Assessing financial literacy among the young

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Financial literacy and the young

- Excited to do this presentation during Global Money Week

- There is research and data for 15-year-old students, thanks to the OECD- Programme for International Student Assessment (PISA)

- Financial literacy is an essential life skill

- Managing money is more important than ever

New publication

Special issue of the Journal of Financial Literacy and Wellbeing on data sets to study financial literacy (April 2024 issue)

The importance of financial literacy

- Financial literacy has gained recognition as **an essential life skill :**
  - Individuals and households face a **wide array of complex financial products**
  - The recent increase in **inflation** in many countries further underlines the importance of financial literacy
  - With **new technologies**, such as digital transactions, online banking, and crypto assets, financial literacy is also critical for scam avoidance and wise money management
  - The shift away from traditional **pension** schemes in many countries places additional responsibility on individuals to secure their future
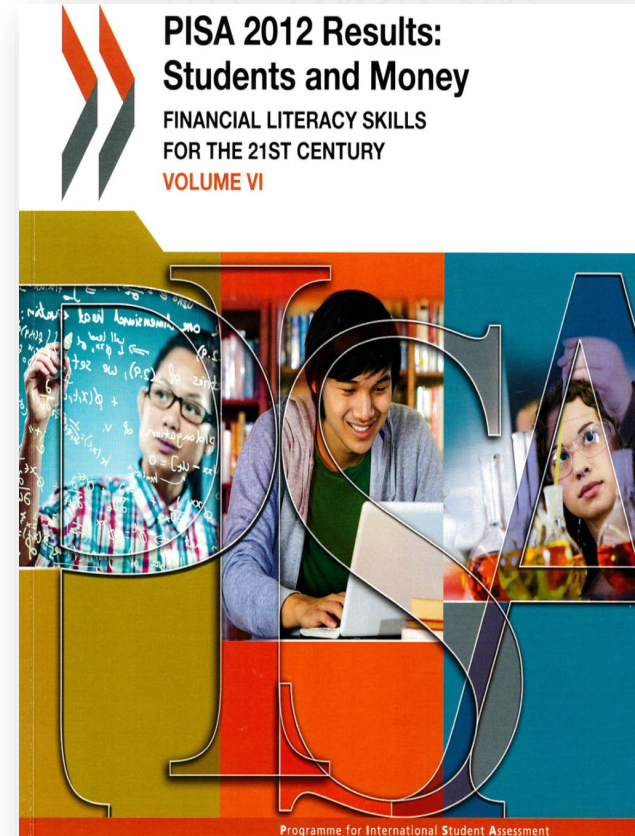
Definition of financial literacy in PISA

"Financial literacy is knowledge and understanding of financial concepts and risks, as well as the skills and attitudes to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life."

(Discussion in A. Lusardi, Journal of Consumer Affairs, 2015)

Financial literacy in PISA since 2012

- PISA provides **unique global data** to explore the state of financial literacy among the young.

- The four financial literacy assessments conducted in 2012, 2015, 2018, and 2022 offer rich insights into **global trends and variations in financial literacy**, attitudes, and behaviors among 15-year-old students.

- **Standardized testing framework** used in PISA allows for meaningful comparisons across countries and over time, despite some changes in the conceptual model and assessment protocols across waves

PISA 2012 Results:
Students and Money
FINANCIAL LITERACY SKILLS
FOR THE 21ST CENTURY
VOLUME VI

Programme for International Student Assessment

Operationalization of the domain (OECD 2023)

Content areas	
	❖ Money and transactions
	❖ Planning and managing finances
	❖ Risk and reward
	❖ Financial landscape
Cognitive processes	
	➢ Identify financial information
	➢ Analyse financial information and situations
	➢ Evaluate financial issues
	➢ Apply financial knowledge and understanding
Contexts	
	▪ Education and work
	▪ Home and family
	▪ Individual
	▪ Societal

Example test question

Last year, Steve's motorbike was insured with the PINSURA insurance company. The insurance policy covered damage to the motorbike from accidents and theft of the motorbike.

Steve plans to renew his insurance with PINSURA this year, but a number of factors in Steve's life have changed since last year. How is each of the factors in the table likely to affect the cost of Steve's motorbike insurance this year? Circle "Increases cost", "Reduces cost" or "Has no effect on cost" for each factor.

Factor	How is the factor likely to affect the cost of Steve's insurance?
Steve replaced his old motorbike with a much more powerful motorbike.	Increases cost / Reduces cost / Has no effect on cost
Steve has painted his motorbike a different colour.	Increases cost / Reduces cost / Has no effect on cost
Steve was responsible for two road accidents last year.	Increases cost / Reduces cost / Has no effect on cost

Note: This figure shows an edited version of the financial literacy item "motocycle insurance" from the Financial Literacy Sample Items and Scoring Guides (OECD 2013). Source: OECD (2013).

PISA financial literacy scores

- PISA follows a rigorous process to ensure the validity, reliability, and cross-country comparability of financial literacy data

- The PISA financial literacy scale is defined to have a mean of 500 points and a standard deviation of 100 points as the OECD average

- The table in the next slides illustrates what students are expected to be able to do at the respective proficiency levels

Proficiency levels (OECD 2023)

Level	Description of expected student abilities
1 326 to less than 400 points	Students can identify common financial products and terms and interpret information relating to basic financial concepts. They can recognise the difference between needs and wants and can make simple decisions on everyday spending. They can recognise the purpose of everyday financial documents such as an invoice and apply single and basic numerical operations (addition, subtraction or multiplication) in financial contexts that they are likely to have experienced personally.
2 400 to less than 475 points	Students begin to apply their knowledge of common financial products and commonly used financial terms and concepts. They can use given information to make financial decisions in contexts that are immediately relevant to them. They can recognise the value of a simple budget and can interpret prominent features of everyday financial documents. They can apply single basic numerical operations, including division, to answer financial questions. They show an understanding of the relationships between different financial elements, such as the amount of use and the costs incurred.
3 475 to less than 550 points	Students can apply their understanding of commonly used financial concepts, terms and products to situations that are relevant to them. They begin to consider the consequences of financial decisions and they can make simple financial plans in familiar contexts. They can make straightforward interpretations of a range of financial documents and can apply a range of basic numerical operations, including calculating percentages. They can choose the numerical operations needed to solve routine problems in relatively common financial literacy contexts, such as budget calculations.

Proficiency levels (OECD 2023)

| Level	Description of expected student abilities
4 (550 to less than 625 points)	Students can apply their understanding of less common financial concepts and terms to contexts that will be relevant to them as they move towards adulthood, such as bank account management and compound interest in saving products. They can interpret and evaluate a range of detailed financial documents, such as bank statements, and explain the functions of less commonly used financial products. They can make financial decisions taking into account longer-term consequences, such as understanding the overall cost implication of paying back a loan over a longer period, and they can solve routine problems in less common financial contexts.
5 (Equal to or higher than 625 points)	Students can apply their understanding of a wide range of financial terms and concepts to contexts that may only become relevant to their lives in the long term. They can analyse complex financial products and can take into account features of financial documents that are significant but unstated or not immediately evident, such as transaction costs. They can work with a high level of accuracy and solve non-routine financial problems, and they can describe the potential outcomes of financial decisions, showing an understanding of the wider financial landscape, such as income tax.

Overview of participating countries over time

Notes: This figure shows the number of PISA-FL participations at the country level. Note that in some cases only a part of the country was tested. This includes Shanghai in China and the Flemish community in Belgium in the 2012 assessment, Beijing, Shanghai, Jiangsu, Guangdong in China, the Flemish community in Belgium, and Canadian provinces in Canada since the 2015 assessments. Note, that data for Australia in 2015 and 2018 is not included in the public datasets. Source: Authors' calculations based on official OECD PISA data.

Some information about the four waves of PISA finlit data

Wave	Participating Economies	Non-OECD Countries	Observations (Students)	Test Items
2012	18	5	29,041	40
2015	15	5	123,041	43
2018	20	7	107,174	43
2022	20	6	97,983	43

Notes: This table shows wave-specific characteristics regarding participation in PISA financial literacy assessment. As in figure 1, separate assessments in country regions were combined with the respective economy. Note, that data for Australia in 2015 and 2018 is not included in the public datasets.

Source: Authors' calculations based on official OECD PISA data.

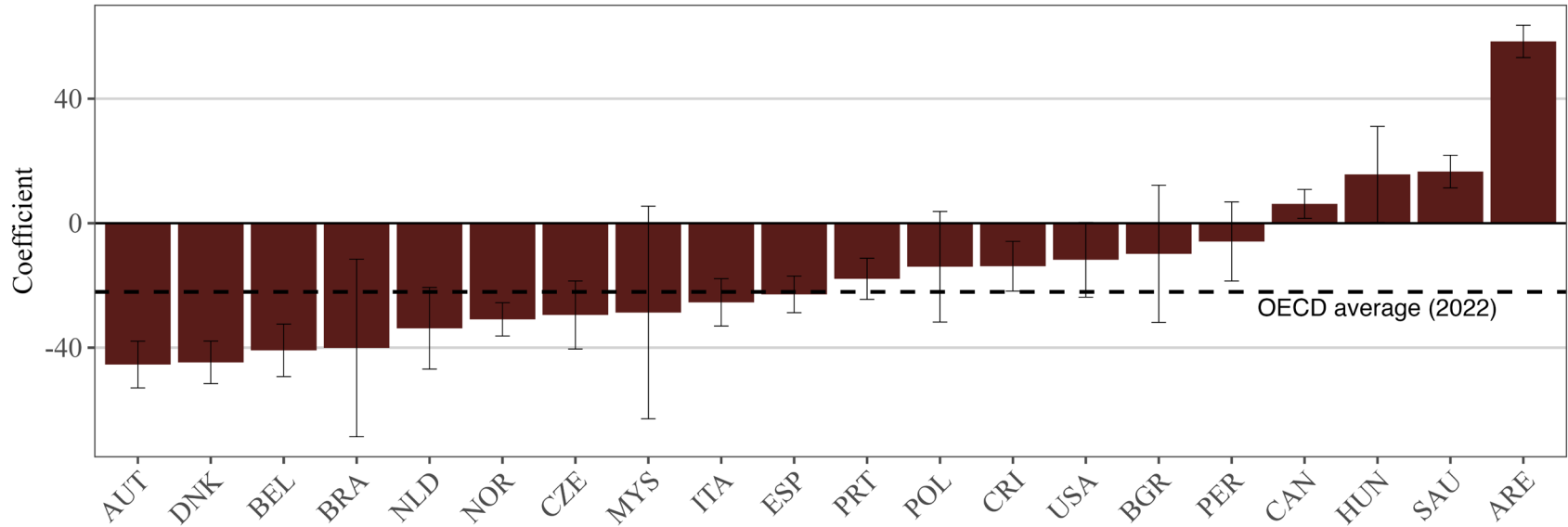# Trends over time for countries participating in every wave
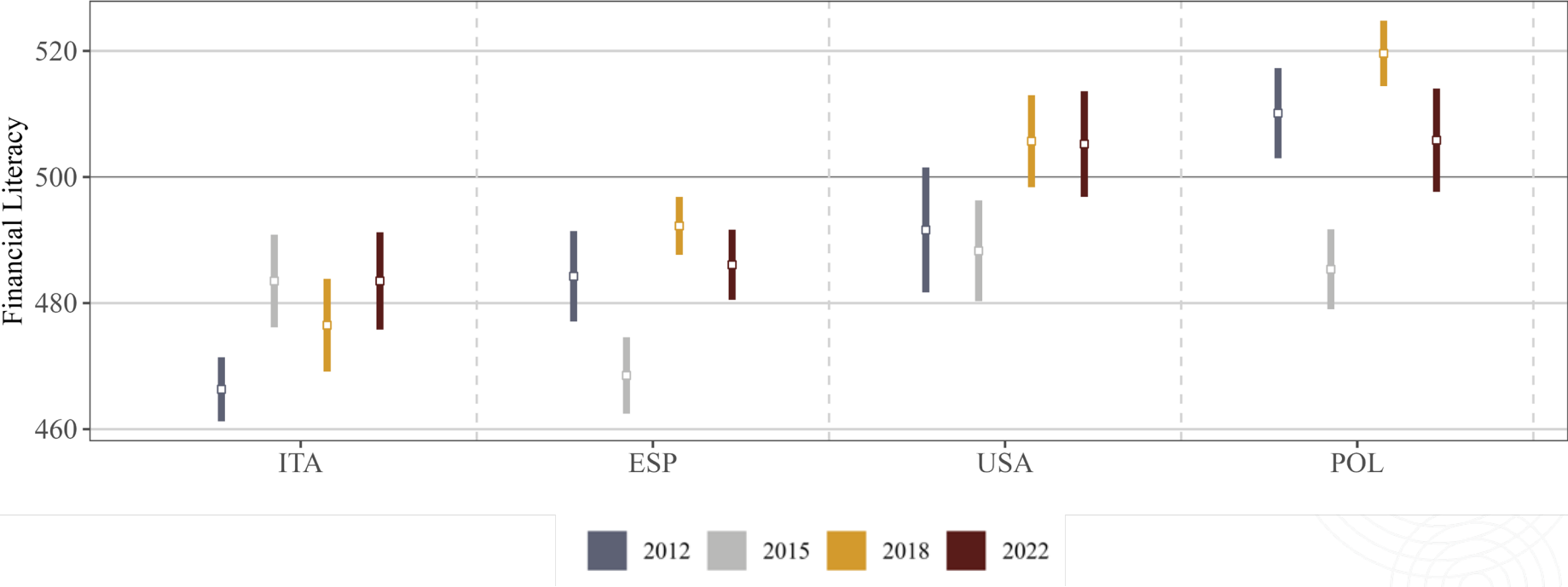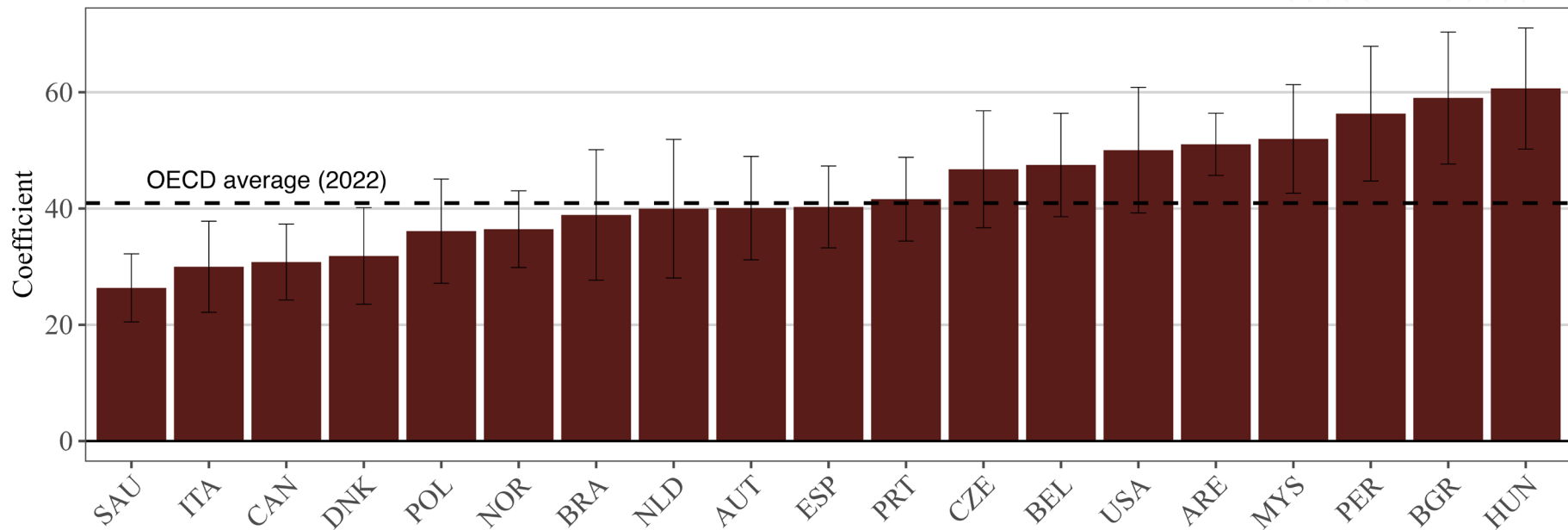
Focus on 2022 wave: Results
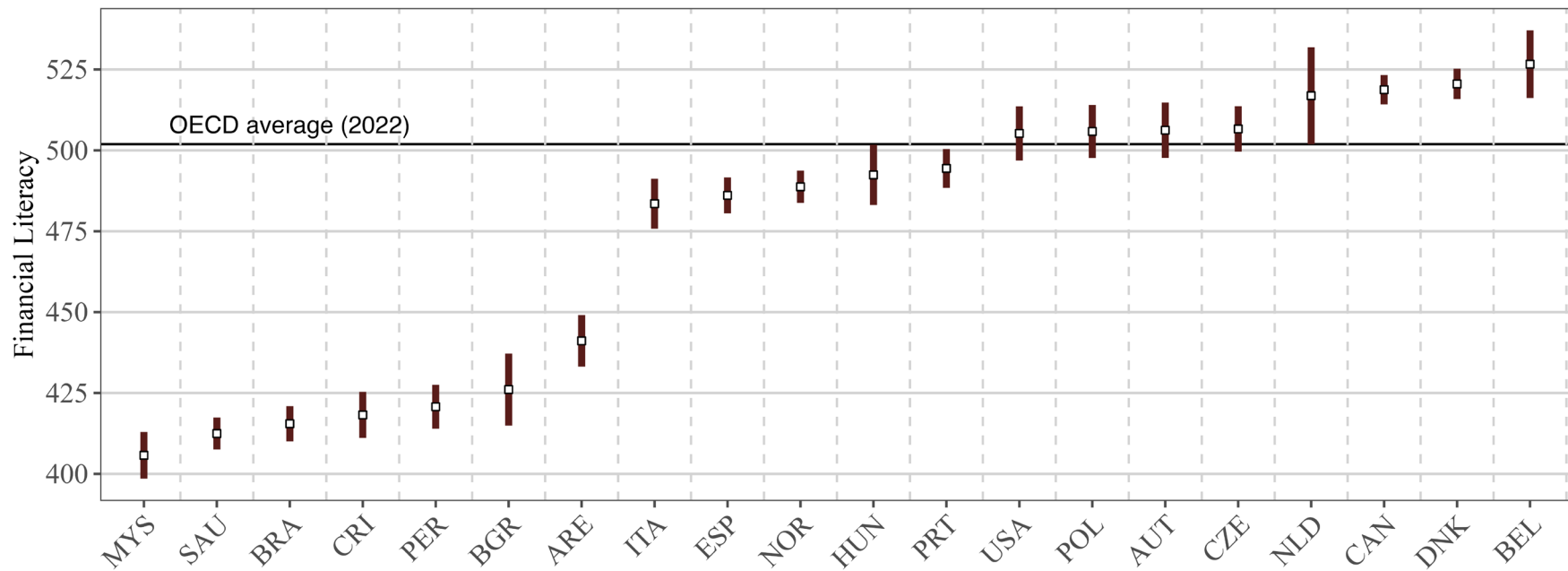
Gender gap in financial literacy (2022)
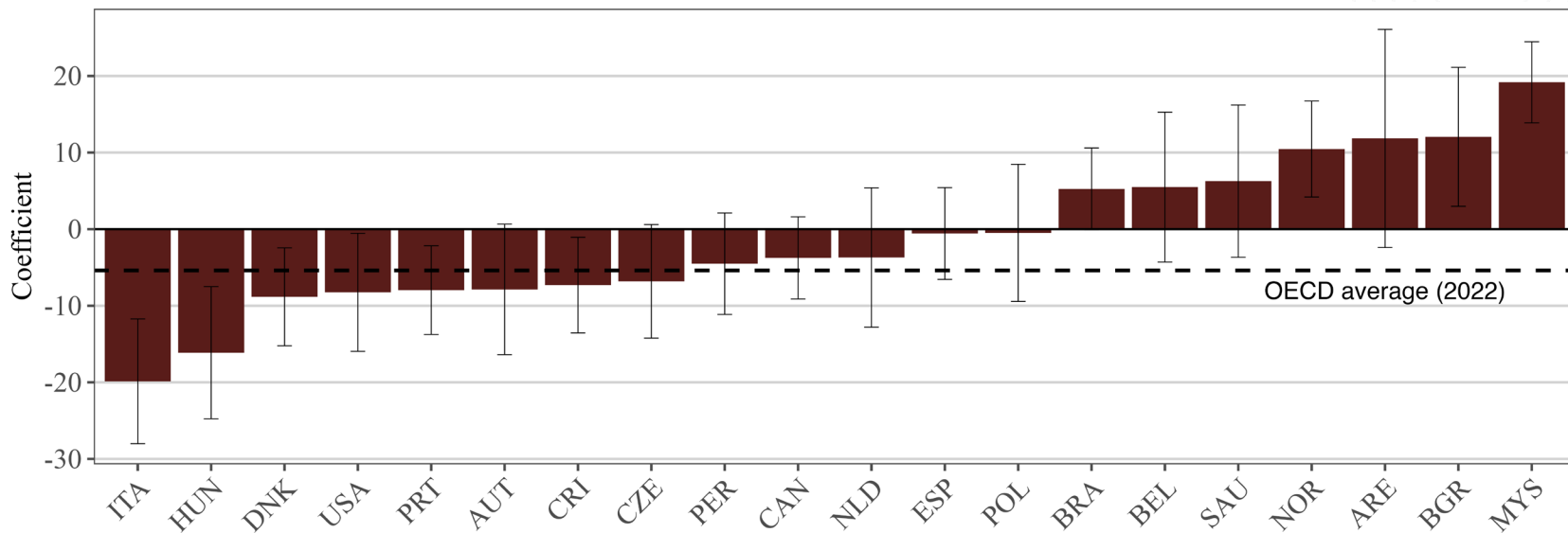
Immigrant-background-native gap in financial literacy (2022)

Parental socioeconomic status (HISEI) gap (2022)

OECD average (2022)

Pooled correlates by wave

	2012	2015	2018	2022
Female (1/0)	-2.774* [1.477]	4.253*** [0.965]	-1.956** [0.755]	-5.695*** [0.959]
Migrant-Background (1/0)	-18.56*** [2.232]	-15.951*** [1.555]	-10.068*** [1.273]	-4.338*** [1.263]
High HISEI (1/0)	49.076*** [1.708]	49.992*** [1.354]	44.088*** [0.99]	42.244*** [1.059]
N (students)	27,264	105,191	93,580	80,846
N (schools)	1,178	4,385	6,438	5,972
Adj.R²	0.174	0.242	0.284	0.181

Notes: This table shows multiple regressions with financial literacy scores (imputed by plausible values) as the dependent variable for each wave separately. The dependent variables are standardized to have a mean of 500 and a standard deviation of 100 based on the OECD mean in 2012. parents' highest occupational status (High HISEI) takes the value 1, if the participant is the highest quarter of the distribution, 0 otherwise. Standard errors are clustered at the school level. All regression models include country-fixed effects and senate weights. *p<0.01, **p<0.05, ***p<0.01.

Source: Authors' calculations based on official OECD PISA data.

Summary and comments

- Comprehensive information provided by the PISA financial literacy assessments offers a valuable resource for researchers and policymakers

- Higher socioeconomic status is consistently linked to better financial literacy scores, likely due to greater access to educational resources and support.

- Immigrant background and gender also play a role, although patterns vary across countries. For instance, some countries show gender gaps favoring male students, while others exhibit higher financial literacy levels among females.

- Given the importance of demographic, socioeconomic, and educational factors, it will be important to **design policies and programs that provide better access to financial education to the more vulnerable groups**.

Initiative for Financial Decision-Making (IFDM)

Collaboration among:

Our aim is to transform personal finance education.

Personal finance (Econ 43) at Stanford University

- When the course first opened in 2020, 362 students signed up. It is one of the most popular courses in Economics

- Last academic year, we taught 3 courses on Personal Finance targeting different students, including during the summer term

- We are also preparing a course for Continuing Education.

The eco-system at Stanford University related to personal finance

- We have a Personal Finance Lab devoted to peer learning and run by students

- We hold a monthly Financial Literacy Colloquia series

- We run a Network (the G53 Network) of researchers working on finlit/personal finance topics

- We have an annual research conference and a teaching personal finance conference

Annual Teaching Personal Finance Conference

Raising attention at the global level

- President Lagarde hosted International Women's Day event on closing the gender gap in financial literacy, starting from the young

- One of the five recommendations from the event is about financial education in schools

World Economic Forum (WEF)

- The World Economic Forum has embraced financial literacy

- One of their Global Future Councils in 2025-2026 will be devoted to financial education

- We are co-chairing that Council.

Network of Global Future Councils

The World Economic Forum's Network of Global Future Councils is the world's foremost multistakeholder and interdisciplinary knowledge network dedicated to promoting innovative thinking to shape a more resilient, inclusive and sustainable future. Each council's insights are taken forward by the Forum's ongoing initiatives, communities and meetings to ensure impact.

Global Future Council on Financial Education
Amidst the rise of individual investing, innovation in financial products and tools, and economic uncertainty, it is essential to reimagine the future of financial education to ensure individuals can access the information and products needed to achieve long-term financial wealth. With the onus of financial wellbeing increasingly falling on individuals, how can we empower people with the skills they need to navigate this challenging and evolving economic landscape?

Like water in an eco-system

We need to provide wide access to financial education so that people can be more financially resilient and financially secure. **Financial literacy is like water in an eco-system, it is needed to grow and flourish.**