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Financial literacy and savings: Cross-country evidence

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Abstract

This study examines the cross-country relationship between financial literacy and national saving shares using data from 103 economies. The results show that financial literacy is positively and significantly associated with saving shares. Further analysis reveals several notable patterns: (i) countries with higher income levels tend to have higher saving rates; (ii) financial literacy is positively related to saving for both genders, with a slightly stronger association for men; and (iii) the relationship is more pronounced for the saving share of older adults than for younger cohorts. Overall, the findings suggest that higher national financial literacy is consistently linked with greater saving performance across countries, underscoring its potential importance for promoting financial resilience and inclusion in diverse economic settings.

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1. Introduction

Financial literacy is increasingly recognized as an important factor in boosting savings rates across countries. The global landscape of financial literacy shows considerable gaps, with many individuals lacking the knowledge and skills needed to manage their finances effectively, which directly affects their saving behavior (Lusardi & Mitchell, 2011; Lusardi & Mitchell, 2014; Douissa, 2020; Potrich, 2016; Morgan & Quang, 2020). For example, research has shown that individuals with higher financial literacy are more likely to engage in long-term savings and retirement planning, while those with lower literacy tend to save less and are more vulnerable to financial shocks (Litwin & Meir, 2013; Klapper, Lusardi, & Van Oudheusden, 2015; García & Vila, 2020). The Global Findex database highlights that in many developing countries, less than half of the population has basic financial knowledge, limiting their ability to accumulate savings (Demirgüç-Kunt et al., 2018).

Such findings underscore the urgent need to improve financial literacy worldwide, as better literacy is associated with better financial outcomes including increased savings rates (Xu & Zia, 2012; Lusardi, 2023). Previous research has shown that higher levels of financial literacy have a clear positive impact on financial inclusion across countries. Individuals and households in countries with greater financial literacy are more likely to participate in formal financial systems, make informed saving and investment decisions, and adopt better financial management practices. This cross-country evidence highlights the crucial role of financial literacy in fostering effective saving behavior and overall financial well-being at the national level, providing a strong rationale for policies and programs aimed at improving financial knowledge and capabilities (Delis et al., 2018).

However, are these beliefs and arguments supported by empirical studies? While previous studies exist, they have predominantly focused on specific group samples, leaving the broader cross-country relationship between financial literacy and saving largely unexplored. In addition, although other studies mention that there is a positive effect of financial literacy on savings, the research conducted is also limited to the scope of groups.

This paper offers a different approach by analyzing cross-country data from 103 countries, which provides a broader perspective. Furthermore, we complement the analysis by examining whether the association between financial literacy and savings differs across income levels, gender, and age groups. In doing so, we contribute new cross-country evidence on how financial literacy tends to be associated with higher savings.

Our findings reveal that, at the cross-country level, financial literacy is positively and significantly associated with saving shares. Moreover, countries with higher income levels tend to exhibit higher saving rates. When considering subgroup outcomes, financial literacy is positively related to saving for both genders, with a slightly stronger association for men. The relationship also appears more pronounced for the saving share of older adults than for younger cohorts.

This research contributes to the growing literature. To the best of our knowledge, this is one of the first studies to examine the association between financial literacy and savings using a cross-country dataset covering 103 countries. Most previous research has

analyzed this relationship within a single country or for specific sub-populations (Gilenko & Chernova, 2021; Estrada-mejia et al., 2023). Therefore, the results of our study provide broader cross-country evidence that may help policymakers in designing financial education strategies for the general public.

The rest of the paper is organized as follows. Section 2 describes the data and methodology. Section 3 presents the main results, while Section 4 reports a series of robustness tests to verify the stability of the findings. Section 5 concludes and discusses the broader implications of the study.

2. Data and Methodology

This paper aims to determine the association between financial literacy and savings. To do so, we collect data from various sources. The dependent variable is the share of adults aged 15 and above who report having saved or set aside money for any reason during the past year, taken from the Global Findex 2017[1], and financial literacy data are taken from the S&P Global Financial Literacy Survey 2014. The temporal gap arises because the 2014 survey is the most recent globally comparable dataset on financial literacy. We assume that financial literacy levels remain relatively stable over the three-year period, allowing us to analyze their association with saving behavior in 2017.

Several control variables are included, obtained from the World Bank's World Development Indicators (WDI), i.e., GDP per capita, inflation rate, account ownership at a financial institution or with a mobile-money service provider (disaggregated by education level—secondary or higher, and primary or less), age dependency ratios, duration of secondary education, and urban population share. These controls help account for macroeconomic and demographic factors that may influence national saving rates (Molina-García et al., 2023).

A description of each variable is presented in Table 1. After merging datasets, the final sample consists of 103 countries with complete information. The baseline regression model is specified as follows:

$$\text{SaveShare}_i = \alpha + \beta \text{FL}_i + \text{X}_i'\gamma + \varepsilon_i \quad (1)$$

SaveShare_i denotes the saving share of country i (% of adults aged 15+ who saved any money). FL_i denotes the financial literacy level of country i, while X_i represents the set of control variables. Finally, ε_i is the error term. To further address unobserved regional heterogeneity, we include region fixed effects in all regressions. Regions are grouped as follows: Europe & Central Asia, Latin America & Caribbean, Middle East & North Africa, North America, South Asia, and Sub-Saharan Africa. All regressions are estimated using Ordinary Least Squares (OLS) with heteroskedasticity-robust standard errors.

[1] The data available for savings are 2014, 2017, 2021. However, the main analysis we use is for 2017 and the results are the same or similar to those in 2014 and 2021. These additional results are not reported for brevity, but are available in the online appendix.

Table 1. Variable description.

Variables	Description	Source
FL	The percentage of adults who are financially literate around the world (2014)	Standard & Poor's Ratings Services Global Financial Literacy Survey
SaveShare	The percentage of respondents who report personally saving or setting aside any money for any reason and using any mode of saving in the past year, total (% age 15+, 2017)	World Bank's GFI Database
*ln*GDP	Natural logarithm of GDP per capita (constant LCU, 2017).	World Bank's WDI
Inflation	Inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly (annual % growth, 2017).	World Bank's WDI
Own_Sec	Account ownership at a financial institution or with a mobile-money-service provider, secondary education or more (% of population ages 15+, 2017)	World Bank's WDI
Own_Pri	Account ownership at a financial institution or with a mobile-money-service provider, primary education or less (% of population ages 15+, 2017)	World Bank's WDI
Age_Dep	The ratio of dependents--people younger than 15 or older than 64–to the working-age population–those ages 15-64 (% of working-age population, 2017)	World Bank's WDI
Duration	Secondary duration refers to the number of grades (years) in secondary school (year, 2017)	World Bank's WDI
*ln*Urban	Natural logarithm of urban population refers to people living in urban areas as defined by national statistical offices (% of total population, 2017)	World Bank's WDI
Age_Old	The ratio of older dependents–people older than 64–to the working-age population–those ages 15-64 (% of working-age population, 2017)	World Bank's WDI
*ln*Age_Yo	Natural logarithm of the ratio of younger dependents–people younger than 15–to the working-age population–those ages 15-64 (% of working-age population, 2017)	World Bank's WDI

3. Results and Discussions

This section presents the empirical relationship between financial literacy and saving. For the baseline results, we test the relationship between financial literacy and savings (Table 2), we then extend the analysis as follows: (i) we analyze whether this trend differs across countries with different income levels (Table 3); (ii) we investigate differences based on gender (Table 4); and (iii) we explore whether this relationship varies across different age groups (Table 5).

Table 2. Baseline results: financial literacy and savings.

	(1)	(2)
FL	1.398***	0.897***
	(0.115)	(0.233)
*ln*GDP		–0.148*
		(0.086)
Inflation		–0.043
		(0.080)
Own_Sec		0.235*
		(0.120)
Own_Pri		0.066
		(0.087)
Age_Dep		0.084
		(0.088)
Duration		–3.028
		(3.226)
*In*Urban		0.042
		(0.107)
Age_Old		0.044
		(0.085)
*ln*Age_Yo		–0.097
		(0.189)
Region FE	No	Yes
Observations	103	103
R-squared	0.442	0.624

Robust standard errors are reported in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

Table 2 summarizes the regression results with saving as the dependent variable. The coefficient of financial literacy is positive and significant in both Model (1), which excludes control variables, and Model (2), which includes them. This indicates that countries with higher levels of financial literacy tend to exhibit higher saving rates. The estimated coefficient is larger in Model (1) (1.398) than in Model (2) (0.897), suggesting that part of the observed association between financial literacy and savings is explained by macroeconomic factors captured by the control variables. The negative coefficient on GDP per capita, though statistically weak, likely reflects structural differences across

countries—richer economies often have deeper credit markets and social safety nets that reduce the need for private saving (Brueckner et al., 2023). Nevertheless, the consistent positive and significant association between financial literacy and saving behavior across countries highlights its strong link with national saving outcomes. Similar findings are reported by Lusardi & Mitchell (2011) and Gilenko & Chernova (2021), who show that financial literacy has a crucial role in savings and portfolio decisions. This result is reasonable because financially literate individuals are more likely to manage their resources effectively and allocate them toward savings (Litwin & Meir, 2013). In addition, financially literate individuals are usually more adept at managing budgets and planning their finances. They tend to limit consumptive spending and allocate funds for long-term savings (Litwin & Meir, 2013). This creates financial discipline that leads to additional savings (Klapper et al., 2013). Similarly, Grohmann et al. (2018) find that higher levels of financial literacy have a clear positive impact on financial inclusion across countries, as financially literate individuals and households are more likely to participate in formal financial systems, make informed saving and investment decisions, and adopt better financial management practices.

Based on these findings, we extend the analysis by examining heterogeneity across income levels. Following the World Bank classification, we group countries into two categories: high income (high and upper-middle income) and low income (lower-middle and low income). We re-estimate Equation (1) by including an interaction term between financial literacy and the high-income dummy, as follows:

$$\text{SaveShare}_i = \alpha + \beta_1 \text{FL}_i + \beta_2 \text{High Income}_i + \beta_3 \text{FL}_i * \text{High Income}_i + X_i'\gamma + \varepsilon_i \quad (2)$$

where HighIncome_i is a dummy variable equal to 1 for high- and upper-middle-income countries, and 0 for low- and lower-middle-income countries.

The results in Table 3 show that the interaction coefficient is positive and statistically significant, suggesting that the association between financial literacy and saving is stronger in higher-income countries. These findings are consistent with Holzmann (2010) that high-income countries generally implement broader and more integrated financial literacy programs within their education and labor systems, which in turn contribute to stronger savings compared to low-income economies. This pattern is also consistent with the findings of Honohan (2008), who observed that access to savings accounts and formal financial services is substantially higher in high-income countries than in low-income countries.

Second, we expand our analysis by examining the relationship between financial literacy and savings based on gender. This approach complements the baseline analysis by providing additional insights into whether the association between financial literacy and saving differs when comparing male and female saving outcomes across countries. We use gender-disaggregated saving data (men and women aged 15+) from the World Bank's Global Findex 2017. In particular, we re-estimate Equation (1) by replacing the dependent variable with gender-disaggregated national saving shares for men and women. The results indicate that financial literacy is positively associated with saving for both genders, with the coefficient for male saving share being slightly higher than that

for females (Table 4). This suggests that higher national financial literacy is linked to higher saving rates for both men and women, although the association appears marginally stronger for men. The small difference in magnitude implies that financial literacy is similarly relevant for promoting saving behavior across genders at the aggregate level.

Table 3. Interaction between financial literacy and income level.

	(1)
FL	0.098
	(0.395)
High Income	–30.036*
	(15.174)
FL * High Income	1.158**
	(0.450)
Control	Yes
Region FE	Yes
Constant	55.394
	(38.797)
Observations	103
R-squared	0.758

Robust standard errors are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 4. Financial literacy and gender-specific saving shares.

	Female	Male
FL	0.819***	0.874***
	(0.206)	(0.212)
Control	Yes	Yes
Region FE	Yes	Yes
Constant	44.920	65.611
	(48.915)	(54.675)
Observations	103	103
R-squared	0.614	0.599

Notes: Robust standard errors are reported in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1. Column *Female* reports results where the dependent variable is the share of women aged 15+ who reported saving any money in the past year, while column *Male* uses the corresponding share for men (Global Findex 2017).

Finally, we further examine whether the association between financial literacy and saving differs when the dependent variable is the saving share for younger adults (ages 15–24) versus older adults (ages 25 and above). The results presented in Table 5 show that financial literacy is positively and statistically significant for the older saving share, while the coefficient for the younger saving share is positive but not statistically significant. This indicates that countries with higher aggregate financial literacy tend to have higher saving rates among older adults, whereas the association is weaker and less precisely estimated for younger adults. The pattern is consistent with the notion that older cohorts—at the aggregate level—are more able to translate financial knowledge into

saving behavior, reflecting accumulated financial experience and longer exposure to financial decision-making (Van Rooij et al., 2011).

Table 5. Financial literacy and age-specific saving shares.

	Older	Young
FL	0.955***	0.331
	(0.198)	(0.251)
Control	Yes	Yes
Region FE	Yes	Yes
Constant	43.755	109.603
	(51.728)	(48.023)
Observations	103	103
R-squared	0.635	0.443

Robust standard errors are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1

4. Robustness Tests

To ensure that the main findings are not sensitive to model specification, sample composition, or the choice of observation year, we conducted a series of robustness tests.[2] First, we re-estimate the baseline specification using alternative dependent variables from the Global Findex database, namely the saving rates in 2014 and 2021 instead of 2017. Financial literacy remains positively and significantly associated with saving in both years, indicating that the observed relationship is stable over time.

Second, we use alternative saving outcomes from the 2017 Findex dataset, including saving at a bank or a similar financial institution, saving using a savings club or through a person outside the family, and saving for old age. The results show that the coefficients of financial literacy remain positive across all saving measures, but statistical significance is found only for formal saving. This suggests that financial literacy is primarily associated with higher formal saving rather than informal or long-term saving motives.

Third, we address the fractional nature of the dependent variable by re-estimating the baseline specification using a fractional logit estimator and reporting the average marginal effects (AMEs). The AMEs confirm that financial literacy remains positively and significantly associated with saving, supporting the validity of the OLS estimates. Fourth, we verify the robustness of the results using population-weighted regressions, where each country is weighted by its total population to account for size heterogeneity. The results show that the coefficient of financial literacy remains positive and significant, suggesting that the findings are not driven by country size.

Finally, we conduct influence diagnostics and leave-one-out robustness tests. The results indicate that most countries exert moderate influence on the regression results. A few observations—such as Canada, Greece, Mongolia, Myanmar, and Norway—show higher influence but remain within acceptable limits. Re-estimating the model after excluding these top five influential cases yields nearly identical results, confirming that the main findings are not driven by outliers. Taken together, these robustness checks

[2] For brevity, the results of the robustness tests are not reported, but are available in the online appendix.

demonstrate that the positive relationship between financial literacy and saving is stable across alternative outcome measures, estimation techniques, and sample compositions.

5. Conclusion

This study examines the relationship between financial literacy and savings using data from 103 countries. We find that financial literacy is positively and significantly associated with national saving shares, and that this relationship varies across income groups, genders, and age cohorts. Specifically, the association tends to be stronger in higher-income countries, among men, and for older adults' saving shares. The results remain robust to alternative specifications, including different years and definitions of saving outcomes, population-weighted regressions, and alternative estimators such as fractional logit models. Additional influence diagnostics confirm that the findings are not driven by a small set of outlier countries. Taken together, the evidence highlights a consistent and robust positive association between financial literacy and national saving performance. Although the analysis is correlational, the evidence suggests that enhancing financial literacy may contribute to higher saving rates—particularly in low- and lower-middle-income countries and among younger populations, where the association appears weaker. Expanding targeted financial education and inclusion programs for these groups could help build saving habits and strengthen financial resilience.

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