

## Overview: Students' financial literacy

Financial literacy is now globally recognised as an essential life skill. The PISA financial literacy assessment provides a picture of 15-year-olds' ability to apply their financial knowledge and skills to real-life situations involving financial issues and decisions. This report looks at how students' financial literacy varies across and within the 15 participating countries and economies, and how it is associated with student characteristics such as gender, socio-economic status and immigrant background. It also examines the association between students' financial literacy and their experience with money matters and their expectations for the future.



Over the past decades, financial literacy has been increasingly recognised globally as an essential life skill, particularly among young people. This initially stemmed from concern about the potential impact of shrinking public and private welfare systems, shifting demographics, including the ageing of the population in many countries, and the increased sophistication and expansion of financial services. As many young people face financial decisions and are consumers of financial services in this evolving context, developed and emerging countries and economies have become increasingly concerned about the level of financial literacy of their citizens.

Financial education is acknowledged as a complement to financial consumer protection, inclusion and regulation, as a way to improve individual decision making and well-being, and to support financial stability and development. Indeed, 7 out of the 15 countries and economies that participated in the PISA 2015 assessment of financial literacy – Australia, Brazil, Canada, the Netherlands, the Russian Federation (hereafter "Russia"), Spain and the United States – have developed a national strategy for financial education specifically addressing young people among their target audiences. Most of the participating countries and economies – Australia, the Flemish Community of Belgium, Brazil, Canada, China, Italy, Lithuania, the Netherlands, Peru, Russia, the Slovak Republic, Spain and the United States – started introducing financial topics in the curriculum or have developed financial education pilot programmes in school.

# The OECD countries and economies of Australia, the Flemish Community of Belgium, the participating Canadian provinces and the Netherlands, as well as the partner countries and economies of Beijing-Shanghai-Jiangsu-Guangdong (China) and the Russian Federation perform above the OECD average in financial literacy.

The PISA financial literacy assessment provides an overall picture of 15-year-olds' ability to apply their accumulated knowledge and skills to real-life situations involving financial issues and decisions. Among the ten participating OECD countries and economies, the Flemish Community of Belgium and the participating provinces of Canada (British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario and Prince Edward Island) rank between first and second. They also rank between second and third among all countries and economies, following Beijing-Shanghai-Jiangsu-Guangdong (China) (hereafter "B-S-J-G [China]"), which ranks first overall. Two other OECD countries, namely Australia and the Netherlands, perform above the OECD average.

### Across the participating OECD countries and economies, 22% of students are low performers while only 12% are high performers.

The single continuous scale of financial literacy is divided into five levels. Questions at Level 1 are considered to be the easiest. At best, students performing at Level 1 can recognise the difference between needs and wants, can make simple decisions on everyday spending, and can recognise the purpose of everyday financial documents, such as an invoice. Level 2 is considered the baseline level of proficiency in financial literacy that is required to participate in society.

Across the 10 participating OECD countries and economies, 22% of students score below the baseline level of proficiency in financial literacy, on average. Even in some high- and middle-performing OECD countries and economies, the percentage of students performing below the baseline level of proficiency is not negligible. In the United States, about 22% of students score below the baseline level, as do about 20% of students in Australia, Italy and Poland, and 19% of students in the Netherlands. By contrast, among high-performing OECD countries and economies, only slightly more than one in ten students in the Flemish Community of Belgium (12%) and the participating Canadian provinces (13%) perform at or below Level 1.

In some low-performing OECD countries, more than 30% of students score below the baseline level: Chile (38%) and the Slovak Republic (35%). Among partner countries and economies, more than 40% of students in Brazil (53%) and Peru (48%) score below the baseline level, while in Russia, 11% of students perform at this level. Some 9% of students in B-S-J-G (China) and 32% of students in Lithuania perform at Level 1 or below. In Brazil, Chile, Lithuania, Peru and the Slovak Republic, there are more students who score at Level 1 than at any other proficiency level (Table IV.3.2).

Level 5 questions are considered to be the most challenging for 15-year-old students at the end of compulsory education. Students performing at Level 5 can look ahead to solve financial problems or make the kinds of financial decisions that will be only relevant to them in the future. They can take into account features of financial documents that are significant but unstated or not immediately evident, such as transaction costs, and they can describe the potential outcomes of financial decisions, showing an understanding of the wider financial landscape, such as income tax.

Across the 10 participating OECD countries and economies, slightly more than one in ten (12%) students are proficient at Level 5, on average. About one in four students in the Flemish Community of Belgium (24%) performs at Level 5 as does about one in three students in B-S-J-G (China) (33%). Among OECD countries and economies, between 10% and



25% of students perform at Level 5 in Australia (15%), the participating Canadian provinces (22%), the Netherlands (18%) and the United States (10%). Less than 10% of students in Chile (3%), Italy (6%), Poland (8%), the Slovak Republic (6%) and Spain (6%) perform at this level. Among the remaining partner countries and economies, about 11% of students in Russia and less than 5% of students in Brazil, Lithuania and Peru perform at this highest level.

Figure IV.1.1 • Snapshot of performance in financial literacy



	Peri	formance in financial lite	racy	Student performance in financial literacy compared to performance in mathematics and reading			
	Mean score in PISA 2015	Share of low performers (Level 1 or below)	Share of top performers (Level 5)	Relative performance <sup>1</sup> in financial literacy, compared with students with similar performance in mathematics and reading	Percentage of students who perform above their expected score <sup>2</sup>	Variation in financial literacy performance associated with mathematics and reading performance <sup>3</sup>	
	Mean	%	%	Score dif.	%	%	
OECD average	489	22	12	-11	44.2	62	
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B-S-J-G (China)	566	9	33	40	72.6	69	
Belgium (Flemish)	541	12	24	14	59.6	70	
Canadian provinces	533	13	22	8	55.1	53	
Russia	512	11	11	9	55.4	45	
Netherlands	509	19	17	-8	45.6	71	
Australia	504	20	15	-3	49.1	71	
United States	487	22	10	-3	48.3	70	
Poland	485	20	8	-29	32.8	62	
Italy	483	20	6	-14	41.8	52	
Spain	469	25	6	-30	32.4	58	
Lithuania	449	32	4	-36	29.6	58	
Slovak Republic	445	35	6	-29	36.6	48	
Chile	432	38	3	-16	40.9	62	
Peru	403	48	1	1	51.6	68	
Brazil	393	53	3	-8	46.9	47	

<sup>1.</sup> The relative performance is the difference between actual performance and the fitted value from a regression of financial literacy performance on mathematics and reading performance.

Note: Values that are statistically significant are indicated in bold (see Annex A3).

Countries and economies are ranked in descending order of the mean financial literacy score in PISA 2015.

Source: OECD, PISA 2015 Database, Tables IV.3.1, IV.3.2, IV.3.10a and IV.3.11.

StatLink | http://dx.doi.org/10.1787/888933484991

### Between 2012 and 2015, performance in financial literacy changed in different ways across countries and economies.

Financial literacy was assessed in both PISA 2012 and PISA 2015. Eight countries and economies participated in both assessments, including seven OECD countries and economies: Australia, the Flemish Community of Belgium, Italy, Poland, the Slovak Republic, Spain and the United States; and one partner country: Russia. However, changes in financial literacy performance over time should be interpreted with caution due to changes in how the financial literacy assessment was conducted.

Two countries improved significantly in average financial literacy: Italy (where the mean score increased by 17 points between 2012 and 2015) and Russia (where it improved by 26 points) (Figure IV.3.7). By contrast, four countries show a significant deterioration in average performance during the period: Australia (a drop of 22 score points), Poland (25 score points), the Slovak Republic (25 score points) and Spain (16 score points). The Flemish Community of Belgium and the United States show no significant change in mean performance between 2012 and 2015 (Table IV.3.1).

The two countries where mean performance improved also saw an increase in the share of students performing at Level 5: Italy (an increase of 4 percentage points) and Russia (an increase of 6 percentage points). Russia achieved a higher mean score by both reducing the proportion of low performers (by 6 percentage points) and increasing the proportion of students performing at the highest level of proficiency (Table IV.3.6).

<sup>2.</sup> This column reports the percentage of students for whom the difference between actual performance and the fitted value from a regression is positive. Values that are indicated in bold are significantly larger or smaller than 50%.

<sup>3.</sup> This column reports the R-squared coefficient from a regression of financial literacy performance on mathematics and reading performance



Between 2012 and 2015, the four countries/economies where mean performance deteriorated also saw an increase in the share of students who score below Level 2: Australia (where this share grew by 9 percentage points), Poland (by 10 percentage points), the Slovak Republic (by 12 percentage points) and Spain (by 8 percentage points). The share of students who score below Level 2 also increased slightly during the period (by 3 percentage points) in the Flemish Community of Belgium.

### Student performance in financial literacy is correlated with performance in mathematics and reading, but around 38% of the score reflects factors that are unique to financial literacy.

Students who do well in financial literacy are likely to perform well in other areas too, and students who have poor financial literacy skills are likely to do poorly in other subjects. On average across the 10 participating OECD countries and economies, among the top performers in financial literacy (students who attain Level 5), 45% are also top performers in mathematics, 37% are also top performers in reading and 38% are also top performers in science (Table IV.3.3). Similarly, among the low performers in financial literacy (students who score below Level 2), 65% are also low performers in mathematics, 60% are also low performers in reading and 64% are also low performers in science (Table IV.3.4).

However, on average across the 10 participating OECD countries and economies, around 38% of the financial literacy score reflects factors that are uniquely captured by the financial literacy assessment; the remaining 62% of the score reflects skills that can be measured in mathematics and/or reading assessments (Figure IV.3.11). There is, however, substantial variation across countries and economies in the percentage of the variation in financial literacy performance explained by performance in other core PISA subjects. In Brazil, Russia and the Slovak Republic, for example, performance in mathematics and reading explains less than 50% of the variation in financial literacy performance, while in Australia, the Flemish Community of Belgium and the Netherlands, performance in mathematics and reading explains more than 70% of the variation in financial literacy performance.

In addition, there are wide variations in financial literacy performance for any given level of performance in mathematics and reading. This means that the skills measured by the financial literacy assessment may go beyond or fall short of the ability to use the knowledge that students have acquired from subjects taught in compulsory education. In the Flemish Community of Belgium, B-S-J-G (China), the participating Canadian provinces and Russia, students perform better in financial literacy than students around the world who perform similarly in mathematics and reading. By contrast, students in Australia, Brazil, Chile, Italy, Lithuania, the Netherlands, Poland, the Slovak Republic and Spain perform worse than expected in financial literacy, compared with students around the world who score similarly in mathematics and reading (Table IV.3.11).

### The variation in performance observed within a country/economy is much wider than the variation observed between countries/economies.

The variation in performance observed between students from the same country/economy is, in general, much wider than the variation observed between countries/economies who perform at the mean. This might be because students' gender, socio-economic status, immigrant background and experience with money might be related to the quantity and quality of opportunities available to improve their financial literacy. The difference in score points between the 10th and the 90th percentiles of performance shows the disparity in proficiency between the lowest and the highest achievers. On average across the 10 participating OECD countries and economies, the within-country performance gaps between students scoring at the 90th percentile and those at the 10th percentile in financial literacy is 285 score points, which is larger than three proficiency levels (225 score points). The largest gaps are observed in B-S-J-G (China) and in the Netherlands, at about 312 score points. By contrast, performance gaps are less than 250 score points in Italy (249 score points) and Russia (232 score points) (Table IV.4.1).

### Gender differences in financial literacy exist but there is no common pattern across participating countries and economies.

Only in Italy do boys perform better than girls – by 11 score points – in financial literacy. By contrast, in Australia, Lithuania, Poland, the Slovak Republic and Spain, girls perform better than boys. In Lithuania and the Slovak Republic, the gender difference in financial literacy performance is larger than 20 score points in favour of girls. Among the countries where girls perform better than boys, in Lithuania, the Slovak Republic and Spain, average performance is below the OECD average (Table IV.4.1). In the Flemish Community of Belgium, Brazil, B-S-J-G (China), the participating Canadian provinces, Chile, the Netherlands, Peru, Russia and the United States, the difference in performance between boys and girls is not statistically significant.

Gender differences in financial literacy are observed even when comparing students who perform similarly in mathematics and reading. In B-S-J-G (China), Italy and the United States, boys score higher than girls who perform similarly in mathematics and reading. By contrast, in Lithuania, Poland and the Slovak Republic, girls score higher than boys after accounting for students' performance in mathematics and reading (but the difference is smaller than that observed before accounting for performance in the other two subjects) (Figure IV.4.4).

On average across the 10 participating OECD countries and economies, there are slightly more boys than girls among students performing at Level 1 or below (24% of boys and 21% of girls) and at Level 5 (12% of boys and 11% of girls); while there are slightly more girls than boys among students performing at Level 3 (24% of boys and 26% of girls) and at Level 4 (19% of boys and 20% of girls). In Australia, Brazil, the participating Canadian provinces, Lithuania, the Netherlands, Poland, Russia, the Slovak Republic and Spain, more boys than girls score at Level 1 or below. In Italy and the United States, more boys than girls perform at Level 5 (Table IV.4.7).

### Advantaged students score the equivalent of more than one PISA proficiency level higher in financial literacy than disadvantaged students.

On average across the 10 OECD countries and economies that participated in the assessment of financial literacy, 10% of the variation in student performance within each country/economy is associated with socio-economic status. The participating Canadian provinces and Russia combine above-average performance and below-average strength of the association between performance and socio-economic status. In Brazil, Italy, Lithuania and the Slovak Republic, the percentage of variation in financial literacy performance explained by socio-economic status is also below the OECD average. By contrast, in Australia, the Flemish Community of Belgium, B-S-J-G (China), Chile and Peru, the relationship between student performance and socio-economic status is stronger than average. This relationship is strongest in Peru, where 17% of the variation in financial literacy performance is explained by socio-economic status (Figure IV.4.7).

Another way of exploring the relationship between financial literacy and socio-economic status is to consider the performance difference between relatively advantaged students (those in the top quarter of the PISA index of economic, social and cultural status) and more disadvantaged students (those in the bottom quarter of that index). This difference amounts to 89 score points, on average across OECD countries and economies – equivalent to more than one PISA proficiency level. The score-point difference between advantaged and disadvantaged students is below the OECD average in Italy, Lithuania, Poland and Russia, and above the OECD average in Australia, the Flemish Community of Belgium, B-S-J-G (China), Chile and Peru (Figure IV.4.7).

### Immigrant students score 26 points lower in financial literacy, on average, than native-born students of similar socio-economic status.

About 13% of students across the OECD countries and economies that participated in the 2015 financial literacy assessment are foreign-born or have foreign-born parents. In Australia, the participating Canadian provinces and the United States, more than one in five students who participated in the assessment have an immigrant background, while in Brazil, B-S-J-G (China), Chile, Lithuania, Peru, Poland and the Slovak Republic, fewer than one in 20 students has an immigrant background (Table IV.4.17).

Being financially literate can help immigrants integrate more easily into their new country of residence. With this skill, immigrants are more likely to be aware of and use formal financial products and services, including remittances, and participate fully in their communities. Financially literate immigrant students might also help their families integrate and navigate the financial landscape in the host country.

On average across OECD countries and economies, students without an immigrant background perform better in financial literacy, by 26 score points, than immigrant students of similar socio-economic status. Among countries and economies where at least 5% of students have an immigrant background, the difference in financial literacy performance related to immigrant background is larger than 15 score points in the Flemish Community of Belgium, Italy, the Netherlands and Spain, after taking into account students' socio-economic status (Figure IV.4.10).

#### Discussing money matters with parents is associated with higher financial literacy.

Parents can help their children acquire and develop the values, attitudes, standards, norms, knowledge and behaviours that contribute to their independent financial viability and well-being. PISA 2015 provides evidence about how frequently students discuss money matters, such as spending, saving, banking and investment, with their parents or guardians.



Figure IV.1.2 Snapshot of the relationship between performance in financial literacy and student characteristics

Countries/economies with higher performance or greater equity than the OECD average
Countries/economies with values not statistically different from the OECD average
Countries/economies with lower performance or less equity than the OECD average

B-S-J-G (China)         566         5         11         45         16.8         132         0.3         170           Belgium (Flemish)         541         0         -1         50         16.0         110         14.0         75           Canadian provinces         533         -5         7         38         6.9         77         33.6         -3           Russia         512         -3         5         22         3.4         46         6.9         5           Netherlands         509         -5         7         51         10.5         104         10.7         32           Australia         504         -12         2         51         12.0         107         25.0         -11           United States         487         2         7         36         11.1         97         23.1         1           Poland         485         -15         -8         34         7.8         73         0.3         c           Italy         483         11         10         24         5.5         60         8.0         18           Spain         469         -10         -7         26         9.1				·	. ,				
Nean financia   February   Percentage   Pe			literacy performance						
OECD average         489         -5         0         38         9.9         89         12.9         26           Be-S-J-G (China)         566         5         11         45         16.8         132         0.3         170           Belgium (Flemish)         541         0         -1         50         16.0         110         14.0         75           Canadian provinces         533         -5         7         38         6.9         77         33.6         -3           Russia         512         -3         5         22         3.4         46         6.9         5           Netherlands         509         -5         7         51         10.5         104         10.7         32           Australia         504         -12         2         51         12.0         107         25.0         -11           United States         487         2         7         36         11.1         97         23.1         1           Poland         485         -15         -8         34         7.8         73         0.3         c           Italy         483         11         10         24         5.5<		literacy score	accounting for performance in other	accounting for performance in mathematics	difference in financial literacy associated with a one-unit increase on the PISA index of economic, social and	of variation in financial literacy performance associated with students' socio-economic	in financial literacy performance between socio- economically advantaged and disadvantaged	of immigrant	in financial literacy performance between non-immigrant and immigrant students, after accounting for socio-economic
Be-S-J-G (China)		Mean	Score dif.	Score dif.	Score dif.	%	Score dif.	%	Score dif.
Belgium (Flemish)         541         0         -1         50         16.0         110         14.0         75           Canadian provinces         533         -5         7         38         6.9         77         33.6         -3           Russia         512         -3         5         22         3.4         46         6.9         5           Netherlands         509         -5         7         51         10.5         104         10.7         32           Australia         504         -12         2         51         12.0         107         25.0         -11           United States         487         2         7         36         11.1         97         23.1         1           Poland         485         -15         -8         34         7.8         73         0.3         C           Italy         483         11         10         24         5.5         60         8.0         18           Spain         469         -10         -7         26         9.1         79         11.0         19           Lithuania         449         -27         -7         31         6,7	OECD average	489	-5	0	38	9.9	89	12.9	26
Belgium (Flemish)         541         0         -1         50         16.0         110         14.0         75           Canadian provinces         533         -5         7         38         6.9         77         33.6         -3           Russia         512         -3         5         22         3.4         46         6.9         5           Netherlands         509         -5         7         51         10.5         104         10.7         32           Australia         504         -12         2         51         12.0         107         25.0         -11           United States         487         2         7         36         11.1         97         23.1         1           Poland         485         -15         -8         34         7.8         73         0.3         C           Italy         483         11         10         24         5.5         60         8.0         18           Spain         469         -10         -7         26         9.1         79         11.0         19           Lithuania         449         -27         -7         31         6,7			1			1		1	
Canadian provinces         533         -5         7         38         6.9         77         33.6         -3           Russia         512         -3         5         22         3.4         46         6.9         5           Netherlands         509         -5         7         51         10.5         104         10.7         32           Australia         504         -12         2         51         12.0         107         25.0         -11           United States         487         2         7         36         11.1         97         23.1         1           Poland         485         -15         -8         34         7.8         73         0.3         c           Italy         483         11         10         24         5.5         60         8.0         18           Spain         469         -10         -7         26         9.1         79         11.0         19           Lithuania         449         -27         -7         31         6.7         71         1.8         19           Slovak Republic         445         -25         -14         32         6.5 <t< td=""><td></td><td></td><td></td><td>11</td><td></td><td></td><td></td><td></td><td></td></t<>				11					
Rusia         512         -3         5         22         3.4         46         6.9         5           Netherlands         509         -5         7         51         10.5         104         10.7         32           Australia         504         -12         2         51         12.0         107         25.0         -11           United States         487         2         7         36         11.1         97         23.1         1           Poland         485         -15         -8         34         7.8         73         0.3         c           Italy         483         11         10         24         5.5         60         8.0         18           Spain         469         -10         -7         26         9.1         79         11.0         19           Lithuania         449         -27         -7         31         6.7         71         1.8         19           Slovak Republic         445         -25         -14         32         6.5         80         1.2         67           Chile         432         4         1         35         13.3         103	Belgium (Flemish)	541	0	-1	50	16.0	110	14.0	75
Netherlands         509         -5         7         51         10.5         104         10.7         32           Australia         504         -12         2         51         12.0         107         25.0         -11           United States         487         2         7         36         11.1         97         23.1         1           Poland         485         -15         -8         34         7.8         73         0.3         c           Italy         483         11         10         24         5.5         60         8.0         18           Spain         469         -10         -7         26         9.1         79         11.0         19           Lithuania         449         -27         -7         31         6.7         71         1.8         19           Slovak Republic         445         -25         -14         32         6.5         80         1.2         67           Chile         432         4         1         35         13.3         103         2.1         36           Peru         403         -5         -3         36         17.2         117	Canadian provinces	533	-5	7	38	6.9	77	33.6	-3
Australia 504 -12 2 51 12.0 107 25.0 -11 United States 487 2 7 36 11.1 97 23.1 1 Poland 485 -15 -8 34 7.8 73 0.3 c Italy 483 11 10 24 5.5 60 8.0 18 Spain 469 -10 -7 26 9.1 79 11.0 19 Lithuania 449 -27 -7 31 6.7 71 1.8 19 Slovak Republic 445 -25 -14 32 6.5 80 1.2 67 Chile 432 4 1 35 13.3 103 2.1 36 Peru 403 -5 -3 36 17.2 117 0.5 65	Russia	512	-3	5	22	3.4	46	6.9	5
United States         487         2         7         36         11.1         97         23.1         1           Poland         485         -15         -8         34         7.8         73         0.3         c           Italy         483         11         10         24         5.5         60         8.0         18           Spain         469         -10         -7         26         9.1         79         11.0         19           Lithuania         449         -27         -7         31         6.7         71         1.8         19           Slovak Republic         445         -25         -14         32         6.5         80         1.2         67           Chile         432         4         1         35         13.3         103         2.1         36           Peru         403         -5         -3         36         17.2         117         0.5         65	Netherlands	509	-5	7	51	10.5	104	10.7	32
Poland         485         -15         -8         34         7.8         73         0.3         c           Italy         483         11         10         24         5.5         60         8.0         18           Spain         469         -10         -7         26         9.1         79         11.0         19           Lithuania         449         -27         -7         31         6.7         71         1.8         19           Slovak Republic         445         -25         -14         32         6.5         80         1.2         67           Chile         432         4         1         35         13.3         103         2.1         36           Peru         403         -5         -3         36         17.2         117         0.5         65	Australia	504	-12	2	51	12.0	107	25.0	-11
Italy         483         11         10         24         5.5         60         8.0         18           Spain         469         -10         -7         26         9.1         79         11.0         19           Lithuania         449         -27         -7         31         6.7         71         1.8         19           Slovak Republic         445         -25         -14         32         6.5         80         1.2         67           Chile         432         4         1         35         13.3         103         2.1         36           Peru         403         -5         -3         36         17.2         117         0.5         65	United States	487	2	7	36	11.1	97	23.1	1
Spain     469     -10     -7     26     9.1     79     11.0     19       Lithuania     449     -27     -7     31     6.7     71     1.8     19       Slovak Republic     445     -25     -14     32     6.5     80     1.2     67       Chile     432     4     1     35     13.3     103     2.1     36       Peru     403     -5     -3     36     17.2     117     0.5     65	Poland	485	-15	-8	34	7.8	73	0.3	С
Lithuania     449     -27     -7     31     6.7     71     1.8     19       Slovak Republic     445     -25     -14     32     6.5     80     1.2     67       Chile     432     4     1     35     13.3     103     2.1     36       Peru     403     -5     -3     36     17.2     117     0.5     65	Italy	483	11	10	24	5.5	60	8.0	18
Slovak Republic         445         -25         -14         32         6.5         80         1.2         67           Chile         432         4         1         35         13.3         103         2.1         36           Peru         403         -5         -3         36         17.2         117         0.5         65	Spain	469	-10	-7	26	9.1	79	11.0	19
Chile     432     4     1     35     13.3     103     2.1     36       Peru     403     -5     -3     36     17.2     117     0.5     65	Lithuania	449	-27	-7	31	6.7	71	1.8	19
Peru 403 -5 -3 36 17.2 117 0.5 <b>65</b>	Slovak Republic	445	-25	-14	32	6.5	80	1.2	67
	Chile	432	4	1	35	13.3	103	2.1	36
Brazil 393 -8 -3 26 6.5 78 0.8 122	Peru	403	-5	-3	36	17.2	117	0.5	65
	Brazil	393	-8	-3	26	6.5	78	0.8	122

<sup>1.</sup> Also referred to as ESCS. All score-point differences in financial literacy performance associated with a one-unit increase on the PISA index of economic, social and cultural status are statistically significant.

2. This column reports the R-squared coefficient from a regression of financial literacy performance on the PISA index of economic, social and cultural status

Note: Values that are statistically significant are indicated in bold (see Annex A3).

Countries and economies are ranked in descending order of the mean financial literacy score in PISA 2015.

Source: OECD, PISA 2015 Database, Tables IV.3.1, IV.4.8, IV.4.11, IV.4.12, IV.4.17 and IV.4.18.

StatLink | http://dx.doi.org/10.1787/888933485001

On average across the participating OECD countries and economies, 16% of students reported that they never or hardly ever discuss money matters with their parents, 66% reported that they discuss money matters with their parents weekly or monthly, and 17% reported that they discuss such matters almost every day (Table IV.5.1). When asked how frequently they discuss money matters with their friends, 59% of students, on average across OECD countries and economies, reported that they discuss money matters with their friends at least sometimes (Table IV.5.2). But 54% of students discuss money matters more often with their parents than with their friends (Table IV.5.7).

In 10 out of 13 countries and economies with available data, discussing money matters with parents at least sometimes is associated with higher financial literacy than never discussing the subject, after taking into account students' socioeconomic status (Table IV.5.5). Moreover, in 12 out of 13 countries and economies with available data, students who discuss money matters more often with parents than with friends score higher in financial literacy than students who discuss money matters more often with friends than with parents, after accounting for their socio-economic status (Table IV.5.7). This suggests that students can learn financial literacy skills better from their parents than from their peers. But it is also possible that more financially literate students recognise that their parents can give them more informed perspectives and advice than their friends.

#### Many 15-year-old students already hold a bank account.

Data from PISA 2015 reveal that, on average across OECD countries and economies, 56% of students hold a bank account. This average masks significant differences across countries, however, as in Australia, the Flemish Community of Belgium, the Canadian provinces and the Netherlands, over 70% of 15-year-old students hold a bank account, but in Chile, Italy,

<sup>3.</sup> Students are considered socio-economically advantaged if they are among the 25% of students with the highest values on the ESCS index in their country or economy; students are classified as socio-economically disadvantaged if their values on the ESCS index are among the bottom 25% within their country or economy. All score-point differences in financial literacy performance between socio-economically advantaged and disadvantaged students are statistically significant.

<sup>4.</sup> A positive score difference indicate a performance difference in favour of non-immigrant students; a negative score difference indicate a performance difference in favour of immigrant students.



Lithuania, Poland and Russia, less than 40% of students do. Less than 5% of students in each country/economy reported that they do not know what a bank account is (Table IV.5.8). Holding a prepaid debit card is somewhat less common in all countries/economies with available data, ranging from fewer than 10% of students in B-S-J-G (China), Chile and Spain, to over 30% of students in Australia, Italy and Russia (Table IV.5.9).

In Australia, the Flemish Community of Belgium, B-S-J-G (China), Chile, Lithuania, Poland, Spain and the United States, socio-economically advantaged students are at least twice as likely as disadvantaged students to hold a bank account. In Australia, the Flemish Community of Belgium, the participating Canadian provinces and the Netherlands, students without an immigrant background are more likely than immigrant students to hold a bank account (Table IV.5.11).

Experience with basic financial products is related to students' performance in financial literacy. In Australia, the Flemish Community of Belgium, the Canadian provinces, Italy, the Netherlands, Spain and the United States, students who hold a bank account perform better in financial literacy by over 20 score points than students of similar socio-economic status who do not have a bank account. The difference in financial literacy scores associated with holding a bank account, after accounting for socio-economic status, is largest in the Netherlands (72 score points) (Table IV.5.13).

### On average across OECD countries and economies, 64% of students earn money from some formal or informal work activity.

Over 80% of students in Australia, the Flemish Community of Belgium, the participating Canadian provinces, Italy, Lithuania, the Netherlands, Poland, Russia and the United States receive money in the form of gifts. Receiving an allowance or pocket money is less common: between 31% (Italy) and 50% (the Flemish Community of Belgium) of students reported receiving money from an allowance or pocket money for regularly doing chores at home; between 29% (the United States) and 70% (the Flemish Community of Belgium and the Netherlands) of students reported receiving money from an allowance or pocket money without having to do any chores (Table IV.5.15).

On average across OECD countries and economies, 64% of students earn money from some formal or informal work activity, such as working outside school hours, working in a family business, or doing occasional informal jobs. More than 40% of students in Australia, the Flemish Community of Belgium, the participating Canadian provinces, Lithuania, the Netherlands, Poland, Russia and the Slovak Republic reported that they earn money from working outside school hours (e.g. a holiday job, part-time work) and more than 40% of students in Australia, the Flemish Community of Belgium, the Canadian provinces, Lithuania, the Netherlands, the Slovak Republic and the United States earn money from occasional informal jobs, such as babysitting or gardening. Less than 30% of students in all countries and economies with available data reported that they earn money from working in a family business. Earning money from selling things, such as at local markets or on line, varies from 20% of students in Italy to 48% of students in Lithuania (Figure IV.5.6).

Boys are more likely than girls to receive pocket money for doing chores, to earn money from working outside of school hours or in a family business, and from selling things they own, on average across OECD countries and economies; girls are slightly more likely than boys to receive money from occasional informal jobs and from gifts (Figure IV.5.8). Overall, these results suggest that boys are more likely than girls to be involved in regular work activities, and to receive money in exchange for work inside and outside the household, while girls in some countries and economies are more likely than boys to receive money without working, in the form of allowances or gifts. These results might indicate that boys begin to seek ways of becoming more financially independent at an earlier age than girls.

On average across OECD countries and economies, socio-economically advantaged students are more likely to receive money from occasional informal jobs, such as babysitting or gardening, and from gifts than disadvantaged students. By contrast, on average, disadvantaged students are more likely to earn money by working outside of school hours than advantaged students.

#### Students' financial literacy is associated with understanding the value of saving money.

PISA 2015 asked students who sat the financial literacy test how they would behave in hypothetical spending and saving situations, similar to those that they might encounter in their daily lives or in the near future. Students were asked: "If you don't have enough money to buy something you really want (e.g. an item of clothing, sports equipment) what are you most likely to do?", allowing them to choose among various hypothetical strategies, including buying the item anyway with money that should be used for something else; trying to borrow money from a family member; trying to borrow money from a friend; saving money; or not buying the item. On average across OECD countries and economies, most students (63%) reported that they would save if they want to buy something for which they do not have enough money.



#### Figure IV.1.3 • Snapshot of students' experience with money

Countries/economies with performance above the OECD average	
Countries/economies with a share of students holding a product or receiving money from a given source above the OECD average	ge
Countries/economies with values not statistically different from the OECD average	
Countries/economies with performance below the OECD average	
Countries/economies with a share of students holding a product or receiving money from a given source below the OECD average	ge

		Holdi	ng basic financial pro	ducts	Percentage of students who receive money from:				
	Mean financial literacy score in PISA 2015	Percentage of students holding a bank account	Percentage of students holding a bank account and/or a prepaid debit card	Difference in financial literacy performance between students who hold a bank account and students who do not, after accounting for socio-economic status	Gifts of money from friends or relatives	Any allowance or pocket money (for regularly doing chores at home and/or without having to do any chores)	Any work activity (working outside school hours and/ or working in a family business and/or occasional informal jobs)		
	Mean	%	%	Score dif.	%	%	%		
OECD average	489	56.4	60.2	23	83.8	59.1	64.0		
Netherlands	509	95.0	95.5	72	89.3	73.7	82.2		
Australia	504	79.0	80.7	26	87.6	71.2	59.0		
Canadian provinces	533	77.6	79.7	31	90.2	72.3	55.7		
Belgium (Flemish)	541	74.7	75.4	24	89.6	70.2	82.8		
United States	487	52.8	56.1	22	90.6	69.3	55.6		
Spain	469	52.4	54.2	28	79.0	37.7	55.2		
B-S-J-G (China)	566	46.1	47.9	4	68.3	41.4	73.9		
Slovak Republic	445	42.3	44.8	-14	75.7	66.4	68.6		
Lithuania	449	39.0	39.1	-4	86.7	73.1	70.9		
Italy	483	35.3	56.6	23	83.4	35.3	53.1		
Russia	512	28.1	46.6	-5	87.6	62.2	70.0		
Poland	485	27.8	29.6	2	82.4	56.7	71.3		
Chile	432	27.2	29.7	12	69.7	38.1	56.5		
Peru	403	n	n	n	n	n	n		
Brazil	393	n	n	n	n	n	n		

Note: Values that are statistically significant are indicated in bold (see Annex A3).

Countries and economies are ranked in descending order of the percentage of students holding a bank account Source: OECD, PISA 2015 Database, Tables IV.3.1, IV.5.8, IV.5.10, IV.5.13 and IV.5.15.

StatLink http://dx.doi.org/10.1787/888933485011

Some 16% reported that they would try to borrow money from family and 13% reported that they would not buy the item, on average. Few reported that they would borrow money from friends (3%) or buy the item anyway with money that should be used for something else (5%) (Figure IV.6.1).

Saving money and refraining from buying the item can be considered as safer choices than buying the item anyway, which may indicate a lack of ability to distinguish between needs and wants, or a lack of understanding that money spent on one item cannot be spent again on something else. On average across OECD countries and economies, students who perform at Level 4 or 5 in financial literacy were more than three times as likely as students who perform at or below Level 1 to report that they would save rather than to report that they would buy the item anyway, after taking into account student characteristics, such as gender, socio-economic status, motivation to achieve, frequency of discussing money matters with their parents, and performance in mathematics and reading (Table IV.6.3).

PISA 2015 also asked students who sat the financial literacy assessment to choose which one among a series of statements about saving money best applies to them. On average across OECD countries and economies, 19% of students reported that they save the same amount each week or month, 29% reported that they save some money each week or month, but the amount varies, 20% save only when they have money to spare, and 22% save only when they want to buy something (Figure IV.6.3). Few students responded that they do not save any money (6%) or that they do not save because they do not have any money (4%).

#### Financially literate students are more likely to expect to earn a university degree and work in a high-skilled occupation later on.

Earning a university degree represents a significant investment in the future of a young person, both in human capital and in economic terms; and there are large earnings advantages for those who complete tertiary education. In some countries and economies, students' financial literacy is associated with their ability to see the value of completing higher education and of working in highly skilled occupations (even when comparing students of similar ability in the core PISA subjects, mathematics and reading).



On average across OECD countries and economies, top-performing students in financial literacy were about twice as likely as low-performing students to report that they expect to complete university education, after taking into account student characteristics, such as their gender, socio-economic status, motivation to achieve and performance in mathematics and reading (Figure IV.6.5). In Australia, Chile, Italy, Lithuania, Peru and Spain, students performing at Level 4 or above in financial literacy were at least 70% more likely than students with similar characteristics, but who score at or below Level 1 to report that they expect to complete university education.

In some countries and economies, students' career expectations are also associated with their financial literacy, after accounting for other factors that might influence career expectations, such as students' gender, socio-economic status, motivation to achieve and performance in mathematics and reading. On average across OECD countries and economies, top performers in financial literacy were 47% more likely than low performers to report that they expect to have a high-skilled occupation when they are 30 years old, after taking into account student characteristics and ability (Table IV.6.11).

#### WHAT PISA RESULTS IMPLY FOR POLICY

Results from the PISA 2015 financial literacy assessment show that many students, in countries and economies at all levels of economic and financial development, need to improve their financial literacy. Policy should thus:

#### Address the needs of low-performing students, particularly disadvantaged students

On average across OECD countries and economies, as many as 22% of students perform below Level 2, which can be considered the baseline level of proficiency in financial literacy that is required to participate in society. Perhaps unsurprisingly, students performing at or below Level 1 are over-represented among socio-economically disadvantaged groups. Financial literacy is relevant not just for those who have large sums of money to invest; everyone needs to be financially literate, especially those who live on tight budgets and have little leeway in case they make financial mistakes. In addition, the development of digital financial services means that these services are becoming increasingly accessible to everyone, particularly to segments of the population, including young people, who had been previously excluded.

While disadvantaged students are among the least financially literate, they probably need some financial knowledge and skills the most. Large disparities in skills among 15-year-olds signal that not all students are offered an equal opportunity to develop their financial literacy. If socio-economic disparities are not addressed early, they are likely to lead to even larger gaps in financial literacy as students become adults. Low-performing disadvantaged students need to be supported to ensure that they can safely navigate the (increasingly digital) financial system as they become more independent.

#### Provide equal opportunities for learning to boys and girls

In addition to mean differences, boys and girls show different weaknesses at different points of the performance distribution. In 9 out of 15 countries and economies, more boys than girls perform at or below Level 1, while in 2 countries, more boys than girls perform at the top (Level 5). Gender differences are likely to be related to different factors, including boys' and girls' different performance in mathematics and reading, and different levels of exposure to money matters. Not only should boys be helped to reach a minimum level of financial skills and girls be helped to reach the top, but both girls and boys should have access to relevant opportunities to develop their financial skills.

#### Help students make the most of learning opportunities in and outside of school

Financial literacy performance is strongly correlated with performance in mathematics and reading, even though a significant part of the skills tested in this assessment are unique to financial literacy.

Students should be helped to make the most of what they learn in subjects taught in compulsory education, and to foster transversal competencies, such as problem solving and critical thinking, in order to acquire knowledge and develop skills that can be applied to financial situations and decisions.

One way of helping students improve their financial literacy could be to complement what they learn through core subjects in school with more specific financial literacy content. Several countries have started integrating some financial literacy topics into existing subjects, such as mathematics or social sciences. As dedicated financial literacy approaches are relatively new (where they exist), the PISA financial literacy assessment cannot yet provide conclusive evidence on what strategies yield superior outcomes in financial literacy. More evidence is needed to show the extent to which infusing financial literacy elements in existing subjects is effective as compared to other approaches in raising students' levels of financial literacy.



Fostering the development of financial literacy skills in school could also be a way to offer students learning opportunities beyond those provided by parents and peers, to help overcome socio-economic inequalities, and to expose students to more balanced messages than those they may receive through media and advertising.

Evidence that there is a positive relationship between performance in financial literacy and holding a bank account or receiving gifts of money might suggest that some kind of experience with money or financial products could provide students with an opportunity to reinforce financial literacy, or that students who are more financially literate are more motivated to use financial products – and perhaps more confident in doing so. Parents are very likely to be involved in these experiences, as they may have given their children money through allowances or gifts, opened a bank account for them and taught them how to use it.

Even under the supervision of parents, it is important that young people can access financial products and services that are safe and regulated, that they begin to know their rights and responsibilities as consumers, and that they start to have an understanding of the risks associated with the different products and services, so that they can safely approach the financial system even before they acquire full legal rights to enter into financial contracts by themselves. Again, socio-economically disadvantaged students should be supported even more, as they have lower financial literacy, are less likely to have first-hand experience with holding a bank account, and are less likely to receive gifts of money than advantaged students.

Young people can be further supported to learn by doing through after-school initiatives. In some countries, governments and not-for-profits are offering young people videos, competitions, interactive tools and serious games – via digital and/or traditional platforms. These initiatives are used not so much to disseminate information but to provide young people with applied knowledge and allow them to safely experience financial situations and decisions before they encounter them in real life.

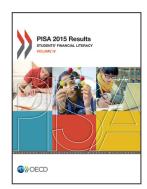
#### Target parents at the same time as young people

Parents have a role to play in developing their children's financial literacy both through the resources that they make available to them and through direct engagement. In all countries and economies with available data, more than one in two students reported that they discuss money matters with their parents on a weekly or monthly basis. In 10 countries and economies, discussing money matters with parents is associated with higher financial literacy than never discussing the subject, even after taking into account students' socio-economic status.

While developing policies and initiatives aimed at directly improving the financial literacy of young people, countries should continue to strengthen their initiatives targeting adults, particularly disadvantaged adults, through national strategies for financial education. Engaging parents and families is a way of targeting one of the most important sources of learning for young people, and it can complement what young people can learn from other sources.

#### Evaluate the impact of initiatives in and outside of school

More and more financial education initiatives are being developed in and outside of school, making it even more important to determine which approaches work best. Governments and other not-for-profit and private stakeholders involved should prioritise rigorously evaluating the impact of their initiatives and disseminating the findings to advance knowledge in the field. The OECD and its International Network on Financial Education (INFE) can build on these findings and act as a clearinghouse, with the aim of identifying more effective approaches to improve students' financial literacy.



# From: PISA 2015 Results (Volume IV) Students' Financial Literacy

#### Access the complete publication at:

https://doi.org/10.1787/9789264270282-en

#### Please cite this chapter as:

OECD (2017), "Overview: Students' financial literacy", in *PISA 2015 Results (Volume IV): Students' Financial Literacy*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/9789264270282-5-en

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