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Exploring the Gender Gap in Financial Literacy: New Survey Evidence from Slovakia*

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Abstract

This paper examines gender differences in financial literacy in Slovakia, a country that has been largely under-researched in this area. Using detailed representative micro-data from the 2021 wave of the Household Finance and Consumption Survey (HFCS), we show that – controlling for relevant characteristics – there exists a moderate gender gap in financial literacy. However, the results of the distributional analysis across quantiles of the financial literacy show that gender differences are the most pronounced in the lower part of the distribution. Furthermore, a Blinder-Oaxaca decomposition reveals that in this lower segment, the unexplained component accounts for the majority of the observed financial literacy gender gap. This finding indicates that unobserved factors or mechanisms influencing the acquisition of financial literacy – as opposed to observable differences in characteristics between men and women – are contributing to the observed disparity. Our results could help with the design of more targeted and effective financial education and confidence-building initiatives for vulnerable groups.

JEL classification: A20, D14, G53, I20, J16.

Keywords: financial literacy, gender gaps, survey data, Slovakia.

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Non-technical summary

Recent household finance literature suggests that consumers need enough financial knowledge to make informed financial decisions. This applies not only to standard financial instruments, such as stocks or bonds, but also to modern financial products, such as crypto-assets or ESG investments. Despite the need for financial literacy, one of the most persistent findings in financial literacy research is the observed gender gap.

The availability of high-quality micro-data has enabled various studies to analyze the causes of the gender gap in financial literacy. These causes range from standard socio-demographic factors to more nuanced ones, such as hard-to-measure personal traits and social norms. Despite advanced research on the topic, Central and Eastern Europe, and Slovakia in particular, have been largely under-studied.

Our study addresses this research gap by analyzing newly available micro-data from the Slovak Household Finance and Consumption Survey, collected in 2021. A unique feature of the micro-data is the availability of financial knowledge questions alongside other important variables, such as financial self-confidence. This makes it possible to conduct a nuanced analysis of gender gaps in financial literacy.

The results suggest the existence of a gender gap in financial literacy, on average, men being more financially literate than women. However, once we control for socio-economic characteristics in a linear regression framework, the gap vanishes and loses significance. However, quantile regression analysis shows that while the gap is sizable and significant at the bottom of the financial literacy distribution, it vanishes at the top. Furthermore, using Blinder-Oaxaca decomposition, we show that the unexplained component of the difference dominates at the lower end of the distribution, suggesting that gender differences are influenced more by unobserved mechanisms through which financial literacy is acquired than by observable characteristics. Our results remain robust after we control for gender differences in "Don't know" responses, which we proxy with financial self-confidence. While self-confidence is a strong pre-

dictor of financial literacy, it plays only a minor role in explaining the observed gender gap.

Our findings may be useful for policymakers designing programs to enhance financial literacy. Targeted financial education policies and confidence-building initiatives could help close the financial literacy gender gap.

At the same time, we acknowledge some limitations of our study. First, since we use pure cross-sectional data, we cannot measure changes in financial literacy over time. Second, our data is at the household level and is based on the responses of the person who is the most financially knowledgeable. In the absence of individual-level data, this approach may introduce some biases. Therefore, future initiatives should aim to collect more granular micro-data, ideally at the individual level within a panel framework.

1. Introduction

Recent literature highlights that financial literacy plays an important role in shaping individuals' financial decision-making, ultimately contributing to their overall financial well-being (e.g., Chu et al., 2017; Agarwal et al., 2007) and wealth accumulation (Behrman et al., 2012). The ability to understand and effectively use financial concepts enables individuals to manage their resources efficiently and make better informed decisions (Fernandes et al., 2014). In particular, higher levels of financial literacy are associated with better investment decisions and lower indebtedness (e.g., Van Rooij et al., 2011; Gathergood, 2012). Given its importance, financial literacy has been widely studied across different populations, with a growing focus on the disparities that exist among various demographic groups.

One of the most persistent disparities in financial literacy is the observed gender gap. Gender gaps in financial literacy are a global phenomenon, observed across various countries and economic contexts (Klapper and Lusardi, 2020). However, the gender gap appears to be slightly more pronounced in G7 countries. Hasler and Lusardi (2017) argue that while financial literacy levels tend to be lower in developing and low-income nations overall, the impact is particularly severe for women in these regions. In addition, research suggests that financial literacy disparities vary between economic systems, with former socialist countries exhibiting smaller or even non-existent gender gaps compared to capitalist economies (e.g., Bucher-Koenen et al., 2017; Cupak et al., 2018).

The literature documents several reasons why it is important for women to be financially literate. To begin with, women tend to live longer than men and are more likely to be widowed, which may endanger their financial situation during retirement (Bucher-Koenen et al., 2017). Furthermore, women are more inclined to have career interruptions due to maternity, possibly reducing the rate of wealth accumulation (Arellano et al., 2018). Additionally, gender pay gaps and lower pensions further

underline the importance of well-informed financial decisions among women (e.g., Boll and Lagemann, 2019; Bonnet et al., 2022). Given these challenges, financial literacy is crucial for women, enabling them to navigate financial risks effectively and mitigate gender-based economic disparities.

As a result, gender gaps in financial literacy have several significant long-term implications, such as differences in investment behavior, particularly in relation to holding stocks and bonds (e.g., Cupak et al., 2021a; Bucher-Koenen et al., 2024), which ultimately contribute to disparities in wealth accumulation (Schneebaum et al., 2018)

In addition, not only gender gap in financial literacy leads to lower ownership rate in traditional financial instruments, but in modern financial products as well. For instance, Chen et al. (2023) find that women are significantly less inclined to adopt financial technologies ("Fintech") compared to men. In the same vein, Colombo and Yarovaya (2024) report a persistent gender disparity in cryptocurrency ownership, with men exhibiting substantially higher ownership rates. Turning to sustainable (ESG) investments, Ciaian et al. (2024) find a positive association between the level of financial knowledge and consumers' environmental and social attitudes. The findings of several studies (e.g., Owen and Qian, 2008; Rossi et al., 2019) even suggest that women are more likely to allocate capital to socially responsible investment products, underscoring the importance of financial awareness for sustainable investments.

A plethora of explanations have been provided to account for gender disparities in financial literacy. For instance the findings of Bottazzi and Lusardi (2021) assert that the gender gap in financial literacy diminishes when numeracy skills are accounted for. In addition, further contributing factor could be interest in financial topics, as some studies (e.g., Chen and Volpe, 2002; Lührmann et al., 2015) suggest that men tend to be more engaged in financial matters than women. Furthermore, the influence of socialization process, including gender stereotypes (Driva et al., 2016) and differences in the financial education of boys and girls (Agnew and Cameron-Agnew, 2015), also play a role. Moreover, women are less frequently involved in household financial planning

(Fonseca and Lord, 2020) and are more underrepresented in business and STEM fields (Yao et al., 2023), which may contribute to the observed gender gap. Another potential factor pertains to confidence, as studies have shown that women are more inclined than men to opt for the "Don't know" response on financial literacy assessments (e.g., Alessie et al., 2011; Chen and Garand, 2018; Bucher-Koenen et al., 2024). This phenomenon may lead to an underestimation of women's actual financial literacy levels (e.g., Bucher-Koenen et al., 2017; Aristei and Gallo, 2022).

Furthermore, a growing body of literature has begun to explore the more nuanced and hard-to-measure aspects of the gender gap in financial literacy. Tinghög et al. (2021) highlight the role of stereotype threat, suggesting that women tend to score lower on financial literacy assessments even in non-numeric contexts due to internalized biases. Social norms also contribute to the gender gap, as demonstrated by Davoli and Rodríguez-Planas (2020), who find that individuals from countries that place greater value on patience, long-term orientation, and risk aversion tend to exhibit significantly higher levels of financial literacy. Moreover, Preston et al. (2024) provide evidence that cultural background plays a crucial role in shaping the gender gap in financial literacy, emphasizing the need to understand how individuals acquire financial knowledge across different regional and cultural contexts.

This paper contributes to the existing literature by providing new empirical evidence on the gender gap in financial literacy from Slovakia, a country in Eastern Europe that remains relatively understudied in this context. While much of the research on gender differences in financial literacy focuses on Western economies, less is known about the extent and drivers of these disparities in post-socialist countries, including the region of Central and Eastern Europe.[1] Our study takes a similar approach to previous research that estimates the gender gap in financial literacy at the mean, such as Fonseca et al. (2012) or Cupak et al. (2018). However, we extend the analysis by using quantile regressions approach, revealing that the gender gap is concentrated among

[1]Some notable examples using representative survey micro-data include: Cupak et al. (2018) for Croatia and Hungary, or Cwynar et al. (2025) for Poland.

individuals with lower levels of financial literacy and disappears at higher levels. In addition, the richness of the applied micro-data allows us to examine the role of self-confidence in the accumulation of financial literacy and, in particular, in explaining the gender gap, similarly to Bucher-Koenen et al. (2024).

Our empirical results can be summarized as follows. Descriptive results show that, on average, men are more financially literate than women, and this difference is statistically significant. However, once we control for socio-economic characteristics in a linear regression framework, the gap narrows and loses significance. Importantly, mean-based estimates obscure considerable heterogeneity in the gender gap. Quantile regression analysis shows that while the gap is large and significant at the bottom of the financial literacy distribution, it vanishes at the top. Furthermore, using a Blinder-Oaxaca decomposition at both the mean and different quantiles, we show that the unexplained component of the gap dominates in the lower part of the distribution, highlighting that the mechanisms by which financial literacy is acquired, rather than observable characteristics, drive gender differences. Our results remain robust after we control for gender differences in "Don't know" responses, which we proxy with financial self-confidence. While self-confidence is a strong predictor of financial literacy, it plays only a minor role in explaining the observed gender gap.

The remainder of the paper structured as follows: Section 2 provides a detailed description of the data and variables used in empirical analyses. Section 3 introduces applied methodology. Section 4 presents empirical results and their robustness. Section 5 concludes and discusses policy implications.

2. Data and variables

To explore gender gaps in financial literacy we employ micro-data from the 4th wave of the Slovak Household Finance and Consumption Survey (HFCS), conducted in 2021. The survey, following the state-of-the-art standards (i.e., Random Probability Sampling, and Computer Assisted Personal Interviews mode), collects information from

around 2,200 households and nearly 4,000 individuals about their financial and economic situation with a focus on assets and liabilities, as well as their incomes and consumption patterns. The HFCS micro-data also collects granular socio-demographic and economic characteristics of households and its members. Main results from the HFCS 2021 wave are summarized in Cupak et al. (2023).[2]

Although the survey is conducted in several European countries and over several time periods (every 3 years), we restrict our analysis to the Slovak HFCS micro-data only (from wave 2021) due to the availability of the necessary covariates. A specific feature of the Slovak HFCS micro-data from wave 2021 is the availability of detailed information on financial literacy (both objective and subjective), together with income and wealth profiles, which allows for an in-depth analysis of gender gaps in financial literacy.

Following the prior literature (e.g., Lusardi and Mitchell, 2014; Bucher-Koenen et al., 2024), we construct our main outcome variable – the financial literacy score – as the sum of points to the correctly answered questions on financial concepts such as: interest rates, inflation, diversification, and risk concept. Thus, the financial literacy score ranges between 0 and 4. Specifically, the reference persons of the household – whom the HFCS defines as the family member with the best overview of the household's financial situation – were asked the following financial literacy questions:

1. **Interest rates:** Of the following types of mortgages which one do you think will allow you from the start to fix both the amount and the number of installments needed to pay off the loan?

    a) Floating-rate mortgage

    b) Fixed-rate mortgage [Correct answer]

    c) Don't know

[2]More information about the survey can be found here: https://nbs.sk/en/research-at-nbs/household-finance-and-consumption-survey-hfcs/.

2. **Inflation:** Imagine leaving 1000 euros in a current account that pays 1% interest and has no charges. Imagine also that prices increase by 2%. Do you think that if you withdraw the money in a year's time you will be able to buy the same amount of goods as if you spent the 1000 euros today?

    a) Yes

    b) No, I will be able to buy less [Correct answer]

    c) No, I will be able to buy more

    d) Don't know

3. **Portfolio diversification:** In your opinion, which of the following investment strategies entails a greater risk of losing money?

    a) Invest all savings in the securities issued by a single company [Correct answer]

    b) Invest all savings in the securities issued by a wide range of unrelated companies

    c) Don't know

4. **Risk:** A company can obtain financing either issuing shares or bonds. In your opinion, which financial instrument entails a greater risk of losing money?

    a) Shares [Correct answer]

    b) Bonds

    c) Equally risky

    d) Don't know

An important feature of the Slovak HFCS micro-data is the availability of a question on financial confidence, where responding household heads are asked to rate their financial capability on a scale from 0 to 10. This type of information is considered to

capture consumer self-confidence and has been shown to be an important determinant of household financial behaviour and financial literacy (e.g., Cupak et al., 2022). We include this covariate in our sensitivity analysis (see subsection 4.3).

Then, in line with the previous empirical studies, we control for an array of baseline socio-demographic and economic variables next to gender – our main explanatory variable (e.g., Fonseca et al., 2012; Cupak et al., 2018; Bucher-Koenen et al., 2024). First, we take into account the importance of household income and household new wealth for the financial literacy accumulation. Second, we also consider various individual-level characteristics such as risk attitudes profiles, age, marital status, employments status, education level that have been shown as important predictors of financial literacy. Given the richness of the micro-data, we also control for regional fixed effects along with information on urban / rural area.

Descriptive statistics of the estimation sample is detailed in Table 1. Further detailed information on the construction of variables used in empirical analyses is provided in Appendix A.1.

Furthermore, Figure 1 compares the levels of financial literacy between men and women. Panel (a) shows the average financial literacy score for men (2.17) and women (1.96) and shows that, on average, men have a higher financial literacy score than women. Panel (b) shows the distribution of financial literacy scores for both genders. The histogram shows that a larger proportion of women than men have low financial literacy scores (0 or 1 out of 4 questions answered correctly). In contrast, men are more represented at higher financial literacy levels, especially at scores of 2 and 3, where their share exceeds that of women.

Table 1: Descriptive statistics of the variables entering empirical analysis

	N	Mean	SD	Min	Max
FL score	2174	2.09	1.23	0.00	4.00
FL1: interest rates	2174	0.62	0.49	0.00	1.00
FL2: inflation	2174	0.73	0.45	0.00	1.00
FL3: diversification	2174	0.50	0.50	0.00	1.00
FL4: risk	2174	0.24	0.43	0.00	1.00
Financial self-confidence	2174	7.02	2.44	0.00	10.00
Female (dummy)	2174	0.39	0.49	0.00	1.00
Net wealth (IHS)	2174	11.73	2.33	-10.60	15.41
Family income (IHS)	2174	10.50	1.03	0.00	12.44
Risk attitude score	2174	1.41	0.72	1.00	4.00
Single (dummy)	2174	0.13	0.34	0.00	1.00
Married (dummy)	2174	0.64	0.48	0.00	1.00
Separated / widowed (dummy)	2174	0.23	0.42	0.00	1.00
Employed (dummy)	2174	0.46	0.50	0.00	1.00
Self-employed (dummy)	2174	0.12	0.32	0.00	1.00
Other employment (dummy)	2174	0.42	0.49	0.00	1.00
University degree (dummy)	2174	0.26	0.44	0.00	1.00
Age	2174	54.41	14.66	21.00	98.00
Age squared	2174	3175.11	1632.33	441.00	9604.00
Number of adults in the household	2174	2.20	0.90	1.00	5.00
Number of dependent children in the household	2174	0.71	1.01	0.00	8.00
Urban area (dummy)	2174	0.55	0.50	0.00	1.00
BA region (dummy)	2174	0.15	0.36	0.00	1.00
TT region (dummy)	2174	0.11	0.31	0.00	1.00
TN region (dummy)	2174	0.11	0.32	0.00	1.00
NR region (dummy)	2174	0.13	0.34	0.00	1.00
ZA region (dummy)	2174	0.12	0.33	0.00	1.00
BB region (dummy)	2174	0.12	0.32	0.00	1.00
PO region (dummy)	2174	0.12	0.33	0.00	1.00
KE region (dummy)	2174	0.13	0.34	0.00	1.00

Notes: Statistics computed using survey weights and multiple-imputation techniques.
Source: Household Finance and Consumption Survey 2021, NBS.

3. Econometric specifications

The main objective of this study is twofold. First, we aim to estimate the magnitude of the gender gap in financial literacy using OLS framework, controlling for a large set of economic and socio-demographic variables. We also examine the results beyond the mean by using quantile regressions. Second, we decompose the gender gap in financial literacy at the mean and at different parts of the financial literacy distribution using counterfactual Oaxaca-Blinder methods. In other words, would the observed gender differences in financial literacy disappear if women had the same endowments as their male counterparts?

Figure 1: Comparison of financial literacy between men and women

Notes: Statistics computed using survey weights and multiple-imputation techniques.
Source: Household Finance and Consumption Survey 2021, NBS.

3.1. Regression analysis

We begin our analysis by examining the gender gaps in financial literacy through a linear regression model, as specified in the following equation:

$$FL_i = \alpha + \beta \cdot FEMALE_i + \mathbf{X_i'}\gamma + \delta + \varepsilon_i, \tag{1}$$

where FL_i is the financial literacy score for the i-th individual household, $FEMALE_i$ is a dummy variable indicating gender. X_i' represents a set of socio-demographic and economic characteristics considered in the literature (such as wealth, income, marital status, age, education, etc.), δ is a set of dummy variables capturing regional fixed effects and ε_i is an error term.

In addition, we also explore the effect of gender on financial literacy across different points of its distribution.[3] We do so by applying unconditional quantile regressions (UQR), which are based on the recentered influence functions framework developed

[3]This approach is particularly suitable because the effects of independent variables may vary across different levels of financial literacy score, rather than being constant as assumed in linear regression.

by Firpo et al. (2009). Overall, the UQR offers several advantages over classical conditional quantile regression (CQR) of Koenker and Bassett (1978). For example, as argued by Maclean et al. (2014) or Rios-Avila and Maroto (2024), the CQR does not reveal estimates of a marginal change in the location of the X's distribution on the τ-th quantile of the Y's unconditional distribution. Hence, the interpretation of the coefficient estimates changes when different sets of variables are considered in the regression model. On the other hand, the UQR estimator overcomes this limitation, which offers broader generalization of the results.

For the readers convenience, we summarize the RIF-UQR approach.[4] Firpo et al. (2009) develop the method by first defining the recentered influence function (RIF) that extends the framework of influence functions (IF) – a powerful concept used in robust statistics to address the influence of removing or adding a particular observation on the value of a statistic $v(F_Y)$ (see Hampel, 1974). In this case, the IF is given by:

$$IF(y; v(F)) = \lim_{\varepsilon \to 0} \frac{[v\{(1-\varepsilon)\cdot F + \varepsilon \cdot \delta_y\}] - v(F)}{\varepsilon}, \quad 0 \leq \varepsilon \leq 1, \tag{2}$$

where F stands for the cumulative distribution function of Y and δ_y denotes the probability measure that assigns a mass of 1 to the value y. Consequently, Firpo et al. (2009) define the RIF by adding the IF to the statistics of interest, $v(F)$, as follows:

$$RIF(y; v, F_Y) = v(F_Y) + IF(y; v, F_Y). \tag{3}$$

For instance, if one concentrates on regression quantiles (q_τ), Firpo et al. (2009) define their RIFs in the following way:

$$RIF(y; q_\tau) = q_\tau + \frac{\tau - I[Y \leq q_\tau]}{f_Y(q_\tau)}, \tag{4}$$

where $f_Y(q_\tau)$ is the probability density function of Y evaluated at q_τ, and $I[Y \leq q_\tau]$ is an indicator variable that takes a value of 1 when the outcome value (Y) is less than

[4] Further technical details are available in Firpo et al. (2009).

q_τ, and 0 otherwise.

Finally, after RIFs have been calculated, it is possible to model the expected value of the RIF of the quantile of interest as a linear function of a set of explanatory variables, hence running a simple OLS:

$$\mathbb{E}\left[\text{RIF}\left(Y; q_\tau\right)|X\right] = X\beta(q_\tau) + \varepsilon, \tag{5}$$

where q_τ is the percentile/quantile of interest and X is a set of covariates along a vector of corresponding coefficients (β) to be estimated.

3.2. Counterfactual decomposition analysis

As a next step in our analysis, we use counterfactual techniques to decompose the observed differences in financial literacy between men (M) and women (W) using the standard Blinder-Oaxaca decomposition method (Blinder, 1973; Oaxaca, 1973). The B-O method decomposes the observed differences in means into two components: an explained part that is due to differences in observed characteristics between men and women (such as income and wealth profiles, education, age, occupation, etc.) and an unexplained part that is due to differences in coefficients, i.e., how the financial literacy is produced (Cupak et al., 2021b).[5] The baseline B-O decomposition is given by:

$$\overline{FL}_M - \overline{FL}_W = \underbrace{(\overline{X}_M - \overline{X}_W)\widehat{\beta}_M}_{Explained} + \underbrace{\overline{X}_W(\widehat{\beta}_M - \widehat{\beta}_W)}_{Unexplained}, \tag{6}$$

where $\overline{FL}_M$ and $\overline{FL}_W$ are the observed averages of financial literacy for men and women, respectively. $\overline{X}_M$ and $\overline{X}_W$ are the means of the respective explanatory variables along with the vector of estimated coefficients $\widehat{\beta}_M$ and $\widehat{\beta}_W$ estimated separately for both groups.

[5] While this method originated in the labor economics literature, it has recently been applied in the context of financial literacy gaps (e.g., Fonseca et al., 2012; Cupak et al., 2021b).

Next, in line with the previous distributional analysis, we also decompose the observed gender gap in financial literacy along its distribution. Again, once the RIFs (quantiles in our case) are specified, one can apply simple, OLS-based models, including the B-O decomposition (see Firpo et al., 2009; Rios-Avila, 2020). The financial literacy gaps at different quantiles can be decomposed into two additive components:

$$FL_M(q_\tau) - FL_W(q_\tau) = \underbrace{(\overline{X}_M - \overline{X}_W)\widehat{\beta}_M(q_\tau)}_{Explained} + \underbrace{\overline{X}_W(\widehat{\beta}_M(q_\tau) - \widehat{\beta}_W(q_\tau))}_{Unexplained}. \quad (7)$$

Here the notation remains very similar to before, except for the decomposition of the gender gap in financial literacy at different quantiles (q_τ).

3.3. Further methodological issues

Finally, the econometric analysis accounts for the complexity of the HFCS data. First, the HFCS data relies on a complex (stratified) survey design. Therefore, it is recommend estimating bootstrapped standard errors using 1000 replicated weights (available in the HFCS data) to account for sampling uncertainty (see ECB, 2023, Chapter 7). Second, we account for uncertainty stemming from the imputation of missing values for variables such as wealth, assets, and income. In our empirical analysis, we combine the estimated statistics (be it a mean or a regression coefficient) following Rubin's rule (Rubin, 1987).

4. Empirical results

4.1. Regression analysis

We start our empirical analysis by correlating the outcome variable to gender (our main variable of interest) while controlling for various socio-demographic and economic household characteristics. We run 5 different specifications and the results are introduced in Table 2.

Specification (1) includes only the female dummy as an explanatory variable and shows that women score, on average, 0.206 points lower in financial literacy compared to men, a difference that is statistically significant at the 5% level.

Specification (2) extends that specification by incorporating financial resource variables measured by net wealth and family income. The inclusion of these variables reduces the estimated gender gap in financial literacy to -0.150, which remains statistically significant at the 10% level. Both financial resource variables exhibit a positive association with financial literacy: a one-unit increase in net wealth corresponds to a 0.042-point increase in financial literacy ($p<0.10$), while family income has an even stronger effect, with a coefficient of 0.252 ($p<0.05$). The results suggest that the observed gender gap might be partially attributed to differences in financial resources.

Specification (3) further controls for individual characteristics, including risk attitudes, marital status, education attainment, employment status, age and household composition. The coefficient of the female variable drops in magnitude and loses statistical significance, implying that differences in these characteristics account for most of the gender gap observed in specifications (1) and (2). Among the newly added covariates, risk tolerance is profoundly associated with financial literacy. Similarly, being married appears to be positively associated with financial literacy. Besides, having a university degree is also a significant determinant of financial literacy, with degree holders scoring higher than those without a university degree.

Additionally, specification (4) incorporates regional fixed effects to account for potential unobserved heterogeneity at the regional level. The results demonstrate that the gender coefficient remains insignificant (-0.034), thereby confirming that socioeconomic factors and education are responsible for the observed initial gender disparity. The significance of net wealth and risk attitudes persists, with coefficients of 0.044 ($p<0.05$) and 0.203 ($p<0.01$), respectively. The coefficient relating to the university degree remains robust at 0.563 ($p<0.01$), thus reinforcing the important role of education in shaping financial literacy.

Overall, the regression results confirm a modest gender gap in financial literacy, with women scoring significantly lower than men. The gap remains significant after controlling for financial resources but disappears when accounting for socio-demographic factors such as education, risk attitudes, and employment status.

Table 2: OLS estimates of the determinants of financial literacy

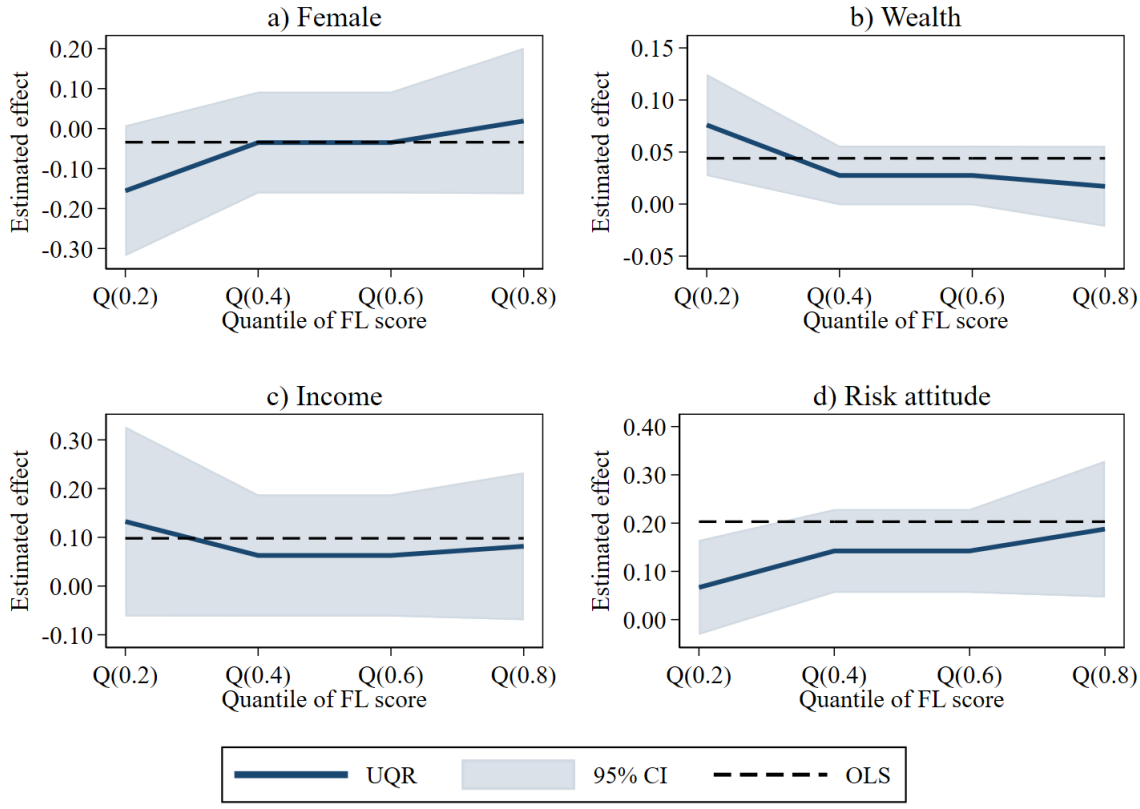
	(1)	(2)	(3)	(4)
Female (dummy)	-0.206**	-0.150*	-0.015	-0.034
	(0.081)	(0.084)	(0.077)	(0.077)
Net wealth (IHS)		0.042*	0.038**	0.044**
		(0.023)	(0.019)	(0.020)
Family income (IHS)		0.252**	0.109	0.098
		(0.102)	(0.085)	(0.084)
Risk attitude score			0.226***	0.203***
			(0.055)	(0.056)
Single (dummy)			0.117	0.115
			(0.110)	(0.107)
Married (dummy)			0.242**	0.235**
			(0.098)	(0.099)
Employed (dummy)			0.092	0.113
			(0.112)	(0.107)
Self-employed (dummy)			0.201	0.205
			(0.138)	(0.135)
University degree (dummy)			0.551***	0.563***
			(0.082)	(0.082)
Age			0.006	0.004
			(0.017)	(0.017)
Age squared			-0.000	-0.000
			(0.000)	(0.000)
Number of adults in the household			0.038	0.036
			(0.058)	(0.058)
Number of dependent children in the household			0.014	0.014
			(0.042)	(0.043)
Urban area (dummy)				0.040
				(0.077)
Regional FE	No	No	No	Yes
Adjusted R2	0.006	0.067	0.184	0.211
N	2174	2174	2174	2174

Notes: Regressions are estimated using multiple-imputation techniques. Bootstrapped standard errors presented in parentheses are based on 1000 replicate weights. Inverse Hyperbolic Sine (IHS) transformation applied to values to deal with extreme skewness and outliers. * p<0.1, ** p<0.05, *** p<0.01.
Source: Household Finance and Consumption Survey 2021, NBS.

Importantly, the UQR estimates (Figure 2) reveal that the gender gap is significantly

wider at the lower quantiles of financial literacy, where women score nearly 0.20 points lower than men, while the effect diminishes at higher quantiles. This suggests that the gender gap is primarily concentrated among individuals with lower financial literacy. Compared to OLS, which captures only the average effect, UQR highlights that the gender gap varies across the distribution. These findings are consistent with previous research (e.g., Hasler and Lusardi, 2017; Barboza et al., 2016; Bucher-Koenen et al., 2017). However, unlike the mentioned studies, we extend the analysis beyond the mean and demonstrate that the gender gap is predominantly observed among individuals with lower financial literacy levels.

Figure 2: UQR estimates of the determinants of financial literacy (selected covariates)



Notes: This figure shows the estimated marginal effects of OLS (black dashed lines) and the estimated marginal effects of UQR (dark blue lines) along with the 95% confidence intervals (blue shaded areas). Regressions are estimated using multiple-imputation techniques and confidence intervals are bootstrapped based on 1000 replicate weights. Regressions are estimated using the same set of covariates and estimation sample as in Table 2, specification (4).
Source: Household Finance and Consumption Survey 2021, NBS.

4.2. Decomposition analysis

Based on observations from the quantile regression analysis, we decompose the gender gaps in financial literacy at different quantiles further using the counterfactual B-O framework. Essentially, we are interested in determining whether the gaps would disappear if women had the same characteristics as men.

The results of this exercise are summarized in Table 3. A robust result emerges: men always score higher than women in financial literacy. The gap is most pronounced and significant in the lower part of the distribution of financial literacy score, with a difference of about 24%. The gap then shrinks and becomes modest and insignificant (a difference of barely 1%) in the upper part of the financial literacy score's distribution.

Zooming in further on the decomposition results, one can observe different patterns in the explained versus unexplained parts of the gap. While in the lower quantiles of the financial literacy score, the gap is mostly made up of the unexplained component; in the upper part, the observed gap is predominantly due to differences in socio-economic characteristics between men and women.

In general, our decomposition results, showing a modest gender gap in financial literacy (at the median) in Slovakia, align with recent empirical findings. For example, Cupak et al. (2018) find a similar result for a group of CEE countries, where the gender gap ranged between 3% in Croatia to 5% in Hungary as opposed to countries like Germany (17%) or the Netherlands (22%). The results further suggest that the gap is the most pronounced in the lower part of the financial literacy score's distribution, where it remains largely unexplained, suggesting that factors beyond observable characteristics may play a role, tying in with the results of Aristei and Gallo (2022).

Despite the abundance of granular micro-data used in the analysis, it remains difficult to isolate and quantify the effects of hard-to-measure factors, such as stereotype threat and cultural norms. As previous studies have demonstrated, typically using unique experimental setups (e.g., Tinghög et al., 2021; Preston et al., 2024), these latent mech-

anisms may significantly impact financial literacy outcomes, likely in the area of low financial literacy levels.

Table 3: B-O UQR decomposition results

	Q(0.2)	Median	Q(0.8)
Men	1.408***	2.552***	3.610***
	(0.058)	(0.042)	(0.057)
Women	1.111***	2.433***	3.583***
	(0.085)	(0.071)	(0.095)
Raw difference	0.296***	0.119	0.027
	(0.097)	(0.080)	(0.106)
% difference	23.58%	4.77%	0.75%
Explained	0.107	0.147**	0.166**
	(0.092)	(0.061)	(0.079)
Net wealth (IHS)	0.015	0.004	0.001
	(0.018)	(0.008)	(0.008)
Family income (IHS)	0.030	0.016	0.016
	(0.054)	(0.030)	(0.040)
Risk attitude score	0.006	0.009	0.014
	(0.008)	(0.009)	(0.012)
Single (dummy)	-0.018	0.005	0.002
	(0.017)	(0.010)	(0.012)
Married (dummy)	0.036	0.078	0.120
	(0.096)	(0.063)	(0.083)
Employed (dummy)	0.013	0.018	-0.017
	(0.021)	(0.015)	(0.021)
Self-employed (dummy)	0.017	0.015	-0.012
	(0.014)	(0.012)	(0.015)
University degree (dummy)	-0.009	-0.013	-0.036
	(0.008)	(0.009)	(0.023)
Age	0.019	0.054	0.076
	(0.114)	(0.083)	(0.101)
Age squared	0.022	-0.012	-0.020
	(0.132)	(0.092)	(0.104)
Number of adults in the household	0.032	0.004	0.008
	(0.036)	(0.025)	(0.029)
Number of dependent children in the household	0.003	-0.014	0.002
	(0.018)	(0.013)	(0.015)
Urban area (dummy)	-0.018	-0.002	0.003
	(0.015)	(0.010)	(0.013)
Unexplained	0.190*	-0.028	-0.140
	(0.112)	(0.083)	(0.107)
N (men)	1182	1182	1182
N (women)	992	992	992

Notes: The "explained" component is explained by group differences in the observable individual characteristics under consideration. The "unexplained" component, however, cannot be accounted for by differences in observed individual characteristics. Decompositions carried out using multiple-imputation techniques. Bootstrapped standard errors presented in parentheses are based on 1000 replicate weights. Inverse Hyperbolic Sine (IHS) transformation applied to values to deal with extreme skewness and outliers. * p<0.1, ** p<0.05, *** p<0.01.
Source: Household Finance and Consumption Survey 2021, NBS.

Nevertheless, the persistence of an unexplained gap in the lower quantiles reinforces arguments that targeted interventions, such as financial education vis-à-vis confidence-building measures, might be necessary to address gender disparities effectively.

4.3. THE IMPORTANCE OF SELF-CONFIDENCE FOR FINANCIAL LITERACY GENDER GAPS

We undertake additional steps in order to check the sensitivity of our estimated baseline results. In particular, we check the patterns in "Don't know" answers to financial literacy questions and its implications for the overall results. Recently, Bucher-Koenen et al. (2024) have argued that the measured gap in financial literacy is to a some extent driven by the patterns in "Don't know" answers to financial knowledge questions, and once the self-confidence in answering the questions is taken into account, the measured gender gap tends to shrink.

Considering this reasoning, we first check the patterns of survey respondents in providing "Don't know" answers to questions on financial literacy. Indeed, it turns out that men tend to provide (and possibly guess the right) answers compared to women, who more frequently reply with "I don't know". As we can see in Table 4, the differences between men and women in answering with the "Don't know" option range between 1 to around 7 p.p.

Table 4: Share of "Don't know" answers to particular financial literacy questions

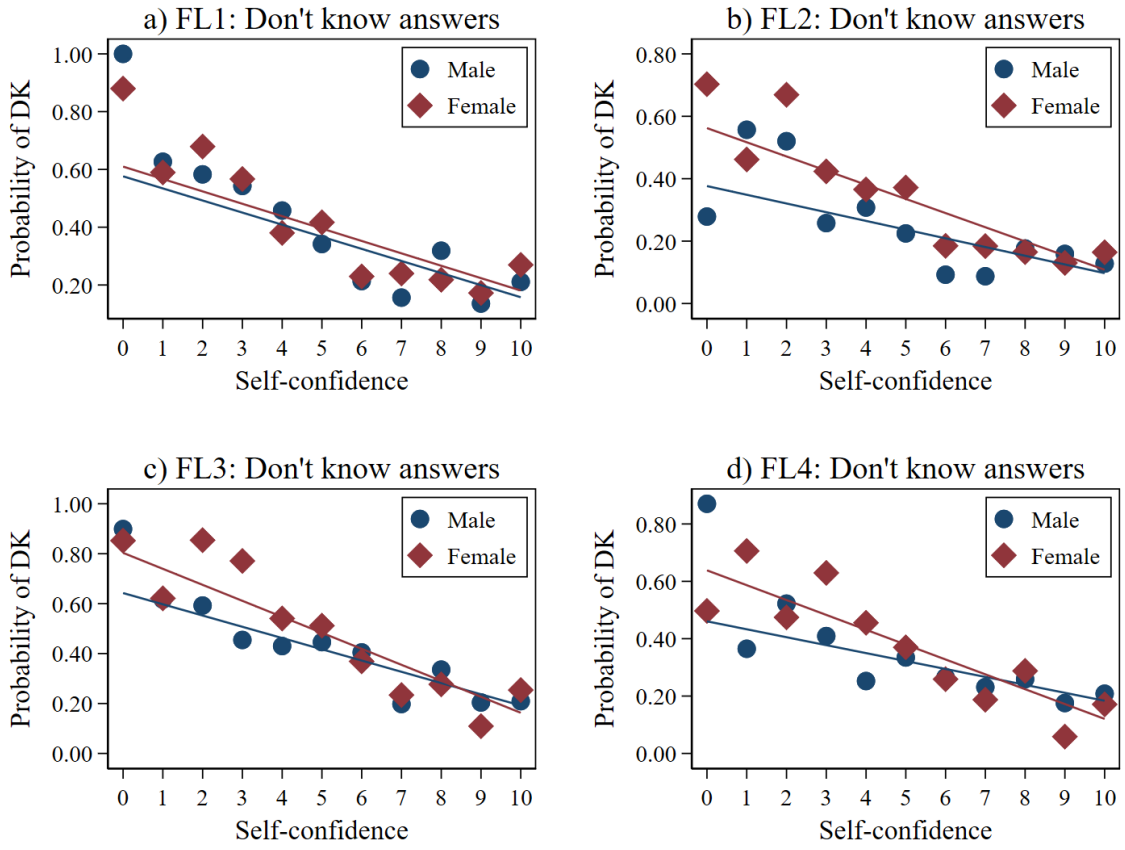
	Men	Women	Overall
FL 1: Interest rates	28.15%	31.03%	29.27%
FL 2: Inflation	18.00%	24.53%	20.53%
FL 3: Diversification	32.53%	35.62%	33.72%
FL 4: Risk	26.57%	27.69%	26.99%

Notes: Statistics computed using survey weights and multiple-imputation techniques.
Source: Household Finance and Consumption Survey 2021, NBS.

Following Bucher-Koenen et al. (2024), we then explore the role of financial self-confidence in observed patterns of replying "I don't know" using a survey question: *"On a scale of 0 to 10, how would you rate yourself? '0' means I have no knowledge of personal finance and*

'10' means I have complete knowledge of personal finance." Overall, it is clear from seeing Figure 3 that the probability of replying with the "Don't know" option significantly decreases with one's confidence. Furthermore, in 3 out of 4 questions, the gender gap in providing the "Don't know" option closes with higher levels of self-confidence, and this finding is generally in line with other empirical findings (Bucher-Koenen et al., 2024).

Figure 3: Correlation between the probability of "Don't know" answers and self-confidence



Notes: This graph shows the relationship between the likelihood of giving a "Don't know" (DK) answer to a particular financial literacy question and financial self-confidence. Statistics computed using survey weights and multiple-imputation techniques.
Source: Household Finance and Consumption Survey 2021, NBS.

Therefore, as a final step in our empirical analysis, we rerun our baseline specifications, taking into account the individual's self-confidence score (ranging from 0 to 10) to proxy for "Don't know" responses and potentially explain the prevalent gender gap in

objective financial literacy.

Table 5: OLS estimates of the determinants of financial literacy (the importance of self-confidence)

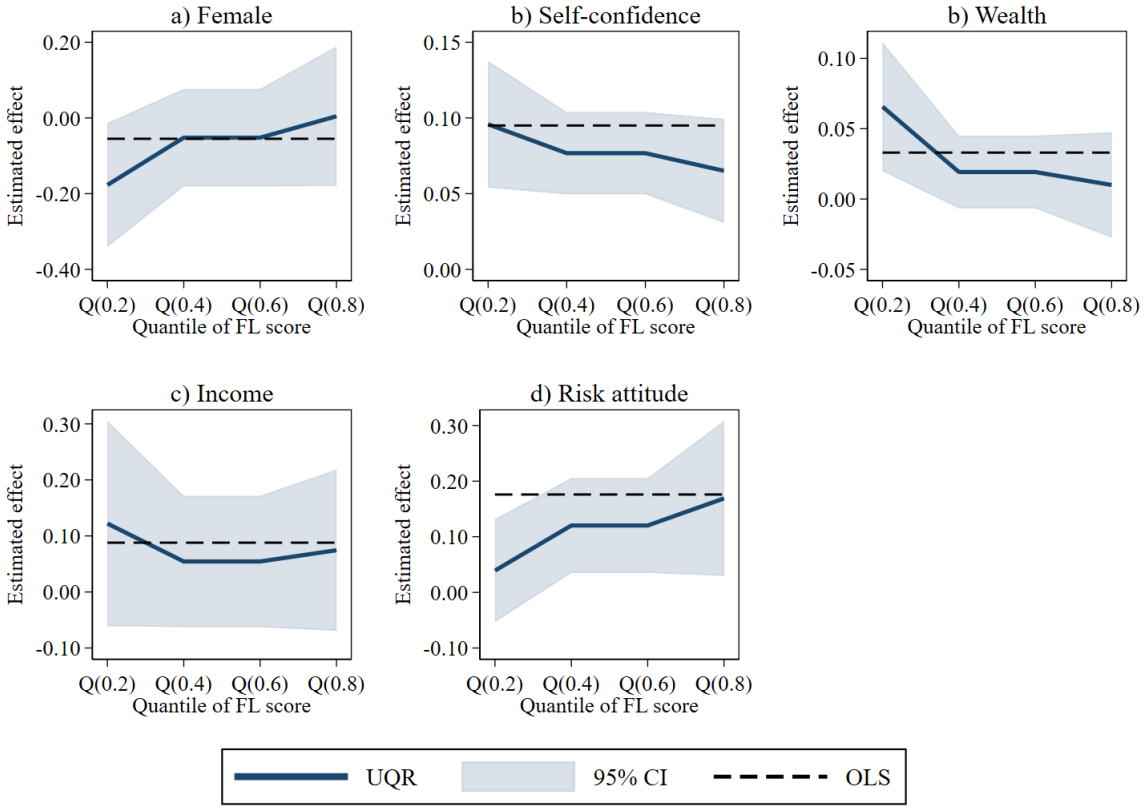
	(1)	(2)	(3)	(4)	(5)
Female (dummy)	-0.206**	-0.199**	-0.155*	-0.035	-0.055
	(0.081)	(0.079)	(0.081)	(0.077)	(0.077)
Financial self-confidence		0.154***	0.135***	0.093***	0.095***
		(0.015)	(0.017)	(0.016)	(0.016)
Net wealth (IHS)			0.028	0.029	0.033*
			(0.020)	(0.018)	(0.019)
Family income (IHS)			0.205**	0.097	0.088
			(0.092)	(0.080)	(0.079)
Risk attitude score				0.206***	0.176***
				(0.053)	(0.054)
Single (dummy)				0.090	0.086
				(0.115)	(0.112)
Married (dummy)				0.211**	0.200**
				(0.098)	(0.097)
Employed (dummy)				0.065	0.077
				(0.112)	(0.107)
Self-employed (dummy)				0.133	0.138
				(0.140)	(0.135)
University degree (dummy)				0.466***	0.472***
				(0.081)	(0.082)
Age				0.004	0.002
				(0.016)	(0.016)
Age squared				-0.000	-0.000
				(0.000)	(0.000)
Number of adults in the household				0.043	0.044
				(0.059)	(0.059)
Number of dependent children in the household				0.009	0.011
				(0.040)	(0.041)
Urban area (dummy)					0.022
					(0.079)
Regional FE	No	No	No	No	Yes
Adjusted R2	0.006	0.099	0.135	0.214	0.240
N	2174	2174	2174	2174	2174

Notes: Regressions are estimated using multiple-imputation techniques. Bootstrapped standard errors presented in parentheses are based on 1000 replicate weights. Inverse Hyperbolic Sine (IHS) transformation applied to values to deal with extreme skewness and outliers. * p<0.1, ** p<0.05, *** p<0.01.
Source: Household Finance and Consumption Survey 2021, NBS.

Results of the regressions controlling for financial self-confidence are summarized in Table 5. Overall, we can see that self-confidence is a strong predictor of objective financial literacy, with the strongest effect in the lower part of the distribution of financial literacy scores (Figure 4). These findings are broadly consistent with existing literature, which provides empirical evidence of the positive effect of self-confidence on individ-

uals' financial literacy (e.g., Fonseca and Lord, 2020; Bucher-Koenen et al., 2024).

Figure 4: UQR estimates of the determinants of financial literacy and self-confidence (selected covariates)



Notes: This figure shows the estimated marginal effects of OLS (black dashed lines) and the estimated marginal effects of UQR (dark blue lines) along with the 95% confidence intervals (blue shaded areas). Regressions are estimated using multiple-imputation techniques and confidence intervals are bootstrapped based on 1000 replicate weights. Regressions are estimated using the same set of covariates and estimation sample as in Table 5, specification (5).
Source: Household Finance and Consumption Survey 2021, NBS.

However, despite the inclusion of self-confidence, the observed gender gaps in financial literacy (especially in the lower quantiles) remain unexplained (see Table 6). These findings are in contrast to existing literature (e.g., Bucher-Koenen et al., 2024; Fonseca and Lord, 2020), which suggests that the gender gap in financial literacy can be to a large extent explained after accounting for self-confidence.

Table 6: B-O UQR decomposition results (the importance of self-confidence)

	Q(0.2)	Median	Q(0.8)
Men	1.408***	2.552***	3.610***
	(0.058)	(0.042)	(0.057)
Women	1.111***	2.433***	3.583***
	(0.085)	(0.071)	(0.095)
Raw difference	0.296***	0.119	0.027
	(0.097)	(0.080)	(0.106)
% difference	23.58%	4.77%	0.75%
Explained	0.075	0.126**	0.144*
	(0.093)	(0.062)	(0.080)
Financial self-confidence	0.005	0.003	0.004
	(0.016)	(0.011)	(0.012)
Net wealth (IHS)	0.013	0.003	-0.000
	(0.016)	(0.007)	(0.007)
Family income (IHS)	0.028	0.015	0.015
	(0.051)	(0.028)	(0.038)
Risk attitude score	0.005	0.008	0.013
	(0.006)	(0.008)	(0.011)
Single (dummy)	-0.017	0.006	0.003
	(0.016)	(0.010)	(0.012)
Married (dummy)	0.008	0.059	0.099
	(0.093)	(0.063)	(0.083)
Employed (dummy)	0.008	0.015	-0.021
	(0.020)	(0.015)	(0.022)
Self-employed (dummy)	0.012	0.012	-0.016
	(0.013)	(0.011)	(0.016)
University degree (dummy)	-0.004	-0.011	-0.033
	(0.006)	(0.008)	(0.021)
Age	0.016	0.052	0.073
	(0.113)	(0.082)	(0.100)
Age squared	0.022	-0.012	-0.020
	(0.131)	(0.092)	(0.104)
Number of adults in the household	0.039	0.009	0.013
	(0.036)	(0.025)	(0.029)
Number of dependent children in the household	0.003	-0.014	0.002
	(0.017)	(0.012)	(0.014)
Urban area (dummy)	-0.016	-0.001	0.005
	(0.015)	(0.010)	(0.013)
Unexplained	0.221**	-0.008	-0.117
	(0.112)	(0.085)	(0.108)
N (men)	1182	1182	1182
N (women)	992	992	992

Notes: The "explained" component is explained by group differences in the observable individual characteristics under consideration. The "unexplained" component, however, cannot be accounted for by differences in observed individual characteristics. Decompositions carried out using multiple-imputation techniques. Bootstrapped standard errors presented in parentheses are based on 1000 replicate weights. Inverse Hyperbolic Sine (IHS) transformation applied to values to deal with extreme skewness and outliers. * p<0.1, ** p<0.05, *** p<0.01.
Source: Household Finance and Consumption Survey 2021, NBS.

4.4. Robustness checks

Finally, we assess the robustness of our main findings considering single-adult households as a responding units as well as by decomposing gender gaps in financial literacy using an alternative econometric approach.

First, the main issue with our data is its household-level nature. Although the HFCS defines the reference person as the family member with the best knowledge about financial matters, it is unclear whether this holds true. In the absence of individual-level data, one solution is to condition on family type (i.e., only households with at most one adult member), as in Schneebaum et al. (2018). This approach may provide a closer approximation of actual individual-level financial capabilities. On the other hand, the approach may be subject to possible selection bias. In any case, the main results of this robustness check (both regression and decomposition analyses, see Appendix, Table A.2 and Table A.3) are very similar to our baseline estimates and confirm the observed gender gap in financial literacy at the lower end of the distribution.

Second, until now, we have treated our outcome variable as continuous and applied quantile regression techniques and decomposition analysis, which are typically applied to continuous variables. Therefore, as a second robustness check, we dichotomized the financial literacy score into three binary variables: low financial literacy (0 or 1 correct answer), middle financial literacy (2 correct answers), and high financial literacy (3 or 4 correct answers). We then decomposed the probability of having low, middle, or high financial literacy between men and women using simple B-O decomposition at the mean of outcome variables. The results of this analysis (see Appendix, Table A.4) confirm our main finding that women are more likely than men to be financially illiterate, especially at low levels of financial literacy.

5. Conclusions

Although the empirical literature offers a fairly robust evidence of a gender gap in financial literacy (see Bucher-Koenen et al., 2017; Cupak et al., 2018), the region of Central and Eastern Europe, and Slovakia in particular, has been largely under-researched. By utilising novel representative micro-data from the Slovak Household Finance and Consumption Survey containing a special module on financial literacy, we fill this research gap. Particular novelty of our study is the use of a distributional approach rather than mean-based linear regression to evaluate gender gaps in financial literacy. Unlike previous studies that document average financial literacy gender gaps, our approach shows how gender gaps vary across different levels of financial literacy.

Descriptive results suggest that in Slovakia, men on average score higher than women in financial literacy and this difference is statistically significant. However, after controlling for a set of socio-economic characteristics within a linear regression framework, the gap narrows and loses statistical significance. The mean-based estimates, however, mask substantial heterogeneity in results. UQR analysis shows that the gender gap in financial literacy is substantial and significant in the lower part of the financial literacy score distribution, while there are no gender gaps in the upper part.

We also apply a Blinder-Oaxaca counterfactual framework (at different quantiles defined by RIFs) to decompose the observed gender gaps in financial literacy. Overall, the decomposition analysis shows that – in the lower part of the distribution – the unexplained component dominates the observed gaps, suggesting that it is (unobserved) mechanisms of how financial literacy is produced rather than differences in observed characteristics between men and women. Going beyond observable characteristics, one possible explanation for the existing gap might be the importance of non-numerical factors, such as social norms or culture, as discussed in Tinghög et al. (2021) and Preston et al. (2024).

We also extend our analyses and account for a recently observed phenomenon – gender

differences in "I don't know" responses to financial literacy questions. Here we follow the approach of Bucher-Koenen et al. (2024) and proxy the "Don't know" responses with financial self-confidence. While self-confidence is a strong predictor of financial literacy per se, it only modestly explains the observed gender gap in financial literacy, as revealed by decompositions.

Our results are robust to different sub-samples and econometric specifications. Specifically, we reran our analyses for a sub-sample of households with at most one single adult member and used alternative specifications to decompose the gender gap in financial literacy, creating dichotomized categories of low, middle, and high financial literacy. The results confirm that the gender gaps emerge at low levels of financial literacy.

Since the gender gap in financial literacy is concentrated among those women with lower levels of financial education, policy interventions should focus on this vulnerable group by implementing tailored educational programs together with confidence-building measures in schools, community centers and workplaces. Expanding financial education as a lifelong learning program could help reduce the gender gap over time. Consequently, enhancing financial literacy among women has the potential to not only increase their participation in traditional markets but also in emerging domains such as "Fintech" and cryptocurrencies. Furthermore, it can promote financial inclusion and encourage greater involvement in ESG-aligned investments.

This study has some data limitations that should be acknowledged. First, we rely on purely cross-sectional data, which measures financial literacy at a single point in time and does not allow us to track changes over time. Second, our unit of observation is a household, represented by the "most knowledgeable person" who responds to the financial literacy questions. This might introduce some noise into the data. To better understand gender differences in financial literacy, future research would benefit from more detailed individual-level data collection efforts (such as the OECD/INFE), including longitudinal surveys that track financial knowledge over time.

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APPENDIX

A. ADDITIONAL TABLES AND FIGURES

Table A.1: Description of variables used in empirical analysis

Variable	Description
Dependent variable	
Objective financial literacy	Financial literacy score: ranging from 0 to 4; based on correct answers to 4 financial literacy questions (interest paid on loan, inflation, diversification, and risk and return)
Explanatory variables	
Female	Dummy variable equal to 1 if female, and 0 otherwise
Financial self-confidence	Self-assessed level of financial knowledge. Score ranging from 0 to 10
Net wealth	Value of net wealth in euros. Inverse hyperbolic sine transformation is employed to avoid negative values
Family income	Total gross household income in euros. Inverse hyperbolic sine transformation is employed to avoid negative values
Risk attitude score	Risk attitude score ranging from 1 to 4. The higher the score, the greater the risk that the person is reckless when making investments
Single	Dummy variable equal to 1 if single, and 0 otherwise
Married	Dummy variable equal to 1 if married, and 0 otherwise
Employed	Dummy variable equal to 1 if employed, and 0 otherwise
Self-employed	Dummy variable equal to 1 if self-employed, and 0 otherwise
University degree	Dummy variable equal to 1 if an individual has a tertiary education, and 0 otherwise
Age	Age in years
Age squared	The square of the individual's age
Adults	Number of adults in a household
Children	Number of dependent children in a household
Urban area	Dummy variable equal to 1 if a respondent is from a town or city, and 0 otherwise.
Regions	Set of dummy variables for eight main regions in Slovakia: Bratislava, Trnava, Trenčin, Nitra, Žilina, Banská Bystrica, Prešov, Košice.

Source: Own processing based on the Household Finance and Consumption Survey (2021) questionnaire.

Table A.2: OLS estimates of the determinants of financial literacy (restricted sample for single-adult households)

	(1)	(2)	(3)	(4)	(5)
Female (dummy)	-0.252*	-0.263*	-0.263*	-0.004	-0.064
	(0.141)	(0.139)	(0.141)	(0.119)	(0.120)
Financial self-confidence		0.167***	0.166***	0.102***	0.113***
		(0.024)	(0.024)	(0.022)	(0.022)
Net wealth (IHS)			-0.002	0.009	0.006
			(0.019)	(0.014)	(0.013)
Family income (IHS)			0.008	-0.019	-0.023
			(0.097)	(0.060)	(0.057)
Risk attitude score				0.236**	0.210*
				(0.109)	(0.110)
Single (dummy)				-0.070	-0.074
				(0.140)	(0.136)
Married (dummy)				0.562	0.498
				(0.438)	(0.429)
Employed (dummy)				0.161	0.160
				(0.180)	(0.176)
Self-employed (dummy)				0.137	0.111
				(0.297)	(0.298)
University degree (dummy)				0.482***	0.476***
				(0.163)	(0.163)
Age				-0.031	-0.033
				(0.026)	(0.026)
Age squared				0.000	0.000
				(0.000)	(0.000)
Number of dependent children in the household				-0.175	-0.158
				(0.164)	(0.170)
Urban area (dummy)					0.299**
					(0.134)
Regional FE	No	No	No	No	Yes
Adjusted R2	0.007	0.116	0.113	0.299	0.327
N	760	760	760	760	760

Notes: Regressions are estimated using multiple-imputation techniques. Bootstrapped standard errors presented in parentheses are based on 1000 replicate weights. Inverse Hyperbolic Sine (IHS) transformation applied to values to deal with extreme skewness and outliers.

* p<0.1, ** p<0.05, *** p<0.01.

Source: Household Finance and Consumption Survey 2021, NBS.

Table A.3: B-O UQR decomposition results (restricted sample for single-adult households)

	Q(0.2)	Median	Q(0.8)
Men	1.006***	2.321***	3.363***
	(0.175)	(0.107)	(0.140)
Women	0.660***	2.058***	3.265***
	(0.130)	(0.097)	(0.104)
Raw difference	0.346*	0.263**	0.098
	(0.209)	(0.128)	(0.170)
% difference	41.54%	12.01%	2.96%
Explained	0.196	0.208	0.027
	(0.221)	(0.130)	(0.162)
Financial self-confidence	-0.011	-0.007	-0.003
	(0.042)	(0.028)	(0.021)
Net wealth (IHS)	-0.005	0.001	-0.001
	(0.040)	(0.019)	(0.021)
Family income (IHS)	0.010	0.010	0.010
	(0.061)	(0.041)	(0.047)
Risk attitude score	-0.015	0.005	0.029
	(0.050)	(0.034)	(0.051)
Single (dummy)	0.023	-0.022	-0.015
	(0.065)	(0.034)	(0.047)
Married (dummy)	0.007	0.005	0.014
	(0.016)	(0.010)	(0.022)
Employed (dummy)	0.045	0.044	-0.024
	(0.072)	(0.044)	(0.041)
Self-employed (dummy)	0.014	-0.004	-0.026
	(0.035)	(0.021)	(0.028)
University degree (dummy)	0.042	0.008	-0.023
	(0.062)	(0.025)	(0.053)
Age	0.108	0.018	0.700
	(0.441)	(0.284)	(0.465)
Age squared	0.044	0.054	-0.527
	(0.464)	(0.266)	(0.398)
Number of dependent children in the household	-0.039	0.094	-0.024
	(0.142)	(0.079)	(0.069)
Urban area (dummy)	-0.090	-0.059	-0.034
	(0.067)	(0.038)	(0.033)
Unexplained	0.150	0.055	0.070
	(0.280)	(0.141)	(0.166)
N (men)	213	213	213
N (women)	547	547	547

Notes: The "explained" component is explained by group differences in the observable individual characteristics under consideration. The "unexplained" component, however, cannot be accounted for by differences in observed individual characteristics. Decompositions carried out using multiple-imputation techniques. Bootstrapped standard errors presented in parentheses are based on 1000 replicate weights. Inverse Hyperbolic Sine (IHS) transformation applied to values to deal with extreme skewness and outliers.

* p<0.1, ** p<0.05, *** p<0.01.

Source: Household Finance and Consumption Survey 2021, NBS.

Table A.4: B-O decomposition results for the probability of having a low, middle, or high level of financial literacy

	Low FL (0 or 1 correct)	Middle FL (2 correct)	High FL (3 or 4 correct)
Men	0.275***	0.314***	0.412***
	(0.017)	(0.018)	(0.020)
Women	0.357***	0.276***	0.367***
	(0.024)	(0.023)	(0.027)
Raw difference	-0.082***	0.038	0.045
	(0.028)	(0.029)	(0.032)
% difference	-25.95%	12.88%	11.55%
Explained	-0.053**	0.001	0.051*
	(0.025)	(0.024)	(0.028)
Financial self-confidence	-0.001	0.000	0.001
	(0.004)	(0.001)	(0.004)
Net wealth (IHS)	-0.001	0.001	-0.000
	(0.003)	(0.002)	(0.003)
Family income (IHS)	-0.007	0.001	0.006
	(0.011)	(0.006)	(0.012)
Risk attitude score	-0.003	-0.001	0.005
	(0.003)	(0.002)	(0.004)
Single (dummy)	-0.002	0.001	0.001
	(0.004)	(0.005)	(0.004)
Married (dummy)	-0.028	-0.011	0.039
	(0.024)	(0.026)	(0.028)
Employed (dummy)	-0.006	0.013*	-0.007
	(0.006)	(0.008)	(0.007)
Self-employed (dummy)	-0.005	0.010*	-0.006
	(0.005)	(0.006)	(0.006)
University degree (dummy)	0.004	0.007	-0.011
	(0.003)	(0.005)	(0.007)
Age	-0.019	-0.004	0.022
	(0.034)	(0.036)	(0.036)
Age squared	0.002	0.001	-0.004
	(0.039)	(0.036)	(0.037)
Number of dependent children in the household	0.006	-0.006	0.001
	(0.005)	(0.006)	(0.005)
Urban area (dummy)	-0.000	-0.002	0.002
	(0.004)	(0.005)	(0.005)
Unexplained	-0.030	0.036	-0.006
	(0.030)	(0.035)	(0.034)
N (men)	1182	1182	1182
N (women)	992	992	992

Notes: The "explained" component is explained by group differences in the observable individual characteristics under consideration. The "unexplained" component, however, cannot be accounted for by differences in observed individual characteristics. Decompositions carried out using multiple-imputation techniques. Bootstrapped standard errors presented in parentheses are based on 1000 replicate weights. Inverse Hyperbolic Sine (IHS) transformation applied to values to deal with extreme skewness and outliers.

* p<0.1, ** p<0.05, *** p<0.01.

Source: Household Finance and Consumption Survey 2021, NBS.