to borrow.

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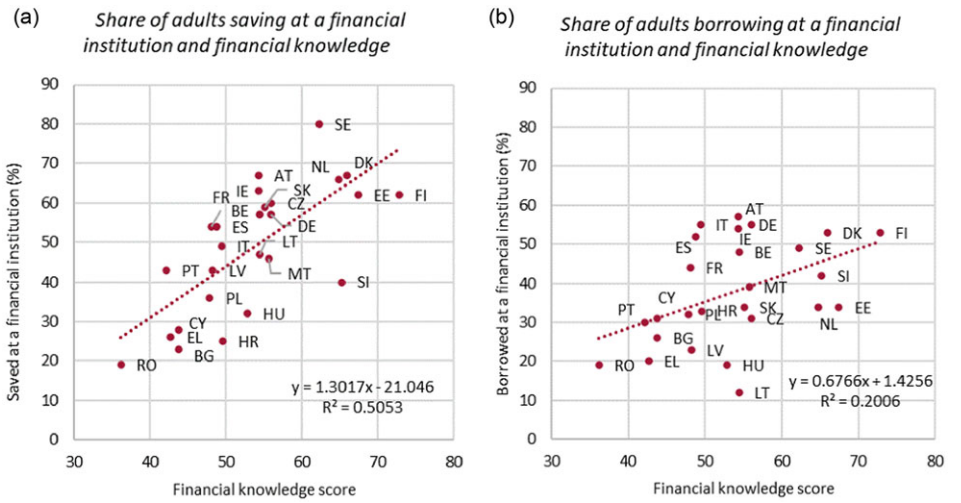


**Figure 9.** Financial knowledge and share of adults who save with and borrow from a financial institution. Source: European Commission survey (2023) and World Bank Global Findex Database (2021). The Findex database does not contain data for the saving and borrowing questions for Luxembourg in 2021.

The data show that a 10 percentage point higher level of financial knowledge is associated with a 4 percentage-point reduction in people reporting insufficient means to cover their living expenses following an unexpected loss of income.

Similarly, Figure 8(b) shows that greater financial knowledge is associated with greater confidence in having sufficient financial means for retirement. A 10 percentage point higher level of financial knowledge is associated with a 6 percentage point higher number of people who report having sufficient means for retirement.

### *The contribution of financial knowledge to financial inclusion*

We next study how financial knowledge is associated with measures of financial inclusion, another important topic for policy and programs (Batsaikhan and Demertzis, 2018; Lusardi and Messy, 2023).

We use two variables from the World Bank Global Findex database on the percentage of respondents who report saving with or borrowing from a financial institution. Figure 9 shows the relationship between financial knowledge (as measured by European Commission 2023) and the number of adults that (a) save with and (b) borrow from a financial institution. A 10-percentage point higher level of financial knowledge is associated with 13 percentage points more adults saving with, and about 7 percentage points more adults borrowing from, a financial institution.

The relationship between savings and financial knowledge is well established in the literature, and our numbers confirm this finding. The relationship between borrowing behavior and financial knowledge is less well established. Our results are not definitive, but they show that countries with more financially knowledgeable populations also have more people with access to borrowing. Both results suggest a strong link between financial knowledge and financial inclusion.

### *Limitations of the aggregate data*

The aggregate data we have used so far can address several questions and help better understand both the levels of financial literacy across countries as well as the relationship

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**Table 1.** Financial outcomes and financial knowledge. Logistic regression estimates

| | Confidence for retirement | Financial fragility |
|---|---|---|
| (Intercept) | −0.3816 | 1.097 |
| | (0.4376) | (0.6097) |
| Financial Knowledge | 0.1821 | −1.313 *** |
| | (0.1658) | (0.1793) |
| N | 782 | 754 |

Note. All continuous predictors are mean-centered and scaled by 1 standard deviation. The outcome variable is in its original units. *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.

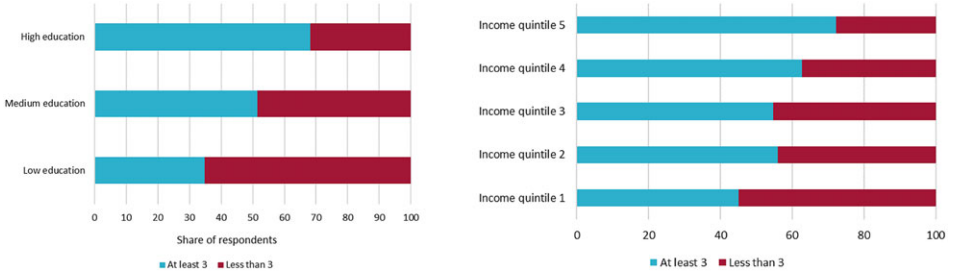


**Figure 10.** Financial knowledge score by education and income levels in Belgium.

between financial knowledge and macroeconomic variables or financial outcomes. However, the aggregate data also present some limitations that constrain the analysis that can be carried out. For example, there can be vast differences in financial knowledge in a member state across socioeconomic groups, as we have documented previously. Similarly, we cannot control for individual characteristics, such as income or age, when looking at specific relationships at the macro level, so it is possible that some relationships present at the aggregate-level change when moving to the micro level. In section 4, we analyze microdata from an EU country and report possible differences between analyses at the macro versus micro level.

## Microdata case study: Belgium

In this section, we use the Belgian microdata to show some of the problems of using aggregate data. The micro dataset for Belgium is composed of 1014 observations. We first show the heterogeneity in Belgians' financial knowledge across different socioeconomic and demographic groups. We also examine the relationships we explored in section 3.1, but this time accounting for individual characteristics.

### *Accounting for heterogeneity*

When exploring financial literacy across countries, the aggregate numbers can sometimes hide large differences among demographic groups. Figure 10 shows the differences in financial knowledge across income and education, indicating the importance of accounting for these characteristics when studying financial literacy.

We study the relationship between financial knowledge and the financial outcomes previously studied, this time controlling for age and income (Table 1). As shown in section

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3.1, across EU countries, financial knowledge is associated with better financial outcomes in terms of i) being confident for retirement savings and ii) showing lower financial fragility, see Figure 8.

In the micro data for Belgium as well, higher financial knowledge is positively associated with higher confidence levels for having enough savings for retirement, even though the estimate is not statistically significant. Similarly, being financially knowledgeable is associated with a lower probability of being financially fragile (i.e., having enough savings to face an unexpected loss of income).

Overall, our results show the importance of looking both at the aggregate and the micro level so individual characteristics can be accounted for when analyzing financial literacy.

## Conclusion

In this paper, we provide a detailed description of the survey "Monitoring the level of financial literacy in the EU, Flash Eurobarometer 525" by the European Commission. We assess the level of financial literacy across EU countries at both the aggregate level and among demographic and socioeconomic groups. Additionally, we explore the relation between financial literacy and different financial outcomes, such as confidence in retirement, financial fragility, and financial inclusion. Finally, we carry out a case study using Belgian microdata as results may differ depending on whether the analysis is performed "within" or "between" countries.

Despite the richness of the dataset, some aspects may be improved upon. The sample size should be higher, so that analyses can be done at more granular levels of disaggregation. Future surveys should keep and enhance the comparability of the questions, and the data should be collected at regular frequencies, so that a pan-European set of financial literacy data is created in the coming decade.

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# Appendix

## *A.1. Detailed information of the questions in the European Commission Survey*

**Table A1.** Questions categories and questions number

| Total number of questions | Category | Question (s) number by category |
|---|---|---|
| 12 | Self-assessment of financial knowledge | Q1 |
| | Financial knowledge | Q2-Q6 (included) |
| | Financial behaviour | Q7 (this question is integrated by 3 subquestions) |
| | Financial outcomes | Q8-Q12 |

**Table 2A.** Financial literacy questions

| Category | Question number | Question asked | Options |
|---|---|---|---|
| Self-assessment of financial knowledge | Q1 | How would you rate your overall knowledge about financial matters compared to other adults in [COUNTRY]? | "Very high," "Quite high," "About average," "Quite low," "Very low," "Don't know" |
| Financial knowledge | Q2 | (Q2) Imagine that someone puts [€100] into a savings account with a guaranteed interest rate of 2% per year. They don't make any further payments into this account and they don't withdraw any money. How much would be in the account at the end of five years, once the interest payment is made? | More than [€110] (correct answer); Exactly [€110]; Less than [€110]; Don't know. |
| Financial knowledge | Q3 | Now imagine the following situation. You are going to be given a gift of [€1,000] in one year and, over that year, inflation stays at 2%. In one year's time, with the [€1,000], you will be able to buy: | More than you could buy today; the same amount; less than you could buy today (correct answer); don't know. |
| Financial knowledge | Q4 | If interest rates rise, what will typically happen to bond prices? | They will rise; they will fall (correct answer); they will stay the same, as there is no relationship between bond prices and the interest rate; don't know |

(*Continued*)

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**Table 2A.** (*Continued*)

| Category | Question number | Question asked | Options |
|---|---|---|---|
| Financial knowledge | Q5 | Which of the following is true? An investment with a higher return is likely to be: | More risky than an investment with a lower return (correct answer); less risky than an investment with a lower return; as risky as an investment with a lower return; don't know. |
| Financial knowledge | Q6 | An investment in a wide range of "company shares" is likely to be: | More risky than an investment in a single share; less risky than an investment in a single share (correct answer); as risky as an investment in a single share; don't know. |
| Financial behavior | Q7 (this question is integrated by 3 sub questions) | To what extent do you agree or disagree with the following statements? | Completely agree; Somewhat agree; Somewhat disagree; Completely disagree; Don't know |
| Financial behavior | Q7_1 | Before I buy something, I carefully consider whether I can afford it | |
| Financial behavior | Q7_2 | I keep track and monitor my expenses | |
| Financial behavior | Q7_3 | I set long-term financial goals and strive to achieve them | |
| Financial outcomes | Q8 | If you lost your main source of income today, how long could you continue to cover your living expenses, without borrowing any money or moving house? | I don't have emergency savings; at least 1 week, but less than 1 month; at least 1 month, but less than 3 months; at least 3 months, but not 6 months; 6 months or more. |
| Financial outcomes | Q9 | Which of the following financial products do you currently have or have you had in the last two years? | Multiple options: A private pension of retirement product; Life insurance; Non-life insurance (e.g. household insurance, motor insurance); A mortgage or home loan; Other consumer loan; An investment product (funds, stocks or bonds); Crypto-securities (including crypto-currency); None of these; Don't know/prefer not to answer |
| Financial outcomes | Q10 | Overall, how confident are you that you will have enough money to live comfortably throughout your retirement years? | Very confident; Somewhat confident; Not too confident; Not at all confident; Don't know |
| Financial outcomes | Q11 | How comfortable are you with using digital financial services, such as online banking or mobile payments? | Very comfortable; Somewhat comfortable; Not too comfortable; Not at all comfortable; Don't know |
| Financial outcomes | Q12 | How confident are you that investment advice you receive from your bank/insurer/ financial advisor is primarily in your best interest? | Very confident; Somewhat confident; Not too confident; Not at all confident; Not applicable; Don't know |

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**Table 3A.** Individual's characteristics questions, different aggregates

| Question asked, aggregate | Options |
|---|---|
| Who is responsible for making day-to-day decisions about money in your household? | I make these decisions myself; I make these decisions with someone else; Someone else makes these decisions |
| What is the highest level of education you completed? | Low; Medium; High |
| Thinking about the total income of your household as a whole from all sources, after tax and compulsory deductions, which of the following do you know best? | Your household's weekly income; Your household's monthly income; Your household's annual income; Don't know; Prefer not to say |
| What is your household's total income, after tax and compulsory deductions, per week/month/year, from all sources – including benefits and so on? | [Income], distributed then by interviewers across deciles; Don't know; Prefer not to say |
| How old are you? 4 categories | 18-24 years; 25-39 years; 40-54 years; 55 years and older |
| How old are you? 6 categories | 18-24 years; 25-39 years; 40-54 years; 55-64 years; 65 years and older |
| Which of the following describes how you think of yourself? | Male; Female; In another way; Prefer not to say |
| What is your nationality? Please tell me the country(ies) that applies(y). | [EU MS]; Other; Refusal |
| How old were you when you stopped full-time education? | Up to 14 years; 15; 16; 17; 18; 19; 20; 21; 22 years and older; Still in full-time education; Never been in full-time education; Don't know; Refusal |
| How old were you when you stopped full-time education? | Up to 15; 16-19; 20 years and older; Still in full-time education; Never been in full-time education; Don't know; Refusal |
| As far as your current occupation is concerned, would you say you are . . . ? | Farmer, forester, fisherman (self-employed); Owner of shop, craftsman (self-employed); Professional (self-employed lawyer, medical practitioner, . . . ); Manager of a company (self-employed); Other (self-employed); Professional (employed doctor, lawyer, accountant, architect . . . ); General management, director or top management; Middle management; Civil servant; Office clerk; Other employee (salesman, nurse, . . . ); Other (Employee); Supervisor/foreman (team manager, . . . ); Manual worker; Unskilled manual worker; Other (manual worker); Looking after the home; Student (full-time); Retired; Seeking a job; Other (without a professional activity); Refusal |
| As far as your current occupation is concerned, would you say you are . . . ? | Self-employed; Employee; Manual worker; Without a professional activity; Refusal |
| Would you say you live in a . . . ? | A rural area or village; Small or medium-sized town; Large town/city |
| How many people aged 15 years or more live in your household, yourself included? | 1; 2; 3; 4+; Don't know; Refusal |
| How many children under the age of 15 are living in your household? | 1; 2; 3; 3+; Don't know; Refusal |
| Device used to complete the survey | PC/Laptop/Tablet; Smartphone |

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## *A.2. Financial knowledge. Overview of the EU member states' performance across financial knowledge questions.*

### Understanding of compound interest

Less than 50 percent of the people in the EU understand this concept on average. The highest score is in The Netherlands, with about 60% of correct answers. The lowest score in in Portugal, with about 35 per cent or correct answers, a range of 25-percentage points in the EU-27.

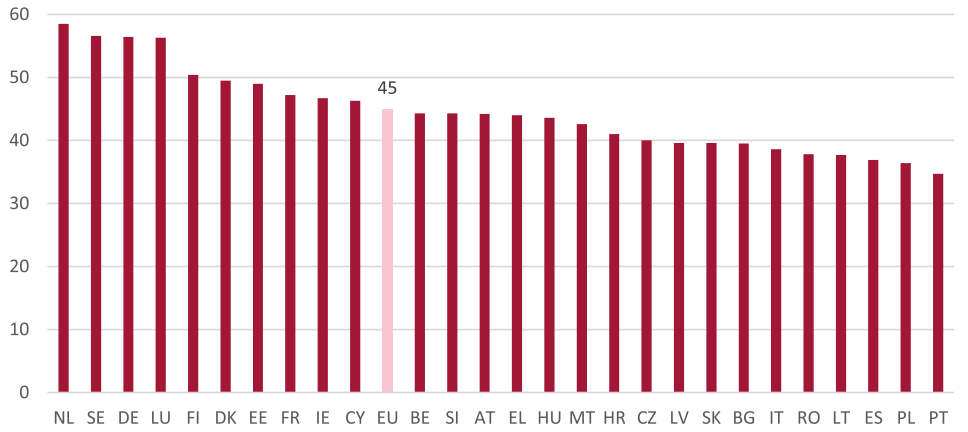


**Figure 1A.** Compound interest.

### Understanding of inflation

Together with the risk and return question, inflation is the best-known concept in the EU-27, with almost 65% of correct answers. However, this means that 35% of the population do not understand the consequences of inflation, despite the recent inflationary episodes in the EU, and its effects on purchasing power. Finland and Estonia show the best performance with a share of correct answers of around 84 percent. Cyprus is the only country not reaching 50 percent of correct answers.

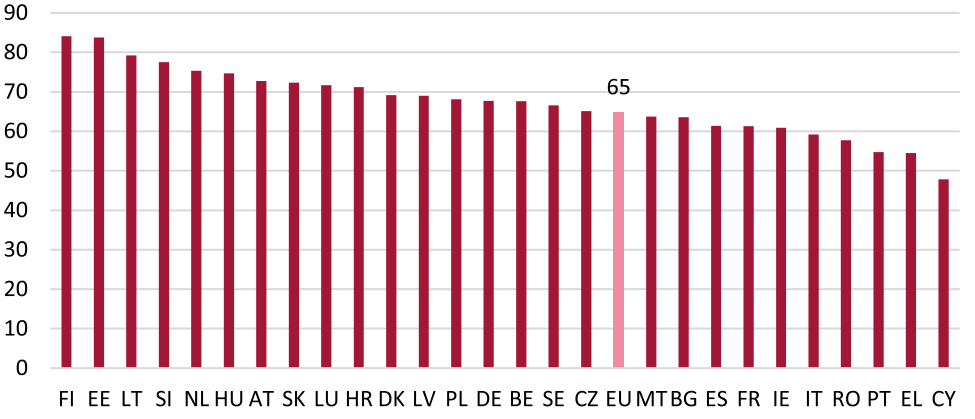


**Figure 2A.** Inflation.

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### Understanding of risk diversification

The understanding of this concept is overall better than the average financial knowledge, but knowledge of risk diversification is not very high, it is around 56% overall in the EU. Five member states do not reach 50 percent, while three countries perform higher than 70 percent.

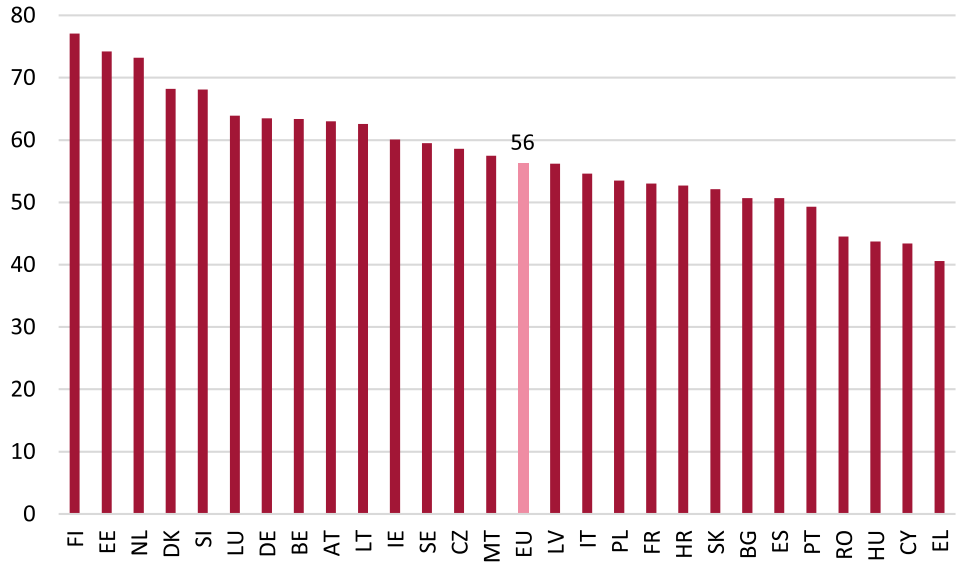


**Figure 3A.** Risk diversification.

### Understanding of interest rates and bond prices

The relation between interest rates and bond prices is the most poorly understood concept, with an average of 20% of correct answers in the EU. This question is more complex than other financial literacy questions, and it is designed to identify those with an advanced level of financial knowledge. Denmark ranks first across the EU countries but it only reaches a score of 35 percent. Portugal performs the worst with only 12 percent of correct responses.

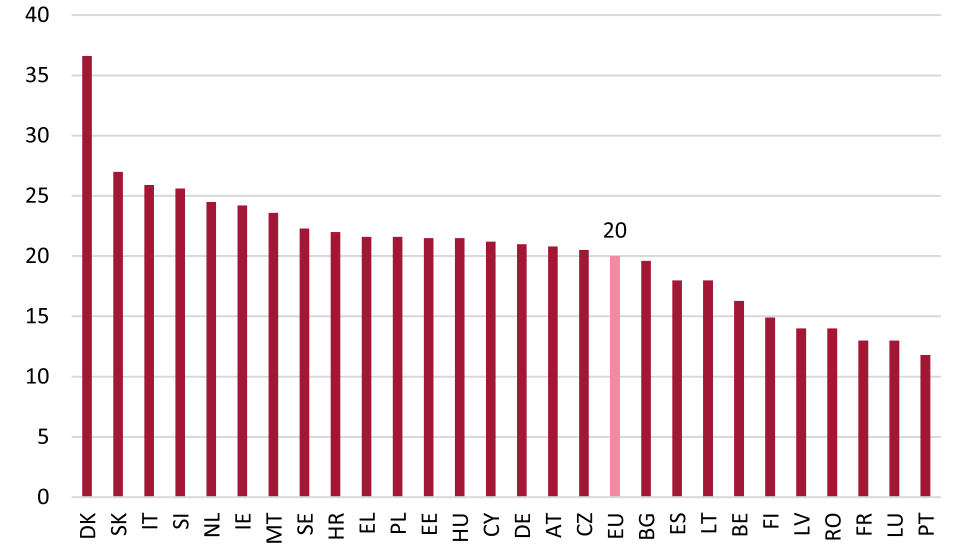


**Figure 4A.** Bonds-interests.

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**Understanding of risk and return**

Together with the inflation question, the relation between risk and return is the best understood concept in the EU, with around 65% of correct answers. Interestingly, member states present more homogeneous results in this question compared to the other financial literacy questions. Unlike inflation, all of the EU-27 report 50% of correct answers. Finland ranks first with around 79 per cent of correct answers while Poland ranks last with around 57 per cent.

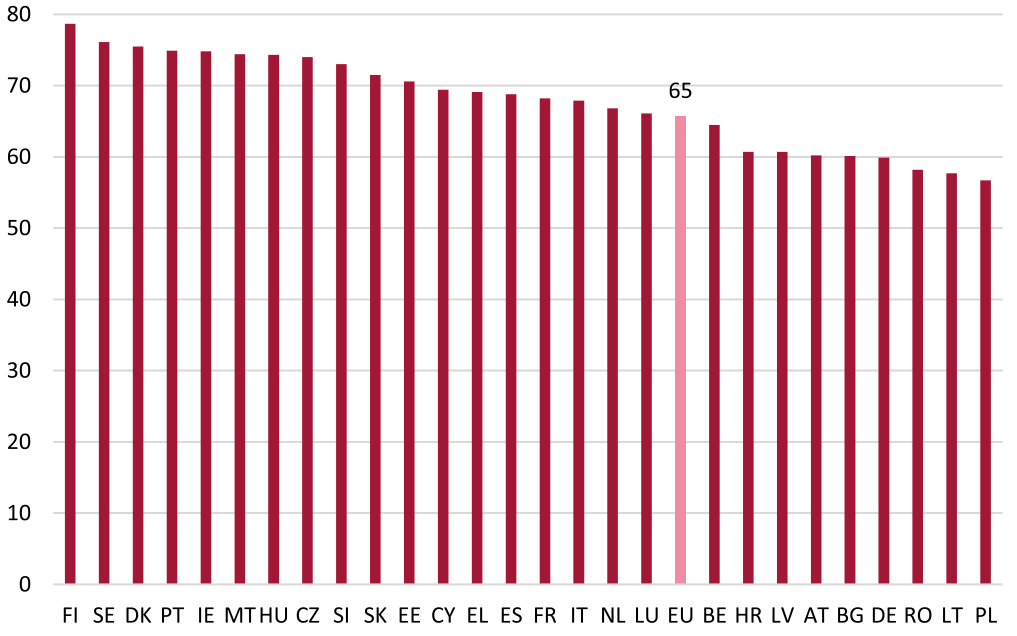


**Figure 5A.** Risk and return.

## *A.3. Financial fragility and financial confidence for retirement*

**A measure of financial fragility**

The first question for financial outcomes tries to assess how much time people can continue to cover their living expenses without borrowing or changing their place of

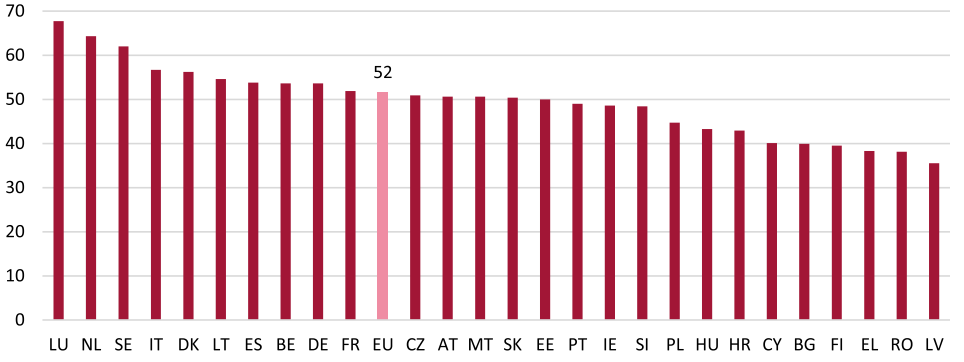


**Figure 6A.** Capacity to deal with income loss.

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residence, if they lost the main source of income. A time of three months or more is considered a good financial outcome. According to this definition, roughly 51% of the people in the EU are in a good financial situation. There are large differences across countries, with 32 percentage points difference between top and bottom performers.

**Confidence in sufficient money for retirement**

Only 6 member states have more than 50 per cent of the population that is confident in having sufficient money for retirement. In 16 countries, this share is lower than 40 per cent, while the EU-27 average is slightly above this mark.

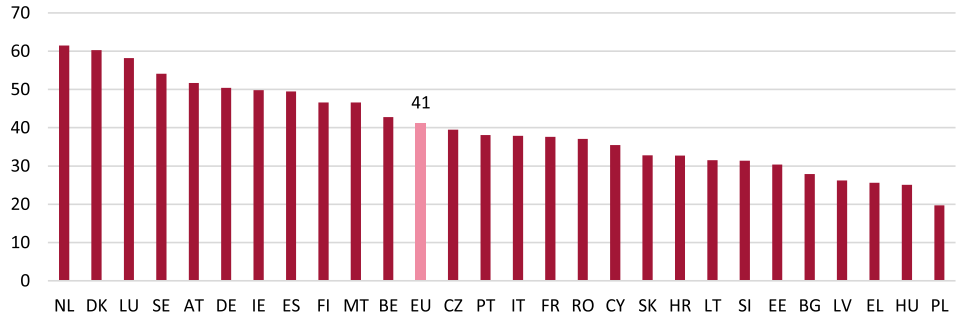


**Figure 7A.** Confidence in sufficient money for retirement.

## *A.4. Rankings and heatmaps*

**Table 4A.** Questions ranked by highest share of correct answers by country

| MS | Q2: Compound interest | Q3: Inflation | Q4: Bonds-interests | Q5: Risk and return | Q6: Risk diversification |
|---|---|---|---|---|---|
| FI | 4 | 1 | 5 | 2 | 3 |
| EE | 4 | 1 | 5 | 3 | 2 |
| DK | 4 | 2 | 5 | 1 | 3 |
| NL | 4 | 1 | 5 | 3 | 2 |
| SI | 4 | 1 | 5 | 2 | 3 |
| SE | 4 | 2 | 5 | 1 | 3 |
| LU | 4 | 1 | 5 | 2 | 3 |
| DE | 4 | 1 | 5 | 3 | 2 |
| IE | 4 | 2 | 5 | 1 | 3 |
| SK | 4 | 1 | 5 | 2 | 3 |
| MT | 4 | 2 | 5 | 1 | 3 |
| AT | 4 | 1 | 5 | 3 | 2 |
| CZ | 4 | 2 | 5 | 1 | 3 |
| HU | 4 | 1 | 5 | 2 | 3 |
| BE | 4 | 1 | 5 | 2 | 3 |

(*Continued*)

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**Table 4A.** (*Continued*)

| MS | Q2: Compound interest | Q3: Inflation | Q4: Bonds-interests | Q5: Risk and return | Q6: Risk diversification |
|---|---|---|---|---|---|
| LT | 4 | 1 | 5 | 3 | 2 |
| EU | 4 | 2 | 5 | 1 | 3 |
| HR | 4 | 1 | 5 | 2 | 3 |
| IT | 4 | 2 | 5 | 1 | 3 |
| FR | 4 | 2 | 5 | 1 | 3 |
| LV | 4 | 1 | 5 | 2 | 3 |
| PL | 4 | 1 | 5 | 2 | 3 |
| ES | 4 | 2 | 5 | 1 | 3 |
| BG | 4 | 1 | 5 | 2 | 3 |
| EL | 3 | 2 | 5 | 1 | 4 |
| CY | 3 | 2 | 5 | 1 | 4 |
| PT | 4 | 2 | 5 | 1 | 3 |
| RO | 4 | 2 | 5 | 1 | 3 |

**Table 5A.** Countries ranked by share of correct answers by question

| MS | Q2: Compound interest | Q3: Inflation | Q4: Bonds-interests | Q5: Risk and return | Q6: Risk diversification |
|---|---|---|---|---|---|
| NL | 1 | 5 | 5 | 17 | 3 |
| SE | 2 | 16 | 8 | 2 | 12 |
| DE | 3 | 14 | 13 | 24 | 7 |
| LU | 4 | 9 | 22 | 18 | 6 |
| FI | 5 | 1 | 20 | 1 | 1 |
| DK | 6 | 11 | 1 | 3 | 4 |
| EE | 7 | 2 | 11 | 11 | 2 |
| FR | 8 | 22 | 22 | 15 | 19 |
| IE | 9 | 23 | 6 | 5 | 11 |
| CY | 10 | 28 | 12 | 12 | 26 |
| EU | 11 | 18 | 16 | 19 | 15 |
| BE | 12 | 15 | 19 | 20 | 8 |
| SI | 12 | 4 | 4 | 9 | 5 |
| AT | 13 | 7 | 14 | 22 | 9 |
| EL | 14 | 27 | 10 | 13 | 27 |
| HU | 15 | 6 | 11 | 7 | 25 |
| MT | 16 | 19 | 7 | 6 | 14 |
| HR | 17 | 10 | 9 | 21 | 20 |

(*Continued*)

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**Table 5A.** (*Continued*)

| MS | Q2: Compound interest | Q3: Inflation | Q4: Bonds-interests | Q5: Risk and return | Q6: Risk diversification |
|---|---|---|---|---|---|
| CZ | 18 | 17 | 15 | 8 | 13 |
| LV | 19 | 12 | 21 | 21 | 16 |
| SK | 19 | 8 | 2 | 10 | 21 |
| BG | 20 | 20 | 17 | 23 | 22 |
| IT | 21 | 24 | 3 | 16 | 17 |
| RO | 22 | 25 | 21 | 25 | 24 |
| LT | 23 | 3 | 18 | 26 | 10 |
| ES | 24 | 21 | 18 | 14 | 22 |
| PL | 25 | 13 | 10 | 27 | 18 |
| PT | 26 | 26 | 23 | 4 | 23 |

**Table 6A.** Color map by question and share of correct answers

| MS | Q2: Compound interest | Q3: Inflation | Q4: Bonds-interests | Q5: Risk and return | Q6: Risk diversification |
|---|---|---|---|---|---|
| AT | 44.2 | 72.7 | 20.8 | 60.2 | 63 |
| BE | 44.3 | 67.6 | 16.3 | 64.5 | 63.4 |
| BG | 39.5 | 63.6 | 19.6 | 60.1 | 50.7 |
| CY | 46.3 | 47.8 | 21.2 | 69.4 | 43.4 |
| CZ | 40 | 65.1 | 20.5 | 74 | 58.6 |
| DE | 56.4 | 67.7 | 21 | 59.9 | 63.5 |
| DK | 49.5 | 69.2 | 36.6 | 75.5 | 68.2 |
| EE | 49 | 83.8 | 21.5 | 70.6 | 74.2 |
| EL | 44 | 54.5 | 21.6 | 69.1 | 40.6 |
| ES | 36.9 | 61.4 | 18 | 68.8 | 50.7 |
| EU | 45 | 64.7 | 20 | 65.7 | 56.3 |
| FI | 50.4 | 84.1 | 14.9 | 78.7 | 77.1 |
| FR | 47.2 | 61.3 | 13 | 68.2 | 53 |
| HR | 41 | 71.2 | 22 | 60.7 | 52.7 |
| HU | 43.6 | 74.7 | 21.5 | 74.3 | 43.7 |
| IE | 46.7 | 60.9 | 24.2 | 74.8 | 60.1 |
| IT | 38.6 | 59.2 | 25.9 | 67.9 | 54.6 |
| LT | 37.7 | 79.2 | 18 | 57.7 | 62.6 |
| LU | 56.3 | 71.7 | 13 | 66.1 | 63.9 |
| LV | 39.6 | 69 | 14 | 60.7 | 56.2 |
| MT | 42.6 | 63.7 | 23.6 | 74.4 | 57.5 |
| NL | 58.5 | 75.3 | 24.5 | 66.8 | 73.2 |
| PL | 36.4 | 68.1 | 21.6 | 56.7 | 53.5 |
| PT | 34.7 | 54.7 | 11.8 | 74.9 | 49.3 |
| RO | 37.8 | 57.7 | 14 | 58.2 | 44.5 |
| SE | 56.6 | 66.6 | 22.3 | 76.1 | 59.5 |
| SI | 44.3 | 77.5 | 25.6 | 73 | 68.1 |
| SK | 39.6 | 72.3 | 27 | 71.5 | 52.1 |

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**Table 7A.** Inflation knowledge by age group

| MS | 18-24 | 25-39 | 40-54 | 55+ |
|---|---|---|---|---|
| AT | 53 | 70.3 | 70.9 | 79.7 |
| BE | 44.9 | 54.6 | 66.3 | 81.6 |
| BG | 55.6 | 56.5 | 52.3 | 76.1 |
| CY | 37 | 39.4 | 46.7 | 59.2 |
| CZ | 58.8 | 48.7 | 66.8 | 75 |
| DE | 63.8 | 55.8 | 68.7 | 73.9 |
| DK | 55.3 | 62.6 | 69.4 | 76.5 |
| EE | 81.7 | 77.5 | 81.3 | 89.5 |
| EL | 29.8 | 40.2 | 48.3 | 69.6 |
| ES | 60.6 | 51.2 | 58.5 | 68.8 |
| EU | 57.6 | 55.9 | 63 | 71.9 |
| FI | 69.6 | 79 | 82.9 | 90.7 |
| FR | 59.1 | 59.4 | 53.7 | 67.2 |
| HR | 57.8 | 55.1 | 77.3 | 79.1 |
| HU | 65 | 65.4 | 73.1 | 83.5 |
| IE | 57.2 | 54.1 | 59.1 | 68.5 |
| IT | 56 | 48 | 57.9 | 65 |
| LT | 66.8 | 65.2 | 83.9 | 87.5 |
| LU | 59.2 | 70 | 72.4 | 76.2 |
| LV | 42.3 | 49 | 77 | 82 |
| MT | 59.8 | 60.1 | 64.9 | 66.6 |
| NL | 61.4 | 62.8 | 79.3 | 83.6 |
| PL | 54.2 | 60.1 | 69.5 | 75.4 |
| PT | 51.8 | 49.3 | 47.5 | 61.9 |
| RO | 45.3 | 47.6 | 59.9 | 64.9 |
| SE | 60 | 58.8 | 66.7 | 73 |
| SI | 67.1 | 65.2 | 79.6 | 84.5 |
| SK | 44.7 | 61.5 | 75.8 | 83.4 |

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**Table 8A.** Inflation knowledge by educational level

| MS | Low | Medium | High |
|---|---|---|---|
| AT | 59.6 | 73.8 | 77 |
| BE | 56.9 | 64.7 | 76.3 |
| BG | 45.8 | 59.5 | 71.4 |
| CY | 41.7 | 44.2 | 52 |
| CZ | 45.2 | 65.1 | 73.1 |
| DE | 58.2 | 66.7 | 75.6 |
| DK | 60.2 | 69 | 75.1 |
| EE | 50.6 | 85.6 | 93.5 |
| EL | 60.3 | 47.8 | 63 |
| ES | 61.5 | 57.2 | 64.2 |
| EU | 56.9 | 63.4 | 71.7 |
| FI | 71 | 83.4 | 91.4 |
| FR | 58.5 | 55.3 | 70.3 |
| HR | 38.9 | 72.2 | 76.6 |
| HU | 62.1 | 74.2 | 83.8 |
| IE | 57 | 54.4 | 67.8 |
| IT | 53 | 62.8 | 65.7 |
| LT | 65.4 | 77.7 | 84.1 |
| LU | 53.5 | 72.7 | 81.1 |
| LV | 46.1 | 66.6 | 80.9 |
| MT | 55.9 | 62.9 | 72 |
| NL | 68.9 | 74.4 | 80.4 |
| PL | 56.5 | 64.7 | 77.1 |
| PT | 39.6 | 57.8 | 62.6 |
| RO | 49 | 56.2 | 62.8 |
| SE | 56 | 64.5 | 73.4 |
| SI | 64.1 | 78.2 | 81.2 |
| SK | 54 | 72 | 81.2 |

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**Table 9A.** Inflation knowledge by gender

| MS | Female | Male |
|---|---|---|
| AT | 67.6 | 78.6 |
| BE | 59.6 | 76.1 |
| BG | 60.3 | 67.7 |
| CY | 38.9 | 56.8 |
| CZ | 59.4 | 71 |
| DE | 62.2 | 73.2 |
| DK | 66.2 | 72.3 |
| EE | 81.7 | 86.5 |
| EL | 49.5 | 59.8 |
| ES | 53.7 | 69.7 |
| EU | 58.8 | 71 |
| FI | 81.8 | 86.3 |
| FR | 54.8 | 68.4 |
| HR | 66.8 | 76.4 |
| HU | 71.3 | 78.5 |
| IE | 50.1 | 72 |
| IT | 51.6 | 67.5 |
| LT | 76.9 | 82 |
| LU | 63.2 | 80 |
| LV | 65.3 | 73.9 |
| MT | 58.1 | 69.5 |
| NL | 71 | 79.7 |
| PL | 63.6 | 73.1 |
| PT | 48.8 | 61 |
| RO | 55.3 | 60.4 |
| SE | 58.8 | 74.6 |
| SI | 75.5 | 79.4 |
| SK | 67.4 | 77.8 |

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**Table 10A.** Inflation knowledge by income

| MS | Income quintile 1 | Income quintile 2 | Income quintile 3 | Income quintile 4 | Income quintile 5 |
|---|---|---|---|---|---|
| AT | 70.5 | 70 | 78.2 | 71.3 | 84.6 |
| BE | 56.3 | 66.8 | 71.4 | 75.6 | 73.3 |
| BG | 60.8 | 69.7 | 61.2 | 59.5 | 65 |
| CY | 39 | 45.8 | 46.8 | 59 | 73.4 |
| CZ | 52.3 | 58 | 69.7 | 63.8 | 72 |
| DE | 66.4 | 66.7 | 65.6 | 69.7 | 67.7 |
| DK | 59.2 | 64.7 | 68.8 | 69.2 | 76.9 |
| EE | 75.4 | 83.2 | 80.8 | 83.4 | 91.2 |
| EL | 35.8 | 45.1 | 51.5 | 61.3 | 71 |
| ES | 51.1 | 55.2 | 68.5 | 67.4 | 69.6 |
| EU | 57.2 | 60.6 | 66.3 | 68.2 | 71.7 |
| FI | 78.4 | 88.3 | 83.2 | 87.9 | 85.8 |
| FR | 54.5 | 53.9 | 69 | 64.6 | 71.3 |
| HR | 53.7 | 71.7 | 74 | 74.9 | 73.8 |
| HU | 73 | 85.2 | 70.4 | 74.2 | 77.4 |
| IE | 49.4 | 54.9 | 68.3 | 70.6 | 67 |
| IT | 47.6 | 57.7 | 57.8 | 69.3 | 72.8 |
| LT | 59.2 | 79 | 82 | 80.6 | 90.2 |
| LU | 55.7 | 74.5 | 72.5 | 81.8 | 82.7 |
| LV | 49.9 | 58.1 | 71.1 | 75.6 | 84.2 |
| MT | 58.1 | 64.7 | 64.5 | 69 | 78.9 |
| NL | 67.3 | 69.7 | 77 | 77.4 | 86.7 |
| PL | 58.3 | 64.6 | 72.3 | 70 | 76.7 |
| PT | 50.8 | 46.8 | 54.2 | 57.7 | 66.2 |
| RO | 42.8 | 54.5 | 51.3 | 52.7 | 64.9 |
| SE | 55.5 | 62 | 67 | 69.7 | 75 |
| SI | 73.3 | 74 | 78.2 | 80.7 | 85.8 |
| SK | 71 | 66.4 | 75.8 | 73.2 | 77.9 |

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