

CHARLES UNIVERSITY

FACULTY OF SOCIAL SCIENCES

Center for Economic Research and Graduate
Education- Economics Institute



**Financial Literacy across the Commonwealth of Independent
States: a Comprehensive Cross-Country Analysis with a Focus on
Gender Disparities**

Master's Thesis

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Study program: Master in Economic Research

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Year of the defense: 2025

Declaration

1. I hereby declare that I wrote my master thesis independently under the leadership of my supervisor using the listed literature and resources only.
2. I hereby declare that my thesis has not been used to gain any other academic title.
3. I fully agree to my work being used for study and scientific purposes.

In Prague on

29 July 2025

Emma Mikayelyan

References

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Abstract

In an increasingly complex financial world, financial literacy and sound financial decision-making have become essential tools. This thesis conducts a detailed examination of the levels of financial literacy and its components, including financial knowledge, behavior, attitude, and well-being across eight countries in the Commonwealth of Independent States (CIS), namely; Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyz Republic, Russia, Tajikistan, and Uzbekistan. Drawing on the dataset on financial literacy levels across the CIS in 2021 conducted by the Organization for Economic Co-operation and Development (OECD), my study aims to provide a comprehensive, country-specific analysis of how socio-economic characteristics correlate to financial outcomes, including financial literacy, knowledge, and well-being. My thesis replicates previous estimates by the OECD, highlighting limitations in their model specification and proposing a more parsimonious specification. Furthermore, it applies Ordinary Least Squares (OLS) regression models separately for each country, supplemented by robustness checks to ensure the reliability and validity of the results. In addition, a consistent finding across all eight CIS countries is that men tend to outperform women in financial literacy assessments, thereby contributing to a gender gap in financial literacy. To better understand this disparity, my study implements a detailed Oaxaca-Blinder decomposition method, aiming to estimate the extent and drivers of the gender gap in each country individually.

Abstrakt

Ve stále složitějším finančním světě se finanční gramotnost a schopnost činit informovaná finanční rozhodnutí stávají nezbytnými nástroji. Tato studie provádí podrobný výzkum úrovní finanční gramotnosti a jejích složek, včetně finanční znalosti, finančního chování, postoje a blahobytu v osmi zemích Společenství nezávislých států (SNS), konkrétně v Arménii, Ázerbájdžánu, Bělorusku, Kazachstánu, Kyrgyzské republice, Rusku, Tádžikistánu a Uzbekistánu. Na základě dat o úrovni finanční gramotnosti v zemích SNS z roku 2021, která shromáždila Organizace pro hospodářskou spolupráci a rozvoj (OECD), si tato práce klade za cíl poskytnout zevrubnou, na jednotlivé země zaměřenou analýzu toho, jak socioekonomické charakteristiky korelují s finančními výsledky, včetně finanční gramotnosti. Moje diplomová práce replikuje předchozí odhady OECD, přičemž poukazuje na nedostatky jejich modelové specifikace a navrhuje úspornější variantu specifikace. Dále tato studie aplikuje regresní modely metody nejmenších čtverců (OLS) samostatně pro každou zemi, doplněné o kontroly robustnosti, aby byla zajištěna spolehlivost a platnost výsledků. Konzistentním zjištěním napříč všemi osmi zeměmi SNS je, že muži mají tendenci dosahovat lepších výsledků v testech finanční gramotnosti než ženy, což přispívá k existenci genderové propasti v oblasti finanční gramotnosti. Za

účelem hlubšího pochopení této nerovnosti studie provádí podrobnou Oaxaca-Blinderovu dekompozici, jejímž cílem je odhadnout rozsah a příčiny genderové propasti v každé zemi zvlášť.

Keywords: Financial literacy, financial knowledge, financial well-being, CIS, OECD, gender gap, Oaxaca-Blinder decomposition

Klíčová slova: finanční gramotnost, finanční znalosti, finanční blahobyt, SNS, OECD, genderová propast, Oaxaca-Blinderova dekompozice.

Title: Financial Literacy across the Commonwealth of Independent States: a Comprehensive Cross-Country Analysis with a Focus on Gender Disparities

Název práce: Finanční gramotnost v zemích Společenství nezávislých států: zevrubná srovnávací analýza s důrazem na rozdíly mezi pohlavími

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1. Introduction

Financial literacy has garnered remarkable positions on the global policy agenda, as good financial decision-making gained significance for both short-term and long-term perspectives. Day by day, financial education is becoming increasingly important for society as a whole, a general trend driven by the increasing complexity and diversity of financial instruments. Society needs to be financially literate to make beneficial and sound financial decisions. The rapid expansion of financial markets increases the number of decisions that people must make daily, ranging from planning investments and savings to understanding potential financial fraud and adverse financial transactions. The need to be financially literate and its impact were further magnified by the unprecedented global challenges posed by the 2008 financial crisis and the COVID-19 pandemic. Moreover, mainly due to the recent instabilities in the financial markets, the role of financial literacy has never been more crucial, thus capturing the interest of policymakers and researchers.

Financial literacy is usually shaped by several main ways, including the necessity of daily financial decision-making and, of course, the education we receive at school and then in university. Here it is worth emphasizing that school is the main and fundamental source to gain financial knowledge, skills, and tools students need to think critically, plan their financially secure future carefully, and make sound and responsible decisions about money. This is one of the primary reasons that recently both developed and developing countries have made financial literacy a mandatory component of school curricula, recognizing its role in enhancing long-term economic outcomes.

Financial literacy, mainly defined in the literature as financial knowledge, plays a vital role in financial decision-making. [OECD \(2018\)](#) emphasizes that financial literacy is now universally recognized as a core component of the financial empowerment of individuals and overall financial system stability. In contrast, financial inclusion aims to provide access to financial products and services, ensuring that individuals and policymakers have all the necessary tools to participate in the financial market. It is worth highlighting that educated and financially literate individuals are more likely to make better and more profitable saving and investing decisions, increase their financial well-being, and protect themselves against financial risks. Moreover, low financial literacy levels and poor financial behavior have negative consequences not only for individuals but also for the global economy. Nevertheless, the fact that so many people lack financial knowledge not only makes their economic lives difficult, but it also contributes to wealth inequality in the economy at large ([Lusardi and Mitchell, 2023](#)).

Utilizing the OECD's confidential dataset on financial literacy levels across the CIS countries in 2021, this study comprehensively analyzes the levels of financial literacy, knowledge, behavior, attitude and well-being across eight countries in the Commonwealth of Independent States (CIS): Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyz Republic, Russia, Tajikistan, and Uzbekistan. Furthermore, it conducts a detailed, country-specific examination of the relationship between socio-economic characteristics and financial outcomes, such as financial literacy, knowledge, and well-being.

In this study, I follow the literature of [OECD \(2021\)](#) and aim to estimate the non-causal determination of three outcomes: financial knowledge score, financial literacy score, and the financial well-being score. Furthermore, I identify various limitations in the OECD's model specification and propose a more parsimonious specification. One of my key concerns is about the way the [OECD \(2021\)](#) constructs its categorical dummy variables. For several categorical variables, OECD uses single-coded variables to represent categorical dimensions, while treating them as dummy variables. I argue that this approach of dummy variable treatment is unclear and improper. In contrast to the OECD's approach, I apply a more detailed specification by introducing separate dummy variables for categorical variables, clearly stating baseline categories. This approach allows for a clearer distinction and ensures that the effects of income heterogeneity are more accurately captured, and helps preserve important variation in the data that might otherwise be lost through overly simplistic treatment of the variables.

It is important to note that, in the first stage, I replicate the [OECD \(2021\)](#) estimates. I then proceed with my own analysis by employing an Ordinary Least Squares (OLS) regression model for each country separately, using a more precise specification of dummy variables. This allows for a direct comparison between my results and those of the OECD, and helps to highlight key discrepancies between the two approaches. Taking into consideration the fact that all eight countries I study vary widely in terms of economic development and living standards, in contrast to the OECD approach, I conduct country-level regressions, aiming to provide a more nuanced understanding of correlations and effects, and enhance the robustness and sensitivity checks of the results. I strongly believe that this approach provides more precise and deeper analysis, offering richer insights and more robust empirical findings. Therefore, analyzing knowledge, literacy, and well-being scores as dependent variables in individual cross-country regressions makes it possible to better understand the effects of socio-economic variables on each of these measures.

To summarize, all three regression results suggest that the key positive and strong correlates of financial knowledge, literacy, and well-being are variables that represent adults who are well-educated, earn a

higher income, save money, have long-term financial goals, live in cities, and actively use digital tools and services. Therefore, this analysis underscores the strong and consistent influence of education, income, digital engagement, and behavioral habits (such as saving and planning) on financial outcomes, including financial literacy, knowledge, and well-being.

Furthermore, the second part of my research suggests that across all eight countries in the CIS region, men have relatively higher financial literacy scores than women. While the gender disparity is evident, its magnitude and effects may differ across the countries I study. To investigate this further, I address two key research questions: to what extent does the financial literacy gender gap vary across countries? And which observable individual-level characteristics help explain the gender gap in financial literacy within these countries? To what extent does the financial literacy gender gap vary across countries? To investigate those research questions and explain the key drivers of the gender gap in literacy in each country individually, I implement the Oaxaca-Blinder decomposition method, which allows for decomposing the mean difference between women's and men's overall financial literacy scores for each country individually. Moreover, given the wide differences in how economically and socially developed these eight countries are, I further investigate whether the gender gaps in financial literacy are just minor disparities or reflect deeper, more substantial inequalities. Furthermore, by comparing the size of the gender gap with each country's average financial literacy level and GDP per capita, this study offers a more detailed understanding of the social and economic environments in each country individually. Consequently, my key findings indicate that wealthier countries, with the highest GDP per capita in the group, also report higher average financial literacy scores and the smallest disparities between men and women. This suggests that greater national investment in education, infrastructure, and financial access may create more equal opportunities for learning and empowerment.

While financial literacy and its socio-economic drivers have gained growing international attention, there is still a noticeable gap in empirical research focused on the CIS region, especially when it comes to understanding gender disparities. To the best of my knowledge, this study is the first to offer a comprehensive, country-by-country analysis of financial literacy, knowledge, and well-being across eight CIS countries, with a specific focus on how these outcomes differ between men and women. By doing so, I aim to bring new, context-specific insights to the literature and also provide an idea for further studies to deeply explore the underlying causes and policy implications of gender disparities.

The structure of this paper is organized as follows: First, I briefly discuss related literature in Section 2. Then, in Section 3, I present financial literacy, knowledge, behavior, attitude, and well-being levels

across all eight CIS countries. Section 4 outlines the data, summary statistics, and applied methodology. Consequently, Section 5 discusses the gender disparities across all eight countries. Finally, Section 6 present the conclusions.¹

¹ Parts of this thesis were edited and rephrased using Grammarly.com

2. A brief overview of literature

The significance and importance of financial literacy can be seen in the sharply increasing volume of published articles year by year, although the concept of financial literacy is relatively new in the literature. Interestingly, there is no standard definition and literature provides various definitions and measurement methods of financial literacy and there is no consensus about how precisely measure financial literacy. OECD has been actively involved in global policy aimed at increasing the level of financial literacy of population. [OECD-INFE \(2020\)](#) defines financial literacy as a combination of awareness, knowledge, skill, attitude, and behavior necessary to make sound financial decisions and ultimately achieve individual financial well-being. By financial literacy [\(Lusardi and Mitchell 2014\)](#) mean peoples' ability to process economic information and make informed decisions for financial planning, wealth accumulation, debt and pensions. [Klapper et al. \(2015\)](#) measure financial literacy based on four basic financial concepts: risk diversification, inflation, numeracy, and compound interest. [Huston \(2010\)](#) defines financial literacy as a component of human capital that can be used in financial activities to increase the expected benefit from consumption.

Financial literacy is a broad concept and the related literature includes its relationship and impact on financial inclusion and well-being, economic growth, social development, financial system stability, wealth inequality, and poverty reduction. Literature shows that three most common components of financial literacy are financial knowledge, financial behavior and financial attitude. Research on financial literacy demonstrates that understanding finance (financial knowledge), having correct financial attitude and responsible financial behavior leads to higher level of financial literacy. Financial knowledge includes overall understanding of financial concepts and ability to apply numeracy skills. Financial behavior refers to actions that individuals take with their money, such as saving and investment decisions, retirement and future expenditure planning or choosing financial products.

However, in the literature there are mostly single country evidence or research on financial literacy. One of well-known and broad literature reviews about financial literacy was provided by [\(Lusardi and Mitchell, 2014\)](#), where the authors were focused on the economic importance of financial literacy presenting financial knowledge as a form of investment in human capital. [Goyal and Kumar \(2020\)](#) conducted a systematic review of the literature for articles and journals published from 2000-2019 describing trends. The paper was focused on three major directions, such as levels of financial literacy among distinct cohorts, the influence that financial literacy applies on financial planning and behavior, and the impact of financial education.

Another interesting discussion is the correlation between financial literacy and financial outcomes. More particular focus is on relationship between financial literacy and financial inclusion. Literature mainly demonstrates that financial literacy is one of the main determinants of financial inclusion and shows that financial literacy has positive and statistically significant effect on financial inclusion. Particularly, [\(Adetunji and David-West, 2019\)](#) provides evidence for the impact of two key drivers of financial inclusion: financial literacy and income levels in Nigeria. Referring to the link between financial literacy and inclusion, [\(Fanta and Mutsonziwa, \(2021\)](#) claim that “Simply augmenting the availability of financial products and services may not be sufficient for broadening financial inclusion unless deliberate actions are taken to improve financial literacy. This is because financially literate individuals are more likely to appreciate the value of financial services and hence take up financial products”. Using data from a demand-side financial inclusion survey conducted in Kenya and Tanzania their instrumental variable regression analysis results confirm that financial literacy is a strong driver of financial inclusion. Examining the effects of financial literacy on financial inclusion and savings behavior in Laos (Morgan and Long, 2020) show that individuals with higher financial literacy scores are more likely to hold savings in both formal and informal forms than those who have lower financial literacy scores, even when we control for income and education. Similarly, [\(Ferrada, L.M. and Montaña, V, 2022\)](#) demonstrate that financially literate students achieve an important advantage in their financial inclusion in Los Lagos, Chile. [Rastogi, S. and Ragabiruntha, E. \(2018\)](#) found that online banking, understanding banking services and financial literacy are the drivers of financial inclusion. Additionally, studying cross-country level impact of financial literacy on financial inclusion [\(Grohmann et al., 2018\)](#) show that higher level of financial literacy strengthens financial inclusion.

Another interesting branch of literature about financial literacy are the studies about actual and perceived financial knowledge and their impacts on different financial outcomes. However, most research on financial literacy focuses only on the actual financial knowledge, which only measures what people know about financial concepts. Particularly, [\(Allgood and Walstad, 2016\)](#) conducted a large survey of U.S. households with 28,146 participants and showed that both actual and perceived financial literacy have influence on financial behavior and that perceived financial literacy may be as important as actual financial literacy. Examining the correlation between actual financial knowledge and perceived financial knowledge [\(Parker et al. 2012\)](#) found that perceived knowledge had positive effects on retirement planing separate from actual knowledge.

When it comes to global financial literacy levels, [Klapper et al., \(2015\)](#) states that globally, financial literacy is low, as only 33% of individuals understand basic financial concepts, and around 3.5 billion individuals in the world are financially illiterate. According to them, financial literacy levels among adults are at least 65% in the countries such as Australia, Canada, Denmark, Finland, Germany, Israel, The Netherlands, Norway, Sweden and the United Kingdom, whereas it is only 25% or less in South Asia.

3. Data and statistics

3.1 Sample and data analysis

As explained in the Introduction, one of my main aims in this paper is to comprehensively analyze Financial literacy levels across the CIS countries in 2021. To do so, I use an individual level dataset conducted by the OECD on Financial literacy levels across eight countries in the CIS, namely Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyz Republic, Tajikistan, Uzbekistan, and Russia in 2021. Both 2017 and 2021 datasets on Financial literacy levels are balanced and contain data for 8,000 individuals across 8 CIS countries, therefore some 1,000 individuals were interviewed in each country. The methodology used to collect 2021 data is described in the 2018 OECD/INFE Financial Literacy Measurement Toolkit, [OECD/INFE \(2018\)](#) and ensures that the sample is representative of the population in each country, respecting gender, age, and geography, [OECD \(2021\)](#).

3.2 Variables' description and measurement

The data needed for my research contains the following five variables of interest: Financial literacy, Financial knowledge, Financial behavior, Financial attitude, Financial well-being. This study also contains a set of variables of socio-economic characteristics, such as; gender, 4 groups of different age categories, education, income band, urban residence, migrant status, digital use, financial (savings) cushion, actively saving, budgeting, long-term planning, unemployed or self-employed status, trust level, risky assets holds, single or retired status.

In the next section I go through each of the main variables of interest separately and discuss measurement methods. Moreover, I present graphs for each variable and interpret the results showing the average scores. As it is stated in the OECD's report [OECD \(2021\)](#) all the variables used in this paper are computed using the OECD/INFE scoring methodology and defined in the OECD/INFE 2018 Toolkit

[OECD/INFE \(2018\)](#). In addition, I discuss internationally recognized other measurement approaches as well.

3.2.1 Financial literacy

Although there is broad global agreement on the importance of financial literacy, there is still no universally accepted method for measuring financial literacy levels. However, the Organization for Economic Co-operation and Development (OECD) with its International Network on Financial Education (INFE) and the World Bank (WB) with its financial capability survey have elaborated financial literacy measurement methodologies and surveys, which are globally recognized and used from many countries to conduct their own national surveys and implement national strategies on financial literacy. A number of countries have also participated in international assessments of financial literacy amongst youth through the Financial Literacy Option included in the OECD Program for International Students Assessment (PISA) [OECD/INFE \(2015\)](#).

To measure financial literacy OECD/INFE has designed a standardized questionnaire, which mainly contains questions related to basic financial knowledge questions, such as simple and compound interest calculations, financial behavior questions, such as financial product choice, short-term and long-term planning, saving and controlling finances, budgeting and money management, and eventually financial attitude questions, where respondents should agree or disagree with several financial statements. Notably, with regards to financial literacy, OECD/INF measures financial literacy as sum its three elements: financial knowledge, behavior and attitude. In contrast to the OECD/INFE, WB uses a bit different approach to measure financial literacy, which focuses mainly a set of questions, such as managing money, future planning, making financial choices and seeking help. And another noteworthy distinction is that, unlike OECD/INFE which focuses only on knowledge, behavior and attitude, the WB includes financial skills as a core component of financial literacy.

In this study I will only focus on the OECD/INFE measurement methodology. Financial literacy score is calculated following the [OECD/INFE \(2018\)](#) measurement methodology. Based on the [OECD \(2021\)](#) financial literacy score is a derived value which ranges from 1 to 21 and consists of the sum of its three components: Financial knowledge score, Financial behavior score and Financial attitude score. And knowledge, behavior and attitude variables scores are computed based on the respondents answers to the [OECD/INFE \(2018\)](#) questionnaire.

Figure 1 in Appendix shows the overall financial literacy and its components of knowledge, behavior and attitude scores across the CIS countries. While Figure 2 presents only the averages of financial literacy scores across the CIS countries. From those graphs we can see that the average score across all countries is 11.64 out of the max 21. As Figure 3 in Appendix shows, relatively higher scores were obtained respondents in Belarus (12.88), Uzbekistan (12.50), Russia (12.47) and Kazakhstan (12.41), while respondents in the Kyrgyz Republic (11.59), Armenia (11.02), Tajikistan (10.65) and in Azerbaijan (9.62) were obtained even lower scores than the average in overall CIS countries.

These results are quite concerning, as even the adults in Belarus who were obtained the highest overall financial literacy score was only 12.88 out of 21. Interestingly when we separately analyze knowledge, behavior and attitude (Figure 2 in Appendix), we can see that financial behavior score is the highest relative score across all the CIS. Belarus scored the highest in financial literacy because it achieved relatively high scores in both knowledge and behavior, while Uzbekistan scored the highest in behavior but only average in knowledge. The Kyrgyz Republic and Tajikistan have relatively high behavior scores but relatively very low knowledge scores. The following sections provide a more detailed discussion of the measurement methods of knowledge, behavior, and attitude, as well as a comparison of the corresponding scores between countries.

3.2.2 Financial knowledge

As it is defined in the [OECD \(2021\)](#), financial knowledge is an important component of financial literacy for individuals to help them compare financial products and services and make appropriate, well-informed financial decisions. [OECD/INFE \(2018\)](#) contains seven financial knowledge questions to measure the overall financial knowledge score. Therefore, respondents get one point for each correct answer. Providing correct answers requires basic knowledge of financial concepts like inflation (the time value of money), both simple (the price of money across time) and cumulative (the benefits of long-term saving/investing) interest and risk (the cost of financial return) [OECD \(2021\)](#).

Based on the [OECD/INFE \(2018\)](#) financial knowledge measurement questions are the following:

1. Question to determine understanding the time value of money:

Imagine that five are given a gift of 1,000 in total. If they have to share the money equally how much does each one get? Now imagine that have to wait for one year to get their share of 1,000 (in local currency) and inflation stays at percent. In one year's time will they be able to buy.

2. Question to determine understanding of interest paid on a loan

You lend \$25 to a one evening and he gives you \$25 back the next day. How much interest has he paid on this loan?

3. *Question to determine understanding of simple interest:*

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 the first year, once the interest payment is made?

4. *Question to determine understanding of both simple and compound interest:* 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 the first year, once the interest payment is made?

And how much would be in the account at the end of five years?

5. *Questions to determine understanding of risk and returns*

Is the following statement True or False?

An investment with a high return is likely to be high risk

6. *Questions to determine understanding of definition of inflation*

Is the following statement True or False?

High inflation means that the cost of living is increasing rapidly

7. *Questions to determine understanding of risk diversification*

Is the following statement True or False? It is usually possible to reduce the risk of investing in the stock market by buying a wide range of stocks and share.

The analysis of financial knowledge indicators across eight CIS countries reveals notable information in how well individuals understand core financial concepts such as interest, inflation, and risk.

Table A and Figure 4 in Appendix illustrate the proportion of individuals who correctly responded to each of the above questions. Table A shows that the Loan interest understanding is the highest (81.5%), indicating that people are generally more familiar with everyday borrowing and have a good understanding of simple interest charged on a loan. However, in contrast to this, on average only 14.4% could correctly answer questions involving both simple and compound interest, which is a crucial concept of financial knowledge, suggesting a serious gap in more advanced financial literacy. Interestingly respondents on average have better understanding about risk and return (78.6%), rather than understanding the concepts like risk diversification (49%) and understanding the definition of

inflation (67.3%). Quite challenging and concerning are the results of the simple interest calculation. On average only 29.3% of respondents are able to make simple interest calculations correctly.

From Figure 4 we can see that overall all the countries respondents have relatively similar understanding of financial concepts. Belarus and Russia show the highest rates of correct answers in majority of questions, indicating a relatively strong knowledge of key financial concepts. Kazakhstan performs well in *loan interest* (88.6%) and *risk and return* (75.8%), though fewer individuals fully understand *compound interest* (21.6%). Armenia shows relatively good understanding of *time value of money* (54.3%) and *loan interest* (83.4%), yet struggles with *compound interest* (9.9%) and *simple interest* (20.2%). Uzbekistan follows a similar pattern — good understanding of *loan interest*, but weaker in *compound interest* and *simple interest*. Azerbaijan, Tajikistan, and the Kyrgyz Republic report the lowest performance overall. From Figure 5 in Appendix we can see that on average Belarus has the highest financial knowledge score across the CIS countries, together with Russia and Kazakhstan its knowledge scores are above the Average CIS, while the rest of the countries are below the average.

To conclude the results, we can say that even though respondents have moderate awareness of some financial concepts, however there is a relatively low level of financial knowledge in all CIS countries and there is a huge room for improvement.

Table A: percentages of respondents who gave correct answers to the seven financial knowledge questions

Country	Time value of money	Understanding interest paid on a loan	Simple interest calculation	Understanding correctly both simple and compound interest	Understanding risk and return	Understanding the definition of inflation	Understanding risk diversification
Armenia	54.3%	83.4%	20.2%	9.9%	67.5%	62.0%	52.2%
Azerbaijan	25.1%	71.9%	15.7%	9.3%	44.1%	37.8%	41.1%
Belarus	64.7%	89.1%	51.5%	31.6%	80.7%	74.0%	58.9%
Kazakhstan	55.3%	88.6%	42.8%	21.6%	75.8%	82.0%	54.1%
Kyrgyz Republic	50.4%	88.3%	17.3%	3.3%	52.9%	67.5%	44.4%
Tajikistan	42.4%	55.8%	15.1%	5.3%	65.0%	64.6%	52.0%
Uzbekistan	51.1%	88.1%	28.1%	11.3%	58.8%	75.0%	47.0%
Russia	61.5%	86.7%	43.9%	22.7%	78.6%	75.5%	42.0%

Average CIS	50.6%	81.5%	29.3%	14.4%	78.6%	67.3%	49.0%
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Source [OECD \(2021\)](#)

3.2.3 Financial behavior

The way individuals manage their money and behave while making financial decisions, such as actively saving money, paying bills on time, planning future expenditures or choosing correct financial products play a crucial role in determining their overall financial stability. For this particular reason based to the [OECD/INFE \(2018\)](#) methodology, financial behavior is the most influential and significant component in the overall financial literacy score. Important elements of financial behavior included in the financial behavior score are characteristic of financial resilience (such as saving, being in control of money, planning and budgeting, and avoiding financial shortfalls and the resultant indebtedness).

The [OECD/INFE \(2018\)](#) measures financial behavior by incorporating a variety of questions to find out about three potentially prudent financial behaviors such as:

- Saving and long-term planning: a set of questions seek to understand if individuals actively save, if they borrow or avoid borrowing to make ends meet in case of a short-term financial shortfall, as well as whether they set themselves long-term financial goals.
- Making considered purchases: questions explore if individuals seek independent information or advice when considering making a purchase (of financial products and services); if they consider multiple options when making a decision; and if they make informed decisions by shopping around rather than purchasing the most readily available product or service.
- Keeping track of cash flow: questions seek to understand whether individuals keep a watch on financial affairs, and if they pay their bills on time and avoid falling into arrears.

Figure 6 in Appendix shows that across the whole CIS sample, on average adults scored 5.61 out of maximum 9 points. The highest average score is 6.17 for Uzbekistan, suggesting relatively strong financial behavior. Azerbaijan has the lowest score, indicating weaker financial behavior. Russia and Belarus have similar scores, both above the CIS average. Armenia and Tajikistan score below the CIS

average but are close to each other. Kazakhstan and Kyrgyz Republic are slightly above the CIS average, showing consistent financial behavior.

3.2.4 Financial attitude: attitudes to longer-term financial planning

The [OECD/INFE \(2018\)](#) includes three attitude statements to gauge respondents' attitudes towards money and planning for the future. A higher score is given to those respondents that exhibit more positive attitudes towards the long-term and towards saving. The questions require respondents to use a scale to indicate whether they agree or disagree with the following statements:

- “I tend to live for today and let tomorrow take care of itself” (long-term).
- “I find it more satisfying to spend money than to save it for the long-term” (saving and the long-term).
- “Money is there to be spent” (long-term and saving).

Figure 7 in Appendix illustrates that across the whole CIS sample, on average adults scored 2.53 out of maximum 5 points. Uzbekistan has the highest score suggesting a relatively more positive financial attitude. Azerbaijan and Tajikistan have the lowest scores, indicating less favorable financial attitudes. Kazakhstan and Kyrgyz Republic score slightly above Azerbaijan and Tajikistan but remain below the CIS average. While Russia, Belarus, and Armenia are clustered close to or slightly above the CIS average, showing moderate financial attitudes.

3.2.5 Financial well-being

[OECD/INFE \(2018\)](#) defines financial literacy as “A combination of awareness, knowledge, skills, attitudes and behavior necessary to make sound financial decisions and ultimately achieve individual financial well-being.” Therefore, OECD recognizes financial well-being is an important objective of financial literacy.

[OECD/INFE \(2018\)](#) defines the following five statements to calculate financial well-being score. Depending on the answer, each of the five statements can award the respondent between zero and four points. Thus the maximum achievable financial well-being score is 20 and the minimum 0.

- a. Because of my money situation, I feel like I will never have the things I want in life

(Scoring is from 0 (complete agreement) to 4 (complete disagreement))

b. I am just getting by financially

(Scoring is from 0 (complete agreement) to 4 (complete disagreement))

c. I am concerned that my money won't last

(Scoring is from 0 (complete agreement) to 4 (complete disagreement))

d. I have money left over at the end of the month

(Scoring is from 4 (complete agreement) to 0 (complete disagreement))

e. My finances control my life

(Scoring is from 0 (complete agreement) to 4 (complete disagreement))

According to the [OECD/INFE \(2018\)](#) methodology a, b, c and e considered to be negative statements and disagreement with the negative statements provides respondents with higher financial well-being scores.

Figure 8 in Appendix illustrates the average financial well-being scores across the CIS countries. On average individuals scored 9.46 out of maximum 20 points, which is quite challenging. The highest well-being scores have Russia, Belarus and Uzbekistan, while the lowest scores have Azerbaijan, Tajikistan and Armenia, which score even lower than the average.

When we analyze relatively low financial well-being scores across the CIS countries, we may conclude that the reason might be the fact that this survey was conducted in 2021 during ongoing Covid-19 pandemic, when people experiences financial crises. Another possible reason might be relatively lower wages and higher expenses in those countries.

4. Descriptive statistics and Methodology

4.1 Descriptive statistics

The descriptive statistics about all the variables used in this study are provided in Table 2. The dependent variables of interest are financial literacy, financial well-being, financial knowledge. While the independent variables describe socio-economic individual characteristics, such as gender, age categories, education, income band, urban residence, migrant status, digital use, financial (savings) cushion, actively saving, budgeting, long-term planning, unemployed or self-employed status, trust level, risky assets hold, single or retired status.

It is important to highlight that in my regression analysis, I replicate the previous estimates of the [OECD \(2021\)](#) OLS regression model, while identifying various limitations in their model specification and estimating more parsimonious specification. One of my key concerns is about the way the [OECD \(2021\)](#) constructs its categorical dummy variables. For several cases such as, income, education, urban and savings cushion the original report uses single coded variables to represent categorical dimensions, yet refers to them as dummy variables. I argue that this approach of dummy variable treatment is unclear and improper. In contrast to the OECD's approach, my study applies a more detailed specification by introducing separate dummy variables for categorical variable, clearly stating baseline categories. This approach allows for a clearer distinction and ensures that the effects of income heterogeneity are more accurately captured. By doing so, I aim to avoid the potential loss of important variation in the data that may arise from an overly simplified treatment of each variable.

To facilitate a clearer comparison between the dummy variable specifications, the Table 1 below provides a detailed description of all variables used in both the OECD's regression models and my own.

Table 1: Description of variables used in the regressions

Variable name and description used in the OECD's regressions

OECD's specification	My specification
Financial literacy: Financial literacy score (maximum 21) as per the methodology of the OECD 2018 Toolkit for Measuring Financial Literacy	<i>Literacy</i> : The same as the OECD
Financial knowledge: Financial knowledge score (maximum 7) as per the methodology of the OECD 2018 Toolkit for Measuring Financial Literacy	<i>Knowledge</i> : The same as the OECD
Financial well-being: Financial well-being score (maximum 20) as per the methodology	<i>Well-being</i> : The same as the OECD
Gender: Dummy variable: 1 for males and 0 for females.	<i>Gender</i> is a dummy variable which equals to 1 for male respondents and 0 for females
Young adults: Dummy variable: 1 if the individual is aged 18-29	<i>Young Adults</i> is a dummy variable which equals to 1 if the individual belongs to the 18-19 or 20-29 age groups
Middle aged: Dummy variable: 1 if the individual is aged 30-59	<i>Middle Age</i> is a dummy variable which equals to 1 if the individual belongs to the 30-39,40-49 or 50-59 age groups
Ageing: Dummy variable: 1 if the individual is aged 60 or older	<i>Ageing</i> (Baseline) is a dummy variable which equals to 1 if the individual belongs to the 60-69 or 70-79 age groups
Education: Dummy variable: by type of education, 1-none, 2-school, 3-university, 4-post-graduate	<i>Low Secondary Education</i> (Baseline) is a dummy variable which equals to 1 if the individual has studied only at secondary school. I excluded the dummy variable None Education in my regression as in Belarus, Russia and the Kyrgyz Republic there is no respondent who doesn't have at least low secondary education and in the remaining 5 countries there are maximum 9 individuals

	who don't have low secondary education
	<i>University Education</i> is a dummy variable which equals to 1 if the individual has studied at university or has post-graduate degree
Urban residence: Dummy variable: by type of settlement, 1-village (under 3,000 residents), 2-town (3,000 to 100,000 residents) , 3-city (100,000 and above)	<i>Village</i> (Baseline) is 1/0 dummy variable identifying individual residing in villages
	<i>Town</i> is 1/0 dummy variable identifying individual residing in towns
	<i>City</i> is 1/0 dummy variable identifying individual residing in cities
Income band: Dummy variable: Income band equal to 1-low, 2-medium, 3-high (thresholds are tailored for each country during the survey)	<i>Low Income</i> (Baseline) is 1/0 dummy variable identifying individual with a low income
	<i>Medium Income</i> is 1/0 dummy variable identifying individual with a medium income
	<i>High Income</i> is 1/0 dummy variable identifying individual with a high income
Migrant: Dummy variable: 1 if identified as migrant (migrant or their family, if they have worked abroad or received remittances over the past 12 months)	<i>Migrant</i> is 1/0 dummy variable identifying individual as migrant
Digital: Dummy variable: 1 if used a digital or mobile device over the past week for financial matters	<i>Digital Use</i> is 1/0 dummy variable identifying that individual used a digital or mobile device over the past week for financial matters
Savings cushion: Dummy variable: individual has a financial cushion for some time (1-week or less, 2-month or less, 3- three months or less, 4 - six months or less, 5- more than six months)	<i>Short-term Savings Cushion</i> (Baseline) if the individual has a financial cushion for less than a week
	<i>Long-term Savings Cushion</i> is 1/0 dummy variable identifying that individual has a financial cushion for about 1 month or more
Saving: Dummy variable: 1 for individuals who respond they actively save	<i>Actively Saving</i> is a dummy variable which equals to 1 for individuals who respond they actively save
Budget: Dummy variable: 1 if individual reported budgeting regularly	<i>Budgeting</i> is a dummy variable which equals to 1 if the individual reported budgeting regularly
Long-term: Dummy variable: 1 if individuals reported planning for the long term	<i>Long-Term Planning</i> is a dummy variable which equals to 1 if the individual reported planning for the long term
Unemployed: Dummy variable: 1 if individuals reported being unemployed	<i>Unemployment</i> is a dummy variable which equals to 1 if the individual reported being unemployed
Self-employed: Dummy variable: 1 if individual reported being self-employed	<i>Self-employment</i> is a dummy variable which equals to 1 if the individual reported being self-employed
Risky assets: Dummy variable: 1 if individual reported holding risky assets (stocks, shares, bonds, crypto assets)	<i>Risky Assets</i> is a dummy variable which equals to 1 if the individual reported holding risky assets (stocks, shares, bonds, crypto assets)
Low trust: Dummy variable: 1 if individuals responded they do not trust any institution to provide financial news, advice, or education	<i>Low Trust</i> is a dummy variable which equals to 1 if individuals responded they do not trust any institution to provide financial news, advice, or education
Single status: Dummy variable: 1 if individuals reported being single or in a household of one	<i>Single</i> is a dummy variable which equals to 1 if the individual reported being single or in a household of one
Retired status: Dummy variable: 1 if individual reported being retired	<i>Retired</i> is a dummy variable which equals to 1 if the individual reported being retired

Country fixed effects: Dummy variables taking the value of 1 for individual countries	<i>Country fixed effects</i> is a dummy variables taking the value of 1 for individual countries
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In this paragraph I will present the key explanatory variables, which has unclear and improper specification and categorization by the [OECD \(2021\)](#). With respect to education, there are four groups of education categories in the dataset: individuals with (1) none education, (2) only school education, (3) university education and (4) post-graduates. The dummy variable “none education” could not be used as a reference category in my regression analysis, as there are no respondents without at least a school-level education in Belarus, Russia, and the Kyrgyz Republic. Furthermore, in the remaining five countries, the number of individuals without any formal schooling is extremely limited, with a maximum of nine individuals per country, rendering the category statistically uninformative and unsuitable as a baseline. Accordingly, in my regression analysis, I combined university education and postgraduates into a single dummy variable, with school-level education retained as the reference category. In contrast to my approach, the [OECD \(2021\)](#) included education as a dummy variable in the regression model, while it has four categories. Regarding income, there are three groups of income categories in the dataset: individuals with (1) low, (2) medium income and (3) high income. The OECD presented its regression results including income as a single dummy variable. Presumably they treated low income as the reference category as well, however the categorization is unclear. Unlike the OECD’s approach, my analysis adopts a more detailed specification by introducing two separate dummy variables for medium and high income groups, with low income individuals serving as the baseline. With respect to age, the original seven age groups from the dataset were consolidated into three age categories: young adults, middle-aged individuals, and the ageing population, with ageing group serving as the reference category in the regression analysis. In contrast to my approach, the [OECD \(2021\)](#) included only young adults as a dummy variable in the regression model. Once again, due to its unclear dummy variables specification, I only assume that they treated middle-aged and ageing individuals as the baseline category. As for urban, there are three categories in the dataset: individuals who live in (1) village, (2) town and (3) city. The [OECD \(2021\)](#) presented its regression results including urban as a single dependent variable. Here I assume that they treated village as the baseline category as well, however again the categorization is unclear. And again my analysis employs a more detailed specification by incorporating two separate dummy variables for town and city residents, with village residents serving as the baseline for comparison.

To summarize all mentioned limitations, my approach adopts a more detailed dummy variable specification, where each category is represented by its own binary indicator. This allows for clearer interpretation and more precise estimation of effects for each group. In the descriptive statistics table, I use these disaggregated dummy variables to present the mean proportions of individuals within each category, offering a more transparent and interpretable summary of the sample. I believe this level of detail strengthens both the descriptive and inferential validity of the analysis and provides a more accurate representation of population subgroups.

Table 2 below illustrates the descriptive statistics for each country and dummy variable individually. The table summarizes all the key patterns and contrasts, where variables are coded as dummy indicators (1/0), the mean can be interpreted as the proportion of individuals with that characteristic. The values in brackets are standard deviations. Important to note that the summary statistics table includes all the dummy variables with a correct specification I discussed above.

Key findings from the descriptive statistics indicate that gender distribution is relatively equal across all countries, with males representing just under or over half of the respondents. Russia has the lowest male proportion at 45%, while Azerbaijan and Uzbekistan show 51%. Young adults (18–29) are most represented in Kyrgyz Republic and Tajikistan (both 36%). Meanwhile, Belarus and Russia show aging trends, with only 19–20% young individuals and a relatively high proportion of older individuals (60+), particularly in Russia (27%) and Belarus. (25%). Interestingly Middle-aged adults (30–59) are majority in all countries, particularly in Kazakhstan (59%) and Azerbaijan (58%). Most individuals in the sample have school-level education, with the highest proportions in Azerbaijan, Russia, and Uzbekistan (all around 74–77%). However, university-level education varies more sharply. It is most prevalent in Belarus (48%) and Tajikistan (37%), whereas Azerbaijan and Uzbekistan lag behind (only 23–26%). Urbanization is notably high in Belarus, Russia, and Kazakhstan, with over 45% of respondents living in cities. Uzbekistan also shows a high urban proportion (45%) despite having the largest share of village residents (46%). Tajikistan is unusual in having 77% of its sample residing in towns, far more than any other country, while Kyrgyz Republic also shows a strong town orientation (55%). Low income is most prevalent in Tajikistan (39%) and Russia (33%), while Uzbekistan and Belarus report the lowest shares (15%). Medium income is highly concentrated in Uzbekistan (64%), suggesting a more homogenized income distribution. High income groups are more common in Belarus (44%) and Armenia (41%), but drastically lower in Uzbekistan, where only 6% report being in this category. Migration is highest in Kyrgyz Republic (44%) and Tajikistan (40%), reflecting significant labor migration. While Russia and

Kazakhstan, by contrast, have far fewer migrants (5% and 7%). Digital use is notably high in Russia (59%) and Kazakhstan (57%), while Tajikistan (18%) and Azerbaijan (22%) show the lowest engagement. Having a long-term financial cushion is very common in Belarus (83%) and Uzbekistan (78%), while Azerbaijan and Armenia trail behind (both around 55–59%). Actively saving behaviors are most frequent in Uzbekistan (90%), followed closely by Kyrgyz Republic, Belarus, and Tajikistan. While budgeting is highly practiced in Uzbekistan (77%) and Kyrgyz Republic (71%), indicating strong short-term financial management. Long-term planning is most common in Uzbekistan (82%) and Kyrgyz Republic (77%), while Belarus and Azerbaijan are at the lower end (43–45%). Unemployment is highest in Azerbaijan (18%) and Tajikistan (14%), while Belarus and Russia report the lowest rates (2% and 4%). Self-employment is significant in Uzbekistan (26%) and Kyrgyz Republic (24%), likely reflecting a large informal or entrepreneurial sector. Investment in risky assets is rare across all countries, with Russia and Tajikistan leading slightly at just 5%. Low trust is more common in Azerbaijan (30%) and Armenia (28%), while Uzbekistan has the lowest distrust at just 10%. Single individuals are most prevalent in Russia (33%) and Belarus (26%), while apparently strong traditional family structures dominate in Tajikistan and Uzbekistan (just 4–5% singles). Retirement is most common in Russia (26%) and Belarus (22%), reflecting their older populations, whereas Tajikistan and Kyrgyz Republic have far fewer retirees (under 11%). To conclude the key patterns, Uzbekistan reports the highest levels of saving, budgeting, and long-term planning, alongside relatively strong literacy and well-being. Meanwhile, Belarus shows the highest educational attainment and strong financial literacy, but relatively lower digital use. Tajikistan and Kyrgyz Republic have the highest level of young adults, and strong saving habits, although face challenges in digital inclusion and income levels.

Table 2: Descriptive statistics by country

Variable	<i>Armenia</i>	<i>Azerbaijan</i>	<i>Belarus</i>	<i>Kazakhstan</i>	<i>Kyrgyz Republic</i>	<i>Russia</i>	<i>Tajikistan</i>	<i>Uzbekistan</i>
<i>Literacy</i>	11.02 (2.72)	9.62 (3.37)	12.88 (2.75)	12.41 (2.90)	11.59 (2.52)	12.47 (2.91)	10.65 (2.60)	12.50 (2.54)
<i>Knowledge</i>	3.29 (1.49)	2.42 (1.78)	4.46 (1.63)	4.09 (1.73)	3.20 (1.52)	4.11 (1.63)	2.91 (1.45)	3.49 (1.54)
<i>Well-being</i>	8.01 (4.86)	7.14 (5.55)	10.97 (4.72)	9.68 (4.72)	10.03 (4.78)	10.79 (4.81)	7.89 (4.43)	11.15 (4.67)
<i>Gender: Male</i>	0.48 (0.50)	0.51 (0.50)	0.46 (0.50)	0.47 (0.50)	0.50 (0.50)	0.45 (0.50)	0.50 (0.50)	0.51 (0.50)
<i>Young Adults</i>	0.29 (0.45)	0.30 (0.46)	0.19 (0.39)	0.24 (0.43)	0.36 (0.48)	0.20 (0.40)	0.36 (0.48)	0.32 (0.47)

<i>Middle Aged</i>	0.55 (0.50)	0.58 (0.49)	0.56 (0.50)	0.59 (0.49)	0.54 (0.50)	0.54 (0.50)	0.56 (0.50)	0.56 (0.50)
<i>Ageing</i>	0.16 (0.37)	0.12 (0.32)	0.25 (0.43)	0.17 (0.37)	0.10 (0.30)	0.27 (0.44)	0.08 (0.28)	0.12 (0.33)
<i>School Education</i>	0.63 (0.48)	0.77 (0.42)	0.52 (0.50)	0.65 (0.48)	0.70 (0.46)	0.74 (0.44)	0.62 (0.49)	0.74 (0.44)
<i>University Education</i>	0.36 (0.48)	0.23 (0.42)	0.48 (0.50)	0.35 (0.48)	0.30 (0.46)	0.26 (0.44)	0.37 (0.48)	0.26 (0.44)
<i>Village</i>	0.23 (0.42)	0.28 (0.45)	0.15 (0.36)	0.23 (0.42)	0.24 (0.43)	0.27 (0.44)	0.09 (0.28)	0.46 (0.50)
<i>Town</i>	0.34 (0.48)	0.41 (0.49)	0.29 (0.45)	0.30 (0.46)	0.55 (0.50)	0.21 (0.41)	0.77 (0.42)	0.09 (0.28)
<i>City</i>	0.43 (0.50)	0.30 (0.46)	0.57 (0.50)	0.47 (0.50)	0.21 (0.41)	0.52 (0.50)	0.14 (0.35)	0.45 (0.50)
<i>Low Income</i>	0.23 (0.42)	0.24 (0.42)	0.15 (0.35)	0.24 (0.43)	0.27 (0.44)	0.33 (0.47)	0.39 (0.49)	0.15 (0.36)
<i>Medium Income</i>	0.27 (0.45)	0.40 (0.49)	0.36 (0.48)	0.36 (0.48)	0.25 (0.44)	0.35 (0.48)	0.25 (0.44)	0.64 (0.48)
<i>High Income</i>	0.41 (0.49)	0.27 (0.44)	0.44 (0.50)	0.27 (0.44)	0.27 (0.45)	0.18 (0.38)	0.24 (0.43)	0.06 (0.24)
<i>Migrant</i>	0.34 (0.47)	0.14 (0.34)	0.11 (0.31)	0.07 (0.26)	0.44 (0.50)	0.05 (0.22)	0.40 (0.49)	0.16 (0.37)
<i>Digital use</i>	0.29 (0.45)	0.22 (0.41)	0.44 (0.50)	0.57 (0.50)	0.26 (0.44)	0.59 (0.49)	0.18 (0.38)	0.36 (0.48)
<i>Long-term savings cushion</i>	0.59 (0.49)	0.55 (0.50)	0.83 (0.38)	0.69 (0.46)	0.71 (0.46)	0.70 (0.46)	0.74 (0.44)	0.78 (0.42)
<i>Actively Saving</i>	0.48 (0.50)	0.55 (0.50)	0.75 (0.43)	0.73 (0.45)	0.74 (0.44)	0.68 (0.47)	0.73 (0.45)	0.90 (0.30)
<i>Budgeting</i>	0.66 (0.48)	0.70 (0.46)	0.48 (0.50)	0.56 (0.50)	0.71 (0.45)	0.48 (0.50)	0.62 (0.49)	0.77 (0.42)
<i>Long-term planning</i>	0.57 (0.50)	0.45 (0.50)	0.43 (0.50)	0.50 (0.50)	0.77 (0.42)	0.46 (0.50)	0.66 (0.47)	0.82 (0.39)
<i>Unemployed</i>	0.12 (0.32)	0.18 (0.39)	0.02 (0.13)	0.07 (0.25)	0.10 (0.30)	0.04 (0.20)	0.14 (0.35)	0.10 (0.31)
<i>Self-employed</i>	0.15 (0.36)	0.19 (0.39)	0.11 (0.31)	0.13 (0.34)	0.24 (0.43)	0.09 (0.29)	0.19 (0.39)	0.26 (0.44)
<i>Risky assets</i>	0.01 (0.11)	0.01 (0.12)	0.02 (0.15)	0.03 (0.17)	0.01 (0.11)	0.05 (0.22)	0.05 (0.22)	0.01 (0.09)
<i>Low trust</i>	0.28 (0.45)	0.30 (0.46)	0.17 (0.38)	0.21	0.23 (0.42)	0.25 (0.43)	0.16 (0.36)	0.10

				(0.41)				(0.29)
<i>Single individuals</i>	0.07 (0.26)	0.07 (0.25)	0.26 (0.44)	0.15 (0.35)	0.06 (0.23)	0.33 (0.47)	0.04 (0.20)	0.05 (0.21)
<i>Retired individuals</i>	0.14 (0.34)	0.10 (0.30)	0.22 (0.42)	0.15 (0.36)	0.11 (0.31)	0.26 (0.44)	0.08 (0.28)	0.14 (0.34)
<i>Number of observations</i>	1000	1000	1000	1000	1000	1000	1000	1000

4.2 Methodology

Following the literature [OECD \(2021\)](#), I aim to explain the non-causal determination of the financial knowledge score, the financial literacy score, and the financial well-being score computed from the data on a set of socio-economic individual characteristics, which were described previously. Analyzing knowledge, literacy and well-being scores as dependent variables in a regression, makes it possible to better understand the effects of socio-economic variables on each of these measures.

Therefore, to analyze this decomposition and explore which particular socio-economic characteristics have strong and significant effect on financial literacy score, financial knowledge score and the financial well-being score, I start my analysis by replicating [OECD \(2021\)](#) and running three simple Ordinary least square (OLS) regression models separately for each dependent variable. The chosen set of dependent and socio-economic explanatory variables, and the as well as the methodology is inspired by the [OECD \(2021\)](#). Here it is important to emphasize that in the first stage I replicate OECD estimates and then follow up with my own estimates, by running OLS regressions for each country separately not and specifying dummies properly, thus comparing my and OECD's findings and highlighting major discrepancies. Moreover, I skip and don't discuss OECD's non fixed effect pooled regression model finding it too simplistic. In the pooled OLS regression models I use the following dependent variables accordantly: (1) Financial knowledge score, (2) Financial literacy score and (3) Financial Well-being score. Country fixed effects are applied. Moreover, the essence of my model is that I do not impose restriction that α_1 to α_{20} , β_1 to β_{20} and γ_1 to γ_{20} the same across countries but allow for different coefficients for each country, based on the hypothesis that country differences in socio-economic development and educational attainment will have contribution of the independent variables differently.

1. The OLS regression model, which explains the correlation of the financial knowledge score and the set of socio-economic individual characteristics, takes the following form, where the main variable of interest is the financial knowledge score:

$$\begin{aligned} \text{Knowledge}_i = & \alpha_0 + \alpha_1 \text{Gender}_i + \alpha_2 \text{YoungAdults}_i + \alpha_3 \text{MiddleAge}_i + \alpha_4 \text{UniversityEducation}_i \\ & + \alpha_5 \text{MediumIncome}_i + \alpha_6 \text{HighIncome}_i + \alpha_7 \text{Town}_i + \alpha_8 \text{City}_i + \alpha_9 \text{Migrant}_i \\ & + \alpha_{10} \text{DigitalUse}_i + \alpha_{11} \text{SavingsCushionLong}_i + \alpha_{12} \text{ActivelySaving}_i + \alpha_{13} \text{Budgeting}_i \\ & + \alpha_{14} \text{LongTermPlanning}_i + \alpha_{15} \text{Unemployment}_i + \alpha_{16} \text{Selfemployment}_i + \alpha_{17} \text{LowTrust}_i \\ & + \alpha_{18} \text{RiskyAssets}_i + \alpha_{19} \text{Single}_i + \alpha_{20} \text{Retired}_i + \varepsilon_i \end{aligned}$$

2. The OLS regression model, which explains the correlation of the financial literacy score and the set of socio-economic individual characteristics; the set of RHS variables is the same as above, only the coefficients are denoted as betas.

$$\begin{aligned} \text{Literacy}_i = & \beta_0 + \beta_1 \text{Gender}_i + \beta_2 \text{YoungAdults}_i + \beta_3 \text{MiddleAge}_i + \beta_4 \text{UniversityEducation}_i \\ & + \beta_5 \text{MediumIncome}_i + \beta_6 \text{HighIncome}_i + \beta_7 \text{Town}_i + \beta_8 \text{City}_i + \beta_9 \text{Migrant}_i + \beta_{10} \text{DigitalUse}_i \\ & + \beta_{11} \text{SavingsCushionLong}_i + \beta_{12} \text{ActivelySaving}_i + \beta_{13} \text{Budgeting}_i + \beta_{14} \text{LongTermPlanning}_i \\ & + \beta_{15} \text{Unemployment}_i + \beta_{16} \text{Selfemployment}_i + \beta_{17} \text{LowTrust}_i + \beta_{18} \text{RiskyAssets}_i \\ & + \beta_{19} \text{Single}_i + \beta_{20} \text{Retired}_i + u_i \end{aligned}$$

3. The OLS regression model, which explains the correlation of the financial well-being score and the set of socio-economic individual characteristics; the set of RHS variables is the same as above, only the coefficients are denoted as gammas.

$$\begin{aligned} \text{Well_being}_i = & \gamma_0 + \gamma_1 \text{Gender}_i + \gamma_2 \text{YoungAdults}_i + \gamma_3 \text{MiddleAge}_i + \gamma_4 \text{UniversityEducation}_i \\ & + \gamma_5 \text{MediumIncome}_i + \gamma_6 \text{HighIncome}_i + \gamma_7 \text{Town}_i + \gamma_8 \text{City}_i + \gamma_9 \text{Migrant}_i + \gamma_{10} \text{DigitalUse}_i \\ & + \gamma_{11} \text{SavingsCushionLong}_i + \gamma_{12} \text{ActivelySaving}_i + \gamma_{13} \text{Budgeting}_i + \gamma_{14} \text{LongTermPlanning}_i \\ & + \gamma_{15} \text{Unemployment}_i + \gamma_{16} \text{Selfemployment}_i + \gamma_{17} \text{LowTrust}_i + \gamma_{18} \text{RiskyAssets}_i + \gamma_{19} \text{Single}_i \\ & + \gamma_{20} \text{Retired}_i + v_i \end{aligned}$$

Each, α , β and γ is a vector of coefficients to be estimated

The subscript i refers to individual respondents

Each ε_i , u_i and v_i is an error term, and each is assumed to be independently and identically distributed

4.3 Main results

The main estimation results of all three OLS regression models including country fixed effects are summarized in the Table 3 presented below, which illustrates the correlation between knowledge, literacy and well-being, and a set of explanatory socio-economic variables. As discussed previously,

this results summarize the [OECD \(2021\)](#) pooled OLS regression model and the original findings by the OECD are presented in Table 4 in Appendix.

Table 3: Ordinary least squares (OLS) regression for all CIS countries as a whole (pooled regression)

	Financial Knowledge	Financial Literacy	Financial Well-being
Gender dummy: Male	0.334*** (0.035)	0.281*** (0.052)	0.533*** (0.109)
Dummy: Young Adults	-0.239*** (0.079)	-0.352*** (0.113)	0.868*** (0.242)
Dummy: Middle age	-0.020 (0.072)	-0.136 (0.102)	-0.111 (0.224)
Education dummy: University	0.351*** (0.039)	0.623*** (0.057)	0.633*** (0.116)
Urban dummy: Town	-0.095** (0.047)	-0.246*** (0.069)	-0.268* (0.150)
Urban dummy: City	0.205*** (0.046)	0.237*** (0.067)	-0.150 (0.140)
Income dummy: Medium	0.167*** (0.042)	0.302*** (0.060)	0.320** (0.130)
Income dummy: High	0.316*** (0.048)	0.590*** (0.069)	1.402*** (0.146)
Dummy: Migrant	0.068 (0.043)	0.004 (0.064)	-0.193 (0.135)
Dummy: Digital use	0.124*** (0.040)	0.766*** (0.059)	0.086 (0.122)
Dummy: Savings cushion-long	0.421*** (0.040)	0.721*** (0.058)	0.806*** (0.124)

Dummy: Actively saving	0.092** (0.042)	1.628*** (0.060)	0.632*** (0.127)
Dummy: Budgeting	-0.013 (0.037)	0.755*** (0.055)	-0.160 (0.115)
Dummy: Long-term planning	0.159*** (0.038)	1.468*** (0.056)	0.006 (0.114)
Dummy: Unemployed	-0.201*** (0.060)	-0.396*** (0.087)	0.038 (0.199)
Dummy: Self-employed	-0.092* (0.048)	-0.008 (0.070)	0.641*** (0.149)
Dummy: Risky assets	0.100 (0.107)	0.801*** (0.155)	0.668** (0.324)
Dummy: Low trust	-0.306*** (0.046)	-0.765*** (0.065)	-0.517*** (0.139)
Dummy: Single	-0.064 (0.056)	-0.041 (0.082)	0.354** (0.167)
Dummy: Retired	-0.196*** (0.073)	0.115 (0.105)	-0.582** (0.235)
Armenia (Baseline)			
Azerbaijan	-0.703*** (0.068)	-1.053*** (0.101)	-0.714*** (0.225)
Belarus	0.913*** (0.073)	1.142*** (0.108)	2.418*** (0.219)
Kazakhstan	0.716*** (0.073)	0.835*** (0.107)	1.503*** (0.213)

Kyrgyz Republic	-0.074 (0.067)	-0.051 (0.097)	1.882*** (0.210)
Tajikistan	-0.360*** (0.068)	-0.716*** (0.105)	-0.278 (0.211)
Uzbekistan	0.050 (0.072)	0.118 (0.107)	2.884*** (0.227)
Russia	0.814*** (0.073)	1.134*** (0.109)	2.875*** (0.222)
Constant	2.573*** (0.101)	7.969*** (0.148)	6.281*** (0.311)
R-squared	0.222	0.453	0.147
Observations	8000	8000	8000
BIC	29633.509	35667.745	47570.582

Robust standard errors in parentheses

,
* p<0.10, ** p<0.05, *** p<0.01

As table 3 shows the majority of key variables have positive and statistically significant effect on all three dependent variables. More specifically, gender, university education, income and long-term savings cushion strongly and positively correlate with knowledge, literacy, and well-being. In fact, being male adds 0.334, 0.281 and 0.533 points to the knowledge, literacy and well-being representatively. Therefore, all three regression results suggest gender gap in literacy, knowledge and well-being. As expected, the higher the education, income and savings cushion levels provide the higher the scores for the dependent variables. Living in a city and being a frequent user of digital or mobile devices for financial matters is also strongly and positively correlated with higher financial knowledge and financial literacy. However, both variables are not statistical significant in the well-being regression. Having a bigger amount of risky assets is positively and significantly correlated only with financial literacy and well-being. Surprisingly, being younger is significantly but negatively associated with financial knowledge and literacy, in contrast to its positive association with well-being. Being unemployed or self-employed are negatively associated with lower financial knowledge and literacy, while being self-employed has positive and significant correlation with financial well-being. Being unemployed is also negatively, but significantly correlated with lower financial literacy and knowledge. Retired individuals

are negatively and significantly associated with knowledge and well-being, while having positive but not significant correlation with literacy. For some reason the OECD (2021) excluded the variables budgeting, actively saving, and long-term planning in the regression model for financial literacy, including only in knowledge and well-being regressions. As key components of financial behavior, I included them in the literacy regression model as well. The results suggest that budgeting is positive and statistically insignificant only for literacy, while having negative and non-significant correlation with both knowledge and well-being. As expected, both long-term planning and actively saving have positive and strong correlation with higher knowledge, literacy and well-being. Having low trust in institutions and financial sources is negatively and significantly correlated with all three of the dependent variables. To conclude all three regression results, we can say that the key strong correlates of financial knowledge, literacy, and well-being are variables that represent young adults who are well-educated, earn a higher income, save money, have long-term financial goals, live in cities and actively use digital tools and services. Therefore, this analysis underscores the strong and consistent influence of education, income, digital engagement, and behavioral habits (such as saving and planning) on financial outcomes.

To evaluate the impact of the modifications made to my regression model, here I will present a comparative analysis of my OLS regression results alongside those reported in the research conducted by the OECD (2021). For better understanding the comparison and differences, Table 4 in Appendix illustrates the pooled OLS regression results employed by the OECD.

This comparison aims to highlight the differences in explanatory variables and coefficient estimates, and overall model performance. Below I present the key explanatory variables, focusing specifically on those for which I introduced more detailed dummy variable specifications:

With respect to age group, my regression results are very close to OECD's results indicating that young adults are negatively but statistically significantly correlated with financial knowledge and literacy. In contrast, young individuals are positively and significantly associated with financial well-being. My findings align closely with those of the original data analysis, reinforcing the pattern that on average, middle-aged individuals exhibit the highest levels of financial literacy and knowledge across the CIS countries as a whole, whereas young adults report the highest levels of financial well-being.

Furthermore, my regression results indicate that individuals with university education and postgraduate qualifications score 0.351 points higher in financial knowledge on average, compared to those with only school education. The effect of university education is even higher for both financial literacy (0.623

point) and financial well-being (0.633 point). These effects are statistically significant, suggesting a strong positive correlation between higher education and financial outcomes. This results indicates that the benefits of higher education extend beyond financial outcomes, including literacy, knowledge and well-being, reconfirming higher education as a key determinant for all three outcomes. As for income, both my and OECD's regression results indicate that income band's effect on all three financial outcomes is positive and statistically significant. Furthermore, my regression results show that individuals with high income score higher in financial knowledge, literacy and well-being on average, compared to those with medium income. As expected, the effect of high income is the highest for both financial well-being. Moreover, the larger coefficient values observed in my regression results likely reflect the fact that separating medium- and high-income groups captures more of the variation in outcomes, thus allowing for a more precise estimation. In particular, higher coefficients in my regression model suggest that high income has a stronger positive effect on all three financial outcomes compared to the OECD's regression model. In addition, both my and OECD's regressions results suggest that individuals living in cities score higher in both financial literacy and knowledge, than their rural counterparts, and the difference is statistically significant at the 1% level. In contrast, the coefficient for city residents is negative and not statistically significant, suggesting no meaningful difference in financial well-being between rural and city populations. Interestingly, based on my approach and regression results, individuals living in towns score lower in all three outcomes, including financial literacy, knowledge and well-being compared to rural residents. All three effects are negative, but statistically significant. To summarize the results, people living in city tend to outperform rural residents in knowledge and literacy, while town residents lag behind in all three outcomes.

It is important to emphasize, that for some reason OECD (2021) excluded 3 key explanatory variables from only the OLS regression for financial literacy as a dependent variable. These variables are actively saving, budgeting and long-term planning. I included those variables in the OLS regression model contending that it contributes to a more robust and comprehensive understanding of financial literacy.

Drawing together the main findings, I can conclude that the way in which dummy variables were constructed for all four independent variables, including age group, education, income, and urban residence, is not clearly specified and categorized by OECD. In contrast, my analysis employs a more transparent and detailed approach. More specifically, I construct separate dummy variables for each categorical variable, clearly distinguishing all the baseline groups. I claim that this approach allows for more precise and robust estimation for each category individually and ensures that no important

variation is overlooked. In addition, the larger coefficients observed in my regressions results more likely are due to separation of each independent variable into more detailed categories. This approach enables the model to more effectively capture the differences between groups, thereby making the estimates more accurate.

My own model specification and results

As discussed, the [OECD \(2021\)](#) has examined the correlation between socio-economic characteristics and financial knowledge, literacy and well-being across the CIS countries applying a pooled OLS regression with country fixed effects. However, this approach may overlook important country-specific effects. To provide a more detailed and comprehensive analysis, my study proposes running separate OLS regressions for each of the eight CIS countries individually. More particularly, the eight countries in this study, namely Armenia, Azerbaijan, Belarus, Kazakhstan, the Kyrgyz Republic, Tajikistan, Uzbekistan, and Russia vary widely in terms of economic development and living standards. Russia and Kazakhstan stand out as the wealthier nations, with higher GDP per capita, more industrialized economies, and stronger social infrastructure. Azerbaijan also benefits from its oil revenue, although faces challenges with income inequality. In contrast, countries like the Kyrgyz Republic and Tajikistan are among the poorest, with lower GDP per capita, high reliance on remittances, and limited access to financial services. Armenia, Belarus, and Uzbekistan fall somewhere in between, with mixed economic performance and gradual reforms. These differences in economic conditions are crucial, as they shape how people earn, save, and manage their financial well-being across the region. Therefore, by conducting country-level regressions, I aim to provide a more nuanced understanding of correlations and effects, and to enhance the robustness and sensitivity of the results.

Table 5 below presents the country-level OLS regression estimates for financial knowledge. In summary, the key findings suggest that notably, being male is consistently and positively associated with higher financial knowledge in all countries, with statistically significant effects observed throughout. In contrast, being young is negatively correlated with financial knowledge. Higher education emerges as a strong and significant predictor of financial knowledge in all countries, except for Belarus. Income also plays an important role, with high-income individuals demonstrating significantly better knowledge scores in most countries. Urban residency shows more mixed results; living in a city tends to correlate positively with financial knowledge in almost all countries, while it is negatively associated only in Kazakhstan. Other behavioral and attitudinal variables, such as having a financial cushion and engaging in long-term planning, are mainly positively associated with knowledge

in most of the countries. Interestingly, the explanatory power of the models varies, with adjusted R-squared values ranging from 0.051 in Belarus to 0.309 in Azerbaijan, suggesting differing levels of model fit across countries. Overall, these results support the idea that both structural factors (like education and income) and behavioral traits (like planning and saving) contribute to financial knowledge, but the strength and direction of these relationships vary significantly by national context.

Table 5: Country-Level OLS Regression Estimates for Financial Knowledge

	Armenia	Azerbaijan	Belarus	Kazakhstan	Kyrgyz Republic	Tajikistan	Uzbekistan	Russia
Gender dummy: Male	0.348*** (0.093)	0.336*** (0.098)	0.531*** (0.105)	0.200* (0.111)	0.261*** (0.096)	0.170* (0.093)	0.496*** (0.095)	0.275*** (0.104)
Dummy: Young Adults	-0.096 (0.175)	-0.146 (0.196)	-0.346 (0.237)	-0.162 (0.271)	-0.324 (0.214)	-0.008 (0.237)	-0.105 (0.247)	-0.704*** (0.216)
Dummy: Middle age	0.145 (0.151)	-0.071 (0.182)	-0.037 (0.205)	0.030 (0.250)	-0.081 (0.199)	0.183 (0.226)	0.004 (0.230)	-0.223 (0.176)
Education dummy: University	0.563*** (0.098)	0.523*** (0.126)	0.174 (0.106)	0.324*** (0.120)	0.358*** (0.107)	0.207** (0.095)	0.365*** (0.115)	0.386*** (0.115)
Urban dummy: Town	0.113 (0.120)	-0.279** (0.119)	0.034 (0.155)	-0.597*** (0.150)	-0.095 (0.112)	0.313** (0.154)	-0.418** (0.175)	0.196 (0.143)
Urban dummy: City	0.433*** (0.119)	0.591*** (0.142)	0.024 (0.132)	-0.510*** (0.138)	0.217 (0.140)	0.648*** (0.188)	0.225** (0.101)	0.116 (0.123)
Income dummy: Medium	0.347*** (0.118)	0.010 (0.116)	-0.050 (0.144)	0.109 (0.123)	0.377*** (0.115)	0.303*** (0.106)	0.071 (0.110)	0.257** (0.117)
Income dummy: High	0.421*** (0.113)	0.283** (0.143)	0.263* (0.152)	0.405*** (0.145)	0.442*** (0.118)	0.179 (0.117)	-0.500** (0.220)	0.601*** (0.150)
Dummy: Migrant	0.211** (0.095)	-0.120 (0.142)	0.054 (0.164)	0.146 (0.199)	0.063 (0.095)	-0.046 (0.091)	0.121 (0.121)	0.120 (0.235)

Dummy: Digital use	0.158 (0.100)	-0.074 (0.134)	0.250** (0.114)	0.136 (0.121)	0.099 (0.110)	0.063 (0.119)	0.078 (0.105)	0.299*** (0.113)
Dummy: Savings cushion long	0.173* (0.096)	0.076 (0.104)	0.255* (0.145)	0.783*** (0.132)	0.370*** (0.101)	0.444*** (0.109)	0.413*** (0.115)	0.601*** (0.115)
Dummy: Actively saving	0.034 (0.101)	0.645*** (0.111)	0.216* (0.122)	-0.023 (0.128)	-0.277** (0.119)	-0.369*** (0.110)	0.252 (0.166)	0.072 (0.111)
Dummy: Budgeting	0.023 (0.094)	0.171 (0.112)	-0.041 (0.104)	-0.309*** (0.110)	-0.146 (0.109)	0.332*** (0.093)	-0.033 (0.119)	-0.136 (0.101)
Dummy: Long- term planning	0.067 (0.094)	0.667*** (0.106)	0.053 (0.105)	-0.137 (0.112)	0.411*** (0.117)	0.303*** (0.104)	0.252** (0.123)	-0.087 (0.102)
Dummy: Unemployed	0.109 (0.137)	-0.149 (0.135)	-0.724* (0.400)	-0.598*** (0.202)	0.061 (0.170)	0.054 (0.140)	-0.477*** (0.157)	-0.260 (0.242)
Dummy: Self-employed	-0.005 (0.129)	0.085 (0.135)	-0.491*** (0.185)	0.080 (0.165)	0.100 (0.112)	0.093 (0.115)	-0.283** (0.115)	-0.158 (0.182)
Dummy: Risky assets	0.312 (0.409)	-0.268 (0.387)	-0.044 (0.322)	0.003 (0.375)	-0.249 (0.325)	0.296* (0.173)	-0.346 (0.645)	0.624*** (0.208)
Dummy: Low trust	-0.271** (0.108)	-0.522*** (0.110)	-0.037 (0.147)	-0.262* (0.155)	-0.245** (0.113)	-0.220* (0.128)	-0.434** (0.181)	-0.175 (0.119)
Dummy: Single	-0.106 (0.178)	-0.114 (0.165)	-0.030 (0.121)	-0.009 (0.158)	0.059 (0.204)	-0.119 (0.219)	-0.496** (0.222)	-0.021 (0.110)
Dummy: Retired	-0.073 (0.164)	-0.665*** (0.200)	-0.114 (0.206)	-0.156 (0.258)	-0.322 (0.209)	0.155 (0.237)	-0.136 (0.214)	-0.217 (0.186)
Constant	2.166*** (0.201)	1.541*** (0.236)	3.707*** (0.280)	3.913*** (0.310)	2.648*** (0.283)	1.720*** (0.310)	2.528*** (0.332)	3.402*** (0.258)
R-squared	0.144	0.323	0.070	0.128	0.114	0.108	0.118	0.129

Adj. R-squared	0.127	0.309	0.051	0.111	0.096	0.090	0.100	0.111
Observations	1000	1000	1000	1000	1000	1000	1000	1000

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 6 below indicates the country-level OLS regression estimates for financial literacy. Overall, the analysis indicates that the university again education emerges as one of the strongest and most reliable predictors of financial literacy, with highly significant and positive coefficients in every country. As for financial knowledge, men again report higher literacy scores in all eight countries. And as expected, individuals who have high-income have significantly higher literacy scores in all the countries, except for Uzbekistan. Digital engagement also shows a strong positive association across the board, particularly in countries like Russia, Armenia, and Belarus, indicating the growing importance of digital access in enhancing financial capability. Active saving behavior, budgeting, long-term financial planning, and having a financial cushion are likewise strongly and consistently linked to higher literacy scores in all countries. Interestingly, young adults tend to score lower on financial literacy in most of the countries, although the effects are significant only in Kazakhstan, Kyrgyzstan, and Russia. Meanwhile, low institutional trust appears to have a uniformly negative impact on financial literacy. Finally, while gender differences are less consistent than in the financial knowledge model, men still tend to show slightly higher literacy in all countries, particularly in Belarus and in Uzbekistan effects are even stronger. Overall similarly to the knowledge model, education, income, digital inclusion, financial behavior, and trust are key drivers of financial literacy across the region. In addition, in literacy model R-squared values are more stable and generally higher across countries compared to the knowledge model, suggesting that the chosen set of socio-economic characteristics explain more of the variance in financial literacy.

Table 6: Country-Level OLS Regression Estimates for Financial Literacy

	Armenia	Azerbaijan	Belarus	Kazakhstan	Kyrgyz Republic	Tajikistan	Uzbekistan	Russia
Gender dummy: Male	0.274*	0.262*	0.493***	0.147	0.196	0.216	0.624***	0.096
	(0.144)	(0.143)	(0.151)	(0.157)	(0.135)	(0.147)	(0.146)	(0.151)

Dummy: Young Adults	-0.065 (0.291)	0.000 (0.293)	-0.466 (0.309)	-0.645* (0.381)	-0.698*** (0.263)	-0.253 (0.359)	0.174 (0.333)	-0.782** (0.325)
Dummy: Middle age	0.041 (0.253)	-0.052 (0.274)	0.014 (0.260)	-0.444 (0.355)	-0.260 (0.247)	-0.068 (0.339)	0.154 (0.307)	-0.435 (0.268)
Education dummy: University	1.028*** (0.155)	1.025*** (0.182)	0.482*** (0.151)	0.345** (0.165)	0.634*** (0.154)	0.564*** (0.149)	0.485*** (0.179)	0.583*** (0.175)
Urban dummy: Town	0.044 (0.181)	-0.216 (0.166)	-0.451* (0.238)	-0.967*** (0.213)	-0.097 (0.155)	-0.567** (0.269)	-0.730*** (0.257)	0.470** (0.211)
Urban dummy: City	0.316* (0.182)	0.915*** (0.206)	-0.142 (0.218)	-0.464** (0.190)	0.306* (0.183)	0.017 (0.317)	0.048 (0.152)	0.267 (0.179)
Income dummy: Medium	0.428** (0.177)	0.074 (0.166)	0.213 (0.210)	0.338* (0.173)	0.379** (0.156)	0.270 (0.178)	0.368** (0.162)	0.425** (0.171)
Income dummy: High	0.483*** (0.170)	0.941*** (0.201)	0.372* (0.220)	0.622*** (0.199)	0.941*** (0.161)	0.340* (0.186)	-0.114 (0.308)	0.682*** (0.213)
Dummy: Migrant	0.405*** (0.148)	-0.214 (0.207)	-0.225 (0.237)	0.227 (0.323)	0.000 (0.129)	-0.143 (0.142)	-0.039 (0.181)	-0.203 (0.359)
Dummy: Digital use	0.884*** (0.166)	0.351* (0.190)	0.913*** (0.163)	0.857*** (0.166)	0.870*** (0.154)	0.375** (0.189)	0.482*** (0.159)	1.119*** (0.170)
Dummy: Savings cushion-long	0.490*** (0.147)	0.411*** (0.148)	0.390* (0.211)	1.199*** (0.181)	0.365*** (0.140)	0.950*** (0.163)	0.448** (0.176)	1.020*** (0.167)
Dummy: Actively saving	1.301*** (0.155)	2.302*** (0.161)	1.982*** (0.170)	1.746*** (0.180)	1.310*** (0.157)	0.784*** (0.160)	1.457*** (0.235)	1.548*** (0.161)
Dummy: Budgeting	0.837*** (0.153)	0.962*** (0.158)	0.679*** (0.151)	0.654*** (0.153)	0.439*** (0.151)	0.775*** (0.144)	0.835*** (0.181)	0.710*** (0.149)
Dummy: Long- term planning	1.154***	1.859***	1.433***	1.184***	1.909***	1.570***	1.639***	1.390***

	(0.145)	(0.150)	(0.153)	(0.158)	(0.160)	(0.157)	(0.192)	(0.157)
Dummy: Unemployed	-0.130 (0.203)	-0.097 (0.198)	-1.237** (0.567)	-0.984*** (0.307)	-0.144 (0.229)	-0.116 (0.210)	-0.634*** (0.239)	-0.874*** (0.328)
Dummy: Self-employed	-0.272 (0.194)	0.370* (0.195)	-0.454* (0.255)	0.094 (0.235)	0.160 (0.156)	0.301* (0.180)	0.031 (0.174)	-0.154 (0.271)
Dummy: Risky assets	0.560 (0.849)	1.289** (0.571)	0.541 (0.436)	0.231 (0.370)	1.437*** (0.366)	1.035*** (0.283)	1.078 (1.024)	1.241*** (0.318)
Dummy: Low trust	-0.746*** (0.163)	-1.014*** (0.154)	-0.336 (0.207)	-0.588*** (0.207)	-0.575*** (0.156)	-0.757*** (0.197)	-0.736*** (0.250)	-0.760*** (0.173)
Dummy: Single	0.024 (0.238)	0.274 (0.252)	-0.195 (0.178)	0.095 (0.221)	0.456 (0.296)	-0.273 (0.370)	-0.723** (0.359)	-0.045 (0.163)
Dummy: Retired	-0.087 (0.279)	-0.446 (0.296)	0.494* (0.263)	-0.344 (0.364)	-0.164 (0.261)	0.927*** (0.327)	0.757** (0.304)	-0.128 (0.266)
Constant	7.801*** (0.341)	6.042*** (0.346)	9.389*** (0.397)	9.509*** (0.431)	8.168*** (0.364)	7.909*** (0.482)	7.977*** (0.469)	8.996*** (0.364)
R-squared	0.383	0.617	0.321	0.396	0.408	0.322	0.270	0.418
Adj. R-squared	0.370	0.609	0.307	0.384	0.396	0.308	0.255	0.406
Observations	1000	1000	1000	1000	1000	1000	1000	1000

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 7 below presents the country-level OLS regression estimates for financial well-being focusing on the country-specific differences. Education seems to matter consistently meaning that people with a university degree tend to report significantly higher well-being in most countries. Income has a strong and clear effect: individuals in the high-income group consistently report better financial well-being, especially in Russia, Belarus, and Azerbaijan. Gender plays a major role too, with men reporting higher well-being in all eight countries. Saving behavior, especially having a financial cushion or engaging in active saving, is a strong and positive predictor of well-being in most of the countries. However, being unemployed or retired is generally associated with lower financial well-being. Overall, the results again

highlight the importance of income, education, and saving behavior for financial well-being, but also that country-specific dynamics play a major role.

Table 7: Country-Level OLS Regression Estimates for Financial Well-being

	Armenia	Azerbaijan	Belarus	Kazakhstan	Kyrgyz Republic	Tajikistan	Uzbekistan	Russia
Gender dummy: Male	0.627** (0.292)	0.148 (0.348)	0.550* (0.298)	0.278 (0.293)	0.428 (0.307)	0.805*** (0.288)	1.575*** (0.300)	0.383 (0.298)
Dummy: Young Adults	1.697*** (0.538)	3.346*** (0.701)	0.299 (0.603)	-0.863 (0.754)	0.704 (0.650)	-0.040 (0.699)	-0.388 (0.792)	0.822 (0.639)
Dummy: Middle age	0.069 (0.473)	1.643** (0.650)	0.304 (0.541)	-1.163* (0.704)	-0.500 (0.599)	-0.583 (0.679)	-0.902 (0.751)	-0.319 (0.580)
Education dummy: University	0.858*** (0.310)	1.153*** (0.427)	0.644** (0.303)	0.571* (0.321)	0.805** (0.344)	0.144 (0.296)	0.467 (0.356)	0.819** (0.330)
Urban dummy: Town	-0.238 (0.365)	-0.077 (0.418)	-0.407 (0.468)	-0.562 (0.417)	-0.369 (0.350)	0.198 (0.489)	-1.015* (0.571)	-0.449 (0.434)
Urban dummy: City	0.442 (0.363)	-1.897*** (0.460)	0.164 (0.412)	-0.499 (0.394)	0.831* (0.438)	-0.044 (0.604)	0.716** (0.308)	-0.322 (0.355)
Income dummy: Medium	0.164 (0.350)	0.240 (0.402)	1.026** (0.447)	-0.047 (0.337)	0.155 (0.364)	0.359 (0.331)	0.073 (0.342)	0.440 (0.351)
Income dummy: High	0.887** (0.349)	1.767*** (0.469)	1.814*** (0.480)	1.417*** (0.405)	0.802** (0.375)	1.480*** (0.366)	0.781 (0.646)	2.614*** (0.414)
Dummy: Migrant	-0.031 (0.300)	-0.825* (0.438)	-0.277 (0.515)	0.484 (0.524)	0.156 (0.301)	-0.068 (0.284)	-0.923** (0.407)	0.039 (0.616)
Dummy: Digital use	0.070 (0.330)	0.091 (0.442)	0.079 (0.313)	0.533 (0.329)	0.067 (0.357)	0.370 (0.391)	-0.453 (0.328)	0.356 (0.339)

Dummy: Savings cushion-long	1.697*** (0.301)	1.651*** (0.351)	1.190*** (0.429)	1.310*** (0.357)	-0.204 (0.336)	0.052 (0.325)	-0.512 (0.358)	0.919*** (0.328)
Dummy: Active saving	1.667*** (0.300)	-2.198*** (0.370)	0.474 (0.369)	1.113*** (0.350)	1.263*** (0.363)	1.228*** (0.317)	0.720 (0.523)	1.039*** (0.346)
Dummy: Budgeting	0.023 (0.302)	0.510 (0.386)	-0.185 (0.300)	-0.028 (0.303)	0.010 (0.350)	-0.692** (0.289)	0.125 (0.386)	-0.341 (0.289)
Dummy: Long-term planning	0.338 (0.291)	-1.889*** (0.342)	0.596* (0.308)	0.585* (0.306)	-0.252 (0.364)	-0.786*** (0.304)	0.126 (0.396)	0.807*** (0.296)
Dummy: Unemployed	-0.596 (0.453)	1.171** (0.493)	1.809 (1.137)	0.203 (0.594)	-0.676 (0.491)	-0.527 (0.408)	-0.803 (0.509)	-2.180*** (0.665)
Dummy: Self-employed	-0.662 (0.413)	1.498*** (0.478)	1.450*** (0.442)	1.393*** (0.436)	0.831** (0.367)	-0.536 (0.373)	-0.475 (0.358)	1.728*** (0.459)
Dummy: Risky assets	2.721** (1.216)	1.950 (1.201)	1.646* (0.944)	-0.566 (0.933)	0.647 (1.082)	0.031 (0.654)	0.936 (1.193)	-0.272 (0.628)
Dummy: Low trust	-0.771** (0.322)	0.090 (0.383)	-0.939** (0.392)	-0.251 (0.400)	-0.439 (0.370)	-1.015*** (0.388)	-2.038*** (0.568)	-0.059 (0.334)
Dummy: Single	0.790 (0.561)	1.867** (0.749)	0.605* (0.354)	0.065 (0.439)	0.055 (0.551)	1.153 (0.724)	-0.653 (0.578)	0.343 (0.314)
Dummy: Retired	-1.133** (0.536)	1.211* (0.731)	0.128 (0.558)	-0.905 (0.736)	-2.265*** (0.587)	-0.647 (0.698)	-0.396 (0.739)	-0.728 (0.608)
Constant	4.780*** (0.637)	4.966*** (0.819)	7.264*** (0.858)	7.945*** (0.921)	8.858*** (0.862)	7.487*** (0.917)	10.874*** (1.049)	8.336*** (0.778)
R-squared	0.226	0.158	0.100	0.115	0.113	0.081	0.076	0.173
Adj. R-squared	0.210	0.141	0.082	0.097	0.095	0.062	0.057	0.156
Observations	1000	1000	1000	1000	1000	1000	1000	1000

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

5. Gender gap in Financial literacy: Oaxaca-Blinder decomposition

Based on the findings discussed previously, the country-level OLS regression estimates for financial literacy across all eight CIS countries indicate that men consistently score higher than women in financial literacy. While this gender disparity is evident, its magnitude and effects may differ across the countries I study. To explore this further, the following section of the chapter aims to address two key research questions:

- (1) To what extent does the financial literacy gender gap vary across countries?
- (2) Which observable individual-level characteristics help explain the gender gap in financial literacy within these countries?

Consequently, in the final stage of my analysis I implemented the Oaxaca-Blinder decomposition method which has been developed by [Alan S. Blinder \(1973\)](#) and [Ronald Oaxaca \(1973\)](#). This method allows us to decompose the mean difference between women's and men's overall financial literacy scores for each country individually.

Table 8 presents a summary of the key findings from the Oaxaca-Blinder decomposition of literacy scores by gender across all eight CIS countries. The complete results of the Oaxaca-Blinder decomposition analyzing gender differences in financial literacy are provided in Table 9 in the Appendix.

Table 8: Oaxaca-Blinder (O-B) decomposition of the gender difference in financial literacy

Country	Average Literacy (Females)	Average Literacy (Males)	Total Gap	Endowments (Explained)	Coefficients (Unexplained)
Armenia	10.88	11.16	-0.29	0.0045	-0.25
Azerbaijan	9.27	9.97	-0.70***	-0.43**	-0.24
Belarus	12.75	13.03	-0.28	0.22*	-0.49***
Kazakhstan	12.37	12.46	-0.09	0.08	-0.08
Kyrgyz Republic	11.40	11.78	-0.38*	-0.13	-0.16
Tajikistan	10.34	10.95	-0.62***	-0.34**	-0.12
Uzbekistan	12.20	12.79	-0.60***	0.01	-0.64***
Russia	12.38	12.58	-0.20	-0.14	-0.12

The Oaxaca decomposition analysis highlights persistent gender gaps in financial literacy across all the observed countries, with men consistently outperforming women in average literacy scores. While the size and statistical significance of these gaps vary, the trend is remarkably consistent. The largest and most significant gaps appear in Azerbaijan (-0.70***), Tajikistan (-0.62***), and Uzbekistan (-0.60***), where men's financial literacy scores are notably higher than women's.

In Azerbaijan a part of gender gap can be explained by differences in characteristics between men and women. However, the biggest contributor to this explained difference is long-term financial planning. Thus suggesting that men in Azerbaijan are more likely than women to report planning for the long run financially, and this plays a significant role in their higher literacy scores. There are also marginal effects from two other factors such as high income and financial cushion. Apparently men tend to have higher incomes, which gives them more exposure or opportunities to build financial knowledge. Moreover, men are more likely to have money set aside for emergencies, which may also reflect a more informed financial behavior and therefore, higher financial literacy.

As for Tajikistan, the literacy gap between men and women is partly explained by differences in socioeconomic characteristics. The largest and most statistically significant explained contributor to this gap is savings behavior. Women are less likely than men to report having savings, and this contributes meaningfully to the literacy gap. Additionally, differences in income level, particularly at the high-income bracket, also play a role. Men are more likely to be in higher income categories, which is again associated with better literacy. Long-term financial cushion and long-term financial planning are also marginally significant contributors. These differences suggest that men in Tajikistan are more financially prepared and oriented toward the future, which reflects in their literacy scores.

In Uzbekistan, men outperform women in average financial literacy, with a statistically significant gap of about 0.60 points. However, only a small portion of this gap is explained by differences in observable characteristics. The explained portion is small and statistically insignificant, suggesting that most of the gap stems from unexplained factors, such as returns to characteristics, social norms, or possible discrimination. Within the explained part, the most influential and statistically significant variable is budgeting behavior. This means that men are more likely than women to report engaging in budgeting, and this contributes meaningfully to the literacy difference. Additionally, differences in unemployment status and long-term financial planning behaviors between men and women are marginally significant

contributors. These findings suggest that differences are in practical financial management behaviors rather than demographic or educational background.

In Belarus, a meaningful portion of the gap is unexplained as well, even though the total gap is modest and insignificant. This points to structural or behavioral factors disproportionately benefiting men's financial literacy outcomes beyond just measurable traits. Interestingly, in Belarus, the gender gap in literacy can be partially explained by differences in certain characteristics, including digital use and budgeting. Women in Belarus are less likely to report using digital tools for financial management. Moreover, they are less likely to report using budgeting practices, thus reporting lower scores in literacy.

Kyrgyz Republic, Armenia, and Russia show smaller gaps, both Armenia and Russia are statistically insignificant. Although the gender gap is marginally significant only in the Kyrgyz Republic, in all three countries both explained and unexplained parts are insignificant. These suggest less pronounced gender disparities, though men still outperform women on average. Finally, Kazakhstan presents the smallest gap, which is statistically insignificant and largely unexplained, suggesting a relatively gender-equal landscape in financial literacy.

Given the wide differences in how economically and socially developed these eight countries are, it's important to discuss the following question as well: are the gender gaps in financial literacy just minor disparities, or do they reflect deeper, more substantial inequalities? By comparing the size of the gender gap with each country's average financial literacy level and GDP per capita, I can have a more detailed understanding of the social and economic environments in each country individually. Together with the total gap and average financial literacy scores, Table 9 illustrates the GDP per Capita in 2024² based on the World bank data for each country. My key findings indicate that wealthier countries, like Russia and Kazakhstan, with the highest GDP per capita in the group, also report higher average financial literacy scores and the smallest disparities between men and women. This suggests that greater national investment in education, infrastructure, and financial access may create more equal opportunities for learning and empowerment. On the other hand, countries like Tajikistan and Kyrgyzstan, which have lower GDP per capita, tend to show both lower overall literacy and wider gender gaps highlighting the challenges women may face in accessing financial knowledge in more resource-constrained settings.

To have a clearer understanding of the socioeconomic context, I will explore the development of each country in more detail. In Azerbaijan, the gender gap is the largest, and this coincides with the lowest

² <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?end=2021&start=1960>

average financial literacy score and relatively small GDP per capita. This suggests that both economic and educational limitations may be contributing to wider disparities between men and women. Similarly, Tajikistan, with the lowest GDP per capita in the group, also shows one of the lowest literacy scores and highest gender gaps. Uzbekistan and the Kyrgyz Republic, with gaps of -0.60 and -0.38 respectively, although surprisingly on average Uzbekistan has one of the highest levels of financial literacy. On the other hand, Russia and Kazakhstan, with the highest GDP per capita levels in the group, show the smallest gender gaps, suggesting that stronger economic foundations and likely more developed educational infrastructures may help close the gap. However, Belarus offers more nuanced case: despite moderate GDP per capita levels, it shows relatively smaller gap and on average the highest literacy scores.

In summary of the above findings, that the gender gap in financial literacy is notably large and statistically significant in Azerbaijan (-0.70), Tajikistan (-0.62), Uzbekistan (-0.60) and in the Kyrgyz Republic (-0.38), while it is the smallest and statistically insignificant in Kazakhstan (-0.09) and Russia (-0.20). Furthermore, the evidence suggests that the countries with stronger economies tend to have higher financial literacy and smaller literacy gaps between men and women. Therefore, these findings underscore an important point: gender equality in financial literacy is not just a matter of individual ability, but is deeply connected to the broader social and economic environment in which people live and learn.

Table 9: Total gender gap, Average financial literacy scores and GDP per Capita

	Armenia	Azerbaijan	Belarus	Kazakhstan	Kyrgyz Republic	Tajikistan	Uzbekistan	Russia
Total gap	-0.29	-0.70***	-0.28	-0.09	-0.38*	-0.62***	-0.60***	-0.20
Average financial literacy score	11.02	9.62	12.88	12.41	11.59	11.65	12.50	12.47
GDP per capita (USD)	8500	7284	8317	14005	2419	1341	3162	14889

In addition, my analysis indicate that Azerbaijan not only has the biggest gender gap in literacy, but also exhibits the lowest levels of both financial literacy and educational attainment among all eight CIS

countries. Based on the country-level OLS regression estimates for financial literacy (Table 6), university education in Azerbaijan is associated with a statistically significant increase of 1.025*** score points in financial literacy, which is the second highest and strongest values compared to the rest of countries. Interestingly, although the Oaxaca decomposition reveals that Azerbaijan has high and significant overall endowment effect (−0.43**), the specific contribution of education is relatively small (0.015). This results suggest that university education has a strong impact at the individual level and we can conclude that expanding access to higher education could play a key role in reducing the financial literacy gap in Azerbaijan.

In contrast to Azerbaijan, Belarus stands out with the highest levels of financial literacy across the countries in the sample. Its overall financial literacy gap is relatively small and statistically insignificant (−0.28). Interestingly Belarus has significantly positive endowments (0.22*), meaning that much of its strength comes from favorable characteristics including strong educational attainment. The endowment coefficient for university education alone is 0.030, indicating that the high levels of university education contributes meaningfully to high level of financial literacy. These findings highlight how investing in education over time can contribute to have a more financially literate population and minimize gaps that might otherwise emerge.

Additionally, Russia presents a unique and particularly interesting case in my analysis. Among the studied countries, it has the highest GDP per capita, relatively strong financial literacy levels, and one of the smallest gender gaps in financial literacy. Interestingly, the Oaxaca decomposition shows a negative endowment effect, suggesting that the characteristics typically associated with higher financial literacy and education are not as strong as it might be expected. However, university education stands out as an exception. Russia has the highest and only statistically significant university education endowment coefficient (0.047*), indicating that educational attainment plays a particularly important role in shaping financial literacy in the country.

6. Conclusion

Financial literacy is a primary and foundational skill at both individual and national levels, as good financial literacy not only contributes to profitable financial decision-making and well-being but also plays a prior role in overall economic growth, sustainable economic stability, poverty reduction, wealth inequality, and resilience. Although financial literacy and inclusion have significantly increased worldwide, they remain a challenging and far-reaching issue, mainly for developing countries. Current research has explored multiple dimensions of financial literacy, including its manifestation, global levels, influencing factors, outcomes, and educational interventions aimed at enhancing financial knowledge, behavior, and attitude.

There are two key research questions addressed in this paper:

- (1) Comprehensively analyze and estimate the non-causal determination between the socio-economic individual characteristics and financial outcomes, including financial literacy score, financial knowledge score, and financial well-being
- (2) Investigate the extent and drivers of the gender gap in financial literacy for each country individually

By first replicating the OECD's initial model, I then employ an Ordinary Least Squares (OLS) regression model based on my specification. Recognizing the considerable differences in economic development and living standards among the eight CIS countries studied, I adopt a country-level regression approach rather than a pooled analysis. This allows for a more detailed and context-specific exploration of the decomposition between socio-economic variables and financial outcomes, while also improving the reliability and sensitivity of the findings. I am confident that this method leads to a more accurate and in-depth analysis, uncovering insights that might be overlooked in broader models. Ultimately, this approach offers a clearer and deeper analysis, offering richer insights and more robust empirical findings.

Furthermore, my finding suggests a persistent gender gap in financial literacy in all countries. By implementing the Oaxaca-Blinder decomposition method, I investigate the extent to which the financial literacy gender gap varies across countries and which observable individual-level characteristics help explain the gender gap in financial literacy within these countries.

My key findings suggest that in countries with stronger economies and better access to education and opportunity, the gap narrows.

Consequently, by providing a detailed, country-level analysis with an improved model specification and placing particular emphasis on gender disparities in financial literacy across the CIS region, this study aims to contribute meaningfully to the existing research and inspire future studies to examine these issues with greater depth and precision.

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Appendix

Figure 1: Financial literacy and its components

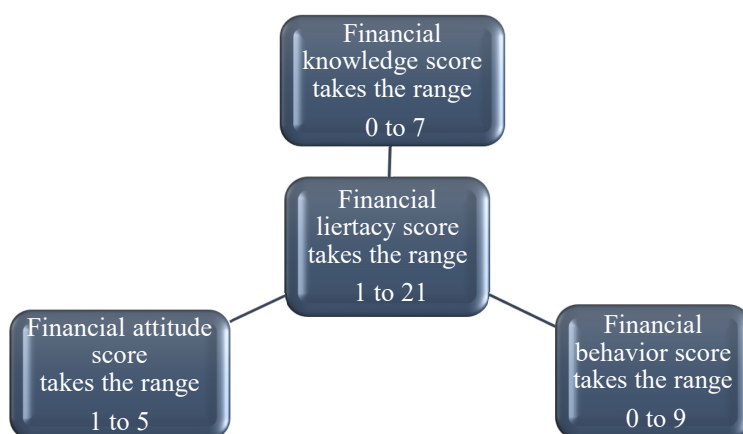


Figure 2: Financial Literacy Components by Country

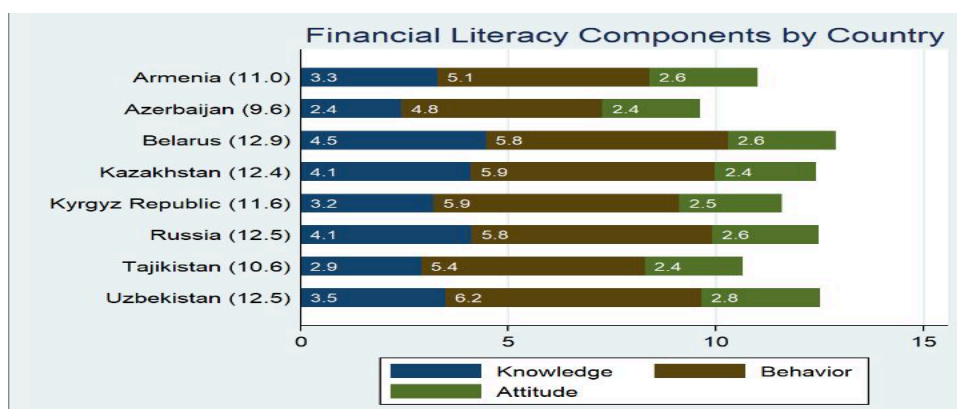


Figure 3: Average Financial Literacy Scores across the CIS

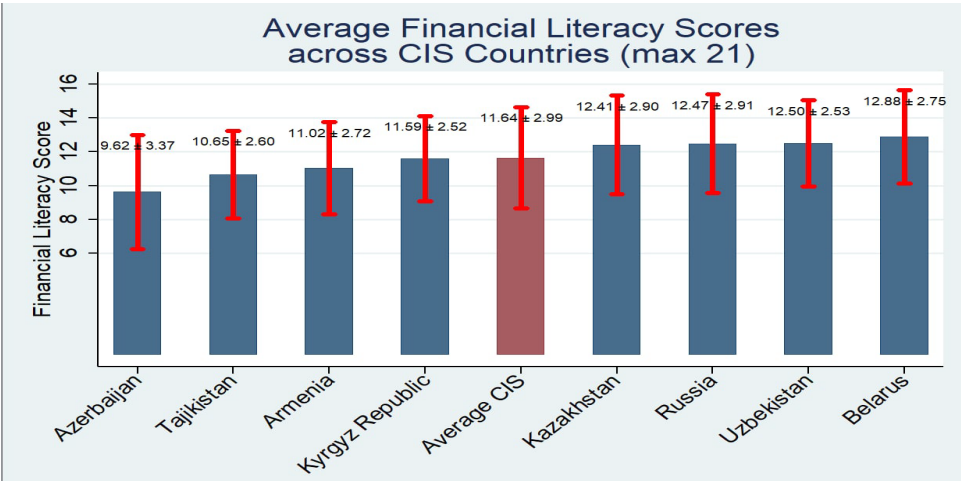


Figure 4: Financial Knowledge Indicators by Country (%)

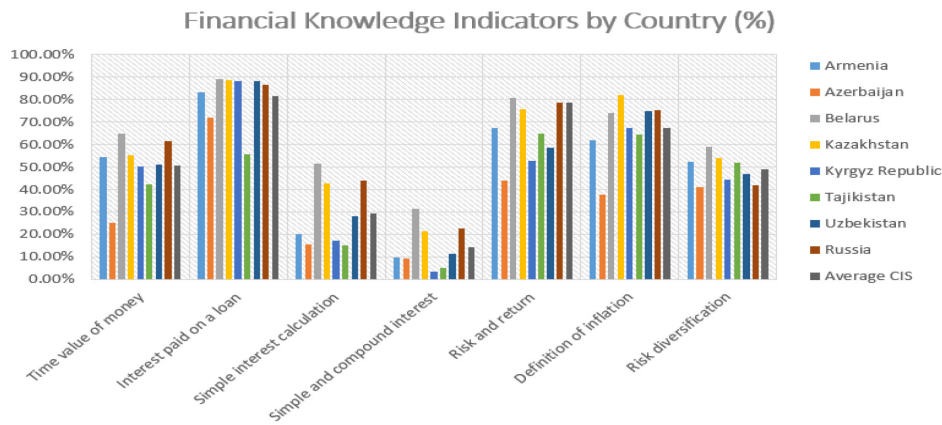


Figure 5: Average Financial Knowledge Scores across the CIS

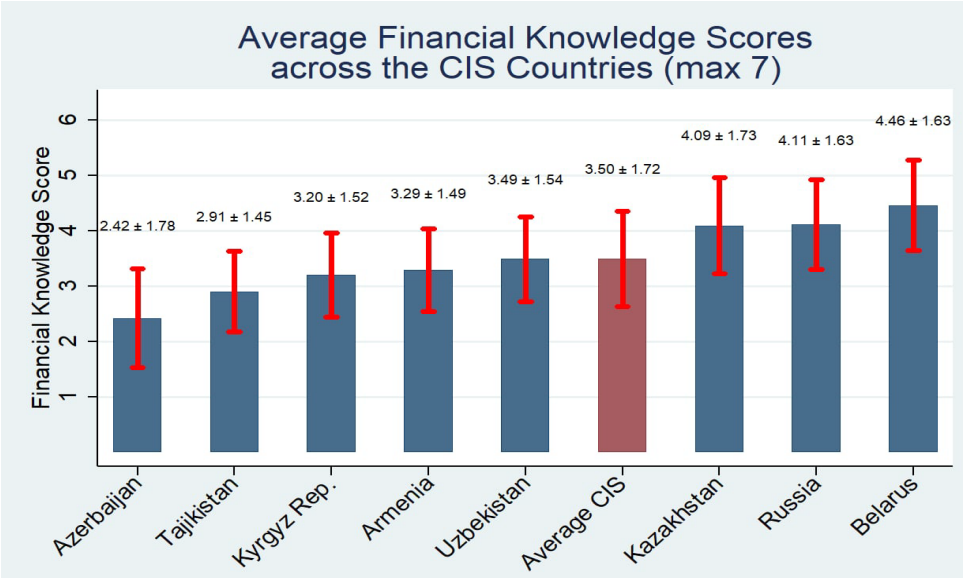


Figure 6: Average Financial Behaviour Scores across the CIS

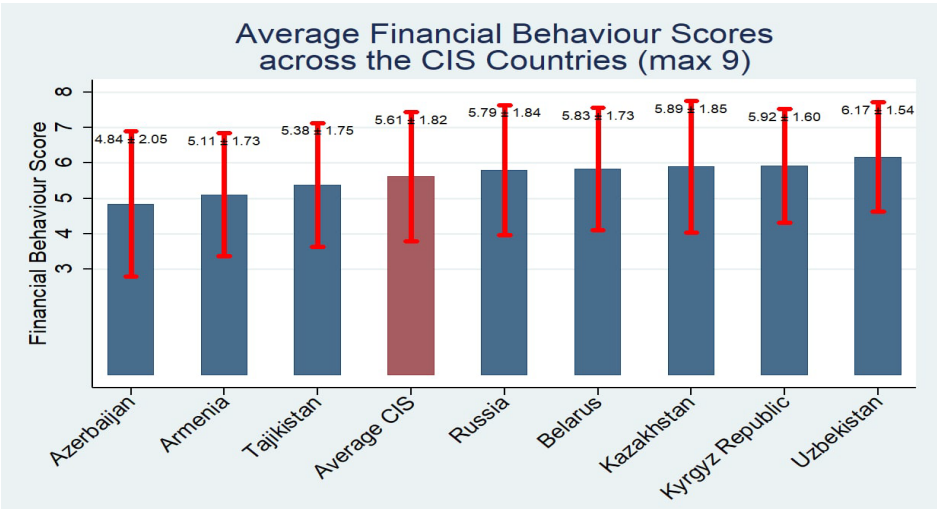


Figure 7: Average Financial Attitude Scores across the CIS

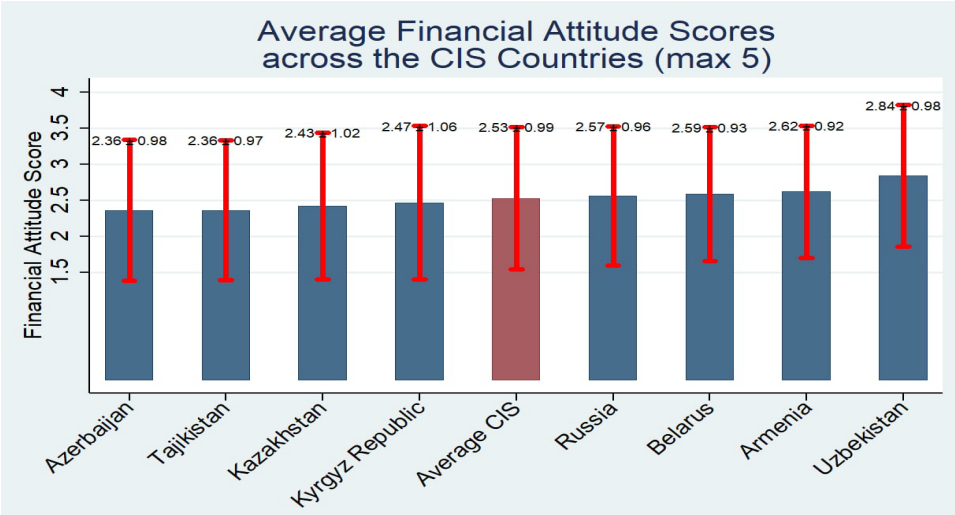


Figure 8: Average Financial Well-being Scores across the CIS

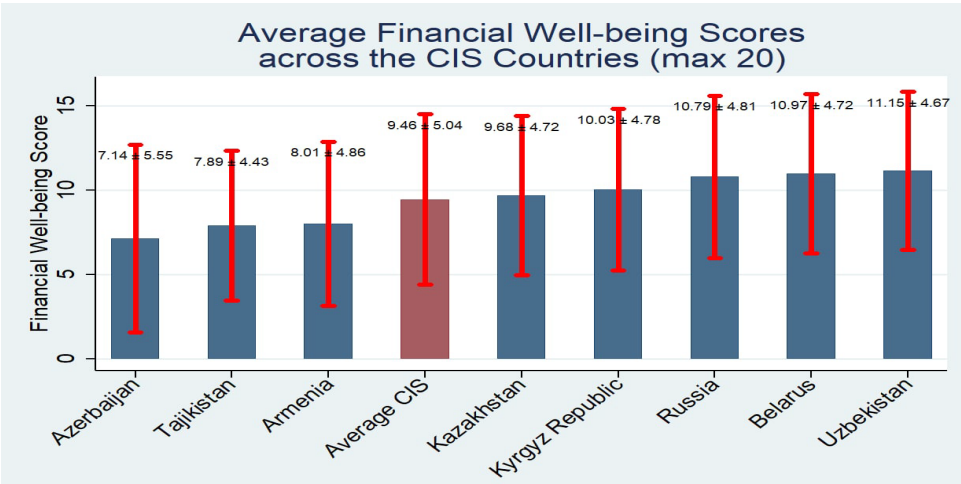


Table 4: Pooled OLS regression results applied by the OECD

	Financial knowledge	Financial literacy	Financial well-being	Financial knowledge	Financial literacy	Financial well-being
Gender	0.344*** 9.07	0.336*** 5.49	0.513*** 4.51	0.326*** 9.02	0.302*** 5.13	0.510*** 4.64
Young adults (18-29)	-0.324*** (-7.60)	-0.297*** (-4.40)	0.859*** 6.81	-0.226*** (-5.48)	-0.246*** (-3.74)	0.992*** 8.08
Education	0.320*** 8.62	0.669*** 11.09	0.504*** 4.61	0.323*** 8.94	0.693*** 11.69	0.629*** 5.88
Urban residence	0.177*** 7.33	0.173*** 4.46	0.016 0.23	0.125*** 5.38	0.132*** 3.5	-0.016 (-0.23)
Income band	0.145*** 7.19	0.249*** 7.83	0.212*** 3.47	0.130*** 6.67	0.295*** 9.41	0.310*** 5.16
Migrant status	-0.161*** (-3.74)	-0.111 (-1.60)	-0.609*** (-4.61)	0.062 1.43	0.11 1.54	-0.156 (-1.15)
Digital use	0.447*** 11.16	1.589*** 25.21	0.651*** 5.46	0.133** 3.25	1.213*** 18.58	0.076 0.62
Savings cushion	0.114*** 9.01	0.331*** 16.14	0.482*** 12.33	0.097*** 7.95	0.288*** 14.49	0.417*** 11.03
Self-employed	-0.219*** (-4.42)	0.092 1.15	0.490** 3.16	-0.107* (-2.21)	0.149 1.92	0.535*** 3.58
Low trust	-0.359*** (-7.27)	-1.265*** (-16.25)	-0.649*** (-4.49)	-0.323*** (-6.95)	-1.139*** (-15.35)	-0.502*** (-3.56)
Single individual	0.230*** 3.98	0.139 1.55	0.792*** 4.79	-0.099 (-1.74)	-0.16 (-1.74)	0.212 1.25
Risky investment profile	0.101 0.87	1.037*** 6.05	0.391 1.11	0.079 0.72	1.119*** 6.72	0.555 1.66
Retired individual	-0.064 (-1.10)	0.097 1.02	-0.059 (-0.34)	-0.204*** (-3.71)	-0.132 (-1.47)	-0.517** (-2.99)
Unemployed	-0.510*** (-6.72)	-1.100*** (-8.69)	-0.562* (-2.33)	-0.263*** (-3.59)	-0.736*** (-6.02)	-0.098 (-0.41)
Budgeting	-0.173*** (-4.35)		-0.461*** (-3.92)	0.001 0.01		-0.21 (-1.79)
Saving	0.188*** 4.3		1.062*** 8.22	0.099* 2.32		0.605*** 4.71
Long-term planning	0.096* 2.43		0.129 1.1	0.169*** 4.37		-0.006 (-0.05)
Constant	1.658*** 14.82	7.882*** 46.23	5.152*** 15.5	2.581*** 20.99	8.748*** 44.24	6.458*** 17.31
Country fixed effects	no	no	no	yes	yes	yes
Adjusted R-sq	0.125	0.243	0.081	0.213	0.305	0.15
N	8,000	8,000	8,000	8,000	8,000	8,000

Source OECD (2021), page 86

Table 9: Oaxaca-Blinder (O-B) decomposition of the gender difference in financial literacy

	Armenia	Azerbaijan	Belarus	Kazakhstan	Kyrgyz	Russia	Tajikistan	Uzbekistan
Overall								
Women	10.877*** (0.110)	9.268*** (0.147)	12.745*** (0.115)	12.366*** (0.125)	11.399*** (0.112)	12.379*** (0.120)	10.336*** (0.115)	12.195*** (0.113)
Men	11.163*** (0.136)	9.965*** (0.155)	13.027*** (0.136)	12.457*** (0.138)	11.776*** (0.116)	12.583*** (0.145)	10.955*** (0.119)	12.795*** (0.115)
Difference	-0.287 (0.175)	-0.698*** (0.214)	-0.281 (0.178)	-0.091 (0.186)	-0.377** (0.161)	-0.204 (0.189)	-0.619*** (0.165)	-0.599*** (0.161)
Endowments	0.005 (0.140)	-0.426** (0.183)	0.220* (0.133)	0.079 (0.133)	-0.134 (0.124)	-0.138 (0.146)	-0.336*** (0.117)	0.010 (0.104)
Coefficients	-0.253 (0.157)	-0.239 (0.166)	-0.492*** (0.164)	-0.080 (0.162)	-0.157 (0.145)	-0.122 (0.165)	-0.121 (0.157)	-0.640*** (0.158)
Interaction	-0.038 (0.111)	-0.032 (0.122)	-0.009 (0.111)	-0.090 (0.104)	-0.087 (0.103)	0.056 (0.114)	-0.162 (0.110)	0.031 (0.106)
Endowments								
Young Adults	-0.007 (0.018)	-0.004 (0.012)	0.018 (0.032)	0.022 (0.026)	0.033 (0.030)	0.043 (0.033)	-0.002 (0.013)	0.002 (0.008)
Middle age	0.003 (0.009)	0.002 (0.007)	0.003 (0.012)	0.012 (0.021)	-0.005 (0.012)	0.038 (0.032)	0.004 (0.014)	-0.000 (0.003)
University education	0.037 (0.040)	0.015 (0.036)	0.030 (0.022)	0.018 (0.023)	0.033 (0.024)	0.047* (0.028)	-0.050 (0.034)	-0.014 (0.015)
Town	0.003 (0.007)	-0.000 (0.002)	0.010 (0.023)	0.002 (0.016)	0.000 (0.003)	-0.011 (0.017)	-0.012 (0.016)	0.001 (0.005)
City	0.011 (0.015)	0.014 (0.024)	-0.001 (0.005)	-0.011 (0.015)	0.007 (0.011)	0.012 (0.015)	-0.001 (0.007)	0.000 (0.003)
Medium income	0.028	-0.003	-0.000	-0.000	-0.013	-0.025	0.004	-0.005

	(0.021)	(0.010)	(0.003)	(0.010)	(0.013)	(0.025)	(0.013)	(0.008)
High income	-0.065** (0.033)	-0.067* (0.037)	-0.003 (0.033)	-0.040 (0.026)	-0.022 (0.026)	-0.089** (0.042)	-0.038* (0.023)	0.026 (0.019)
Migrant	-0.029 (0.020)	0.017 (0.016)	0.007 (0.013)	0.005 (0.019)	0.006 (0.017)	0.010 (0.012)	-0.007 (0.009)	-0.000 (0.004)
Digital use	-0.019 (0.020)	-0.007 (0.010)	0.101** (0.041)	0.069* (0.039)	-0.047 (0.035)	0.032 (0.036)	-0.017 (0.019)	-0.015 (0.014)
Savings cushion	-0.076** (0.033)	-0.044* (0.024)	-0.007 (0.015)	-0.009 (0.038)	-0.005 (0.008)	-0.080** (0.036)	-0.068* (0.041)	-0.026 (0.019)
Actively saving	-0.038 (0.043)	-0.049 (0.069)	-0.079 (0.059)	-0.082 (0.051)	-0.069* (0.041)	-0.074* (0.043)	-0.078** (0.033)	-0.024 (0.036)
Budgeting	0.133*** (0.044)	0.028 (0.031)	0.052* (0.030)	0.062** (0.030)	-0.030 (0.022)	0.025 (0.027)	-0.027 (0.029)	-0.086** (0.037)
Long-term planning	-0.071* (0.038)	-0.267*** (0.066)	0.010 (0.053)	0.007 (0.026)	-0.059 (0.049)	-0.045 (0.045)	-0.075* (0.043)	0.064* (0.035)
Unemployed	-0.001 (0.007)	0.001 (0.005)	-0.002 (0.014)	0.042* (0.024)	0.008 (0.025)	0.020 (0.019)	0.011 (0.025)	0.060* (0.031)
Self-employed	0.053 (0.043)	-0.052 (0.053)	0.031 (0.031)	0.023 (0.031)	0.009 (0.042)	0.017 (0.036)	-0.011 (0.033)	-0.010 (0.039)
Risky assets	-0.005 (0.008)	-0.009 (0.010)	-0.004 (0.011)	-0.002 (0.007)	-0.013 (0.011)	-0.038* (0.023)	-0.017 (0.014)	0.003 (0.006)
Low trust	0.033 (0.022)	0.009 (0.025)	0.026 (0.022)	0.026 (0.020)	0.035* (0.020)	0.051* (0.027)	-0.001 (0.014)	0.025 (0.019)
Single	0.011 (0.030)	0.001 (0.003)	0.018 (0.016)	-0.002 (0.007)	0.008 (0.011)	0.006 (0.009)	0.025 (0.017)	0.001 (0.004)

Retired	0.005 (0.012)	-0.010 (0.016)	0.012 (0.052)	-0.063 (0.048)	-0.012 (0.021)	-0.077 (0.068)	0.021 (0.021)	0.009 (0.014)
Coefficients								
Young Adults	-0.131 (0.179)	-0.086 (0.187)	-0.094 (0.149)	0.054 (0.190)	0.058 (0.224)	0.004 (0.152)	-0.571** (0.264)	-0.028 (0.233)
Middle age	-0.151 (0.277)	-0.310 (0.321)	0.141 (0.332)	0.185 (0.411)	0.076 (0.292)	0.438 (0.318)	-0.636* (0.382)	0.189 (0.388)
University education	-0.156 (0.106)	-0.146* (0.081)	-0.010 (0.143)	0.092 (0.099)	-0.052 (0.083)	0.013 (0.076)	0.198 (0.137)	-0.004 (0.092)
Town	0.145 (0.135)	-0.106 (0.138)	0.175 (0.142)	-0.254* (0.131)	-0.232 (0.173)	-0.069 (0.095)	-0.081 (0.383)	-0.087* (0.049)
City	0.079 (0.149)	0.032 (0.120)	-0.010 (0.248)	-0.121 (0.179)	-0.033 (0.081)	-0.114 (0.180)	-0.021 (0.091)	-0.081 (0.135)
Medium income	-0.069 (0.092)	-0.002 (0.140)	0.068 (0.162)	-0.009 (0.130)	0.058 (0.088)	-0.229* (0.130)	-0.076 (0.087)	0.217 (0.209)
High income	-0.281* (0.163)	-0.147 (0.119)	0.253 (0.232)	0.018 (0.124)	0.025 (0.091)	-0.037 (0.109)	-0.151 (0.102)	0.126** (0.055)
Migrant	-0.032 (0.113)	0.141** (0.064)	0.080 (0.057)	0.091 (0.059)	-0.035 (0.103)	0.039 (0.043)	0.029 (0.110)	-0.013 (0.065)
Digital use	0.169 (0.103)	0.011 (0.087)	0.001 (0.126)	-0.286 (0.181)	-0.223*** (0.085)	0.028 (0.196)	0.018 (0.080)	0.122 (0.119)
Savings cushion	-0.316 (0.194)	-0.150 (0.173)	0.304 (0.351)	-0.061 (0.242)	0.240 (0.204)	0.045 (0.251)	-0.622** (0.251)	-0.084 (0.278)
Actively saving	-0.001 (0.151)	0.150 (0.181)	-0.177 (0.275)	-0.008 (0.262)	-0.181 (0.236)	0.192 (0.240)	-0.008 (0.255)	-0.707 (0.438)
Budgeting	-0.426** (0.181)	-0.179 (0.214)	-0.088 (0.136)	-0.015 (0.156)	0.073 (0.231)	-0.073 (0.141)	-0.225 (0.187)	-0.538* (0.290)

Long-term planning	0.023 (0.180)	-0.075 (0.154)	-0.165 (0.136)	0.324** (0.156)	0.103 (0.249)	-0.030 (0.151)	0.290 (0.212)	0.459 (0.302)
Unemployed	-0.051 (0.058)	-0.019 (0.075)	0.012 (0.020)	0.019 (0.054)	-0.060 (0.069)	0.062 (0.039)	0.024 (0.082)	-0.001 (0.079)
Self-employed	0.040 (0.100)	0.086 (0.134)	-0.014 (0.080)	0.171* (0.089)	0.198* (0.114)	-0.018 (0.086)	0.131 (0.099)	-0.064 (0.122)
Risky assets	-0.004 (0.021)	0.005 (0.022)	0.017 (0.033)	0.009 (0.031)	0.007 (0.022)	-0.004 (0.045)	0.026 (0.040)	0.055* (0.029)
Low trust	-0.071 (0.099)	-0.081 (0.096)	-0.006 (0.083)	-0.065 (0.091)	-0.010 (0.080)	0.043 (0.098)	-0.036 (0.061)	0.044 (0.054)
Single	-0.018 (0.026)	0.010 (0.037)	0.092 (0.107)	-0.014 (0.070)	0.003 (0.027)	0.101 (0.112)	0.089** (0.045)	-0.041 (0.034)
Retired	0.045 (0.085)	0.045 (0.059)	0.097 (0.098)	0.093 (0.081)	0.010 (0.047)	0.130 (0.106)	-0.032 (0.051)	0.066 (0.087)
Constant	0.955 (0.696)	0.581 (0.709)	-1.168 (0.857)	-0.304 (0.847)	-0.181 (0.770)	-0.643 (0.733)	1.533 (0.950)	-0.271 (0.962)
Observations	1000	1000	1000	1000	1000	1000	1000	1000

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$