PISA 2012 Results: Students and Money

FINANCIAL LITERACY SKILLS FOR THE 21ST CENTURY

VOLUME VI

Programme for International Student Assessment

OECD

PISA 2012 Results: Students and Money

FINANCIAL LITERACY SKILLS
FOR THE 21ST CENTURY
(VOLUME VI)

OECD
BETTER POLICIES FOR BETTER LIVES

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Foreword

Equipping citizens with the skills necessary to achieve their full potential, participate in an increasingly interconnected global economy, and ultimately convert better jobs into better lives is a central preoccupation of policy makers around the world. Results from the OECD's recent Survey of Adult Skills show that highly skilled adults are twice as likely to be employed and almost three times more likely to earn an above-median salary than poorly skilled adults. In other words, poor skills severely limit people's access to better-paying and more rewarding jobs. Highly skilled people are also more likely to volunteer, see themselves as actors rather than as objects of political processes, and are more likely to trust others. Fairness, integrity and inclusiveness in public policy thus all hinge on the skills of citizens.

The ongoing economic crisis has only increased the urgency of investing in the acquisition and development of citizens' skills – both through the education system and in the workplace. At a time when public budgets are tight and there is little room for further monetary and fiscal stimulus, investing in structural reforms to boost productivity, such as education and skills development, is key to future growth. Indeed, investment in these areas is essential to support the recovery, as well as to address long-standing issues such as youth unemployment and gender inequality.

In this context, more and more countries are looking beyond their own borders for evidence of the most successful and efficient policies and practices. Indeed, in a global economy, success is no longer measured against national standards alone, but against the best-performing and most rapidly improving education systems. Over the past decade, the OECD Programme for International Student Assessment, PISA, has become the world's premier yardstick for evaluating the quality, equity and efficiency of school systems. But the evidence base that PISA has produced goes well beyond statistical benchmarking. By identifying the characteristics of high-performing education systems PISA allows governments and educators to identify effective policies that they can then adapt to their local contexts.

The results from the PISA 2012 assessment, which was conducted at a time when many of the 65 participating countries and economies were grappling with the effects of the crisis, reveal wide differences in education outcomes, both within and across countries. Using the data collected in previous PISA rounds, we have been able to track the evolution of student performance over time and across subjects. Of the 64 countries and economies with comparable data, 40 improved their average performance in at least one subject. Top performers such as Shanghai in China or Singapore were able to further extend their lead, while countries like Brazil, Mexico, Tunisia and Turkey achieved major improvements from previously low levels of performance.

Some education systems have demonstrated that it is possible to secure strong and equitable learning outcomes at the same time as achieving rapid improvements. Of the 13 countries and economies that significantly improved their mathematics performance between 2003 and 2012, three also show improvements in equity in education during the same period, and another nine improved their performance while maintaining an already high level of equity – proving that countries do not have to sacrifice high performance to achieve equity in education opportunities.

Nonetheless, PISA 2012 results show wide differences between countries in mathematics performance. The equivalent of almost six years of schooling, 245 score points, separates the highest and lowest average performances

of the countries that took part in the PISA 2012 mathematics assessment. The difference in mathematics performances within countries is even greater, with over 300 points – the equivalent of more than seven years of schooling – often separating the highest- and the lowest-achieving students in a country. Clearly, all countries and economies have excellent students, but few have enabled all students to excel.

The report also reveals worrying gender differences in students' attitudes towards mathematics: even when girls perform as well as boys in mathematics, they report less perseverance, less motivation to learn mathematics, less belief in their own mathematics skills, and higher levels of anxiety about mathematics. While the average girl underperforms in mathematics compared with the average boy, the gender gap in favour of boys is even wider among the highest-achieving students. These findings have serious implications not only for higher education, where young women are already under-represented in the science, technology, engineering and mathematics fields of study, but also later on, when these young women enter the labour market. This confirms the findings of the OECD Gender Strategy, which identifies some of the factors that create – and widen – the gender gap in education, labour and entrepreneurship. Supporting girls' positive attitudes towards and investment in learning mathematics will go a long way towards narrowing this gap.

PISA 2012 also finds that the highest-performing school systems are those that allocate educational resources more equitably among advantaged and disadvantaged schools and that grant more autonomy over curricula and assessments to individual schools. A belief that all students can achieve at a high level and a willingness to engage all stakeholders in education – including students, through such channels as seeking student feedback on teaching practices – are hallmarks of successful school systems.

PISA is not only an accurate indicator of students' abilities to participate fully in society after compulsory school, but also a powerful tool that countries and economies can use to fine-tune their education policies. There is no single combination of policies and practices that will work for everyone, everywhere. Every country has room for improvement, even the top performers. That's why the OECD produces this triennial report on the state of education across the globe: to share evidence of the best policies and practices and to offer our timely and targeted support to help countries provide the best education possible for all of their students. With high levels of youth unemployment, rising inequality, a significant gender gap, and an urgent need to boost growth in many countries, we have no time to lose. The OECD stands ready to support policy makers in this challenging and crucial endeavour.

Angel Gurría
OECD Secretary-General

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The development of the report was steered by the PISA Governing Board, which is chaired by Lorna Bertrand (United Kingdom), with Luiz Cláudio Costa (Brazil), Dana Kelly (United States) and Sungsook Kim (Korea) as vice chairs, who succeeded Beno Csapo (Hungary), Daniel McGrath (United States) and Ryo Watanabe (Japan) during the period. Annex C of the volumes lists the members of the various PISA bodies, as well as the individual experts and consultants who have contributed to this report and to PISA in general.

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Executive Summary

Finance is a part of everyday life for many 15-year-olds: they are already consumers of financial services such as bank accounts with access to online payment facilities. As they near the end of compulsory education, students will also face complex and challenging financial choices. One of their first major decisions may be to choose whether to continue with formal education and how to finance such study.

Financial literacy is thus an essential life skill, and high on the global policy agenda. Shrinking welfare systems, shifting demographics, and the increased sophistication and expansion of financial services have all contributed to a greater awareness of the importance of ensuring that citizens and consumers of all ages are financially literate. Some governments have started developing strategies and policies to improve financial literacy. The financial literacy assessment in PISA 2012 offers the first ever international assessment of the financial knowledge and skills of 15-year-old students. A second assessment is planned for PISA 2015, which will make it possible to monitor change and provide further evidence on the design and implementation of policies to enhance financial literacy.

This volume reports the results of the PISA 2012 financial literacy assessment, which was administered to approximately 29 000 students in 13 OECD countries and economies (Australia, the Flemish Community of Belgium, the Czech Republic, Estonia, France, Israel, Italy, New Zealand, Poland, the Slovak Republic, Slovenia, Spain and the United States) and five partner countries and economies (Colombia, Croatia, Latvia, the Russian Federation and Shanghai-China), representing 40% of world GDP.

Shanghai-China has the highest average score in financial literacy, followed by the Flemish Community of Belgium, Estonia, Australia, New Zealand, the Czech Republic and Poland. On average, all of these score above the average for the participating OECD countries and economies.

There are wide differences in average performance between the highest- and lowest-performing countries and economies: more than 75 score points (a full PISA proficiency level) among OECD countries and economies, and more than 225 score points across all participants. Yet only a small proportion (16%) of the variation among countries' mean financial literacy scores is explained by per capita GDP.

Only one in ten students across participating OECD countries and economies is able to tackle the hardest financial literacy tasks in PISA 2012.

They can analyse financial products involving features that are not immediately evident, such as transaction costs, solve non-routine financial problems such as calculating the balance in a bank statement while accounting for transfer fees, and demonstrate an understanding of the wider financial landscape, such as the implications of income-tax brackets. In contrast, 15% of students, on average, score below the baseline level of performance in the PISA financial literacy scale. At best, these students can recognise the difference between needs and wants, make simple decisions about everyday spending, recognise the purpose of common financial documents, such as an invoice, and apply single and basic numerical operations (addition, subtraction or multiplication) in contexts that they are likely to have encountered personally.

Students in some countries that perform well in financial literacy, such as Australia, the Czech Republic, Estonia, the Flemish Community of Belgium and New Zealand, score higher in financial literacy, on average, than their performance in mathematics and reading would predict.

In contrast, in France, Italy and Slovenia, students' performance in financial literacy is relatively low, on average, when compared with students in all participating countries and economies who have similar proficiency in mathematics and reading. Thus, although financial literacy skills are positively correlated with mathematics and reading skills, high performance in one of those core subjects does not necessarily signal proficiency in financial literacy.

Across the 13 participating OECD countries and economies, the difference between the highest-achieving 10% of students and the lowest-achieving 10% is 247 score points.

On average, 37% of performance differences in financial literacy within countries are observed between schools – a significant proportion, but smaller than that observed in mathematics and reading.

A more socio-economically advantaged student scores 41 points higher in financial literacy than a less-advantaged student, on average across participating OECD countries and economies.

Estonia is the only participating country that combines above-average performance with a weaker-than-average association between financial literacy performance and socio-economic status. On average across OECD countries and economies, non-immigrant students perform slightly better in financial literacy than immigrant students with similar socio-economic status, language spoken at home, and performance in mathematics and reading. The gap in financial literacy performance between immigrant and non-immigrant students is larger than the OECD average in the Flemish Community of Belgium, Estonia, France, Slovenia and Spain.

Gender gaps in financial literacy among 15-year-olds are small, unlike those found in adult populations.

In all participating countries and economies, except Italy, there are no differences in average financial literacy scores between boys and girls. Across OECD countries and economies, there are more top-performing boys than girls, and more low-performing boys than girls, in financial literacy.

In Australia, the Flemish Community of Belgium, Estonia, France, New Zealand and Slovenia, more than 70% of 15-year-old students hold a bank account; but in Israel, Poland and the Slovak Republic, fewer than 30% do.

In 9 out of 13 OECD participating countries and economies, after adjusting for socio-economic status, students who hold a bank account perform as well as those who do not, while in the Flemish Community of Belgium, Estonia, New Zealand, and Slovenia, students who hold a bank account score higher in financial literacy than students of similar socio-economic status who do not.

Students' attitudes towards learning, such as perseverance and openness to problem solving, are positively associated with financial literacy.

On average across OECD countries and economies, the difference in financial literacy performance between students who agreed with the statement "I like to solve complex problems" and students who disagreed is equal to 31 score points, or almost half a proficiency level.

■ Table VI.A ■
SNAPSHOT OF PERFORMANCE IN FINANCIAL LITERACY

Countries/economies with mean score/share of top performers/relative performance **above** the OECD average-13 Countries/economies with share of lowest performers **below** the OECD average-13
Countries/economies with mean score/share of top performers/share of lowest performers/relative performance not statistically different from the OECD average-13
Countries/economies with mean score/share of top performers/relative performance **below** the OECD average-13 Countries/economies with a share of lowest performers **above** the OECD average-13

	Performance in financial literacy				**Relative performance in financial literacy,** compared with students around the world with similar performance in mathematics and reading
	Mean score in PISA 2012	Share of lowest performers (Level 1 or below)	Share of top performers in financial literacy (Level 5 or above)	Gender difference (Boys - Girls)	
	Mean score	%	%	Score dif.	Score dif.
OECD average-13	500	15.3	9.7	1	2
Shanghai-China	603	1.6	42.6	-1	0
Flemish Community (Belgium)	541	8.7	19.7	11	9
Estonia	529	5.3	11.3	-3	5
Australia	526	10.4	15.9	-3	18
New Zealand	520	16.1	19.3	3	12
Czech Republic	513	10.1	9.9	6	19
Poland	510	9.8	7.2	3	2
Latvia	501	9.7	4.6	-11	1
United States	492	17.8	9.4	1	1
Russian Federation	486	16.7	4.3	1	14
France	486	19.4	8.1	-6	-24
Slovenia	485	17.6	5.8	-8	-8
Spain	484	16.5	3.8	6	4
Croatia	480	16.5	3.8	5	2
Israel	476	23.0	8.5	-6	-5
Slovak Republic	470	22.8	5.7	-3	2
Italy	466	21.7	2.1	**8**	-14
Colombia	379	56.5	0.7	0	-5

Note: Countries/economies in which the performance difference between boys and girls is statistically significant are marked in **bold.**
Countries and economies are ranked in descending order of the mean score in financial literacy in PISA 2012.
Source: OECD, PISA 2012 Database, Tables VI.2.1, VI.2.2, VI.2.3 and VI.3.1.
StatLink http://dx.doi.org/10.1787/888933094944

Reader's Guide

Data underlying the figures

The data referred to in this volume are presented in Annex B and, in greater detail, including some additional tables, on the PISA website (*www.pisa.oecd.org*).

Five symbols are used to denote missing data:

a The category does not apply in the country concerned. Data are therefore missing.

c There are too few observations or no observation to provide reliable estimates (i.e. there are fewer than 30 students or fewer than 5 schools with valid data).

m Data are not available. These data were not submitted by the country or were collected but subsequently removed from the publication for technical reasons.

n There are too many missing values to provide reliable estimates (i.e. the percentage of missing values in the sample is 15% or larger).

w Data have been withdrawn or have not been collected at the request of the country concerned.

Country coverage

Four of the six volumes of *PISA 2012 Results* feature data from 65 countries and economies, including all 34 OECD countries and 31 partner countries and economies (see Box VI.A in the section What is PISA?). This volume features data from 18 countries and economies that participated in the assessment of financial literacy, including 12 OECD countries and the Flemish Community of Belgium.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Calculating international averages

The averages of 13 OECD countries and economies participating in the assessment of financial literacy were calculated for most data and indicators presented in this volume. These averages correspond to the arithmetic means of the respective country and economy estimate. In the case of some countries and economies, data may not be available for specific indicators, or specific categories may not apply. Readers should, therefore, keep in mind that the term "OECD average" refers to the OECD countries included in the respective comparisons.

Rounding figures

Because of rounding, some figures in tables may not exactly add up to the totals. Totals, differences and averages are always calculated on the basis of exact numbers and are rounded only after calculation. All standard errors in this publication have been rounded to one or two decimal places. Where the value 0.0 or 0.00 is shown, this does not imply that the standard error is zero, but that it is smaller than 0.05 or 0.005, respectively.

Reporting student data

The report uses "15-year-olds" as shorthand for the PISA target population. PISA covers students who are aged between 15 years 3 months and 16 years 2 months at the time of assessment and who are enrolled in school and have completed at least 6 years of formal schooling, regardless of the type of institution in which they are enrolled and of whether they are in full-time or part-time education, of whether they attend academic or vocational programmes, and of whether they attend public or private schools or foreign schools within the country or economy.

Reporting school data

The principals of the schools in which students were assessed provided information on their schools' characteristics by completing a school questionnaire. Where responses from school principals are presented in this publication, they are weighted so that they are proportionate to the number of 15-year-olds enrolled in the school.

Focusing on statistically significant differences

This volume discusses only statistically significant differences or changes. These are denoted in darker colours in figures and in bold font in tables. See Annex A3 for further information.

Categorising student performance

This volume uses a shorthand to describe students' levels of proficiency in the assessment of financial literacy as follows:

Top performers are those students proficient at Level 5 of the assessment.

Strong performers are those students proficient at Level 4 of the assessment.

Moderate performers are those students proficient at Level 2 or 3 of the assessment.

Lowest performers are those students proficient at Level 1 or below of the assessment.

Highest achievers are those students who perform at or above the 90th percentile in their own country/economy.

High achievers are those students who perform at or above the 75th percentile in their own country/economy.

Low achievers are those students who perform below the 25th percentile in their own country/economy.

Lowest achievers are those students who perform below the 10th percentile in their own country/economy.

Abbreviations used in this report

Coeff.	Coefficient	ISCED	International Standard Classification of Education
Corr.	Correlation	ISCO	International Standard Classification of Occupations
Diff.	Difference	PPP	Purchasing power parity
ESCS	PISA index of economic, social and cultural status	S.D.	Standard deviation
GDP	Gross domestic product	S.E.	Standard error
INFE	International Network on Financial Education		

Further documentation

For further information on the PISA assessment instruments and the methods used in PISA, see the *PISA 2012 Technical Report* (OECD, forthcoming).

This report uses the OECD StatLinks service. Below each table and chart is a url leading to a corresponding Excel™ workbook containing the underlying data. These urls are stable and will remain unchanged over time. In addition, readers of the e-books will be able to click directly on these links and the workbook will open in a separate window, if their Internet browser is open and running.

What is PISA?

"What is important for citizens to know and be able to do?" That is the question that underlies the triennial survey of 15-year-old students around the world known as the Programme for International Student Assessment (PISA). PISA assesses the extent to which students near the end of compulsory education have acquired key knowledge and skills that are essential for full participation in modern societies. The assessment, which focuses on reading, mathematics, science and problem-solving, does not just ascertain whether students can reproduce knowledge; it also examines how well students can extrapolate from what they have learned and apply that knowledge in unfamiliar settings, both in and outside of school. This approach reflects the fact that modern economies reward individuals not for what they know, but for what they can do with what they know.

PISA is an ongoing programme that offers insights for education policy and practice, and that helps monitor trends in students' acquisition of knowledge and skills across countries and in different demographic subgroups within each country. PISA results reveal what is possible in education by showing what students in the highest-performing and most rapidly improving education systems can do. The findings allow policy makers around the world to gauge the knowledge and skills of students in their own countries in comparison with those in other countries, set policy targets against measurable goals achieved by other education systems, and learn from policies and practices applied elsewhere. While PISA cannot identify cause-and-effect relationships between policies/practices and student outcomes, it can show educators, policy makers and the interested public how education systems are similar and different – and what that means for students.

A test the whole world can take

PISA is now used as an assessment tool in many regions around the world. It was implemented in 43 countries and economies in the first assessment (32 in 2000 and 11 in 2002), 41 in the second assessment (2003), 57 in the third assessment (2006) and 75 in the fourth assessment (65 in 2009 and 10 in 2010). Sixty-five countries and economies participated in PISA 2012.

In addition to OECD member countries, the survey has been conducted in:

East and Southeast Asia: Himachal Pradesh-India, Hong Kong-China, Indonesia, Macao-China, Malaysia, Shanghai-China, Singapore, Chinese Taipei, Tamil Nadu-India, Thailand and Viet Nam.

Central, Mediterranean and Eastern Europe, and Central Asia: Albania, Azerbaijan, Bulgaria, Croatia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Liechtenstein, Lithuania, Macedonia, Malta, Moldova, Montenegro, Romania, the Russian Federation and Serbia.

The Middle East: Jordan, Qatar and the United Arab Emirates.

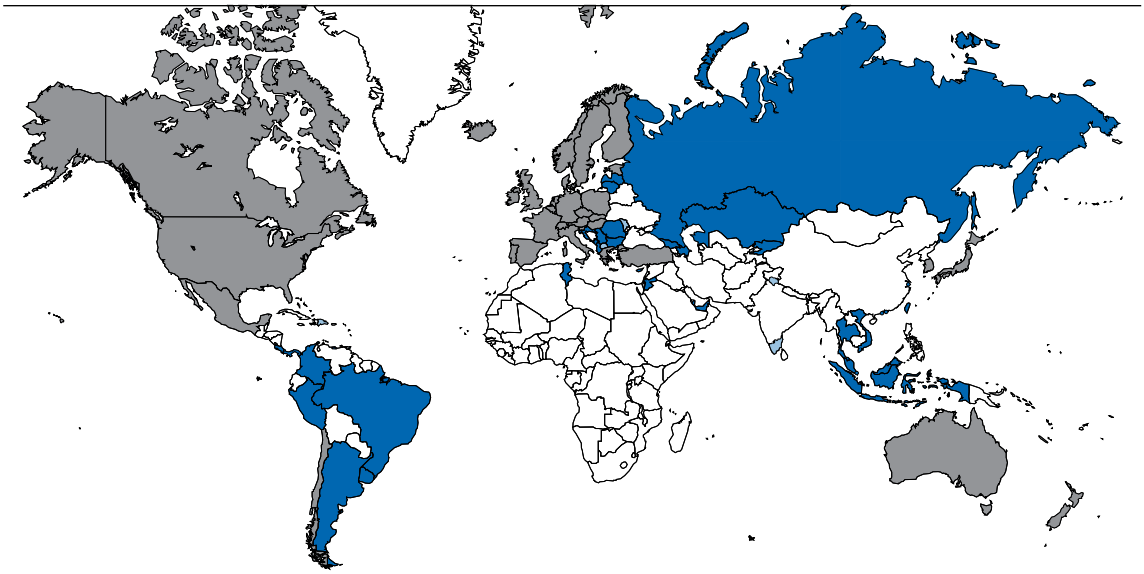
Central and South America: Argentina, Brazil, Colombia, Costa Rica, Netherlands-Antilles, Panama, Peru, Trinidad and Tobago, Uruguay and Miranda-Venezuela.

Africa: Mauritius and Tunisia.

Decisions about the scope and nature of the PISA assessments and the background information to be collected are made by leading experts in participating countries. Considerable efforts and resources are devoted to achieving cultural and linguistic breadth and balance in assessment materials. Since the design and translation of the test, as well as sampling and data collection, are subject to strict quality controls, PISA findings are considered to be highly valid and reliable.

...

Map of PISA countries and economies



OECD countries

Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States

Partner countries and economies in PISA 2012

Albania, Argentina, Brazil, Bulgaria, Colombia, Costa Rica, Croatia, Cyprus[1, 2], Hong Kong-China, Indonesia, Jordan, Kazakhstan, Latvia, Liechtenstein, Lithuania, Macao-China, Malaysia, Montenegro, Peru, Qatar, Romania, Russian Federation, Serbia, Shanghai-China, Singapore, Chinese Taipei, Thailand, Tunisia, United Arab Emirates, Uruguay, Viet Nam

Partner countries and economies in previous cycles

Azerbaijan, Georgia, Himachal Pradesh-India, Kyrgyzstan, Former Yugoslav Republic of Macedonia, Malta, Mauritius, Miranda-Venezuela, Moldova, Panama, Tamil Nadu-India, Trinidad and Tobago

1. Note by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

2. Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

PISA's unique features include its:

- policy orientation, which links data on student learning outcomes with data on students' backgrounds and attitudes towards learning and on key factors that shape their learning, in and outside of school, in order to highlight differences in performance and identify the characteristics of students, schools and education systems that perform well;
- innovative concept of "literacy", which refers to students' capacity to apply knowledge and skills in key subjects, and to analyse, reason and communicate effectively as they identify, interpret and solve problems in a variety of situations;
- relevance to lifelong learning, as PISA asks students to report on their motivation to learn, their beliefs about themselves, and their learning strategies;
- regularity, which enables countries to monitor their progress in meeting key learning objectives; and
- breadth of coverage, which, in PISA 2012, encompasses the 34 OECD member countries and 31 partner countries and economies.

Key features of PISA 2012

The content

- The PISA 2012 survey focused on mathematics, with reading, science and problem-solving minor areas of assessment. For the first time, PISA 2012 also included an assessment of the financial literacy of young people, which was optional for countries.
- PISA assesses not only whether students can reproduce knowledge, but also whether they can extrapolate from what they have learned and apply their knowledge in new situations. It emphasises the mastery of processes, the understanding of concepts, and the ability to function in various types of situations.

The students

- Around 510 000 students completed the assessment in 2012, representing about 28 million 15-year-olds in the schools of the 65 participating countries and economies.

The assessment

- Paper-based tests were used, with assessments lasting a total of two hours for each student. In a range of countries and economies, an additional 40 minutes were devoted to the computer-based assessment of mathematics, reading and problem solving.
- Test items were a mixture of multiple-choice items and questions requiring students to construct their own responses. The items were organised in groups based on a passage setting out a real-life situation. A total of about 390 minutes of test items were covered, with different students taking different combinations of test items.
- Students answered a background questionnaire, which took 30 minutes to complete, that sought information about themselves, their homes and their school and learning experiences. School principals were given a questionnaire, to complete in 30 minutes, that covered the school system and the learning environment. In some countries and economies, optional questionnaires were distributed to parents, who were asked to provide information on their perceptions of and involvement in their child's school, their support for learning in the home, and their child's career expectations, particularly in mathematics. Countries could choose two other optional questionnaires for students: one asked students about their familiarity with and use of information and communication technologies, and the second sought information about their education to date, including any interruptions in their schooling and whether and how they are preparing for a future career.

WHO ARE THE PISA STUDENTS?

Differences between countries in the nature and extent of pre-primary education and care, in the age of entry into formal schooling, in the structure of the education system, and in the prevalence of grade repetition mean that school grade levels are often not good indicators of where students are in their cognitive development. To better compare student performance internationally, PISA targets a specific age of students. PISA students are aged between 15 years 3 months and 16 years 2 months at the time of the assessment, and have completed at least 6 years of formal schooling. They can be enrolled in any type of institution, participate in full-time or part-time education, in academic or vocational programmes, and attend public or private schools or foreign schools within the country. (For an operational definition of this target population, see Annex A2.) Using this age across countries and over time allows PISA to compare consistently the knowledge and skills of individuals born in the same year who are still in school at 15, despite the diversity of their education histories in and outside of school.

The population of participating students is defined by strict technical standards, as are the students who are excluded from participating (see Annex A2). The overall exclusion rate within a country was required to be below 5% to ensure that, under reasonable assumptions, any distortions in national mean scores would remain within plus or minus 5 score points, i.e. typically within the order of magnitude of 2 standard errors of sampling. Exclusion could take place either through the schools that participated or the students who participated within schools (see Annex A2, Tables A2.1 and A2.2).

There are several reasons why a school or a student could be excluded from PISA. Schools might be excluded because they are situated in remote regions and are inaccessible, because they are very small, or because of organisational or

operational factors that precluded participation. Students might be excluded because of intellectual disability or limited proficiency in the language of the assessment.

In 28 out of the 65 countries participating in PISA 2012, the percentage of school-level exclusions amounted to less than 1%; it was less than 5% in all countries. When the exclusion of students who met the internationally established exclusion criteria is also taken into account, the exclusion rates increase slightly. However, the overall exclusion rate remains below 2% in 30 participating countries and economies, below 5% in 57 participating countries, and below 7% in all countries except Luxembourg (8.4%). In 11 out of the 34 OECD countries, the percentage of school-level exclusions amounted to less than 1% and was less than 3% in 30 OECD countries. When student exclusions within schools were also taken into account, there were 11 OECD countries below 2% and 26 OECD countries below 5%.

(For more detailed information about the restrictions on the level of exclusions in PISA 2012, see Annex A2.)

WHAT KINDS OF RESULTS DOES THE TEST PROVIDE?

The PISA assessment provides three main types of outcomes:

- basic indicators that provide a baseline profile of students' knowledge and skills;
- indicators that show how skills relate to important demographic, social, economic and educational variables; and
- indicators on trends that show changes in student performance and in the relationships between student-level and school-level variables and outcomes.

Although indicators can highlight important issues, they do not provide answers to policy questions. To respond to this, PISA also developed a policy-oriented analysis plan that uses the indicators as a basis for policy discussion.

WHERE CAN YOU FIND THE RESULTS?

This is the last of six volumes that present the results from PISA 2012. It begins by discussing the importance of financial literacy, defining financial education and financial literacy, and explaining how the assessment was organised. Chapter 2 compares students' performance in the 2012 PISA financial literacy assessment across and within countries and economies. It discusses what students know about financial literacy and how well they can apply what they know, and examines how student performance in financial literacy compares with performance in reading and mathematics. Chapter 3 examines the relationship between students' financial literacy and the demographic and socio-economic characteristics of these students and their families, including gender, socio-economic status, parents' education and occupation, immigrant background, and language spoken at home. Chapter 4 explores the relationship between students' experiences with money matters (through holding a bank account and prepaid debit card and through their sources of money), and their performance in the financial literacy assessment. It also discusses the relationship between students' attitudes towards learning and their performance in the assessment. The concluding chapter discusses the practical and policy implications of the PISA results.

The other five volumes cover the following issues:

Volume I, *What Students Know and Can Do: Student Performance in Mathematics, Reading and Science,* summarises the performance of students in PISA 2012. It describes how performance is defined, measured and reported, and then provides results from the assessment, showing what students are able to do in mathematics. After a summary of mathematics performance, it examines the ways in which this performance varies on subscales representing different aspects of mathematics literacy. Given that any comparison of the outcomes of education systems needs to take into consideration countries' social and economic circumstances, and the resources they devote to education, the volume also presents the results within countries' economic and social contexts. In addition, the volume examines the relationship between the frequency and intensity of students' exposure to subject content in school, what is known as "opportunity to learn", and student performance. The volume concludes with a description of student results in reading and science. Trends in student performance in mathematics between 2003 and 2012, in reading between 2000 and 2012, and in science between 2006 and 2012 are examined when comparable data are available. Throughout the volume, case studies examine in greater detail the policy reforms adopted by countries that have improved in PISA.

Volume II, *Excellence through Equity: Giving Every Student the Chance to Succeed,* defines and measures equity in education and analyses how equity in education has evolved across countries between PISA 2003 and 2012. The volume examines the relationship between student performance and socio-economic status, and describes how other individual student characteristics, such as immigrant background and family structure, and school characteristics, such as school location, are associated with socio-economic status and performance. The volume also reveals differences in how equitably countries allocate resources and opportunities to learn to schools with different socio-economic profiles.

Volume III, *Ready to Learn: Students' Engagement, Drive and Self-Beliefs,* explores students' engagement with and at school, their drive and motivation to succeed, and the beliefs they hold about themselves as mathematics learners. The volume identifies the students who are at particular risk of having low levels of engagement in, and holding negative dispositions towards, school in general and mathematics in particular, and how engagement, drive, motivation and self-beliefs are related to mathematics performance. The volume identifies the roles schools can play in shaping the well-being of students and the role parents can play in promoting their children's engagement with and dispositions towards learning. Changes in students' engagement, drive, motivation and self-beliefs between 2003 and 2012, and how those dispositions have changed during the period among particular subgroups of students, notably socio-economically advantaged and disadvantaged students, boys and girls, and students at different levels of mathematics proficiency, are examined when comparable data are available. Throughout the volume, case studies examine in greater detail the policy reforms adopted by countries that have improved in PISA.

Volume IV, *What Makes Schools Successful? Resources, Policies and Practices,* examines how student performance is associated with various characteristics of individual schools and of concerned school systems. It discusses how 15-year-old students are selected and grouped into different schools, programmes, and education levels, and how human, financial, educational and time resources are allocated to different schools. The volume also examines how school systems balance autonomy with collaboration, and how the learning environment in school shapes student performance. Trends in these variables between 2003 and 2012 are examined when comparable data are available, and case studies, examining the policy reforms adopted by countries that have improved in PISA, are presented throughout the volume.

Volume V, *Creative Problem Solving: Students' Skills in Tackling Real-Life Problems,* presents student performance in the PISA 2012 assessment of problem solving, which measures students' capacity to respond to non-routine situations in order to achieve their potential as constructive and reflective citizens. It provides the rationale for assessing problem-solving skills and describes performance within and across countries. In addition, the volume highlights the relative strengths and weaknesses of each school system and examines how they are related to individual student characteristics, such as gender, immigrant background and socio-economic status. The volume also explores the role of education in fostering problem-solving skills.

The frameworks for assessing mathematics, reading and science in 2012 are described in *PISA 2012 Assessment and Analytical Framework: Mathematics, Reading, Science, Problem Solving and Financial Literacy* (OECD, 2013). They are summarised in Volume I.

Technical annexes at the end of this report describe how questionnaire indices were constructed and discuss sampling issues, quality-assurance procedures, the reliability of coding, and the process followed for developing the assessment instruments. Many of the issues covered in the technical annexes are elaborated in greater detail in the *PISA 2012 Technical Report* (OECD, forthcoming).

All data tables referred to in the analysis are included at the end of the respective volume in Annex B1 or, for Volume VI, in Annex B. A Reader's Guide is also provided in each volume to aid in interpreting the tables and figures that accompany the report. Data from regions within the participating countries are included in Annex B2. Results from the computer-based assessment of mathematics and reading are presented in Annex B3.

References

OECD (forthcoming), *PISA 2012 Technical Report*, PISA, OECD Publishing, Paris.

OECD (2013), *PISA 2012 Assessment and Analytical Framework: Mathematics, Reading, Science, Problem Solving and Financial Literacy,* OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264190511-en*.

1

The Assessment of Financial Literacy in PISA 2012

PISA 2012 is the first large-scale international study to assess the financial literacy, learned in and outside of school, of 15-year-olds nearing the end of compulsory education. It assesses the extent to which students in 18 participating countries and economies have the knowledge and skills that are essential to make financial decisions and plans for their future. This chapter highlights the importance of financial literacy, defines financial education and financial literacy, and discusses how the assessment was organised. It also offers an overview of the limited and uneven provision of financial education in schools in participating countries and economies, and describes the steps taken in some countries to improve financial literacy among students.

Over the past decade, developed and emerging countries and economies have become increasingly concerned about the level of financial literacy of their citizens, 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. In many instances, challenging economic and financial circumstances have heightened these concerns. This has led to the recognition that better financial literacy skills could contribute to improved financial decision making, and that these decisions could, in turn, have positive effects not only on households but also on economic and financial stability more generally (OECD/INFE, 2009; OECD, 2009). As a result, financial literacy is now globally acknowledged as an essential complement to financial consumer protection, financial inclusion, financial regulation in support of economic and financial stability, and development (see Box VI.1.1). This recognition is notably reflected in the recent G20 leaders' endorsement of the OECD/International Network on Financial Education (INFE) High-level Principles on National Strategies for Financial Education (G20, 2012; OECD/INFE, 2012).

This chapter discusses the rationale for assessing financial literacy in PISA, stressing the importance of financial literacy in general, and particularly among young people, and reflecting the limited provision of financial education in schools in participating countries and economies. It illustrates the need for robust and comparable financial literacy data to design effective policies, and provides an overview of the content and organisation of the assessment of financial literacy in PISA 2012. It discusses the definition of financial literacy and the types of issues that fall within the scope of financial education.

Box VI.1.1 **Financial empowerment and the role of financial education**

The OECD seeks to promote financial education as one component of a trilogy of policy approaches necessary to promote individual financial empowerment and well-being as well as financial stability and economic development. The other two components in this trilogy are financial inclusion and financial consumer protection. Financial inclusion is described as "the process of promoting affordable, timely and adequate access to a wide range of regulated financial products and services and broadening their use by all segments of society through the implementation of tailored existing and innovative approaches, including financial awareness and education with a view to promote financial well-being as well as economic and social inclusion." The range of products and services that can be considered within the definition is wide and may differ according to the national context, including basic banking provision, savings and investment products, remittance and payment facilities, credit and insurance (Atkinson and Messy, 2013).

Financial education is an important factor in policies designed to promote financial inclusion as recognised in the G20 Principles for Innovative Financial Inclusion, endorsed by G20 leaders in 2010 (G20, 2010). Financial education can support individuals who are accessing financial products for the first time, helping them to choose between different options and manage their new products effectively. It may also encourage people to select appropriate products that could help them to manage their money and plan for their future. However, financial education can only be effective in increasing financial inclusion if the necessary products exist. Therefore, policy makers can use "supply-side" initiatives to encourage the provision of products alongside "demand-side" initiatives, such as financial education, and combine these with structural measures, such as regulation and financial consumer protection.

Rather than representing a subset of approaches to financial inclusion, financial education is meant to complement and reinforce financial inclusion endeavours from a demand-side perspective. Financial education can provide individuals with the skills they need to manage their money irrespective of whether or not they already use or possess financial products or the types of products they hold.

Financial consumer protection relates to a regulatory and supervisory framework that promotes a range of activities, provisions and behaviours that benefit consumers and promote confidence in financial markets, such as fair treatment, proper disclosure, responsible business conduct by financial services providers and authorised agents, objective and adequate advice, and adequate complaints handling and redress mechanisms, and that prevent fraud and mis-selling. Consumer confidence and trust in well-functioning markets is essential for financial stability, growth, efficiency and innovation over the long term. By informing and educating consumers on their rights and responsibilities, financial education is an important complement to consumer protection measures, as noted in the G20 High-level Principles on Financial Consumer Protection, endorsed by G20 leaders in 2011 (G20/OECD, 2011).

THE IMPORTANCE OF FINANCIAL LITERACY

Recognising the importance of financial literacy, a growing number of countries have developed and implemented national strategies for financial education in order to improve the financial literacy of their populations in general, often with a particular focus on younger generations (Grifoni and Messy, 2012; OECD/INFE, 2012; Russia's G20 Presidency and OECD, 2013) (Box VI.1.2).

Indeed, the development of financial literacy skills among young people is increasingly perceived by policy makers as essential. First, the current and future financial choices faced by today's youth are likely to be more challenging than those of past generations, given the greater complexity in the financial products, services and systems now available. In some emerging economies, the youth of today may also be the first generation to access financial products. Second, young people will probably bear more financial risks in adulthood due to increased life expectancy, a decrease in welfare and occupational benefits, and uncertain economic and job prospects. Third, 15-year-old students may also face immediate financial decisions; often, they are already consumers of financial services, such as bank accounts with access to online payment facilities. Many students nearing the end of compulsory education also have to decide, with their parents, whether to continue with post-compulsory education and how to finance such education. Providing youth with proper financial education may also help bridge financial literacy disparities due to differences in students' socio-economic status. The financial literacy of adults has indeed been shown to be strongly correlated with their education, income and wealth. Parents with lower levels of education, income or wealth are thus probably less well-equipped than other parents to transmit financial literacy to their children (Atkinson and Messy, 2012). Relying on parents alone to provide their children with financial literacy may maintain inequalities not just in levels of financial literacy, but also in factors closely correlated with it, especially household wealth.

Box VI.1.2 National strategies for financial education

A growing number of governments have begun developing dedicated national strategies for financial education. These aim to enhance the provision and efficiency of financial education through nationally co-ordinated and tailored efforts. National strategies are designed to provide adapted and cost-effective solutions to the financial literacy needs of adults and young people. They have been adopted either as stand-alone public policies, or in combination with financial inclusion and/or consumer protection policies.

A national strategy for financial education is defined as "a nationally co-ordinated approach to financial education that consists of an adapted framework or programme that:

- recognises the importance of financial education – including possibly through legislation – and defines its meaning and scope at the national level in relation to identified national needs and gaps;
- involves the co-operation of different stakeholders as well as the identification of a national leader or co-ordinating body/council;
- establishes a roadmap to achieve specific and predetermined objectives within a set period of time; and
- provides guidance to be applied by individual programmes in order to efficiently and appropriately contribute to the national strategy" (OECD/INFE, 2012).

As of 2014, more than 50 countries at different income levels are well advanced in the design or implementation of a national strategy for financial education and many other countries are considering developing one. Many of these strategies make specific references to the introduction of financial education in schools and/or identify young people as a specific target group. Below are examples of countries participating in the PISA financial literacy assessment that have developed fully-fledged national strategies for financial education (OECD/INFE, 2012; Russia's G20 Presidency and OECD, 2013).

Australia: The National Financial Literacy Strategy, adopted in 2011, is co-ordinated by the Australian Securities and Investments Commission (ASIC) and provides a framework to develop and deliver initiatives to improve financial literacy. In 2013, ASIC lead a review of Australia's strategy to take stock of progress and develop a framework for action that addresses the key priorities over 2014-16. One of the four pillars of the strategy involves "using educational pathways to build financial literacy for all Australians" and focuses on three key formal education sectors: schools, tertiary education, and adult and community education. This pillar considers the effective integration of financial education into schools as a cornerstone of the strategy whilst also recognising that learning is not confined to childhood or the classroom but takes place throughout life.

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Czech Republic: The Ministry of Finance in the Czech Republic started developing the Strategy for Financial Education in 2006 and released it in 2007. The Strategy was amended and formally adopted by the Czech Government in 2010 as the National Strategy for Financial Education. The two main target groups of the National Strategy are students in primary and secondary schools and adults. The Ministry of Finance leads the Working Group for Financial Education, which includes the Ministry of Education, the Czech National Bank and other public authorities, as well as representatives of the financial industry, consumers' associations and experts.

Estonia: The development of a National Strategy for Financial Literacy started in 2010 and a seven-year national programme was launched in 2013. The strategy targets the whole population, including youth. The Estonian Financial Supervision Authority, in partnership with other government departments and various private and non-for-profit stakeholders, leads the implementation of the programme.

New Zealand: The Commission for Financial Literacy and Retirement Income acts as a secretariat for the National Strategy for Financial Literacy. A first strategy was initiated in 2006 and launched in 2008. It has been recently revised to ensure its ongoing relevance. The over-arching goal of the strategy is to build a financially literate population, and it addresses citizens at all ages, including students in compulsory education.

Russian Federation: In 2011 the Russian government launched a comprehensive five-year nationwide project to support financial education and consumer protection. The project targets low-income and vulnerable social groups as well as young people, including school and university students. As part of this project, Russia is preparing its National Strategy for Financial Education to provide a vision and a common framework for the further development of financial literacy policies and programmes in Russia. The strategy is expected to be finalised by the end of 2014.

Slovenia: The National Financial Education Programme was approved by the Government of the Republic of Slovenia in 2010 and is aimed at improving the financial capability of the population, including both young people and adults.

Spain: In 2008 a Financial Education Plan was designed, developed and implemented in a joint initiative of the Central Bank of Spain, the CNMV (Spanish securities supervisor) and the Ministry of Economy. The plan identifies students as a specific target. A first round of funding was approved for the period 2008-13. Building on this experience, a second round of funding was recently signed by the Central Bank and the CNMV for 2013-17.

United States: The Financial Literacy and Education Commission (chaired by the Secretary of Treasury, representatives of 21 federal agencies and the White House) released the National Strategy for Financial Literacy in 2011, which built on the strategy released in 2006. More recently, within this Strategy, the Commission is seeking to enhance federal efforts that help American children and youth build knowledge, skills and habits to prepare them for a financially capable adulthood.

LIMITED AND UNEVEN PROVISION OF FINANCIAL EDUCATION IN SCHOOLS

It is recognised that young people can learn about financial matters from a variety of sources, including their parents, friends, schools, extra-curricular activities, as well as through personal experiences such as opening a bank account. In recent years, more countries have started introducing financial education into schools, often as part of a national strategy for financial education across the whole population with a view to advancing financial literacy among young generations (see OECD, 2014a, for information on financial education provided in schools worldwide). Despite the progress made, provision is still limited; and only a small number of countries have developed financial education in schools in a structured way.

Even in countries where some form of financial education is provided in schools, the content, and even the definition, varies, with some countries and schools offering economics or business studies rather than teaching students how to manage their personal finances. Only a few countries have developed dedicated financial education frameworks, and have introduced financial education into the school curriculum. In addition, the provision of financial education in school is often not tied to an official standardised curriculum. In many cases, schools may have flexibility in integrating financial education into the curriculum, and teachers may have flexibility as to whether or not to include aspects of financial literacy within their subjects. Teachers' decisions to provide financial education to their students are also linked to the availability of teaching material and professional development, which is generally very limited (see the end of this Chapter for more information about who teaches financial education in schools and the extent of professional

development activities that are related to financial literacy). Even in the countries where financial education is offered, almost no country assesses financial literacy skills at the end of compulsory education, and only a few are attempting to rigorously evaluate the impact of existing forms of financial education in schools.

In spite of these challenges and limitations, the number of initiatives being developed at national, regional and local levels has increased in recent years. This section describes some relevant examples from the countries and economies participating in the PISA 2012 financial literacy assessment.

New Zealand and the Czech Republic are among the notable, small group of countries that have recently given full responsibility for financial literacy to the ministry of education. More generally, in countries that have introduced financial education in the curriculum to various extents, a cross-curricular approach has been adopted. This means integrating financial literacy into other subjects and existing courses, rather than adding an additional course to already crowded curricula. This cross-curricular approach also makes it possible to use financial literacy to reinforce other skills, such as reading and mathematics, and provides a real-life application for other learning areas. For example, financial literacy is included in the New Zealand curriculum as a theme that schools can use for cross-curricular teaching and learning programmes. It provides a context for linking learning areas, such as social sciences, mathematics and statistics, English, business studies, health and technology, and it provides a relevant context for strengthening literacy and numeracy skills. In Australia, financial literacy was first introduced within the mathematics, English and science curricula but is also included in the draft economics and business curricula.

A few countries have also developed standards for financial literacy in order to precisely define the content to be taught and the skills to be developed. Although the content varies across countries, financial literacy usually includes categories such as money and transactions, planning and managing finance, risk and rewards, and an understanding of the financial landscape, including economic concepts and consumer rights and responsibilities.

For example, in Australia, education authorities in all jurisdictions have endorsed three iterations of the National Consumer and Financial Literacy Framework since 2005. The Framework (2011) describes essential consumer and financial capabilities and provides guidance on how consumer and financial education may be structured in compulsory education. Financial literacy topics were integrated into school subjects through inclusion in appropriate areas of the Australian Curriculum. As part of this endeavour, the Australian Securities and Investments Commission created a national education portal called MoneySmart Teaching (*www.moneysmart.gov.au/teaching*). In the Flemish Community of Belgium, learning outcomes for secondary schools that came into effect in 2010-11 cover typical financial education topics, such as budgeting, alongside economics topics, such as labour, goods and services, welfare and poverty. They are mandatory in all secondary schools while schools can decide how and in which subjects these cross-curricular competencies should be integrated. In Shanghai-China, some financial education topics have been integrated into the existing national curriculum since the 1970s, while schools have some autonomy in teaching financial education with respect to the national curriculum. In the Pudong New Area of Shanghai-China, regular training on finance has been delivered since 2009 in primary and lower secondary schools. In the Czech Republic, a Ministry of Finance-led working group developed Standards for Financial Literacy in 2007, which define contents and expected outcomes of financial education for primary and secondary school students. The standards focus on such topics as money, household budget management, financial products and consumer rights. In Estonia, implementing financial education in schools started in 1996 when finance-related topics were incorporated in the first National Curriculum. According to the new curricula adopted by the government in 2010, in primary and lower secondary school, monetary and finance-related topics are incorporated in human study, social studies, crafts and home economics, as well as mathematics. In New Zealand, financial literacy has been included in the curriculum since 2007, a result of the Financial Literacy Framework. This framework contains learning outcomes across two strands: managing money and income (covering money, income, savings, spending and budgeting, and credit); and setting goals and planning ahead (covering setting financial goals, and identifying and managing risk).

In other countries, economics and/or business studies are taught with the expectation that they will improve financial literacy. This sometimes occurs alongside lessons on personal finance (i.e., teaching students how to manage their money). In France, students enrolled in the general and scientific tracks of high schools are taught economics, social sciences and management. In the United States, there are differences across states in whether schools are mandated to offer courses in economics and/or personal finance.

Building on these experiences, some countries have decided to develop pilot projects to test the introduction of financial education in their schools with a view to extending them nationwide. Some of these pilots have been accompanied by impact assessment evaluations (see for instance Bruhn et al., 2013, for Brazil as well as Chapter 5 of this volume; García,

2012, for Colombia; and Romagnoli and Trifilidis, 2013, for Italy). Financial education is being introduced in Colombian schools through the pilot project Finanzas para el Cambio (Finances for Change), which started in 2006. In Israel, teaching financial education in schools started in 2010 with a gradually expanding pilot programme for 10th-graders (15- and 16-year-old students). The Ministry of Education established a steering committee to consider changing and expanding the existing curriculum. In Italy, financial and education authorities implemented an experimental programme to incorporate financial education into school curricula at various levels. The programme was piloted in the school year 2008/09 and was then made available nationwide. Spanish authorities first developed a pilot programme for introducing financial education in secondary schools in 2010/11, which is being continued and extended following an evaluation carried out during 2013. At the same time, efforts to introduce this topic into the official curricula are almost complete.

THE NEED FOR DATA ON STUDENTS' FINANCIAL LITERACY

Given the importance of developing young people's financial literacy skills and ongoing policy efforts to introduce this subject into schools, reliable data on levels of financial literacy are increasingly necessary. Such data can further inform financial education strategies and the implementation of financial education programmes in schools by identifying groups in need and priority areas of learning, and by measuring change across time. Monitoring progress allows countries to gauge success from national and global perspectives. Several countries, such as Australia, New Zealand and the United States, have undertaken national surveys of their adults' financial literacy (ANZ and Roy Morgan Research, 2011; Commission for Financial Literacy and Retirement Income, 2013; FINRA Investor Education Foundation, 2009/12); and in 2010, the OECD developed a questionnaire and reported the levels of adult financial literacy in 14 countries (Atkinson and Messy, 2012; OECD/INFE, 2013). However, until the assessment of financial literacy in PISA 2012 was conducted, there were few data collection efforts aimed to measure the levels of financial literacy among young people, and none that could be compared across countries. The availability of such data is essential for understanding how well today's youth are prepared to face new and changing financial environments.

A robust measure of the financial literacy of 15-year-old students provides information that can indicate whether the current approach to financial education is effective. In particular, it can help to identify issues that need addressing through schools, extracurricular activities or programmes that will equip students to make financial decisions in adulthood. It can also be used as a baseline from which to measure success and review school and other programmes in future years.

As an international study, PISA provides additional benefits to policy makers and other stakeholders. By establishing international benchmarks and facilitating knowledge sharing, PISA can contribute to improving financial education at the regional, national and international levels. Comparing levels of financial literacy across education systems makes it possible to see which countries have the highest levels of financial literacy and to begin to explore relevant financial education policies and practices. This can lead to the recognition of common challenges and the possibility of finding international solutions.

PISA's collection of robust and internationally comparable data concerning the financial literacy of 15-year-old students can provide policy makers, educators, curriculum and resource developers, researchers and others with:

- unique, cross-country, comparable data about gaps in the financial knowledge and skills of 15-year-old students nearing the end of compulsory schooling that can inform the development of more targeted education programmes and policies;
- a means of comparing financial education strategies and practices across countries and variations in the provision of financial education;
- a comparison of the levels of financial literacy proficiency across and within participating countries and economies;
- evidence on the relationship between financial literacy, mathematical literacy and reading literacy;
- information on the relationship between students' financial literacy proficiency and their socio-economic background, attitudes, and experience with, and access to, financial services; and
- comparable data over time, which can be used to assess the impact of financial education initiatives in schools and identify options for improvements.

This first assessment is also particularly timely, given the growing interest in developing financial education in schools. Policy makers will be able to use the information from this first measure to set benchmarks, inform teacher practice, and measure student progress, knowing that while some students are relatively financially literate, all students stand to gain from the provision of high-quality financial education in schools.

Box VI.1.3 **Measuring financial literacy as a life skill**

Measurement of a life skill, such as financial literacy, at the end of compulsory education can also be used as a baseline to monitor changes as the PISA students move towards adulthood. The OECD has developed a skills strategy to help countries identify the strengths and weaknesses of their national skills systems, benchmark them internationally, and develop policies that can transform better skills into better jobs, economic growth and social inclusion. The strategy focuses not only on skills development through education and training, but also on the demand for skills in the labour market and the effective use of skills (OECD, 2012). It stresses that available skills should be used effectively so that no investment in education and training is wasted. Regardless of country contexts, financial literacy has become a universally necessary skill for life and employment in today's world. It can therefore be used as an example of relevant life skills for international comparison.

Furthermore, the analysis of financial literacy performance among 15-year-olds will enable us to predict the financial literacy skills of adults in the near future. The Survey of Adult Skills, a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC), shows overall, there is a reasonably close correlation between countries' performance across the successive PISA assessments and the proficiency of the corresponding age cohorts several years later in literacy and numeracy in the adult survey. Countries performing well in PISA in a given year (e.g. 2000) tend to show high performance among the corresponding age cohort (e.g. 27-year-olds) in the Survey of Adult Skills and vice versa. By implication, the financial literacy proficiency of students today provides some indication of their likely competency as adults in 12 years' time.

THE FINANCIAL LITERACY ASSESSMENT IN PISA 2012

The PISA 2012 financial literacy assessment is the first large-scale international study to assess the financial literacy of 15-year-old students. The assessment was conducted in 18 participating countries and economies including 13 OECD countries and economies: Australia, the Flemish Community of Belgium, the Czech Republic, Estonia, France, Israel, Italy, New Zealand, Poland, the Slovak Republic, Slovenia, Spain and the United States; and five partner countries and economies: Colombia, Croatia, Latvia, the Russian Federation and Shanghai-China.

PISA assesses the readiness of 15-year-old students for life beyond compulsory education and their capacity to use knowledge and skills by collecting and analysing cognitive and other information. It thus provides a rich set of cross-country comparative data that policy makers and other stakeholders can use to make evidence-based decisions. International comparative data on financial literacy can answer questions such as "How well-prepared are 15-year-old students to participate in the new financial systems that are becoming more global and more complex?" and "Which countries are the leaders in terms of financial literacy among 15-year-old students and what factors correlate with their leadership?"

The main focus of the financial literacy assessment is on measuring the proficiency of 15-year-old students in demonstrating and applying the knowledge and skills that they have learned in and out of school. Like other PISA domains, financial literacy is assessed using an instrument designed to provide data that are valid, reliable and interpretable. The *PISA 2012 Assessment and Analytical Framework* (OECD, 2013) provides a comprehensive framework to assess the financial literacy of 15-year-old students, including a common language to discuss financial literacy with a view to illustrating what is being measured and the groundwork for building a described proficiency scale with which to interpret the results of the assessment (see summary in Box VI.I.4 and Annex A5 for further details).

Box VI.1.4 **Key features of the assessment of financial literacy in PISA 2012**

For the first time, PISA 2012 conducted an assessment of the financial literacy of 15-year-old students, which was optional for countries and economies. A second financial literacy assessment is planned in 2015.

Countries and economies participating in the financial literacy assessment

- Eighteen countries and economies participated in the assessment of financial literacy. They include 13 OECD countries and economies: Australia, the Flemish Community of Belgium, the Czech Republic, Estonia, France, Israel, Italy, New Zealand, Poland, the Slovak Republic, Slovenia, Spain and the United States; and five partner countries and economies: Colombia, Croatia, Latvia, the Russian Federation and Shanghai-China.

...

The students

- Around 29 000 students completed the assessment of financial literacy in 2012, representing about nine million 15-year-olds in the schools of the 18 participating countries and economies.
- These students were assessed in addition to those who participated in the core PISA assessment. In general, eight additional 15-year-old students were chosen at random from each participating school to undertake the financial literacy assessment.

The assessment

- A paper-based test was used, with assessments lasting a total of two hours for each student, comprising four 30-minute clusters of test material.
- Each test booklet included: two clusters of financial literacy items which include, in total, 40 questions (or tasks) (that is, 60 minutes of testing time); one cluster of mathematics test items; and one cluster of reading items. Mathematics and reading scores reported in this volume are slightly different from the mathematics and reading scores of the core assessment reported in Volume I (OECD, 2014b) as they are drawn from a different sample of students.
- As in other domains, financial literacy items were grouped in units comprising one or two items based around a common stimulus. The selection includes financially focused stimulus material in diverse formats, including prose, diagrams, tables, charts and illustrations.
- Questions about students' experiences with money matters were included at the end of the financial literacy test booklets.
- Students who took the assessment of financial literacy also answered the PISA student questionnaire about themselves, their homes, their school and learning experiences and attitudes.
- School principals received a questionnaire that asked standard questions about school policies and the learning environment, and also included questions about the provision of financial education in school.

Response types

- The items comprise two types of question: constructed-response items and selected-response items:
  - Constructed-response items require students to generate their own answers. The format of the answer may be a single word or figure, or may be longer: a few sentences or a worked calculation.
  - Selected-response items require students to choose one or more alternatives from a given set of options. The common types in this category are the simple multiple-choice item, which usually requires the selection of one from a set of four options, and complex multiple choice, in which students respond to a series of Yes/No-type questions (see Annex A5 for more information).

DEFINING FINANCIAL LITERACY FOR 15-YEAR-OLD STUDENTS

The definition of financial literacy for 15-year-olds that underlies the assessment of financial literacy in PISA 2012 builds on the OECD definitions of financial education and adult financial literacy.

The OECD defines financial education as "the process by which financial consumers/investors improve their understanding of financial products, concepts and risks and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being" (OECD, 2005). This definition was endorsed by G20 leaders in 2012 (OECD/INFE, 2012) and is used in a majority of countries (Russia's G20 Presidency and OECD, 2013). "Understanding", "confidence", "skills" and the notion of applying understanding and skills ("effective actions") are key elements of this definition and make up the components of financial literacy.

For the purpose of measuring financial literacy in the adult population, the OECD/INFE developed the following working definition: "Financial literacy is a combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial well-being" (Atkinson and Messy, 2012). This definition is now equally globally acknowledged and was endorsed by G20 leaders in 2012 (G20, 2012).

The definition of financial literacy in the PISA Financial Literacy Assessment Framework refines the adult definition to make it relevant to the competencies (or literacy) of 15-year-old students. PISA is also forward looking, and so the definition incorporates the ability to use knowledge and skills to meet challenges in the future.

> ***"Financial literacy is knowledge and understanding of financial concepts and risks, and the skills, motivation and confidence 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."***

This definition, like other PISA domain definitions, has two parts. The first part refers to the kind of thinking and behaviour that characterises the domain. The second part refers to the purposes for developing the particular literacy. PISA conceives of the term literacy as the capacity of 15-year-old students to apply knowledge and skills in key subject areas and to analyse, reason and communicate effectively as they pose, solve and interpret problems in a variety of situations.

In the following paragraphs, each part of the PISA 2012 definition of financial literacy is considered in turn to help clarify its meaning in relation to the assessment.

"Financial literacy..."

Literacy is viewed as an expanding set of knowledge, skills and strategies, which individuals build on throughout life, rather than as a fixed quantity, a line to be crossed, with illiteracy on one side and literacy on the other. Literacy involves more than the reproduction of accumulated knowledge, although measuring prior financial knowledge is an important element in the assessment. It also involves a mobilisation of cognitive and practical skills, and other resources, such as attitudes, motivation and values. The PISA 2012 assessment of financial literacy draws on a range of knowledge and skills associated with development of the capacity to deal with the financial demands of everyday life in contemporary society.

"...is knowledge and understanding of financial concepts and risks..."

Financial literacy is thus contingent on some knowledge and understanding of fundamental elements of the financial world, including key financial concepts as well as the purpose and basic features of financial products. This also includes risks that may threaten financial well-being as well as insurance policies and pensions. Fifteen-year-old students are beginning to acquire this knowledge and gain experience of the financial environment that they and their families inhabit and the main risks they face. They are likely to have been shopping to buy household goods or personal items; some will have taken part in family discussions about money and whether what is wanted is actually needed or affordable; and a sizeable proportion of them will have already begun to earn and save money. Some 15-year-old students already have experience of financial products and commitments through a bank account or a mobile phone contract. A grasp of concepts, such as interest, inflation, and value for money, are soon going to be, if they are not already, important for their financial well-being.

"...and the skills,..."

These skills include such generic cognitive processes as accessing information, comparing and contrasting, extrapolating and evaluating, applied in a financial context. They include basic skills in mathematical literacy, such as the ability to calculate a percentage or to convert from one currency to another, and language skills, such as the capacity to read and interpret advertising and contractual texts.

"...motivation and confidence..."

Financial literacy involves not only the knowledge, understanding and skills to deal with financial issues, but also non-cognitive attributes: the motivation to seek information and advice in order to engage in financial activities, the confidence to do so, and the ability to manage emotional and psychological factors that influence financial decision making. These attributes are considered as a goal of financial education, as well as being instrumental in building financial knowledge and skills.

"...to apply such knowledge and understanding in order to make effective decisions..."

PISA focuses on the ability to activate and apply knowledge and understanding in real-life situations rather than the reproduction of knowledge. In assessing financial literacy, this translates into measuring 15-year-old students' ability to

transfer and apply what they have learned about personal finance into effective decision making. The term "effective decisions" refers to informed and responsible decisions that satisfy a given need.

"...across a range of financial contexts..."

Effective financial decisions apply to a range of financial contexts that relate to 15-year-old students' present daily life and experience, but also to steps they are likely to take in the near future as adults. For example, 15-year-old students may make relatively simple financial decisions, such as how they will use their pocket money or, at most, which mobile phone plan they will choose; but they may soon be faced with major decisions about education and work options with long-term financial consequences.

"...to improve the financial well-being of individuals and society..."

Financial literacy in PISA is primarily conceived of as personal financial literacy, distinguished from economic literacy, which includes both broader concepts, such as the theories of demand and supply, market structures and so on. Financial literacy is concerned with the way individuals understand, manage and plan their own and their households' financial affairs, and with their awareness and understanding of the overall financial and economic landscape they live in. It is also recognised that good understanding, management and planning on the part of individuals has some collective impact on the wider society in contributing to national and even global stability, productivity and development.

"...and to enable participation in economic life."

Like the other PISA literacy definitions, the definition of financial literacy implies the importance of the individual's role as a thoughtful and engaged member of society. Individuals with a high level of financial literacy are better equipped to make decisions that are of benefit to themselves, and also to constructively support and critique the economic world in which they live.

In practical terms, a person with a high level of financial literacy can make the kinds of personal or household decisions about money and finance that will improve their financial well-being, all else being equal. Improving financial well-being depends on the starting point; for young people, it may mean saving in order to have the money to travel or study without relying on excessive levels of credit, while for some households, it could be increasing the amount of money available to pay for essentials, such as electricity, by shopping around to find financial products with lower fees or interest charges.

The types of financial decisions made by young people as they reach adulthood will vary and may include relatively simple choices, such as how to spend their weekly allowance, through to complex comparisons of different student loan products or credit cards. In order to make such decisions, they need relevant knowledge and self-confidence as well as a range of other basic skills including numeracy, reading ability and problem solving skills. They may also benefit from a broad knowledge base, including some aspects of economics, business or enterprise, although these subjects would not provide them with all of the specific skills that make up financial literacy. The item PAY SLIP, presented below, is a good example of the ways in which students may draw on other aspects of their education when answering financial literacy questions. The item is strongly grounded in personal finance, but includes numbers, although no mathematics is required; it requires basic reading, and uses terms that may be particularly familiar to economics or business students.

ASSESSING FINANCIAL LITERACY

The PISA 2012 financial literacy framework considers financial literacy in terms of content, processes, and contexts (for details, see *PISA 2012 Assessment and Analytical Framework* [OECD, 2013]). The following section provides a summary of these categories with a few examples of questions. A selection of questions used in the 2012 financial literacy assessment is presented at the end of this chapter.

Content

The content categories comprise the areas of knowledge and understanding that are essential for financial literacy. They are conceived of as the areas of knowledge and understanding that must be drawn upon in order to perform a particular financial task. The four content areas for PISA financial literacy are: **money and transactions**, **planning and managing finances, risk and reward,** and **financial landscape**. Figure VI.1.1 shows the content categories of a selection of the questions used in the financial literacy assessment.

■ Figure VI.1.1 ■

Map of selected financial literacy questions in PISA 2012, illustrating the content categories

Content category	Level*	Position on PISA scale	Questions
Money and transactions	1	360	**INVOICE** Question 1
		398	**AT THE MARKET** Question 3
	2	459	**AT THE MARKET** Question 2
		461	**INVOICE** Question 2
	3	547	**INVOICE** Question 3 Partial credit
	4	551	**PAY SLIP** Question 1
	5	660	**INVOICE** Question 3 Full credit
Planning and managing finances	3	510	**NEW OFFER** Question 1 Partial credit
	4	582	**NEW OFFER** Question 2
	5	663	**NEW OFFER** Question 1 Full credit

Note: *Level 5 indicates the highest proficiency level in financial literacy. See Chapter 2 for a description of the proficiency levels.
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- **Money and transactions**: This category, which represents the first core content of financial literacy, includes the awareness of the different forms and purposes of money and handling simple monetary transactions such as everyday payments, spending, value for money, bank cards, cheques, bank accounts and currencies.
- **Planning and managing finances**: This category, which covers essential financial literacy skills, includes planning and managing of income and wealth over both the short term and long term, and in particular the knowledge and ability to monitor income and expenses, as well as to make use of income and other available resources to enhance financial well-being.
- **Risk and reward**: This category incorporates the ability to identify ways of managing, balancing and covering risks (including through insurance and saving products) and an understanding of the potential for financial gains or losses across a range of financial contexts and products, such as a credit agreement with a variable interest rate, and investment products.
- **Financial landscape**: This category relates to the character and features of the financial world. It covers knowing the rights and responsibilities of consumers in the financial marketplace and within the general financial environment, and the main implications of financial contracts. It also incorporates an understanding of the consequences of change in economic conditions and public policies, such as changes in interest rates, inflation, taxation or welfare benefits.

Example 1: PAY SLIP

PAY SLIP is an example of an item in the content category **money and transactions**. This multiple-choice question asks students to identify financial information on a pay slip. While a pay slip is a common financial document, it may be unfamiliar to 15-year-old students. Students need to understand the difference between gross and net pay, that is, the difference between pay before and after any deductions have been made (such as deductions for health care or tax). Numeracy skills are not required to perform this task. This question is located at Level 4 (See Chapter 2 for the description of the proficiency levels).

PAY SLIP

Each month, Jane's salary is paid into her bank account. This is Jane's pay slip for July.

EMPLOYEE PAY SLIP: Jane Citizen

Position: Manager	1 July to 31 July
Gross salary	2 800 zeds
Deductions	300 zeds
Net salary	2 500 zeds
Gross salary to date this year	19 600 zeds

PAY SLIP – *QUESTION 1*

How much money did Jane's employer pay into her bank account on 31 July?

- 300 zeds
- 2 500 zeds
- 2 800 zeds
- 19 600 zeds

Question type: *Multiple choice*
Description: *Identify the net salary on a pay slip*
Content: *Money and transactions*
Process: *Identify financial information*
Context: *Education and work*
Difficulty: *551 (Level 4)*

Processes

The process categories relate to cognitive processes and describe students' ability to recognise and apply concepts relevant to the domain, and to understand, analyse, reason about, evaluate and suggest solutions. In PISA financial literacy, four process categories have been defined with no particular hierarchical order: **identify financial information**; **analyse information in a financial context**; **evaluate financial issues**; and **apply financial knowledge and understanding**. Figure VI.1.2 shows the process categories of a selection of the questions used in the financial literacy assessment.

▪ Figure VI.1.2 ▪

Map of selected financial literacy questions in PISA 2012, illustrating the process categories

Process category	Level*	Position on PISA scale	Questions
Identify financial information	1	360	**INVOICE** Question 1
	2	461	**INVOICE** Question 2
	4	551	**PAY SLIP** Question 1
Analyse information in a financial context	2	459	**AT THE MARKET** Question 2
	3	510	**NEW OFFER** Question 1 Partial credit
	5	663	**NEW OFFER** Question 1 Full credit
Evaluate financial issues	1	398	**AT THE MARKET** Question 3
	4	582	**NEW OFFER** Question 2
Apply financial knowledge and understanding	3	547	**INVOICE** Question 3 Partial credit
	5	660	**INVOICE** Question 3 Full credit

Note: *Level 5 indicates the highest proficiency level in financial literacy. See Chapter 2 for a description of the proficiency levels.
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- **Identify financial information**: This category is applicable when the individual searches and accesses sources of financial information and identifies or recognises their relevance.
- **Analyse information in a financial context**: This category covers a wide range of cognitive activities undertaken in financial contexts, including interpreting, comparing and contrasting, synthesising, and extrapolating from information that is provided.
- **Evaluate financial issues**: This category focuses on recognising or constructing financial justifications and explanations, drawing on financial knowledge and understanding applied in specified contexts. It also involves cognitive activities, such as explaining, assessing and generalising.
- **Apply financial knowledge and understanding**: This category focuses on taking effective action in a financial setting by using knowledge of financial products and contexts and understanding of financial concepts.

Example 2: INVOICE

INVOICE Question 3 assesses the process of applying financial knowledge and understanding. It asks students to find the correct total amount on an invoice that has been incorrectly prepared, taking into account the sales tax as a percentage of purchase and the delivery charge.

INVOICE

Sarah receives this invoice in the mail.

Breezy Clothing

Invoice
Invoice Number: 2034
Date issued: 28 February

Sarah Johanson
29 Worthill Rd
Kensington
Zedland 3122

Breezy Clothing
498 Marple Lane
Brightwell
Zedland 2090

Product code	Description	Quantity	Unit cost	Total (excluding tax)
T011	T-shirt	3	20	60 zeds
J023	jeans	1	60	60 zeds
S002	scarf	1	10	10 zeds

Total Excluding Tax:	130 zeds
Tax 10%:	13 zeds
Postage:	10 zeds
Total Including Tax:	153 zeds
Already Paid:	0 zeds
Total due:	153 zeds
Date due:	31 March

INVOICE – *QUESTION 3*

Sarah notices that Breezy Clothing made a mistake on the invoice.
Sarah ordered and received two T-shirts, **not** three.
The postage fee is a fixed charge.
What will be the total on the new invoice?

Question type: *Constructed response*
Description: *Find a new total on an invoice, taking into account several factors (or demonstrate process required)*
Content: *Money and transactions*
Process: *Apply financial knowledge and understanding*
Context: *Individual*
Difficulty: *Full credit: 660 (Level 5); Partial credit: 547 (Level 3)*

Contexts

The context categories refer to the situations in which the financial knowledge, skills and understandings are applied, ranging from the personal to the global. In PISA, assessment tasks are framed in general life situations. The focus may be on the individual, family or peer group, the community, or even on a global scale. The contexts identified for the PISA financial literacy assessment include: **education and work**; **home and family**; **individual**; and **societal**. Figure VI.1.3 shows the context categories of a selection of the questions used in the financial literacy assessment.

▪ Figure VI.1.3 ▪

Map of selected financial literacy questions in PISA 2012, illustrating the context categories

Context category	Level*	Position on PISA scale	Questions
Education and work	4	551	**PAY SLIP** Question 1
Home and family	1	398	**AT THE MARKET** Question 3
	2	459	**AT THE MARKET** Question 2
Individual	1	360	**INVOICE** Question 1
	2	461	**INVOICE** Question 2
	3	510	**NEW OFFER** Question 1 Partial credit
		547	**INVOICE** Question 3 Partial credit
	4	582	**NEW OFFER** Question 2
	5	660	**INVOICE** Question 3 Full credit
		663	**NEW OFFER** Question 1 Full credit

Note: *Level 5 indicates the highest proficiency level in financial literacy. See Chapter 2 for a description of the proficiency levels.

StatLink http://dx.doi.org/10.1787/888933094868

- **Education and work**: This category is important to 15-year-old students. While many students will continue in education or training at post-compulsory education, some of them may soon move into the labour market or may already be engaged in casual employment outside of school hours.
- **Home and family**: This category includes financial issues relating to the costs involved in running a household. It is most likely that 15-year-old students will be living with family, but this context category also encompasses households that are not based on family relationships, such as the kind of shared accommodation that young people often use shortly after leaving the family home.
- **Individual**: This category is important within personal finance and especially for students, as most of their financial decisions, including using products such as mobile phones or laptops, are related to themselves and made for their personal benefit, and as many risks and responsibilities must also be borne by individuals. It includes choosing personal products and services as well as contractual issues, such as getting a loan.
- **Societal**: The core of the financial literacy domain is focused on personal finances, but this context category recognises that individuals' financial decisions and behaviours can influence and be influenced by the rest of society. It includes matters such as being informed and understanding the rights and responsibilities of financial consumers and understanding the purpose of taxes and local government charges.

Example 3: NEW OFFER

NEW OFFER illustrates a challenging item with an individual context. The item requires students to consider the financial benefits of taking a particular loan. Personal loans fall into the individual context since there are benefits, disadvantages and legal consequences for the person taking out the loan. The item also tests students' understanding of the relevant financial concepts such as repayment and penalty fees in relation to a loan and their implications.

NEW OFFER

Mrs Jones has a loan of 8000 zeds with FirstZed Finance. The annual interest rate on the loan is 15%. Her repayments each month are 150 zeds.

After one year Mrs Jones still owes 7400 zeds.

Another finance company called Zedbest will give Mrs Jones a loan of 10 000 zeds with an annual interest rate of 13%. Her repayments each month would also be 150 zeds.

NEW OFFER – *QUESTION 1*

If she takes the Zedbest loan, Mrs Jones will immediately pay off her existing loan.

What are two other **financial** benefits for Mrs Jones if she takes the Zedbest loan?

1. .....

2. .....

Question type: *Constructed response*
Description: *Recognise positive consequences of transferring a loan to a lower interest rate*
Content: *Planning and managing finances*
Process: *Analyse information in a financial context*
Context: *Individual*
Difficulty: *Full credit: 663 (Level 5); Partial credit: 510 (Level 3)*

EVIDENCE FROM PISA ABOUT FINANCIAL EDUCATION IN SCHOOLS

The PISA school questionnaire offers an insight into the extent to which 15-year-old students taking part in the assessment have been exposed to financial education in their current school. Figure VI.1.4 shows the distribution of students by whether financial education is available in their schools, and by how long it has been available for. There is a large variation across countries in terms of availability, and in some countries many students attend schools where financial education became available only recently (i.e. less than two years before the survey).

Even in the countries where financial education is available, it is rarely taught as a separate subject; more frequently, it is integrated in other subjects or it is taught as a cross-curricular subject (e.g., as a context for linking learning areas, as in New Zealand) (Table VI.1.2). Figure VI.1.5 shows the distribution of students by the number of hours during which financial education is taught as a separate subject or as a cross-curricular subject in their schools.

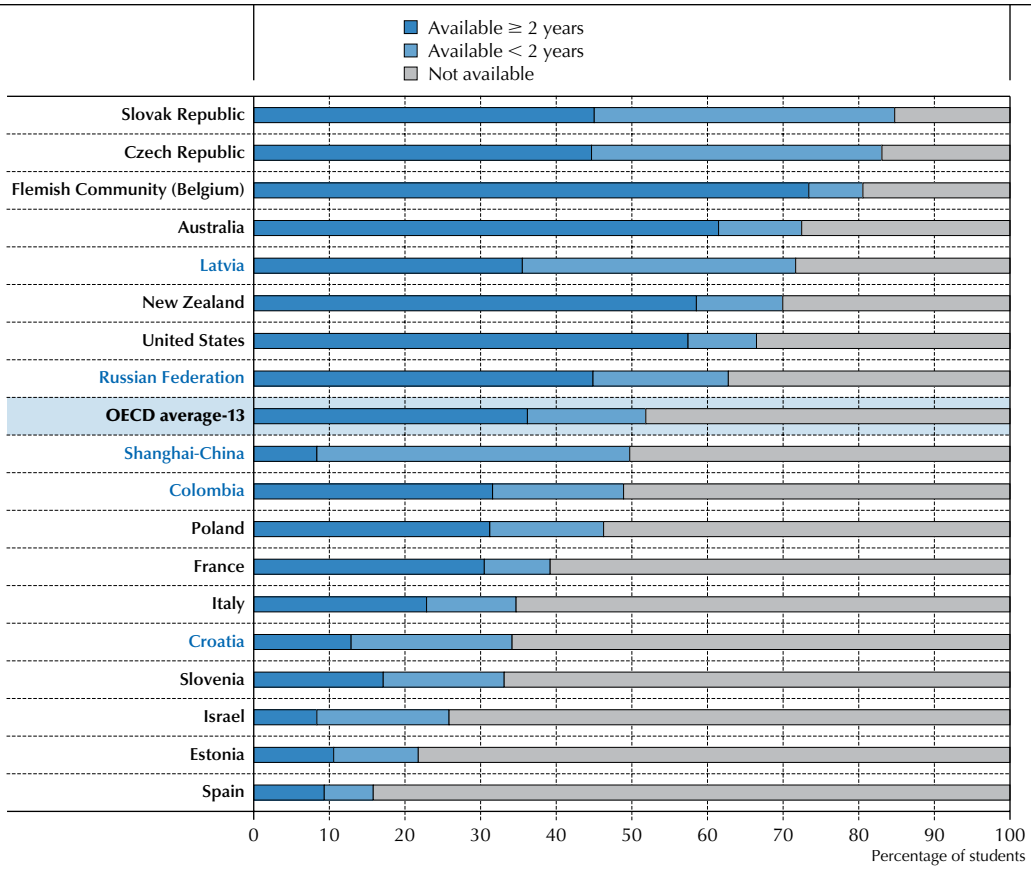
The PISA school questionnaire also sought information about who provides financial education in the schools in which the 15-year-olds participating in the assessment are enrolled. For most of these students, the subject is taught by classroom teachers (Figure VI.1.6). However, relatively large percentages of students in some countries (such as New Zealand and the United States) attend schools where financial education is provided by other people, such as representatives of public authorities (e.g. central bank, ministry of finance), the private sector and not-for-profit organisations. It is common for these external facilitators to provide financial education alongside classroom teachers, and relatively unusual for them to take the teacher's place (Table VI.1.3).

Various countries and economies have started creating teaching resources and/or professional development courses on financial education. For instance, the Australian Securities and Investments Commission has developed a freely available MoneySmart Teaching professional learning program with three teacher workshops, a parent workshop and over 20 units of work with assessment, all linked to the Australian Curriculum. In addition, there are a number of further resources

■ Figure VI.1.4 ■

Availability of financial education in schools

Percentage of students for whom financial education is or not available



Countries and economies are ranked in ascending order of the percentage of students for whom financial education is not available.
Source: OECD, PISA 2012 Database, Table VI.1.1.
StatLink http://dx.doi.org/10.1787/888933094868

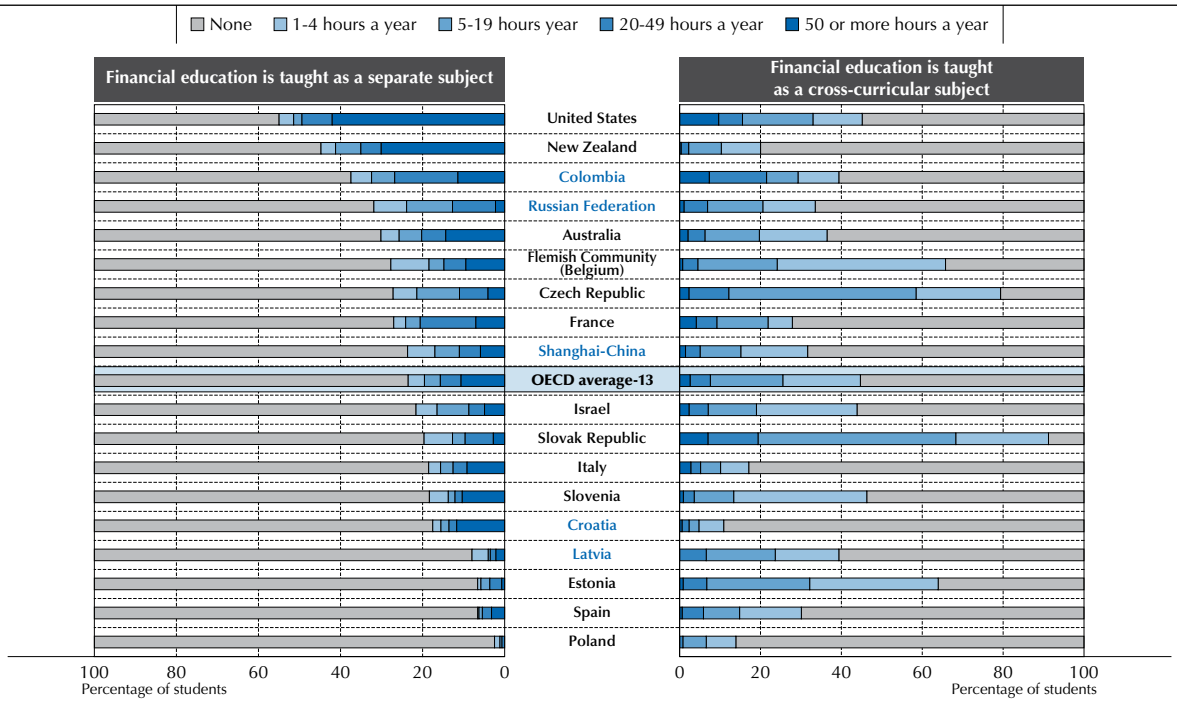
available for educators. In the Czech Republic, optional financial education training is offered as part of pre-service education and as further education. In order to foster teacher-training and effective teaching of financial education, the Czech National Bank has also provided schools with manuals for teachers. In Estonia, teacher training includes training on financial literacy issues organised by the Financial Supervisory Authority and the private sector, as well as through a handbook developed for teachers.

In practice, few teachers attend professional development activities on financial literacy according to the PISA school questionnaire (with a few notable exceptions like the Flemish Community of Belgium and the Czech Republic). Figure VI.1.7 shows the distribution of students by the proportion of teachers in their school who have attended a professional development programme in financial education. In many countries, most students are taught by teachers who have not received this kind of professional development training (Table VI.1.4).

■ Figure VI.1.5 ■

Integrating financial education into the school curriculum

Percentage of students according to the number of hours during which financial education is taught as a separate subject or as a cross-curricular subject in their school



Countries and economies are ranked in descending order of the percentage of students who attend schools where financial education is taught as a separate subject.

Note: Base: all students.

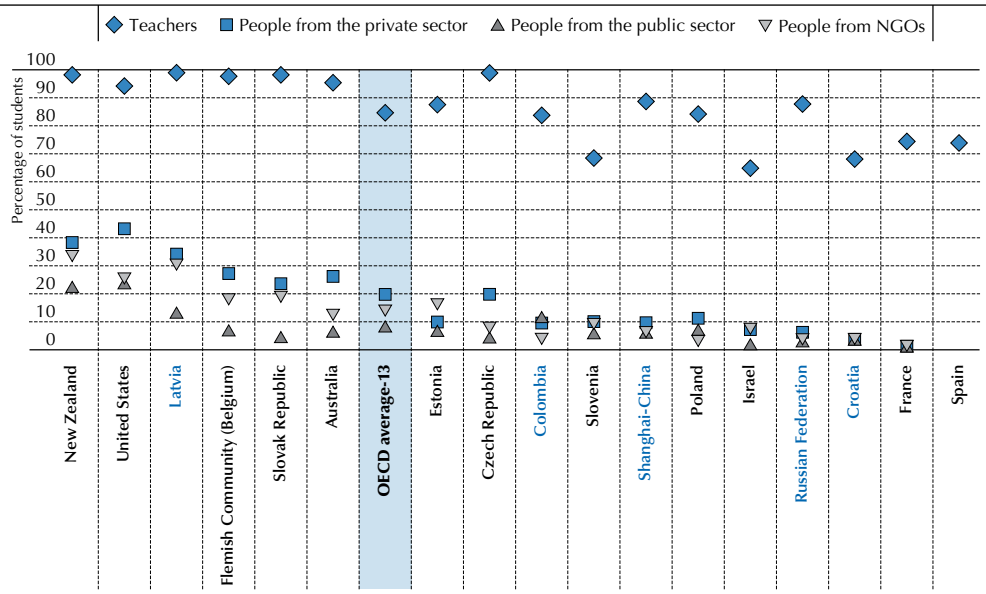
Source: OECD, PISA 2012 Database, Table VI.1.2.

StatLink http://dx.doi.org/10.1787/888933094868

■ Figure VI.1.6 ■

Who provides financial education in schools?

Percentage of students according to who provides financial education in their school



Countries and economies are ranked in descending order of the average percentage of students who receive financial education from the private sector, public institutions and NGOs.

Note: Base: all students. Multiple responses are possible.

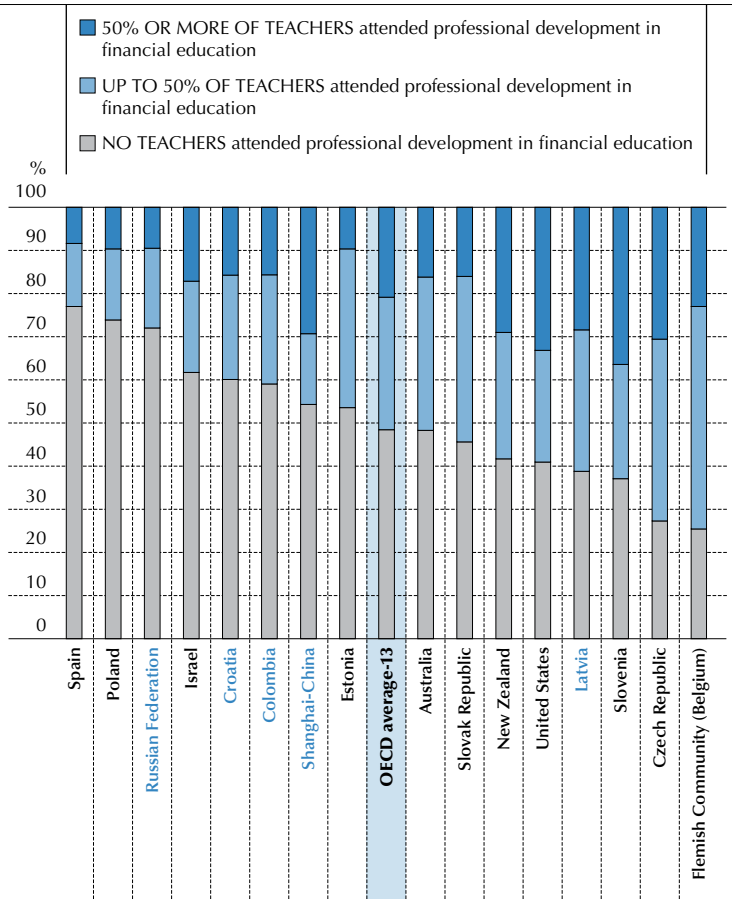
Source: OECD, PISA 2012 Database, Table VI.1.3.

StatLink http://dx.doi.org/10.1787/888933094868

■ Figure VI.1.7 ■

Professional development in financial education

Percentage of students in schools where teachers attended or not professional development in financial education



Countries and economies are ranked in ascending order of the percentage of students who attend schools where at least some teachers attended professional development in financial education.

Note: Base: all students. The category "Up to 50% of teachers" includes students in schools where the percentage of teachers who attended professional development in financial education is between 0.1 and 49%. The category "50% or more teachers" includes students in schools where the percentage of teachers who attended professional development in financial education is at least 50%.

Source: OECD, PISA 2012 Database, Table VI.1.4.

StatLink http://dx.doi.org/10.1787/888933094868

EXAMPLES OF QUESTIONS USED IN THE 2012 FINANCIAL LITERACY ASSESSMENT

This section presents examples of the questions used in the assessment of financial literacy in PISA 2012 either in the main survey or the field trial. The examples include two questions for each proficiency level, and comprise the following four units: (i) INVOICE (including questions for Level 1, 2, 3 and 5); (ii) AT THE MARKET (including questions for Level 1 and 2); (iii) NEW OFFER (including questions for Level 3, 4 and 5); and (iv) PAY SLIP (including a question for Level 4).

Figure VI.1.8

INVOICE

Sarah receives this invoice in the mail.

BC

Breezy Clothing

Invoice
Invoice Number: 2034
Date issued: 28 February

Sarah Johanson
29 Worthill Rd
Kensington
Zedland 3122

Breezy Clothing
498 Marple Lane
Brightwell
Zedland 2090

Product code	Description	Quantity	Unit cost	Total (excluding tax)
T011	T-shirt	3	20	60 zeds
J023	jeans	1	60	60 zeds
S002	scarf	1	10	10 zeds

Total Excluding Tax:	130 zeds
Tax 10%:	13 zeds
Postage:	10 zeds
Total Including Tax:	153 zeds
Already Paid:	0 zeds
Total due:	153 zeds
Date due:	31 March

INVOICE – *QUESTION 1*

Why was this invoice sent to Sarah?

A. Because Sarah needs to pay the money to Breezy Clothing.

B. Because Breezy Clothing needs to pay the money to Sarah.

C. Because Sarah has paid the money to Breezy Clothing.

D. Because Breezy Clothing has paid the money to Sarah.

Question type: *Multiple choice*
Description: *Recognise the purpose of an invoice*
Content: *Money and transactions*
Process: *Identify financial information*
Context: *Individual*
Difficulty: *360 (Level 1)*

Scoring

Full Credit

A. Because Sarah needs to pay the money to Breezy Clothing.

No Credit

Other responses.

Missing.

Comment

This multiple-choice question asks students to interpret a financial document, an invoice, identifying its purpose in the context of the individual. Questions about interpreting financial documents are generally categorised as being in the content area of money and transactions. Students are required to identify financial information by demonstrating a basic understanding of what an invoice is. Calculations are not required. The question is located at Level 1.

INVOICE – *QUESTION 2*

How much has Breezy Clothing charged for delivering the clothes?

Delivery charge in zeds: ……..……..……..

Question type: *Constructed response*
Description: *Identify the cost of postage on an invoice*
Content: *Money and transactions*
Process: *Identify financial information*
Context: *Individual*
Difficulty: *461 (Level 2)*

Scoring

Full Credit

10

ten

tene [Unambiguous mis-spelling of correct numerical value.]

No Credit:

Other responses.

Missing.

Comment

This short, constructed response question asks students to identify a delivery cost in an invoice for clothing. It asks a specific question, and the relevant information is explicitly stated. To answer this question correctly, students need to identify the relevant information, understanding that postage refers to the delivery charge. This is an example of the types of interpretation that they may need to make frequently in adult life. This item is situated at Level 2.

INVOICE – *QUESTION 3*

Sarah notices that Breezy Clothing made a mistake on the invoice.
Sarah ordered and received two T-shirts, not three.
The postage fee is a fixed charge.
What will be the total on the new invoice?

Question type: *Constructed response*
Description: *Find a new total on an invoice, taking into account several factors (or demonstrate process required)*
Content: *Money and transactions*
Process: *Apply financial knowledge and understanding*
Context: *Individual*
Difficulty: *Full credit: 660 (Level 5); Partial credit: 547 (Level 3)*

Scoring

Full Credit

131

One hundred and thirty-one

One hudred and thirty-one [Unambiguous mis-spelling of 131]

Partial credit

133 [Leaves tax at 13 zeds] OR 121 [Omits postage]

One hundred and thirty-three

One hudred and therty-thre [unambiguous mis-spelling of 133]

One hundred and twenty-one

No Credit

Other responses.

123 [Leaves tax at 13 zeds and omits postage.]

Missing.

Comment

This question asks students to interpret a financial document in a complicated situation that is likely to take place in real life. Students are required to calculate the correct amount due, given that the quantity described on the invoice is incorrect. In this task, full credit is given for the responses taking into account the tax change and postage, and partial credit is given to responses that only consider one of those factors. The partial-credit score is located at Level 3 while the full-credit score is located at Level 5. To get full credit, students need to interpret and use financial and numeric information in an unfamiliar context and solve a financial problem by using multiple numerical operations (i.e. addition, subtraction and calculation of percentages). To get partial credit, students need to interpret and use financial and numeric information and apply basic numerical operations (i.e. subtraction).

■ Figure VI.1.9 ■

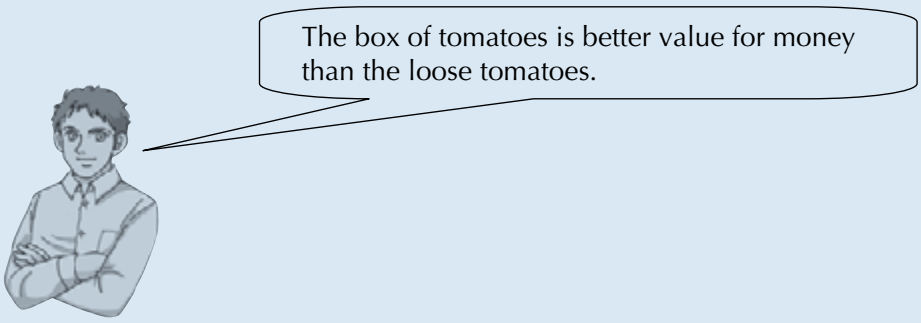
AT THE MARKET

You can buy tomatoes by the kilogram or by the box.

2.75 zeds per kg

22 zeds for a 10 kg box

AT THE MARKET – *QUESTION 2*



Give a reason to support this statement.

.....

.....

Question type: *Constructed response*
Description: *Recognise value by comparing prices per unit*
Content: *Money and transactions*
Process: *Analyse information in a financial context*
Context: *Home and family*
Difficulty: *459 (Level 2)*

Scoring

Full Credit

Explicitly or implicitly recognises that the price per kilogram of boxed tomatoes is less than the price per kilogram for loose tomatoes.

- It is 2.75 zeds per kg for the loose tomatoes but only 2.20 zeds per kg for the boxed tomatoes.
- It is only 2.20 per kg for the box.
- Because 10kg of loose tomatoes would cost 27.50 zeds.
- There are more kilograms for every 1 zed you pay.
- Loose tomatoes cost 2.75 per kg but tomatoes in the box cost 2.2 per kg.
- It is cheaper per kilogram. *[Accept generalisation.]*
- It is cheaper per tomato. *[Accept assumption that tomatoes are the same size.]*
- You get more tomato per zed. *[Accept generalisation.]*

No Credit:

Other responses.

- The box is always better value. *[No explanation.]*
- You get more for less. *[Vague.]*
- Bulk buying is better.
- The price per kilogram is different. *[Does not indicate that the box price is lower.]*

Missing.

Comment

This question requires students to apply the concept of value for money in a context familiar to 15-year-old students. Students are asked to make a logical comparison between boxed and loose tomatoes and to explain which option provides the best value for money. In order to support their argument, students can provide their answer in words or explain their idea with quantitative information by using the price ("Zed") and weight (kilogram).

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In this question, the unit of currency is the imaginary Zed. PISA questions often refer to situations that take place in the fictional country of Zedland, where the Zed is the unit of currency. This artificial currency has been introduced to enhance comparability across countries and is explained to the students before the test begins.

Using the context of shopping for groceries, which is a familiar, everyday context to 15-year-old students, this item assesses whether students can interpret and use financial and numeric information and explain their judgment based on proportional reasoning and single basic numerical operations (multiplication and division). Questions about the buying of goods are generally categorised as being in the content area of money and transactions. To gain credit for this item, students have to demonstrate that they have compared the two ways of buying tomatoes using a common point of comparison. The question is located at Level 2.

AT THE MARKET – *QUESTION 3*

Buying a box of tomatoes may be a bad financial decision for some people.
Explain why.

.....

.....

Question type: *Open-constructed response*
Description: *Recognise value by comparing prices per unit*
Content: *Money and transactions*
Process: *Evaluate financial issues*
Context: *Home and family*
Difficulty: *398 (Level 1)*

Scoring

Full Credit

Refers to wastage if a larger amount of tomatoes is not needed.

- The tomatoes might rot before you use them all.
- Because you may not need 10 kg of tomatoes.
- The ones at the bottom of the box might be bad so you are wasting money.

OR

Refers to the idea that some people cannot afford the higher absolute cost of buying in bulk.

- You may not be able to afford a whole box.
- You have to spend 22 zeds (rather than 2.75 or 5.50 for 1 or 2 kg) and you might not have that amount to spend.
- You might have to go without something else that you need to pay for the box of tomatoes.

No Credit

Other responses.

- It is a bad idea.
- Some people don't like tomatoes *[Irrelevant.]*

Missing.

Comment

This question asks students to evaluate financial information for decision making in shopping, which is a situation familiar to 15-year-old students. The question examines whether students can recognise that buying things in bulk may be wasteful if a large amount is not needed, and it may be unaffordable to bear the higher absolute cost of buying in bulk in the short term. Students are required to evaluate a financial issue in the situation presented and describe their conclusion in this constructed response question. Students can provide their answers either by using words, without

quantitative information, or by using numbers, with quantitative information of the price and weight. Full credit will be given if students can explain that buying more tomatoes at a cheaper price may not always be a good decision for some people. The question is located at Level 1.

Figure VI.1.10
NEW OFFER

Mrs Jones has a loan of 8 000 zeds with FirstZed Finance. The annual interest rate on the loan is 15%. Her repayments each month are 150 zeds.

After one year Mrs Jones still owes 7 400 zeds.

Another finance company called Zedbest will give Mrs Jones a loan of 10 000 zeds with an annual interest rate of 13%. Her repayments each month would also be 150 zeds.

NEW OFFER – *QUESTION 1*

If she takes the Zedbest loan, Mrs Jones will immediately pay off her existing loan.
What are two other *financial* benefits for Mrs Jones if she takes the Zedbest loan?

1. .....

2. .....

Question type: *Constructed response*
Description: *Recognise positive consequences of transferring a loan to a lower interest rate*
Content: *Planning and managing finances*
Process: *Analyse information in a financial context*
Context: *Individual*
Difficulty: *Full credit: 663 (Level 5); Partial credit: 510 (Level 3)*

Scoring

Full Credit

Refers to BOTH having extra money to use AND getting a lower interest rate.

- She will be paying 13% interest instead of 15%.
- She has an extra 2 600 zeds.
- She has extra money to spend.
- The interest rate is lower.

Partial Credit

Refers to only one of the above.

- She will only be paying 13% interest rate.
- [Blank]
- She has extra money to spend.
- [Blank]
- The interest rate is 2% less.
- She will pay off her loan to FirstZed. *[2nd benefit is a restatement of stem.]*

No Credit

Other responses.

- She will pay off her debt. *[Repeats stem.]*

Missing.

Comment

This item asks students to reflect on and evaluate the consequences of changing from one set of loan conditions to another. While having a loan from a financial institution may be unfamiliar to 15-year-old students, this question is relevant to them since many of them will borrow money from financial institutions once they become adults. While all of the necessary information is provided in the question, in order to gain credit, students need to identify what is relevant and reflect on the consequences of taking a particular financial action. Therefore, the question belongs to the content category of planning and managing finances. Students need to interpret financial and numeric information, reason about the effect that different financial actions (i.e. borrowing money from different loan providers) and variables have on financial well-being. No numerical operations are required. In this task, full credit is given for the responses including reference to both having extra money to use and getting a lower interest rate. Partial credit is given to responses that explain one of those. The partial-credit score is located at Level 3 while the full-credit score is located at Level 5.

NEW OFFER – *QUESTION 2*

What is one possible *negative* financial consequence for Mrs Jones if she agrees to the Zedbest loan?

.....

Question type: *Constructed response*
Description: *Recognise a negative consequence of having a large loan*
Content: *Planning and managing finances*
Process: *Evaluate financial issues*
Context: *Individual*
Difficulty: *582 (Level 4)*

Scoring

Full Credit

Refers to Mrs Jones having more debt.

- She will owe more money.
- She will be unable to control her spending.
- She is going deeper into debt.

Refers to paying more interest in total.

- 13% of 10 000 is greater than 15% of 8 000.

Refers to taking longer to pay the loan off.

- It might take longer to repay because the loan is bigger and the payments are the same.

Refers to the possibility of paying a cancellation fee with FirstZed.

- She may have a penalty fee for paying the FirstZed loan early.

No Credit

Other responses.

Missing.

Comment

This question asks students to evaluate two complex financial products (two different personal loans) with competing information to explain a negative financial consequence of changing to a larger loan. Students need to interpret financial and numeric information, and reason about the effect that different financial actions and variables have on financial well-being. In order to get full credit, students are required to describe a negative consequence of changing loans, such as the time taken to repay the money or the additional interest paid. No numerical operations are required. The question is located at Level 4.

■ Figure VI.1.11 ■

PAY SLIP

Each month, Jane's salary is paid into her bank account. This is Jane's pay slip for July.

EMPLOYEE PAY SLIP: Jane Citizen

Position: Manager	1 July to 31 July
Gross salary	2 800 zeds
Deductions	300 zeds
Net salary	2 500 zeds
Gross salary to date this year	19 600 zeds

PAY SLIP – *QUESTION 1*

How much money did Jane's employer pay into her bank account on 31 July?

A. 300 zeds

B. 2 500 zeds

C. 2 800 zeds

D. 19 600 zeds

Question type: *Multiple choice*
Description: *Identify the net salary on a pay slip*
Content: *Money and transactions*
Process: *Identify financial information*
Context: *Education and work*
Difficulty: *551 (Level 4)*

Scoring

Full Credit

B. 2 500 zeds

No Credit

Other responses.

Missing.

Comment

This multiple-choice question asks students to identify financial information on a pay slip. While a pay slip is a common financial document, it may provide an unfamiliar financial context to 15-year-old students. Students need to understand the difference between gross and net pay, that is, the difference between pay before and after any deductions have been made (such as deductions for health care or tax). Numeric operations are not required. The question is located at Level 4.

Notes

1. The PISA school questionnaire asks school principals whether financial education is: (i) not available; (ii) has been available for less than two years; or (iii) has been available for two years or more to students in the national modal grade for 15-year-olds. The questionnaire also defines financial education/personal finance as involving "the development of students' knowledge, confidence and skills relating to topics such as money and income; budgeting and long term planning; saving and spending; credit and debt; investment and insurance; the potential risks and benefits of financial products; and the financial landscape (including consumer rights and responsibilities and understanding of the wider financial, economic and social system)."

2. The PISA school questionnaire defines professional development in financial education in the following way "A programme of professional development here is a formal programme designed to enhance teaching skills or pedagogical practices. It may or may not lead to a recognised qualification. The programme must last for at least one day in total and have a focus on the teaching of financial education."

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2

Student Performance in Financial Literacy

This chapter compares students' performance in the 2012 PISA financial literacy assessment across and within countries and economies. It discusses what students know about financial literacy and how well they can apply what they know, and examines how student performance in financial literacy compares with performance in reading and mathematics. The analysis is complemented with contextual economic and financial information about participating countries and its association with performance in financial literacy.

Financial literacy, now recognised by policy makers as an essential life skill, can be defined as the knowledge and understanding of financial concepts and risks, and the skills, motivation and confidence 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.

Compared with their parents' generation, young people are likely to face more complex financial decisions, more financial risk, and a wider array of highly sophisticated financial products. At the same time, life expectancy continues to increase while public budgets for welfare benefits shrink and the labour market is rapidly changing, making it increasingly important that individuals have the competencies to protect themselves financially. Given this evolving landscape, a number of countries have been developing and adopting national financial education strategies as a complement to financial consumer protection and regulation. Most of these strategies seek to target young people.

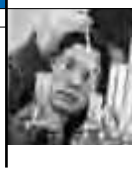
In this challenging context, are 15-year-old students competent and well-prepared to make financial decisions in their adult lives? Can they apply their knowledge and skills to make suitable financial plans? This chapter describes students' performance in the PISA 2012 assessment of financial literacy in 18 participating countries and economies: 13 OECD countries and economies and 5 partner countries and economies. The chapter also describes the tasks associated with each level of proficiency in financial literacy, as measured by PISA, and compares results among participating countries and economies. It then analyses financial literacy performance in comparison with mathematics and reading performance. These analyses are complemented with contextual information about participating countries.

What the data tell us

- Shanghai-China has the highest score in financial literacy, with a mean score of 603 points, which is 103 points above the OECD average – the equivalent of more than one proficiency level (75 score points).[1] Shanghai-China, the Flemish Community of Belgium, Estonia, Australia, New Zealand, the Czech Republic and Poland have mean scores above the OECD average.
- On average across the 13 OECD countries and economies, 15% of students score below Level 2, that is below the baseline level of PISA financial literacy. This group of students can, at best, recognise the difference between needs and wants, make simple decisions about everyday spending, recognise the purpose of everyday financial documents, such as an invoice, and apply single and basic numerical operations (addition, subtraction or multiplication) in contexts that they are likely to have experienced personally.
- Across the 13 participating OECD countries and economies, only one in ten students, on average, is proficient at Level 5. This group of students can analyse complex financial products and solve non-routine financial problems. They show an understanding of the wider financial landscape, such as the implication of income-tax brackets and can explain the financial advantages of different types of investments.
- Financial literacy skills are positively correlated with mathematics and reading skills. However, in Australia, the Flemish Community of Belgium, the Czech Republic, Estonia, New Zealand and the Russian Federation, students perform better than expected in financial literacy, based on their performance in mathematics and reading, while students in France, Italy and Slovenia perform worse than expected in financial literacy, based on their performance in mathematics and reading.
- Across the 13 OECD countries and economies, around 25% of the financial literacy score reflects factors uniquely captured by the financial literacy assessment, while the remaining 75% of the financial literacy score reflects skills that can be measured in mathematics and/or reading assessments.
- A relatively small proportion (16%) of the variation among countries' mean financial literacy scores is explained by per capita GDP.

HOW THE PISA 2012 FINANCIAL LITERACY RESULTS ARE REPORTED

The PISA test design makes it possible to construct a single scale of proficiency, drawing on all the questions in the financial literacy assessment. Each question is associated with a particular point on the scale that indicates its difficulty, and each student's performance is associated with a particular point on the same scale that indicates his or her estimated financial literacy proficiency. A description of the modelling technique used to construct this scale can be found in the *PISA 2012 Technical Report* (OECD, forthcoming).

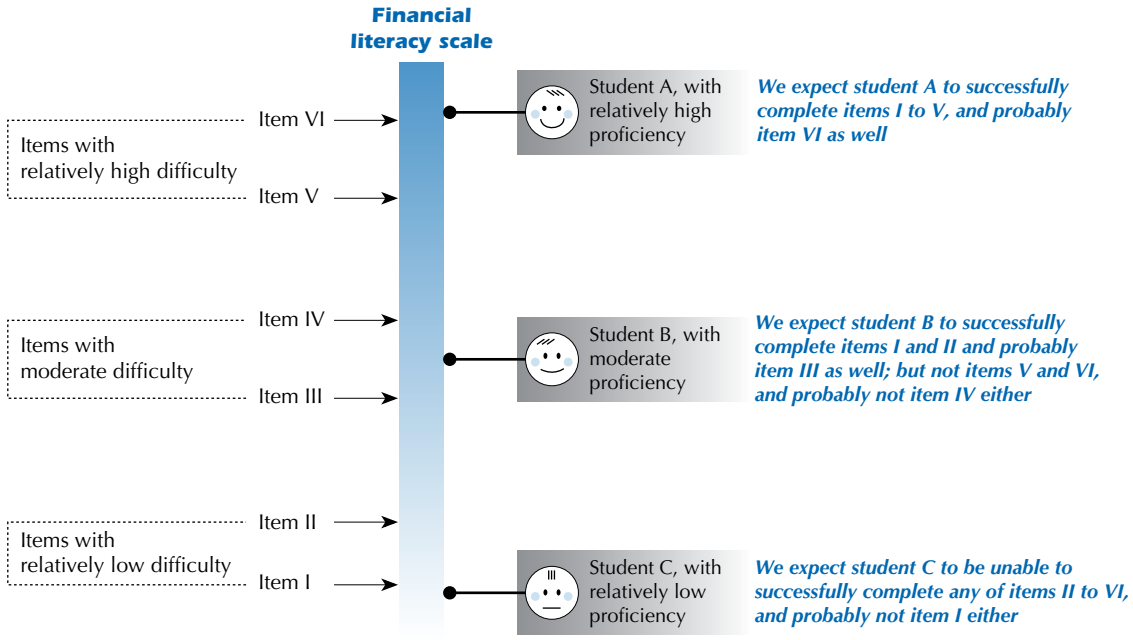


The relative difficulty of questions in a test is estimated by considering the proportion of students who answer each question correctly: relatively easy questions are answered correctly by a larger proportion of students than more difficult questions. The relative proficiency of students can be estimated by considering the proportion of questions that they answer correctly. A highly proficient student will answer more questions correctly than his or her less-proficient peers. The difficulty of questions and the proficiency of students are presented on a single continuous scale.

The scale shows the kinds of questions that can be answered by more or less proficient students. The higher an individual's proficiency level is located above a given test question, the more likely he or she is to successfully complete the question (and other questions of similar difficulty); the further the individual's proficiency is located below a given question, the less likely he or she is to be able to successfully complete the question and other questions of similar difficulty. Figure VI.2.1 illustrates this probabilistic model.

■ Figure VI.2.1 ■

The relationship between questions and student performance on a scale



The location of different levels of proficiency in financial literacy on this scale is set in relation to the particular group of questions used in the assessment; but just as the sample of students who sat the PISA test in 2012 was drawn to represent all 15-year-old students in the participating countries and economies, so the individual test questions used in the assessment were designed to measure financial literacy. Estimates of student proficiency reflect the kinds of tasks students would be expected to perform successfully. This means that students are likely to be able to successfully complete questions located at or below the difficulty level associated with their own position on the scale. Conversely, they are unlikely to be able to successfully complete questions above the difficulty level associated with their position on the scale.

HOW FINANCIAL LITERACY PROFICIENCY LEVELS ARE REPORTED IN PISA 2012

PISA outcomes are reported in a variety of ways. This section describes the country results and shows the location of items on the overall PISA financial literacy scale, how the different levels of proficiency in PISA financial literacy can be characterised, and how these proficiency levels are represented by the questions used in the survey.

AVERAGE LEVEL OF PROFICIENCY IN FINANCIAL LITERACY

When interpreting mean performance, only those differences that are statistically significant are taken into account (See Annex A3 for further details). Figure VI.2.2 shows the mean score for each country or economy, and allows readers to identify countries/economies with statistically similar means. The second column lists each participating country and economy in descending order of mean financial literacy scores (reported in the first column). Reading across each row, a list is provided of countries and economies with scores that are not significantly different from the value in the first column. The values range from a high of 603 points for the partner economy Shanghai-China to a low of 379 points for the partner country Colombia. Box VI.2.1 discusses issues to bear in mind when interpreting these comparisons.

Participating countries and economies have been further divided into three broad groups (see Figure VI.2.2):

- those whose mean scores are close to the OECD average in the assessment of financial literacy (highlighted in dark blue);
- those whose mean scores are above the OECD average (highlighted in pale blue); and
- those whose mean scores are below the OECD average (highlighted in medium blue).

■ Figure VI.2.2 ■

Comparing countries' and economies' performance in financial literacy

Statistically significantly **above** the OECD average-13
Not statistically significantly different from the OECD average-13
Statistically significantly **below** the OECD average-13

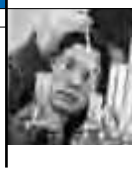
Mean score	Comparison country/economy	Countries and economies whose mean score is NOT statistically significantly different from the comparison country's/economy's score
603	Shanghai-China	
541	Flemish Community (Belgium)	
529	Estonia	Australia, New Zealand
526	Australia	Estonia, New Zealand
520	New Zealand	Estonia, Australia, Czech Republic, Poland
513	Czech Republic	New Zealand, Poland
510	Poland	New Zealand, Czech Republic, Latvia
501	Latvia	Poland, United States
492	United States	Latvia, Russian Federation, France, Slovenia, Spain, Croatia, Israel
486	Russian Federation	United States, France, Slovenia, Spain, Croatia, Israel
486	France	United States, Russian Federation, Slovenia, Spain, Croatia, Israel
485	Slovenia	United States, Russian Federation, France, Spain, Croatia, Israel
484	Spain	United States, Russian Federation, France, Slovenia, Croatia, Israel
480	Croatia	United States, Russian Federation, France, Slovenia, Spain, Israel, Slovak Republic
476	Israel	United States, Russian Federation, France, Slovenia, Spain, Croatia, Slovak Republic, Italy
470	Slovak Republic	Croatia, Israel, Italy
466	Italy	Israel, Slovak Republic
379	Colombia	

Source: OECD, PISA 2012 Database.
StatLink http://dx.doi.org/10.1787/888933094887

Figure VI.2.3 shows how participating countries and economies compare in financial literacy performance, after taking into account the statistical uncertainty of the mean scores, since the reported values are derived from samples. It is possible to say, for example, that the rank of New Zealand is between fourth and sixth and that of the Czech Republic is between fifth and seventh. However, we cannot say which country performed better because the mean scores of New Zealand (520) and the Czech Republic (513) are not statistically significantly different.

The main difference between the comparison of countries' mean performance (Figure VI.2.2) and the range of ranks (Figure VI.2.3) is that the latter takes into account the varying size of the difference between mean scores across countries and economies, while the former does not. Since the rank estimates for each country and economy provide a more nuanced interpretation of the rank positions than comparisons across countries, the results presented in Figure VI.2.3 should preferably be used when examining countries' and economies' rankings.

The Flemish Community of Belgium is the highest-performing economy among the 13 participating OECD countries and economies, and ranks second among all participating countries and economies. After the Flemish Community of Belgium, five OECD countries, namely Australia, the Czech Republic, Estonia, New Zealand and Poland, are high-performing



■ Figure VI.2.3 ■

Financial literacy performance among participating countries/economies

	Mean score		Range of ranks	
	Mean	S.E.	Upper rank	Lower rank
Shanghai-China	603	(3.2)	1	1
Flemish Community (Belgium)	541	(3.5)	2	2
Estonia	529	(3.0)	3	4
Australia	526	(2.1)	3	5
New Zealand	520	(3.7)	4	6
Czech Republic	513	(3.2)	5	7
Poland	510	(3.7)	6	7
Veneto (Italy)	501	(7.0)		
Friuli Venezia Giulia (Italy)	501	(7.2)		
Latvia	501	(3.3)	8	9
Bolzano (Italy)	500	(6.0)		
Trento (Italy)	498	(5.8)		
United States	492	(4.9)	8	12
Lombardia (Italy)	491	(6.5)		
Russian Federation	486	(3.7)	9	14
France	486	(3.4)	9	14
Slovenia	485	(3.3)	9	14
Spain	484	(3.2)	10	15
Emilia Romagna (Italy)	481	(4.8)		
Piemonte (Italy)	481	(6.5)		
Croatia	480	(3.8)	11	16
Israel	476	(6.1)	11	17
Valle d'Aosta (Italy)	476	(6.3)		
Marche (Italy)	474	(6.7)		
Umbria (Italy)	474	(7.4)		
Toscana (Italy)	471	(6.5)		
Slovak Republic	470	(4.9)	15	17
Liguria (Italy)	468	(8.4)		
Italy	466	(2.1)	16	17
Puglia (Italy)	462	(6.3)		
Lazio (Italy)	460	(7.3)		
Molise (Italy)	453	(5.8)		
Abruzzo (Italy)	449	(4.3)		
Basilicata (Italy)	446	(6.3)		
Sardegna (Italy)	446	(6.9)		
Campania (Italy)	439	(8.5)		
Sicilia (Italy)	429	(6.7)		
Manizales (Colombia)	417	(5.8)		
Calabria (Italy)	415	(8.1)		
Medellin (Colombia)	414	(8.3)		
Bogota (Colombia)	397	(7.4)		
Cali (Colombia)	389	(9.1)		
Colombia	379	(4.7)	18	18
Rest of the country (Colombia)	372	(6.1)		

Notes: OECD countries and subnational entities that are not included in national results are shown in bold black. Partner countries and subnational entities that are not included in national results are shown in bold blue. Regions are shown in black italics (OECD countries) or blue italics (partner countries).
Countries, economies and subnational entities are ranked in descending order of the mean financial literacy performance.
Source: OECD, PISA 2012 Database.
StatLink http://dx.doi.org/10.1787/888933094887

countries in that their mean scores are statistically significantly higher than the OECD average. Given the uncertainty inherent in the score estimates, the ranks of these OECD countries among all participating countries and economies are as follows: Estonia (a rank of 3 or 4); Australia (between 3 and 5); New Zealand (between 4 and 6); the Czech Republic (between 5 and 7); and Poland (6 or 7). The average score of the United States is not statistically significantly different from the OECD average, with a rank between 8 and 12 among all countries and economies. The mean scores of six OECD countries, namely France, Israel, Italy, the Slovak Republic, Slovenia and Spain, are statistically significantly lower than the OECD average. The ranks of these countries among all participating countries and economies are as

follows: France and Slovenia (both between 9 and 14); Spain (between 10 and 15); Israel (between 11 and 17), the Slovak Republic (between 15 and 17); and Italy (16 or 17).

When partner countries and economies are also taken into consideration, Shanghai-China ranks first in financial literacy performance. Like the Flemish Community of Belgium, it represents a specific subset of the national population. The mean score of Latvia, like that of the United States, is not different from the OECD average. Colombia ranks the lowest among all participating countries and economies. The mean scores of Croatia and the Russian Federation are lower than the OECD average. The Russian Federation ranks between 9 and 14, which is the same as France and Slovenia, and Croatia ranks between 11 and 16.

Since PISA 2012 is the first assessment of students' financial literacy, the comparison of performance among participating countries and economies presented in Figure VI.2.2 and Figure VI.2.3 can be considered a baseline for future assessments. A second assessment is scheduled for 2015. Seventeen countries and economies are planning to participate in the assessment of financial literacy in PISA 2015: Australia, the Flemish Community of Belgium, Brazil, Canada, Chile, Italy, Lithuania, the Netherlands, New Zealand, the People's Republic of China, Peru, Poland, the Russian Federation, the Slovak Republic, Spain, England (United Kingdom) and the United States. Analysis of changes over time will be possible for the nine countries and economies that also participated in the assessment in 2012.

WHAT STUDENTS KNOW AND CAN DO 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. Results of this assessment are presented below, covering both the average level of financial literacy performance in each country and economy and the distribution of performance. Detailed results for the different aspects and text formats are presented in subsequent sections.

A PROFILE OF PISA FINANCIAL LITERACY QUESTIONS

Some questions used in the assessment of financial literacy in PISA 2012 are presented in Chapter 1 with the aim of showing how student performance was measured (see "Examples of questions used in the 2012 financial literacy assessment"). Not all questions are made public as some will be used again when the assessment is repeated in 2015 in order to establish reliable trends in performance.

Figure VI.2.4 maps the questions presented in Chapter 1 to their corresponding position on the described proficiency scale. Each question can be associated with a particular point on the scale that indicates its relative difficulty. The first column shows the proficiency level within which the question is located. The second column indicates the score range for a question that would allow it to be regarded as falling within that level. The third and fourth columns show the name of the unit and the question difficulty. Questions within the same unit can represent a range of difficulties: the unit INVOICE, for example, comprises questions or parts of questions at Levels 1, 2, 3 and 5. Thus, a single unit may cover a broad section of the PISA financial literacy difficulty range.

STUDENT PERFORMANCE AT THE DIFFERENT LEVELS OF PROFICIENCY IN FINANCIAL LITERACY

The single continuous scale of financial literacy constructed for the PISA 2012 assessment was divided into five levels, according to robust statistical principles (see the *PISA 2012 Technical Report* [OECD, forthcoming]). Descriptions were then generated, based on the tasks that are located within each level, to encapsulate the kinds of knowledge and skills needed to successfully complete those tasks. The scale and set of descriptions are presented as a described proficiency scale. Level 5 is the highest described level, and 1 is the lowest. Level 5 questions are those found to be the most challenging for 15-year-old students at the end of compulsory education. At each level, students are also expected to be proficient at the preceding level. For example, students performing at Level 4 are expected to possess the competencies described at Levels 4, 3, 2 and 1, while students at Level 1 are likely to be able to complete Level 1 tasks successfully, but are unlikely to be able to complete tasks at Level 2 and higher.

The assessment of financial literacy in PISA uses the same method for constructing proficiency scales as other PISA domains. Based on students' performance on the questions in the test, their score points are generated and located on a specific part of the scale, which in turn is associated with a proficiency level.

■ Figure VI.2.4 ■

Map of selected financial literacy questions in PISA 2012, illustrating the proficiency levels

Level	Score range	Questions	Question difficulty	Nature of the question
1	326 to less than 400 points	**INVOICE** Question 1	360	Interpret a financial document, an invoice, identifying its purpose in the context of the individual. Students are required to identify financial information by demonstrating a basic understanding of what an invoice is. Calculations are not required.
		AT THE MARKET Question 3	398	Evaluate financial information for decision making in shopping. The question examines whether students can recognise that buying things in bulk may be wasteful if a large amount is not needed, and it may be unaffordable to bear the higher absolute cost of buying in bulk in the short term. Students are required to evaluate a financial issue in the situation presented and describe their conclusion in this constructed response question. Students can provide their answers either by using words, without quantitative information, or by using numbers, with quantitative information of the price and weight. Full credit will be given if students can explain that buying more tomatoes at a cheaper price may not always be a good decision for some people.
2 Baseline	400 to less than 475 points	**AT THE MARKET** Question 2	459	Apply the concept of value for money. Students are asked to make a logical comparison between boxed and loose tomatoes and to explain which option provides the best value for money. In order to support their argument, students can provide their answer in words or explain their idea with quantitative information by using the price ("Zed") and weight (kilogram). Using the context of shopping for groceries, this item assesses whether students can interpret and use financial and numeric information and explain their judgment based on proportional reasoning and single basic numerical operations (multiplication and division). To gain credit for this item, students have to demonstrate that they have compared the two ways of buying tomatoes using a common point of comparison.
		INVOICE Question 2	461	Identify a delivery cost in an invoice for clothing. It asks a specific question, and the relevant information is explicitly stated. To answer this question correctly, students need to identify the relevant information, understanding that postage refers to the delivery charge. While calculations are not required, students are required to identify numerical information: the cost of postage.
3	475 to less than 550 points	**NEW OFFER** Question 1 Partial credit	510	Reflect on and evaluate the consequences of changing from one set of loan conditions to another. While all of the necessary information is provided in the question, in order to gain credit, students need to identify what is relevant and reflect on the consequences of taking a particular financial action. Students need to interpret financial and numeric information, reason about the effect that different financial actions (i.e. borrowing money from different loan providers) and variables have on financial well-being. No numerical operations are required. Partial credit is given for the responses including reference to either having extra money to use or getting a lower interest rate.
		INVOICE Question 3 Partial credit	547	Interpret a financial document in a complicated situation that is likely to take place in real life. Students are required to calculate the correct amount due, given that the quantity described on the invoice is incorrect. Partial credit is given for the responses taking into account either the tax change or postage. To get partial credit, students need to interpret and use financial and numeric information and apply basic numerical operations (i.e. subtraction).
4	550 to less than 625 points	**PAY SLIP** Question 1	551	Identify financial information on a pay slip. Students need to understand the difference between gross and net pay, that is, the difference between pay before and after any deductions have been made (such as deductions for health care or tax). Numeric operations are not required.
		NEW OFFER Question 2	582	Evaluate two complex financial products (two different personal loans) with competing information to explain a negative financial consequence of changing to a larger loan. Students need to interpret financial and numeric information, and reason about the effect that different financial actions and variables have on financial well-being. In order to get full credit, students are required to describe a negative consequence of changing loans, such as the time taken to repay the money or the additional interest paid. No numerical operations are required.
5	Equal to or higher than 625 points	**INVOICE** Question 3 Full credit	660	Interpret a financial document in a complicated situation that is likely to take place in real life. Students are required to calculate the correct amount due, given that the quantity described on the invoice is incorrect. Full credit is given for the responses taking into account the tax change and postage. To get full credit, students need to interpret and use financial and numeric information in an unfamiliar context and solve a financial problem by using multiple numerical operations (i.e. addition, subtraction and calculation of percentages).
		NEW OFFER Question 1 Full credit	663	Reflect on and evaluate the consequences of changing from one set of loan conditions to another. While all of the necessary information is provided in the question, in order to gain credit, students need to identify what is relevant and reflect on the consequences of taking a particular financial action. Students need to interpret financial and numeric information, reason about the effect that different financial actions (i.e. borrowing money from different loan providers) and variables have on financial well-being. No numerical operations are required. Full credit is given for the responses including reference to both having extra money to use and getting a lower interest rate.

A student at a particular proficiency level would be expected to correctly answer most of a random selection of questions located within the same level. Thus, for example, in a hypothetical assessment composed of tasks spread uniformly across Level 3, students with a score point located within Level 3 would be expected to complete at least half of the questions successfully. Because a level covers a range of difficulty and proficiency, the success rates for students vary. Students at the bottom of the level are likely to be able to correctly answer 50% of questions spread uniformly across the level, while students at the top of the level are likely to correctly answer 70% of the same questions.

Box VI.2.1 **Interpreting cross-country comparisons in financial literacy performance**

In PISA 2012, student performance in financial literacy is described across five levels of proficiency, each of which represents 75 score points; this means that there are 75 points between the top of one level and the top of the next. Thus, a difference in performance of one proficiency level represents a significant gap in performance. To illustrate this using the descriptions of levels, students proficient at Level 2 on the financial literacy scale are only starting to apply their knowledge to make financial decisions. They use given information to make financial decisions in contexts that are immediately relevant to them. At Level 3, students have the proficiency expected at Level 2 and below, and also begin to consider the consequences of financial decisions and make simple financial plans in familiar contexts.

The difference in average performance between the highest- and lowest-performing countries and economies among all participants is 225 score points (equivalent to three levels of proficiency). Considering only participating OECD countries and economies, the difference between the average performance of highest- and lowest-performing countries/economies is 75 score points (equivalent to one level of proficiency).

Among OECD countries, even larger gaps separate the highest- and lowest-achieving students. By design, approximately two-thirds of the student population within OECD countries and economies have scores within 100 points of the OECD mean, set at 500 score points. On average across the 13 participating OECD countries and economies, the distance between the highest-achieving 10% of students and the lowest-achieving 10% of students is equal to 247 score points, which is more than three proficiency levels, that is, larger than the difference between the lower score limits of the baseline level (Level 2) and Level 5.

When comparing countries and economies' performances, it is important to bear in mind that the results are estimates obtained from samples of students, rather than from a census of all students, using a set of assessment tasks, rather than all possible assessment tasks. When the sampling and assessment are done with such scientific rigour, it is possible to determine the magnitude of the probable uncertainty associated with the estimates. This uncertainty needs to be taken into account when making comparisons so that differences that could reasonably arise simply due to the sampling of students and questions are not interpreted as differences that actually hold for the populations. A difference is statistically significant if it is very unlikely that such a difference could be observed by chance in a sample when assuming no true difference exists in the population (See Annex A3 for further details).

Since a country's average score is based on an estimate obtained from a sample of students, there is some degree of uncertainty in the reported values. For this reason, in most cases, each country and economy in PISA cannot be assigned a single exact rank – except for those that have extremely high or low scores.

Figure VI.2.5 provides details about the financial literacy skills, knowledge and understanding required at each level of proficiency described in this volume.

The distribution of student performance across the proficiency levels is shown in Figure VI.2.6. Results are presented in terms of the percentage of 15-year-olds within each country and economy performing at the five proficiency levels described in Figure VI.2.5.

Proficiency at Level 1 (scores higher than 326 points but lower than or equal to 400 points)

Students proficient at Level 1 display very basic financial literacy skills: they can identify common financial products and terms and interpret information relating to basic financial concepts, such as recognising the purpose of an invoice. They can recognise the difference between needs and wants and they make simple decisions on everyday spending, such as recognising value by comparing prices per unit. Students at this level can also apply single and basic numerical operations, such as addition, subtraction or multiplication, in financial contexts that they are likely to have personally encountered.

"AT THE MARKET – Question 3" requires Level 1 proficiency. This question asks students to evaluate financial information to make a shopping decision – a situation familiar to many 15-year-old students. It examines whether students can recognise that buying things in bulk may be wasteful if a large amount is not needed, and it may be unaffordable to bear the higher absolute cost of buying in bulk in the short term. Students are required to evaluate this situation from a financial perspective and describe their conclusion in this constructed-response question. Students can provide their answers either

■ Figure VI.2.5 ■

Summary description of the five levels of proficiency in financial literacy

Level	Score range	Percentage of students able to perform tasks at each level or above (OECD average -13)	What students can typically do
1	326 to less than 400 points	95.2%	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 Baseline	400 to less than 475 points	84.7%	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	61.8%	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.
4	550 to less than 625 points	31.6%	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	9.7%	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.

without quantitative information or with quantitative information about the price and weight. Full credit is given if students can explain why buying more tomatoes at a cheaper price may not always be a good decision for some people. Tasks at Level 1 require students to identify and recognise basic financial concepts and knowledge. These tasks are prerequisites for the application of knowledge to real-life situations, which are required for the tasks at Level 2 and higher.

Across the 13 participating OECD countries and economies, on average, 95% of students are proficient at Level 1 or higher, meaning that one in 20 15-year-olds are not yet proficient at Level 1. Across all 18 participating countries and economies, on average, 94% of students are proficient at Level 1 or higher.

Students performing at or below Level 1 (that is, below Level 2, which is considered as the baseline level), are not yet able to apply their knowledge to real-life situations involving financial issues and decisions. Across the 13 participating OECD countries and economies, on average, 15% of students perform below the baseline level. A large variation is observed across countries and economies. Even in some high- and middle-performing OECD countries and economies, the percentage of students performing below the baseline level is not negligible: the United States (18% of students perform below the baseline level), New Zealand (16%), Australia (10%), the Czech Republic (10%), Poland (10%), the Flemish Community of Belgium (9%) and Estonia (5%). In some low-performing OECD countries, more than 20% of students perform below the baseline level: Israel (23%), the Slovak Republic (23%) and Italy (22%).

Among partner countries and economies, in Colombia, more than half of the students (57%) perform below the baseline level while in Shanghai-China, only 2% of students perform at this level. Some 17% of students in the Russian Federation perform at Level 1 or below.

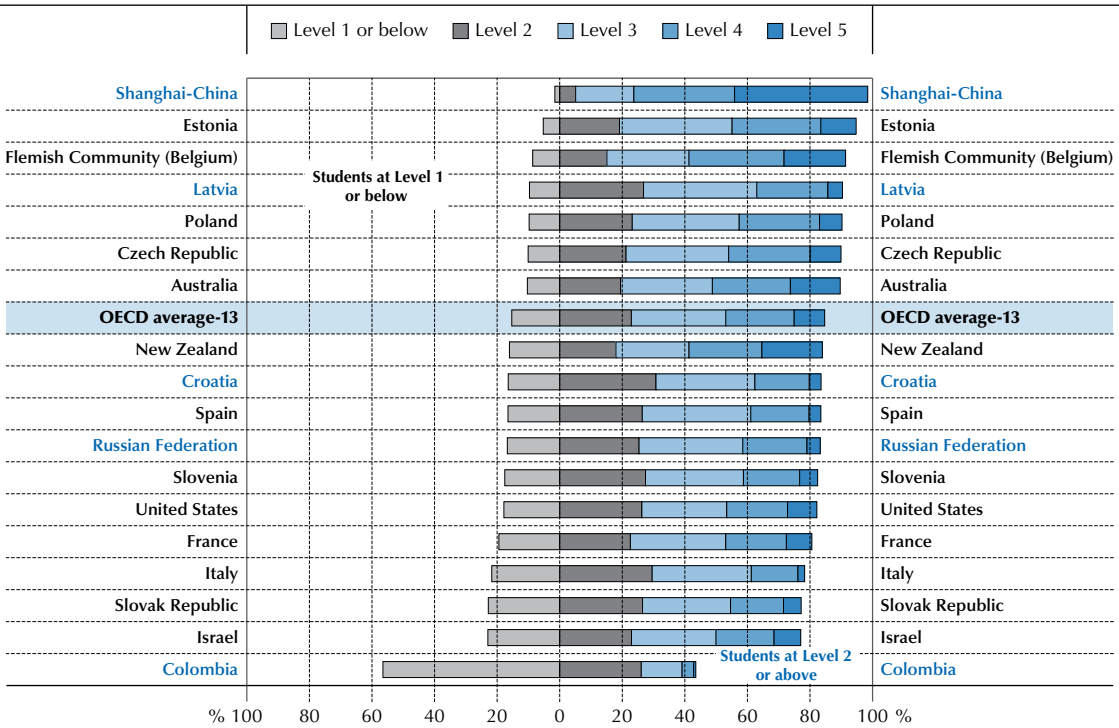
Proficiency at Level 2 (scores higher than 400 points but lower than or equal to 475 points) – Level 2 is the baseline

Level 2 is considered to be the baseline of financial literacy proficiency. At this level, in addition to exhibiting the proficiency of Level 1, students are expected to begin to apply their knowledge to make financial decisions in contexts that are immediately relevant to them. They can recognise the value of a simple budget, and undertake a simple

■ Figure VI.2.6 ■

Percentage of students at each level of proficiency in financial literacy

Percentage of students at the different levels of financial literacy proficiency



Note: Summary descriptions of the five levels of proficiency in financial literacy are reported in Figure VI.2.5.
Countries and economies are ranked in descending order of the percentage of students at Levels 2, 3, 4 or 5 in financial literacy.
Source: OECD, PISA 2012 Database, Table VI.2.1.
StatLink http://dx.doi.org/10.1787/888933094887

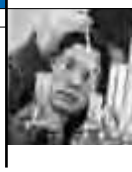
assessment of value-for-money, choosing between buying tomatoes by the kilo or by the box, for example. Students at this level can also apply single basic numerical operations to answer financial questions, and can show an understanding of the relationships between different financial elements, such as the amount of use and the costs incurred. These skills are essential for full participation in society as an independent and responsible citizen. Beyond their direct relevance and relationship with mathematics and reading, these financial literacy skills may also be beneficial for building other competencies that are becoming increasing important, such as critical thinking and problem solving.

"INVOICE – Question 2" is located within proficiency Level 2. This short, constructed-response question asks students to identify a delivery cost in an invoice for clothing. It asks a specific question and the relevant information is explicitly stated. To answer this question correctly, students need to identify the relevant information, understanding that postage refers to the delivery charge. This is an example of the types of interpretation that students may need to make frequently in adult life.

Across the 13 participating OECD countries and economies, on average, 85% of students are proficient at or above Level 2. In other words, more than eight in ten students are able to apply their knowledge to commonly used financial products, terms and concepts. Across all 18 participating OECD countries and economies, on average, 83% of students are proficient at Level 2. In five OECD countries and economies, the percentage of students performing at or above Level 2 is higher than the OECD average (85%): Australia (90%), the Czech Republic (90%), Poland (90%), the Flemish Community of Belgium (91%) and Estonia (95%). In Shanghai-China, 98% of students perform tasks at or above Level 2. In 17 out of the 18 participating countries and economies, more than three in four students perform at or above Level 2; the exception is Colombia, where 44% of students perform at that level.

Proficiency at Level 3 (scores higher than 475 points but lower than or equal to 550 points)

Students proficient at Level 3 can apply their knowledge to commonly used financial concepts, terms and products to situations that are relevant to them. In addition to exhibiting the proficiency of Level 2 and below, students at this level are beginning to consider the consequences of financial decisions, and they make simple financial plans in common



contexts, such as starting to compare some of the financial benefits of borrowing money with different interest rates and repayments. They are able to make straightforward interpretations of a range of financial documents, such as an invoice and a pay slip, and apply a range of basic numerical operations, such as making budget calculations. Students at this level can also choose the numerical operations needed to solve routine problems in relatively common financial literacy contexts. Therefore, they show not only a capacity to use mathematical tools but also to choose the tools that best apply to the financial tasks at hand.

The partial credit response for "NEW OFFER – Question 1" requires Level 3 proficiency. This question asks students to reflect on and evaluate the consequences of changing from one set of loan conditions to another. While having a loan from financial institutions or companies may be an unfamiliar situation to 15-year-old students, this question is relevant to them, as many students will borrow money from financial institutions in their near future. While all of the necessary information is provided in the question, in order to gain credit, students need to identify what is relevant and reflect on the consequences of taking a particular financial action. The question is allocated to the content category of "planning and managing" finances. Students need to interpret financial and numeric information and reason about the effect that different financial actions (i.e. borrowing money from different loan providers) and variables have on financial well-being. No numerical operations are required. In this task, partial credit is given for responses that include reference to either having extra money to use or getting a lower interest rate; full credit is given for responses that cite both of these. The partial-credit score is located at Level 3 while the full-credit score is located at Level 5.

Across the 13 participating OECD countries and economies, on average, more than three in five (62%) students are proficient at Level 3 or above. Across all 18 participating countries and economies, on average, 61% of students are at least proficient at Level 3. In New Zealand, a disproportionately low percentage of students performs at Level 3 or above (66%), considering the country's mean score of 520. In contrast, in Estonia, 76% of students perform at Level 3 or above, even though the country's mean score is not different from that of New Zealand. In seven OECD countries, the percentage of students performing at Level 3 or above is lower than the OECD average (62%): France (58%), Spain (57%), the United States (56%), Slovenia (55%), Israel (54%), the Slovak Republic (51%) and Italy (49%). In 17 of the 18 participating countries and economies, almost half of students perform at or above Level 3; the exception is Colombia, where 18% of students perform at this level. In three top-performing countries and economies, namely Shanghai-China, the Flemish Community of Belgium and Estonia, more than three in four students successfully perform tasks at Level 3 or higher.

Proficiency at Level 4 (scores higher than 550 points but lower than or equal to 625 points)

Students proficient at Level 4 on the financial literacy scale can, in addition to exhibiting the proficiency of Level 3 and below, apply their knowledge of less-common financial concepts and terms to contexts that will be relevant to them as they move towards adulthood. Students at this level can interpret and evaluate a range of detailed financial documents and explain the functions of less-commonly used financial products. They can also make financial decisions taking into account longer-term consequences and can solve routine problems in perhaps unfamiliar financial contexts. Tasks at Level 4 require an understanding of financial concepts and terms that are likely to be less-common for students, such as bank account management and compound interest. Compound interest refers to the process of earning (or paying) interest on interest. Students need to show that they understand that the simple interest rate should be applied to both the original amount saved or borrowed and any interest that has been added to an account. The scope of tasks at this level also includes contexts that are not necessarily familiar to 15-year-old students but that will be relevant to them in their near future, such as a pay slip. Tasks also require an ability to identify the possible consequences of financial decisions, and apply this to making financial product choices, such as deciding between two loan offers with different terms and conditions.

"PAY SLIP – Question 1" requires Level 4 proficiency. This multiple-choice question asks students to identify and interpret financial information on a pay slip. While a pay slip is a common financial document, it may be unfamiliar to 15-year-old students. In this question, students need to understand the difference between gross and net pay, that is, the difference between pay before and after any deductions have been made (such as deductions for health care or income tax).

Across the 13 participating OECD countries and economies, on average, nearly one in three (32%) students is proficient at Level 4 or above. Across all 18 participating countries and economies, on average, 31% of students are proficient at Level 4 or higher. In five OECD countries and economies, and Shanghai-China, more than one in three students perform at Level 4 or above: the Czech Republic (36%), New Zealand (43%), Australia (41%), Estonia (40%), the Flemish Community of Belgium (50%) and Shanghai-China (75%). In six OECD countries, the percentage of students performing at Level 4 or above is lower than the OECD average (32%), namely: France (28%), Israel (27%), Spain (22%),

Slovenia (24%), the Slovak Republic (23%) and Italy (17%). In 16 of the 18 participating countries and economies, more than one in five students perform at Level 4 or above; the exceptions are Colombia (4%) and Italy (17%).

Proficiency at Level 5 (scores higher than 625 points)

Students at Level 5 on the PISA financial literacy scale can successfully complete the most difficult items in this domain. In addition to exhibiting the proficiency of Level 4 and below, they can apply their understanding of a wide range of financial terms and concepts to contexts that may only become relevant to their lives later on, such as borrowing money from loan providers. Students at this level can analyse complex financial products and 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, such as calculating the bank balance in a given bank statement taking into account multiple factors, such as transfer fees. The tasks at this level are related to students' ability to look ahead and plan for the future to solve financial problems or make the kinds of financial decisions that will be relevant to many of them in the future, regardless of country contexts. Students at Level 5 can also describe the potential outcomes of financial decisions, showing an understanding of the wider financial landscape, such as income tax. These tasks relate to higher-order uses of knowledge and skills and can thus reinforce other competencies, such as the use of basic mathematical knowledge and the ability to look ahead and plan for the future.

For INVOICE, full credit for Question 3 requires Level 5 proficiency. This question asks students to interpret a financial document in a rather complex situation that is not uncommon in real life. Students are required to calculate the correct amount due, given that the quantity described on the invoice is incorrect, taking into account the sales tax as a percentage of purchase and the delivery charge. While the situation provided by this task might be unfamiliar to 15-year-olds, students are likely to face this kind of situation in real life as they become independent from their parents. In this task, full credit is given for the responses taking into account the tax change and postage, and partial credit is given to responses that only consider one of those factors. The full-credit score is located at Level 5, illustrating the fact that calculating a new total on an invoice, taking into account several factors, constitutes a significant challenge. To get full credit, students need to interpret and use financial and numeric information in an unfamiliar context and solve a financial problem by using multiple numerical operations, that is, addition, subtraction and calculation of percentages.

For the time being, Level 5 is unbounded at the top; its upper score limit is not defined. Across the 13 participating OECD countries and economies and across all 18 countries and economies, on average, one in ten (10%) students is proficient at Level 5. In four OECD countries and economies, and Shanghai-China, more than one in ten students perform at Level 5: Shanghai-China (43%), the Flemish Community of Belgium (20%), New Zealand (19%), Australia (16%) and Estonia (11%). In seven OECD countries, between 5% and 10% of students perform at Level 5: the Czech Republic (10%), the United States (9%), Israel (9%), France (8%), Poland (7%), Slovenia (6%) and the Slovak Republic (6%). Fewer than 5% of students perform at this level in two OECD countries: Spain (4%) and Italy (2%). Among the partner countries and economies, 5% of students in Latvia and 4% in the Russian Federation perform at this highest level. Shanghai-China is the only economy among the 18 participating countries and economies where 43% of students perform at Level 5.

Box VI.2.2 **Top performers in financial literacy**

Are the top performers in financial literacy also good at other subjects, and if so which ones? Financial literacy can be considered a life skill for students to make financial decisions and address everyday financial matters and more complex financial issues as they become independent from their parents. Whether or not they receive formal financial education, they will need to apply any relevant knowledge and skills that they have acquired in school and elsewhere in order to make suitable financial decisions. It is therefore useful to determine whether students with high levels of financial literacy also have high levels of reading and mathematics knowledge and skills that could be drawn on when making financial decisions or judgements.

In the analyses of PISA data, the phrase "top performers" refers to students who attain Level 5 or above in a domain. In financial literacy, this corresponds to a performance above 625 score points. Figure VI.2.a shows the proportion of top performers in financial literacy in each country and economy, as well as the proportion of students who reach a comparable level of proficiency in at least one of the two other assessment subjects: reading and mathematics. Top performers in financial literacy also tend to be top performers in mathematics. Across the 13 participating OECD countries and economies, 73% of top performers in financial literacy are also top performers in mathematics, and 48% are also top performers in reading.

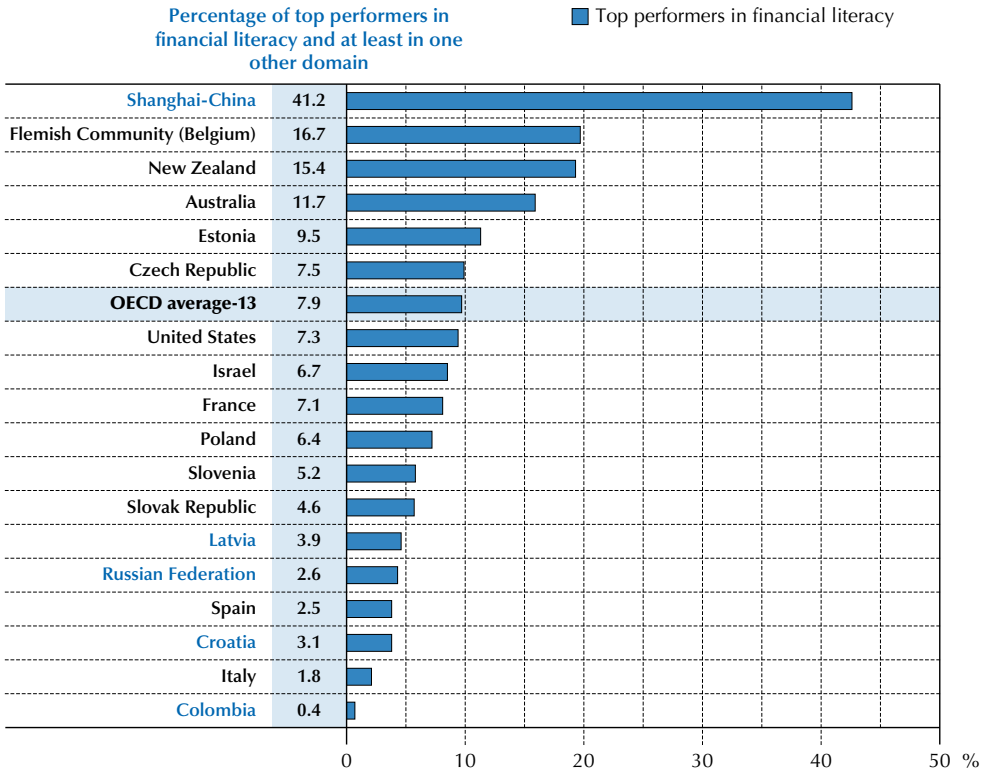
...

The proportion of students who reach the highest levels of proficiency in both financial literacy and at least one other domain (reading or mathematics) can be considered a measure of the breadth of a country's pool of students who are particularly well prepared to handle real-life situations. By this measure, the largest pool of top performers is found in Shanghai-China, where more than two in five students (41%) perform at the highest levels in financial literacy and in at least one other domain (reading or mathematics), followed by the Flemish Community of Belgium (17%), New Zealand (15%) and Australia (12%). On average across the 13 participating OECD countries and economies, 8% of students are top performers in financial literacy and at least one other assessment domain (mathematics or reading).

■ Figure VI.2.a ■

Top performers in financial literacy

Percentage of students who perform at Level 5 in financial literacy



Countries and economies are ranked in descending order of the percentage of top performers (Level 5) in financial literacy.

Source: OECD, PISA 2012 Database, Tables VI.2.1 and VI.2.3

StatLink http://dx.doi.org/10.1787/888933094887

VARIATIONS IN FINANCIAL LITERACY PROFICIENCY

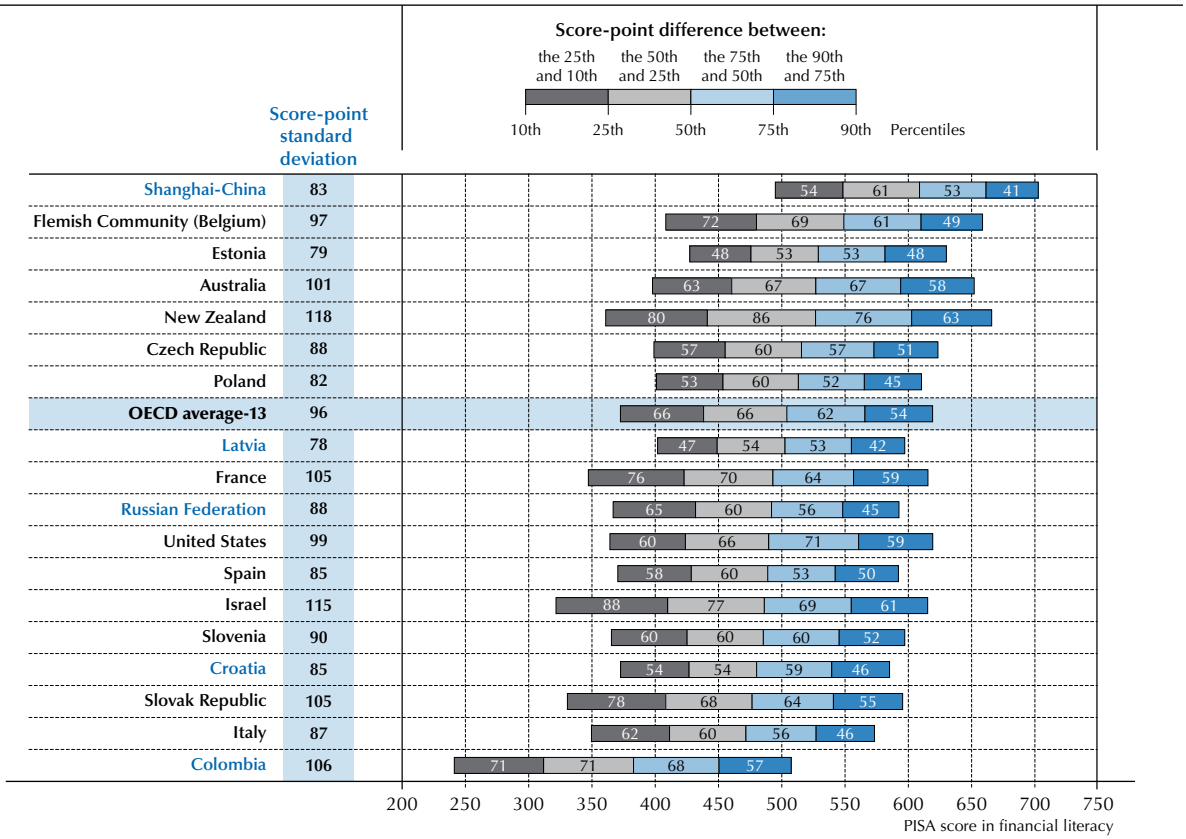
The score-point differences across percentiles of the performance distribution also provide a useful way to examine differences in financial literacy within countries and economies. The difference in score points between the 10th percentile and the 90th percentile shows the difference in proficiency between the lowest and the highest achievers; the difference between the median, representing the 50th percentile of students, and the 10th percentile is a measure of the achievement gap at the bottom end of the distribution; and the gap between the median and the 90th percentile, which is the score exceeded by only one in 10 students, is a measure of the achievement gap at the top.

Figure VI.2.7 shows how the average scores at different percentiles vary by country or economy. A difference of 75 score points represents one proficiency level on the PISA financial literacy scale and can be considered to be a comparatively large difference in student performance in financial literacy. For example, students performing at Level 2 are only using given information to make financial decisions in contexts that are immediately relevant to them (e.g. providing explanations regarding which option is better value for money: buying boxed or loose tomatoes) while those at Level 3 are beginning to consider the consequences of financial decisions and can make simple

■ Figure VI.2.7 ■

Variation in financial literacy performance within countries and economies

Standard deviation and percentiles on the financial literacy scale



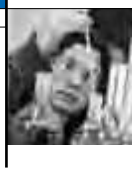
Countries and economies are ranked in descending order of median performance (50th percentile) in financial literacy.
Source: OECD, PISA 2012 database, Table VI.2.2.
StatLink http://dx.doi.org/10.1787/888933094887

financial plans in familiar contexts (e.g. comparing financial benefits of borrowing money with different interest rates and repayments).

On average across the 13 OECD countries and economies, the within-country/-economy performance gaps between students scoring at the 90th percentile and those at the 10th percentile in financial literacy is 247 score points, which is larger than three proficiency levels (225 points). The largest gaps are observed in New Zealand (306 points) and in Israel (294 points); in these two countries, the gap represents approximately four proficiency levels. By contrast, these performance gaps are less than 225 score points, which is equivalent to three proficiency levels, in seven countries and economies: Latvia (196 points), Estonia (203 points), Shanghai-China (208 points), Poland (210 points), Croatia (213 points), Spain (222 points) and Italy (224 points).

Focusing on the bottom end of the distribution, the performance gap between students scoring at the median and those at the 10th percentile in financial literacy is 166 score points in New Zealand and 165 points in Israel. France and the Slovak Republic also show large performance gaps between the median and the 10th percentile (146 score points in both countries). In these four countries, the gap represents more than two proficiency levels. In contrast, the performance gaps are less than 110 score points in Latvia (101 points), Estonia (102 points) and Croatia (108 points). In 17 out of the 18 participating countries and economies, except the United States, the difference between the median and the 10th percentile is larger than that between the median and the 90th percentile; this gap is larger than 20 score points in eight countries and economies.

Score points at the median itself indicate the minimum proficiency of the highest-scoring 50% of students. Only in Shanghai-China do students at the median perform at Level 4 or higher (550 score points or above). In 16 out of the 18 participating countries and economies (Colombia and Italy are the exceptions) median students perform at Level 3 or higher (475 score points or above).



At the low end of the performance distribution, in 13 countries, including some high- or middle-performing countries, such as France, New Zealand, the Russian Federation, Spain and the United States, the lowest-achieving 10% of students perform below the baseline level (below Level 2). At the high end of the distribution, the highest-achieving 10% of students in Australia, the Flemish Community of Belgium, Estonia, New Zealand and Shanghai-China perform at Level 5 (625 score points or above); in 17 out of the 18 participating countries and economies (Colombia is the sole exception) the highest-achieving 10% of students perform at Level 4 or higher (550 score points or above).

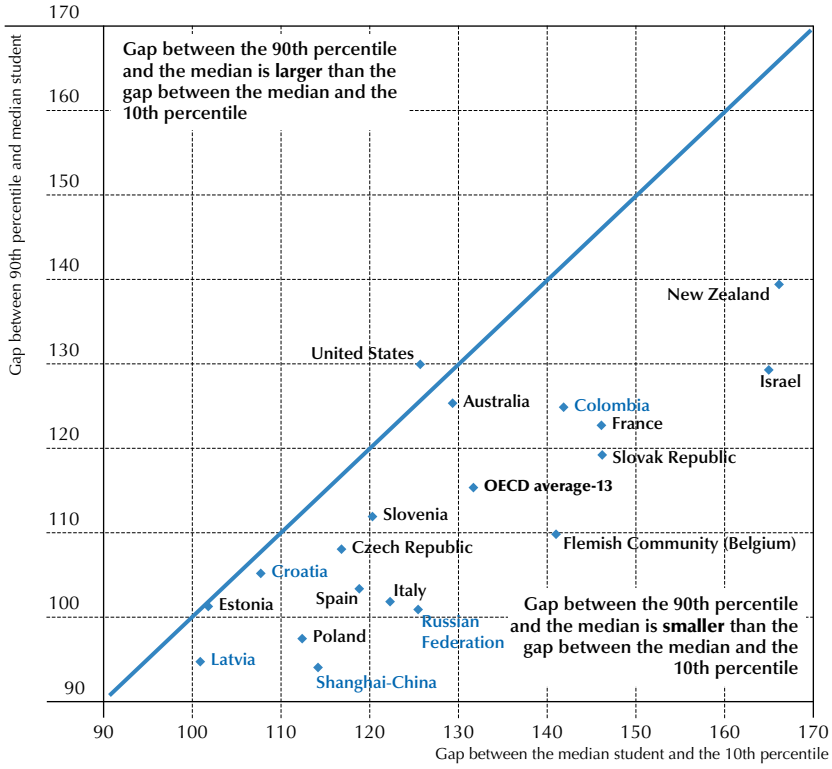
Figure VI.2.8 provides an alternative way to think about the difference between high and low performers. It compares performance gaps in financial literacy between the highest-achieving 10% and the lowest-achieving 10% of students within each country and economy. The figure shows where countries and economies are positioned in terms of the gap at the top end of the distribution (on the vertical axis) and the gap at the bottom end (horizontal axis). Countries and economies positioned in the top half, above the diagonal, have a larger gap at the top end of the performance distribution in financial literacy than at the bottom end. In these countries, the achievement of a few students would be considerably higher than the median.

The gap at the bottom end of the performance distribution in financial literacy is, in general, wider than the gap at the top end, except in the United States (Figure VI.2.8). This suggests that in most cases, there is relatively little variation among the higher achievers – either because the median score is relatively high or because the highest achievers are not being stretched to their full potential. Meanwhile, the lowest achievers have scores that are a long way from the median, suggesting that they could be helped to improve. The figure also highlights large differences between the gaps at the top and bottom ends of the distribution for some countries and economies. Israel and New Zealand have large gaps at the bottom end, both in absolute terms and relative to the gaps at the top end of their performance distributions. In particular, New Zealand has the largest gaps both at the top and bottom ends of the scale, indicating that the highest-achieving students are becoming extremely competent whilst some of the lowest-achieving students are being left far

■ Figure VI.2.8 ■

Performance differences among the highest- and lowest-achieving students

Gaps at the top and bottom end of the distribution of financial literacy performance



Source: OECD, PISA 2012 database, Table VI.2.2.

StatLink http://dx.doi.org/10.1787/888933094887

behind. Among OECD countries, for example, Australia, France, Israel and the United States share similar gaps at the top end of the distribution of between 123 and 130 score points. However, the gaps at the bottom end of the distribution within this group of countries range from 126 score points in the United States to 165 score points in Israel. Estonia, Italy and Spain show a similar degree of difference at the top of the distribution, from 101 to 103 score points, whilst the gaps at the bottom end of the distribution range from 101 score points in Estonia to 122 score points in Italy. Likewise, the gap at the bottom end is wider than that at the top end in the two highest-performing economies: the gaps at the top end of the distribution of Shanghai-China and the Flemish Community of Belgium is 94 and 110 score points, respectively, while the gaps at the bottom end are 114 and 141 score points, respectively.

STUDENTS' PERFORMANCE IN FINANCIAL LITERACY IN COMPARISON WITH READING AND MATHEMATICS PERFORMANCE

What levels of mathematics and reading are necessary for a student to become financially literate? To what extent can the variation in financial literacy performance be explained by mathematics and reading performance? 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. In fact, some basic knowledge of reading and mathematics is necessary to develop proficiency in financial literacy (OECD, 2013a). Conversely, interest in financial matters and financial literacy competencies can also support the development of mathematics and reading skills as well as provide a potentially engaging, real-life context to other school subjects. Figure VI.2.9 shows the correlation between two other PISA domains – reading and mathematics – and student performance in financial literacy. The correlation between reading and mathematics is also reported, and is found to be high in most countries and economies.

▪ Figure VI.2.9 ▪

Correlation between financial literacy, mathematics and reading performance

OECD average correlation, where 0.00 signifies no relationship and 1.00 signifies the strongest positive relationship

Correlation between:

Mathematics	Reading		
0.83	0.79	**…and financial literacy**	OECD average-13
0.88	0.86		The strongest (Mathematics: Shanghai-China, Reading: New Zealand)
0.51	0.52		The weakest (Mathematics: Colombia, Reading: Colombia)

For comparison, correlation between:

Reading		
0.77	**…and mathematics**	OECD average-13
0.81		The strongest (France)
0.68		The weakest (Latvia)

Source: OECD, PISA 2012 Database, Table VI.2.4.

On average across the 13 OECD countries and economies, the correlation between financial literacy and mathematics is 0.83 and the correlation between financial literacy and reading is 0.79, which indicates that financial literacy is strongly correlated with both of the other domains. Likewise, the correlation between mathematics and reading is strong (OECD average of 0.77). However, the correlations are relatively modest in some countries: in Colombia, the correlation between financial literacy and both mathematics and reading are below the OECD average (0.52 and 0.51, respectively). Moreover, the correlation between financial literacy and reading is relatively small in Spain (0.65) and in the Russian Federation (0.68). On the other hand, the average correlation between mathematics and reading in these three countries (0.72 in Spain, 0.73 in Colombia, and 0.75 in the Russian Federation) are as high as the OECD average (0.77). These differences suggest that the knowledge and skills beyond mathematics and reading should be strengthened in these countries to enable students to make informed financial decisions and plan their future.

Another way of looking at the relationship between financial literacy and mathematics and reading is to examine to what extent the variation in financial literacy performance can be explained by mathematics and reading performance. Figure VI.2.10 shows that, on average accross the 13 OECD countries and economies:

- Around 25% of the financial literacy score reflects factors that are uniquely captured by the financial literacy assessment (the residual variation in Figure VI.2.10); and

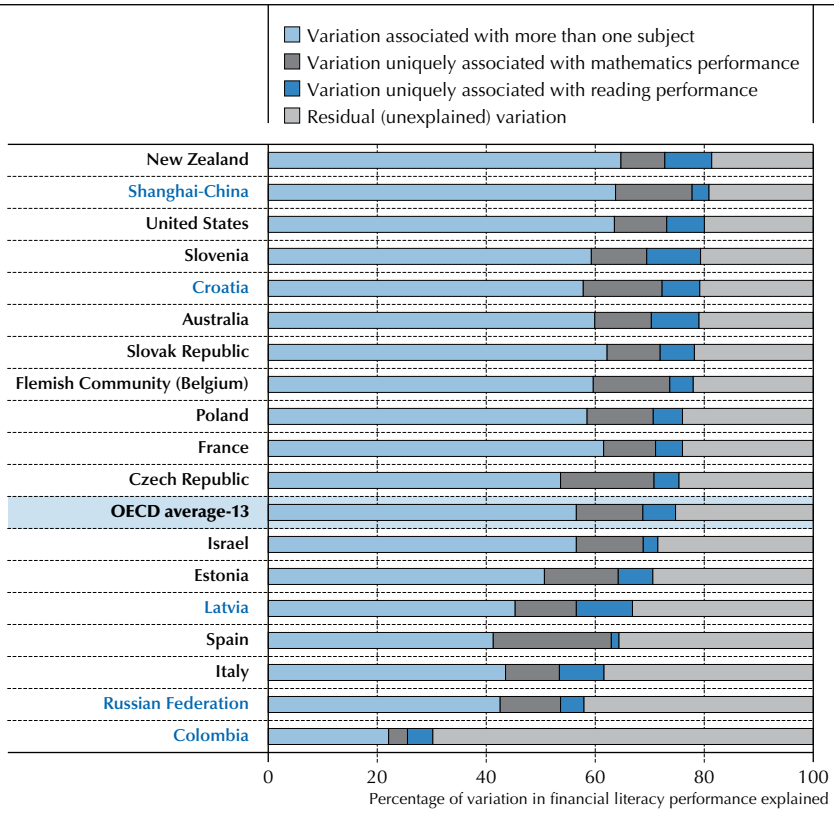
- The remaining 75% of the financial literacy score reflects skills that can be measured in mathematics and/or reading assessments. Of this 75%:
  - more than half of the variation is shared with both mathematics and reading (57% of the total variation);
  - about 12% is uniquely shared between financial literacy and mathematics; and
  - about 6% of the variation in financial literacy performance hinges on skills that are specifically measured in the reading assessment.

Figure VI.2.10 also shows how the association of financial literacy skills with those of reading and mathematics varies across countries and economies. In Colombia, the Russian Federation, Italy and Spain, performance in mathematics and reading explains a smaller proportion of the financial literacy variation than on average across OECD countries and economies. In these four countries, more than in others, a student's performance in financial literacy may not closely reflect their performance in mathematics and reading. In contrast, strong associations between the skills measured in the financial literacy assessment and performance in mathematics and reading are found in some middle- and high-performing countries and economies in financial literacy, such as New Zealand, Shanghai-China and the United States. In these three countries and economies, more than 80% of the variation in financial literacy scores reflects skills that can be measured in mathematics and/or reading assessments.

The strong positive correlations across domains indicate that, in general, students who perform at higher levels in mathematics and/or reading also perform well in financial literacy. There are, however, wide variations in financial literacy performance for any given level of performance in mathematics and reading, meaning that the skills measured by the financial literacy assessment may go beyond or fall short of the ability to use the knowledge that students acquired

Figure VI.2.10

Variation in financial literacy performance associated with performance in mathematics and reading

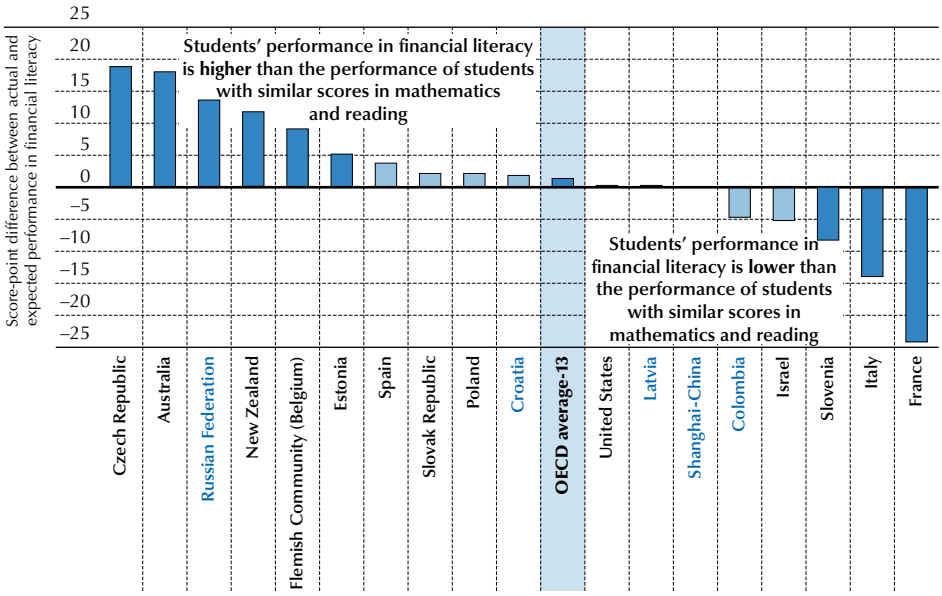


Countries and economies are ranked in descending order of the percentage of total explained variance in financial literacy.
Source: OECD, PISA 2012 Database, Table VI.2.4.
StatLink http://dx.doi.org/10.1787/888933094887

from subjects taught in compulsory education. Figure VI.2.11 shows a ranking of countries in relative performance, where relative performance compares students' actual financial literacy performance to the performance that would be expected based on their performance in mathematics and reading.

■ Figure VI.2.11 ■

Relative performance in financial literacy



Note: Significant differences are shown in darker tones (see Annex A3).
Countries and economies are ranked in descending order of the score-point difference between actual and expected performance.
Source: OECD, PISA 2012 Database, Table VI.2.4.
StatLink http://dx.doi.org/10.1787/888933094887

In Australia, the Flemish Community of Belgium, the Czech Republic, Estonia, New Zealand and the Russian Federation, students perform better in financial literacy than students in other countries with similar performance in mathematics and reading. Out of the countries and economies whose mean performance in financial literacy is above the OECD average, Australia, the Flemish Community of Belgium, the Czech Republic, Estonia and New Zealand, show higher levels of performance in financial literacy, even after accounting for mathematics and reading performance. This indicates that, on average, students in these countries and economies are developing higher levels of proficiency in financial literacy than might be expected given their other scores. In Australia, the Czech Republic, New Zealand and the Russian Federation, the average difference between students' scores in financial literacy and their expected performance given their scores in reading and mathematics, exceeds 10 score points. In these four countries, more than 60% of students perform better in financial literacy than expected given their scores in mathematics and reading (Table VI.2.4).

Interestingly, Australia, the Flemish Community of Belgium, the Czech Republic, Estonia and New Zealand have all started to develop fully-fledged school curricula for financial literacy, including learning frameworks (in the context of their national strategies for financial education; see Chapter 1, Box VI.1.2). In addition, in Australia, the Flemish Community of Belgium, the Czech Republic and New Zealand, professional development for teachers is available (see Chapters 1 and 5 of this volume). The Russian Federation has launched financial literacy pilots in schools with a view to scaling them up in the future, as part of the development of its national strategy for financial education (Box VI.1.2).

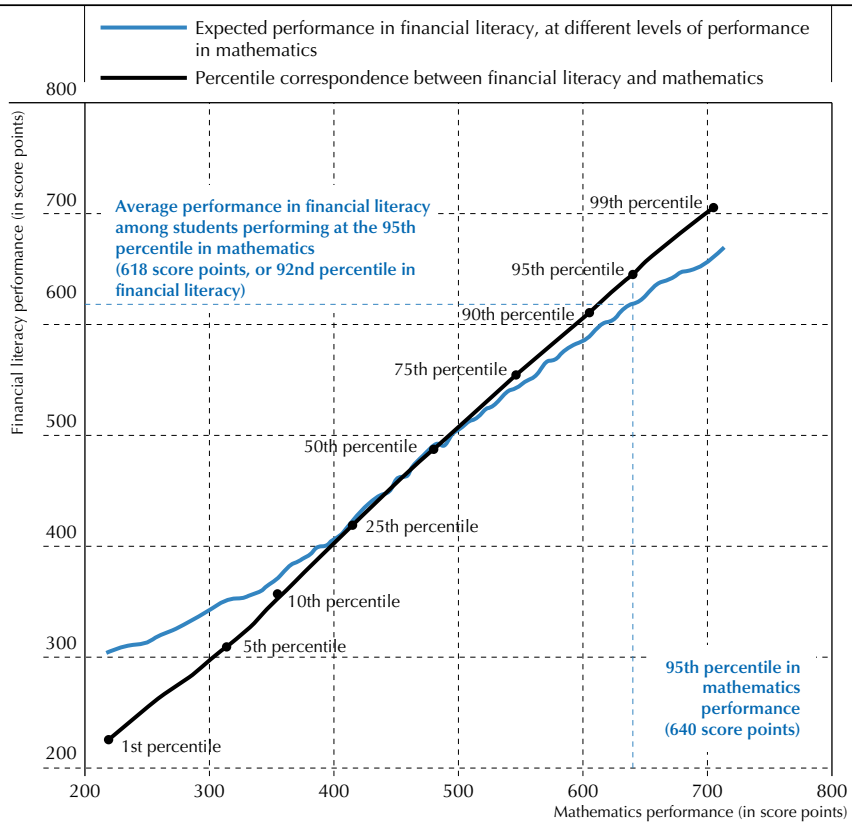
In France, Italy and Slovenia, students' performance in financial literacy is lower, on average, when compared to that of students in the other participating countries and economies who display the same level of proficiency in reading and mathematics (in France, the difference exceeds 20 score points). This indicates that students in these countries could readily achieve higher levels of financial literacy, given appropriate support. Students in these three countries could benefit from financial education to equip them with the skills to make better financial decisions.

STUDENTS' PERFORMANCE IN FINANCIAL LITERACY AT DIFFERENT LEVELS OF PERFORMANCE IN MATHEMATICS

Figure VI.2.12 shows the expected financial literacy performance of students at different levels of mathematics proficiency. By comparing the performance of students from one country to the average performance observed across participating countries and economies at a given level of proficiency in mathematics, one can infer whether these students perform the same as, above or below students with similar proficiency in mathematics.

■ Figure VI.2.12 ■

Expected performance in financial literacy, by mathematics performance



Notes: The blue line shows students' expected financial literacy performance at each level of proficiency in mathematics. This conditional expectation line is estimated with local linear regression on the pooled international sample of students. The black line shows the correspondence between percentiles of performance in financial literacy and percentiles of performance in mathematics. Percentiles are estimated on the pooled international sample of students. The comparison of the two lines indicates a certain amount of "mean reversion". For instance, students performing at the 95th percentile in mathematics perform at the 92nd percentile in financial literacy, on average, and thus closer to the international mean. This observed mean reversion is as expected for two partially independent skills.
Source: OECD, PISA 2012 Database.
StatLink http://dx.doi.org/10.1787/888933094887

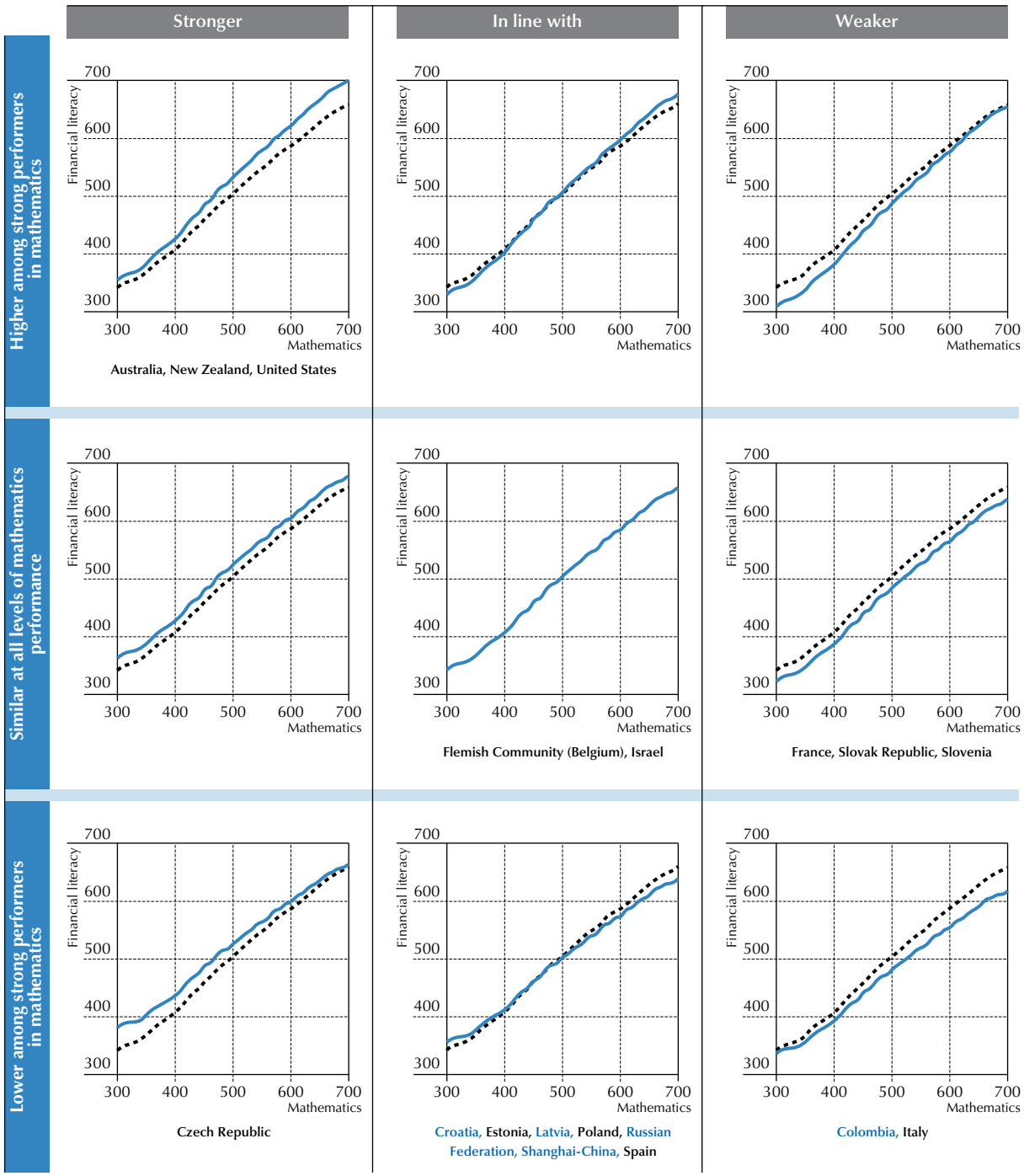
Is the relatively strong performance in financial literacy observed in some countries mainly due to the ability of high- or low-performing students in mathematics? The answer varies greatly by country. Figure VI.2.14 illustrates nine possible patterns and shows which pattern prevails in each of the participating countries and economies (results reported in Table VI.2.4). Figures presented in the three columns identify countries where the relative performance in financial literacy is stronger, similar or weaker among students with similar scores in mathematics; figures across the three rows identify countries where the relative performance in financial literacy is higher, similar or lower among strong performers in mathematics (at or above Level 4) with respect to low and moderate performers in mathematics (below Level 4).

In Australia, New Zealand and the United States, students with strong mathematics skills have significantly better financial literacy skills than students in other countries who share the same mathematics proficiency; but students with low or moderate mathematics scores perform as expected. In contrast, in the Czech Republic, the relatively high performance in financial literacy is, to a large extent, due to the fact that lower-performing students score beyond expectations in the financial literacy assessment. In other countries, such as France, the Slovak Republic and Slovenia, relative performance in financial literacy is lower than expected at all levels of mathematics performance.

■ Figure VI.2.13 ■

Patterns of relative performance in financial literacy

Average performance compared with students with similar scores in mathematics



Notes: The dotted line is repeated across all graphs and shows the average performance in financial literacy, across students from all participating countries/economies, at different levels of performance in mathematics (see Figure VI.2.12). The continuous line illustrates nine possible patterns of relative performance in financial literacy. Numbers on the axes refer to score points in the respective assessment domains.

Figures are for illustrative purposes only. Countries and economies are grouped according to the direction and significance of their relative performance in financial literacy, compared with students around the world with similar scores in mathematics, and of their difference in relative performance between students performing at or above Level 4 and students performing below Level 4 in mathematics.

Source: OECD, PISA 2012 Database, Table VI.2.4.

StatLink http://dx.doi.org/10.1787/888933094887

COUNTRIES PARTICIPATING IN THE FINANCIAL LITERACY ASSESSMENT

This section provides a brief overview of the context of countries that participated in the PISA 2012 assessment of financial literacy. It focuses on the 16 countries that participated in the exercise (Australia, Colombia, Croatia, the Czech Republic, Estonia, France, Israel, Italy, Latvia, New Zealand, Poland, the Russian Federation, the Slovak Republic, Slovenia, Spain and the United States). The two participating economies, i.e. the Flemish Community of Belgium and Shanghai-China, of the People's Republic of China, which represent specific subsets of their respective countries, are not covered. The section particularly highlights countries' characteristics that may inform the analysis of students' proficiency in financial literacy, such as per capita GDP, income distribution and access to financial products.

These 16 countries cover a relatively wide geographical area, including North and South America, Western, Central and Eastern Europe, and Oceania, representing about 40% of world GDP.

There are significant differences in the size of their national economies and national income, as shown in Figure VI.2.14. GDP (in 2012 US dollars) varies from USD 22 billion in Estonia and USD 28 billion in Latvia to USD 2 613 billion in France and USD 15 685 billion in the United States. The per capita GDP (in equivalent USD converted using 2010 purchasing power parity) ranges from USD 9 555 in Colombia and USD 16 902 in Latvia to USD 40 801 in Australia and USD 46 548 in the United States. Fifteen out of the 16 countries have relatively high levels of per capita GDP (more than USD 15 000).

Likewise, the distribution of income within these 16 countries is relatively diverse. The Gini coefficient measures the extent to which the distribution of income or expenditure among individuals or households within an economy deviates from a perfectly equal distribution. A Gini coefficient of zero represents perfect equality (each person earns the same income), while 1.0 implies perfect inequality (all income goes to one person and the rest earn nothing). The degree of income equality varies from 0.26 (the most equal) in the Slovak Republic and the Czech Republic to 0.38 in Israel and the United States and 0.40 (the most unequal) in the Russian Federation.

The level of access to financial products also varies among these 16 countries. The percentage of 15 to 24 year-olds who have an account at a formal financial institution or post office ranges from 12% in Colombia and 23% in the Russian Federation to 97% in Australia and 98% in New Zealand. Among adults (age 25 and older), in 14 countries, more than 80% of adults have an account at a formal financial institution or post office, while in the Russian Federation 45% and in Colombia 35% of adults do.

Some of these contextual indicators at the national level are associated with students' mean score in financial literacy, providing useful background information against which to interpret some of the results presented in this volume.

Figure VI.2.15 displays the relationship between per capita GDP and students' average performance in financial literacy. The figure also offers a best fit line that summarises the relationship between per capita GDP and students' mean score in financial literacy. The scatter plot shows that some OECD countries with lower levels of per capita GDP perform better in financial literacy than wealthier OECD countries. For instance, the mean scores of the Czech Republic, Estonia and Poland, whose per capita GDP is approximately USD 20 000 to USD 25 000, are higher than those of France, Italy, Spain and the United States, all of which have higher per capita GDP than the former three countries. All in all, per capita GDP only explains 16% of the variation in the mean scores in financial literacy among the 16 participating countries.

Figure VI.2.16 displays the percentages of 15–24 year-olds and adults (age 25 and older) who have an account at a formal financial institution or post office in comparison with students' mean score in financial literacy.[2] The scatter plots indicate that there is a positive relationship between the percentage of young people and adults holding financial products and the students' mean score in financial literacy. The finding suggests that, after accounting for per capita GDP, 33% and 41% of the variations between countries' mean scores in financial literacy can be predicted on the basis of the percentages of young people and adults, respectively, who have an account at a formal financial institution or post office (Figure VI.2.16).

■ Figure VI.2.14 ■

Contexts of countries participating in the assessment of financial literacy

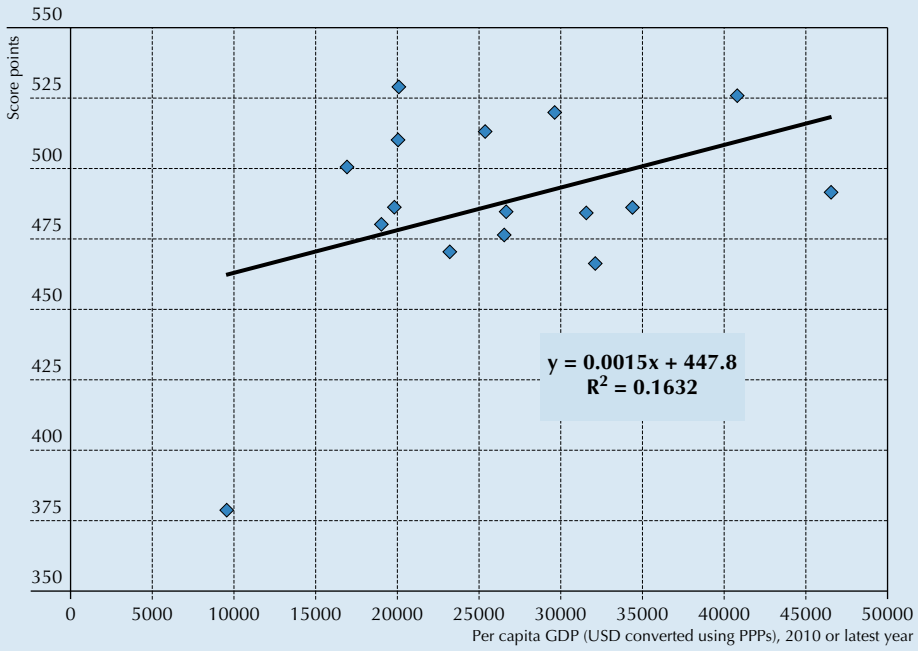
	Mean performance on financial literacy	Gross Domestic Product (GDP) (current USD million) (2012)[1,2]	Per capita GDP (in equivalent USD converted using PPPs) (2010)[3]	Gini coefficient (2010)[4]	Percentage of people who have an account at a financial institution or post office (2011)[5]	
					age 25+	age 15–24
Estonia	529	21 854	20 093	0.32	98	89
Australia	526	1 520 608	40 801	0.33	99	97
New Zealand	520	167 347	29 629	0.32	98	98
Czech Republic	513	195 657	25 364	0.26	91	55
Poland	510	489 795	20 034	0.31	81	48
Latvia	501	28 324	16 902	m	95	79
United States	492	15 684 800	46 548	0.38	88	71
Russian Federation	486	2 014 776	19 811	0.40	45	23
France	486	2 612 878	34 395	0.30	99	87
Slovenia	485	45 280	26 649	0.25	92	93
Spain	484	1 349 351	31 574	0.34	94	81
Croatia	480	56 442	19 026	m	91	75
Israel	476	258 217	26 552	0.38	96	74
Slovak Republic	470	91 605	23 194	0.26	89	59
Italy	466	2 013 263	32 110	0.32	83	29
Colombia	379	369 789	9 555	m	35	12

Countries are ranked in descending order of the mean performance on financial literacy.
1. World Bank, World Development Indicators (Accessed 12 December 2013) (2011 data are used for Israel).
2. For comparison, the total GDP of the 16 countries in the Figure was equivalent to USD 26 919 986 million in 2012. The world GDP was equivalent to USD 72 440 448 million in the same year.
3. *Education at a Glance 2013: OECD Indicators* (2011 data are used for Colombia) (OECD, 2013b).
4. OECD.Stat (Accessed 12 December 2013) (2009 data are used for New Zealand).
5. World Bank, Global Findex (Accessed 12 December 2013).

StatLink http://dx.doi.org/10.1787/888933094887

■ Figure VI.2.15 ■

Financial literacy performance and per capita GDP



Source: OECD, PISA 2012 Database, Figure VI.2.14.

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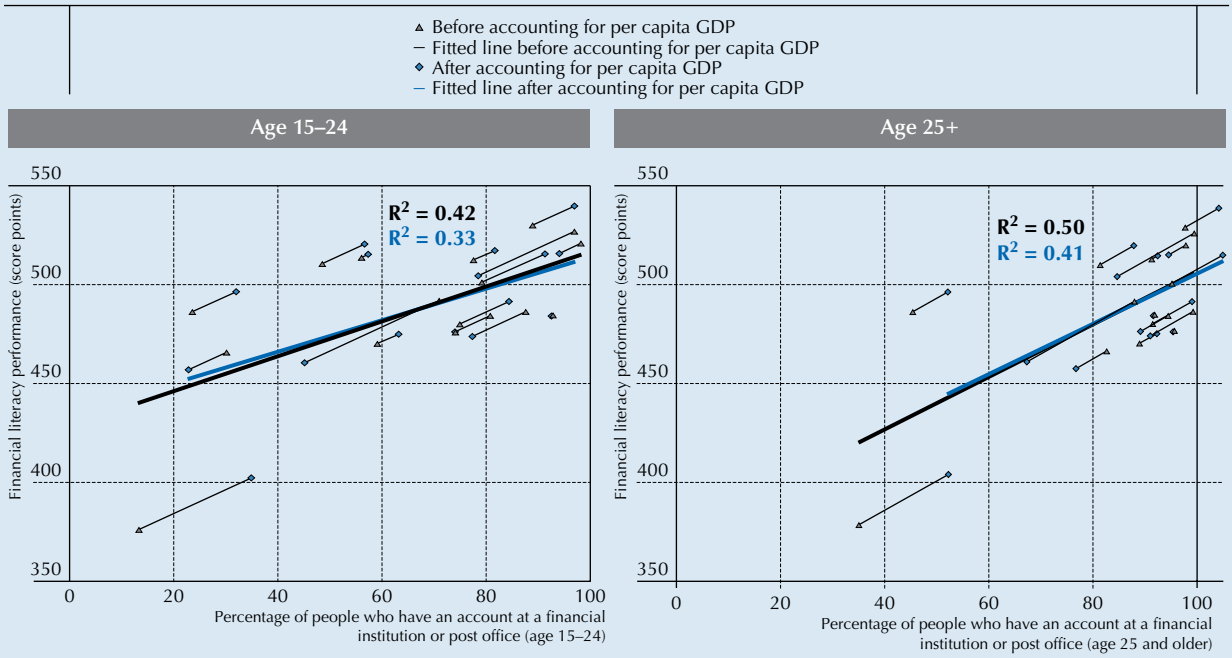
■ Figure VI.2.16 ■

Financial literacy performance and percentage of people who have an account at a formal financial institution or post office



Source: OECD, PISA 2012 Database, Figure VI.2.14.

StatLink http://dx.doi.org/10.1787/888933094887

Notes

1. The OECD average corresponds to the arithmetic mean of the 13 OECD countries and economies that participated in the optional financial literacy assessment in PISA 2012: Australia, the Flemish Community of Belgium, the Czech Republic, Estonia, France, Israel, Italy, New Zealand, Poland, the Slovak Republic, Slovenia, Spain and the United States.

2. These data were obtained from the 2011 Global Financial Inclusion database of the World Bank. The data were collected by the World Bank in partnership with the Gallup World Poll, based on interviews with more than 150 000 nationally representative and randomly selected adults.

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3

Relationship between Financial Literacy and Student Background

This chapter examines the relationship between students' financial literacy and the demographic and socio-economic characteristics of these students and their families. In particular, the chapter looks at performance differences across gender, socio-economic status, parents' education, parents' occupation, immigrant background, and language spoken at home. The chapter then analyses how these different factors may be related to observed variations in students' financial literacy.

Several aspects of students' family and home background can predict their financial literacy competencies and skills. Lusardi, Mitchell and Curto (2010) have shown that financial literacy among young people is associated with various demographic and socio-economic factors. In particular, the financial competencies and skills of children and young people are influenced by their parents' financial knowledge and behaviour and by their overall family context (Centiq, 2008; Shim et al., 2010). Family financial socialisation (transferring parents' own attitudes, behaviours and values in relation to money) plays a crucial role in the financial literacy of children and young people (see Gudmondson and Danes, 2011; and Otto, 2013 for a review of the literature).

How much of the variation in performance in financial literacy is related to students' demographic and socio-economic differences? Which socio-economic factors are more strongly related to financial literacy, and how does this compare with mathematics and reading? This chapter analyses financial literacy in the context of certain student characteristics, such as gender, socio-economic status and immigrant background. In doing so, it shows the extent to which countries and economies are providing equitable learning opportunities and provides an indication of the level of equity in society, as a whole.

What the data tell us

- In contrast with performance in mathematics and reading, in 17 out of the 18 participating countries and economies, there are no gender differences in average financial literacy scores. However, boys perform better than girls among students with comparable performance in mathematics and reading in 11 out of 18 countries and economies.
- On average across participating OECD countries and economies, a more socio-economically advantaged student scores 41 points higher in financial literacy than a less-advantaged student, the equivalent of more than half of a proficiency level.
- In Shanghai-China, family wealth – one of the components of socio-economic status – is more strongly associated with financial literacy than with mathematics performance; in Israel, New Zealand, Shanghai-China and Spain family wealth is more strongly associated with financial literacy than with reading performance.
- On average across OECD countries and economies, non-immigrant students perform slightly better in financial literacy than immigrant students with similar socio-economic status, language spoken at home, and performance in mathematics and reading.
- Some 37% of the overall performance differences in financial literacy are observed between schools and 61% are seen within schools, on average across OECD countries and economies. The proportion of variation in performance observed between schools is smaller in financial literacy than it is in mathematics and reading.

GENDER DIFFERENCES IN FINANCIAL LITERACY

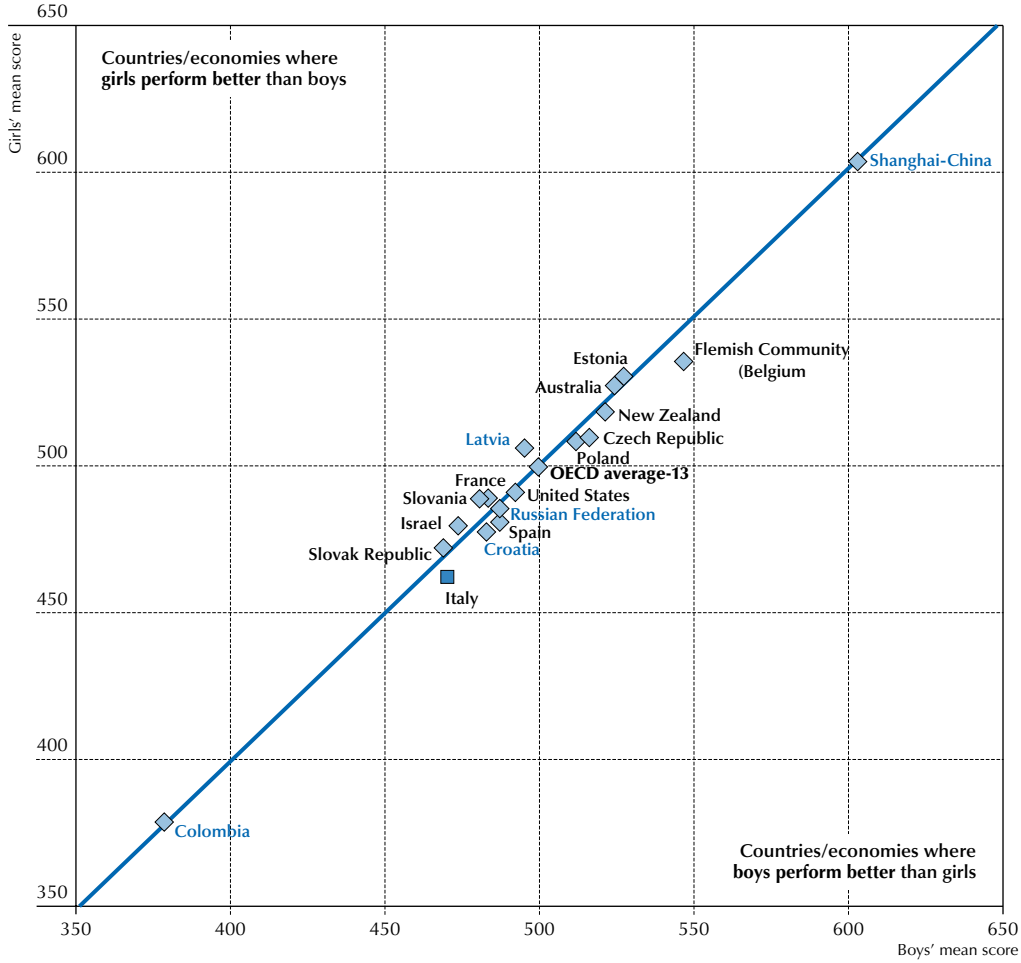
Are the gender differences found in mathematics or reading performance also observed in financial literacy performance? Are the gender differences in performance in financial literacy observed among adults also seen among 15-year-old students? Figure VI.3.1 shows that there are no gender differences in financial literacy scores in most countries and economies. Only in Italy do boys perform better than girls, but only by 8 score points, which is a relatively small difference (one proficiency level is the equivalent of 75 points).

However, as shown in Figure VI.3.2 (Table VI.3.2), boys tend to perform better than girls in financial literacy when accounting for students' competencies in other subjects. After accounting for students' performance in mathematics and reading, for example, boys perform slightly better than girls in Australia, the Flemish Community of Belgium, Croatia, Estonia, Italy, Latvia, Poland, Shanghai-China, Slovenia, the Slovak Republic and the United States. This means that among boys and girls of similar ability in mathematics and reading, boys perform better in financial literacy than girls. However, these gender differences are not very large: the score-point difference between boys and girls, after accounting for mathematics and reading performance, is largest in Italy, at 15 score points.

Girls and boys are not equally represented among high- and low-performing students (Table VI.3.2). Figure VI.3.3 shows that, on average across the 13 participating OECD countries and economies[1], 11% of boys and 8% of girls perform at Level 5, while 17% of boys and 14% of girls perform at Level 1 or below. The fact that there are more boys than girls among the lowest performers (at or below Level 1) and among the top performers (at Level 5) also means that the distribution of financial literacy is more dispersed among boys than among girls (this is confirmed by a higher standard

■ Figure VI.3.1 ■

Financial literacy performance, by gender



Note: Countries and economies where gender differences are statistically significant are marked in a darker tone (see Annex A3).
Source: OECD, PISA 2012 Database, Table VI.3.1.
StatLink http://dx.doi.org/10.1787/888933094906

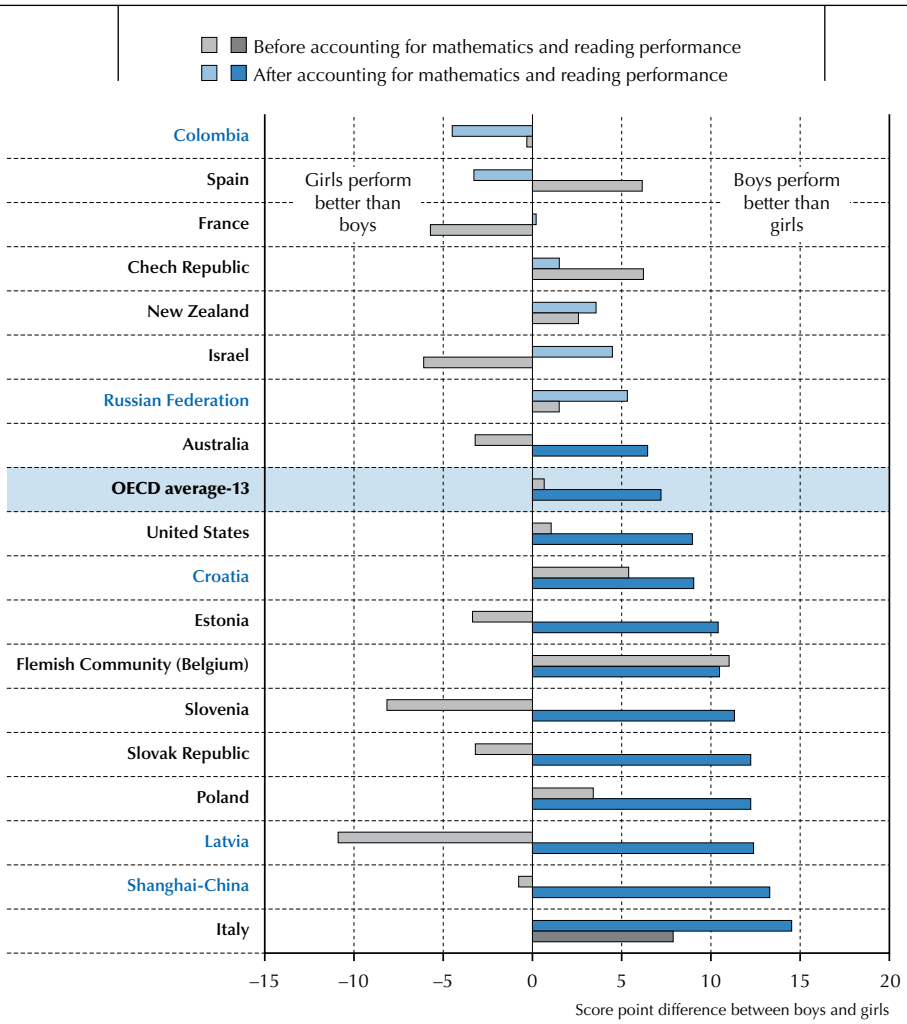
deviation of financial literacy performance for boys than for girls; see Table VI.3.1). In mathematics, on average across OECD countries and economies, there are more boys than girls among the top performers (17% of boys and 11% of girls at Level 5 or above), but there are about as many boys as girls among the lowest performers; in reading, on average across OECD countries and economies, there are more girls than boys among the top performers (11% girls and 7 % boys at Level 5 or above) and more boys than girls among the lowest performers (22% boys and 12 % girls at or below Level 1).

Another way of assessing gender differences in financial literacy is to look at the performance distribution. In France, Israel, Italy, New Zealand and Poland, boys perform better than girls at the top of the distribution (i.e. among students performing at or above the 90th percentile), while girls in Australia, France, Israel and Slovenia tend to perform better than boys at the bottom of the distribution (i.e. among students performing at or below the 25th and 10th percentiles). In other words, among the highest achievers, boys outperform girls in five countries, while among low and the lowest achievers, girls outperform boys in four countries (Table VI.3.1). Overall, these results suggest that when targeting students with poor financial literacy, it is important to keep in mind that low-performing boys are likely to have a larger skills gap than girls, while girls may need targeted help to develop the skills to reach the highest levels of proficiency in financial literacy.

As reported above, PISA shows rather limited gender differences in financial literacy. However, several studies do report gender differences among adults (Box VI.3.1). The fact that gender differences are consistently reported among adults

■ Figure VI.3.2 ■

Gender differences in financial literacy performance, before and after accounting for mathematics and reading performance



Note: Score-point differences that are statistically significant are marked in a darker tone (see Annex A3).
Countries and economies are ranked in descending order of the score-point difference in financial literacy performance between boys and girls, after accounting for mathematics and reading performance.

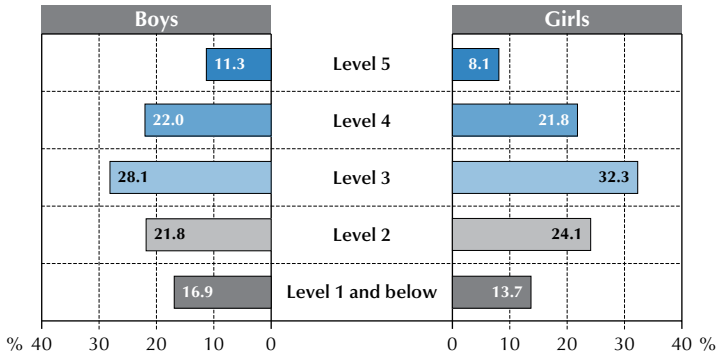
Source: OECD, PISA 2012 Database, Table VI.3.2.

StatLink http://dx.doi.org/10.1787/888933094906

■ Figure VI.3.3 ■

Proficiency in financial literacy among boys and girls, OECD countries and economies

OECD average percentages of boys and girls at each level of financial literacy proficiency



Source: OECD, PISA 2012 Database, Table VI.3.3.

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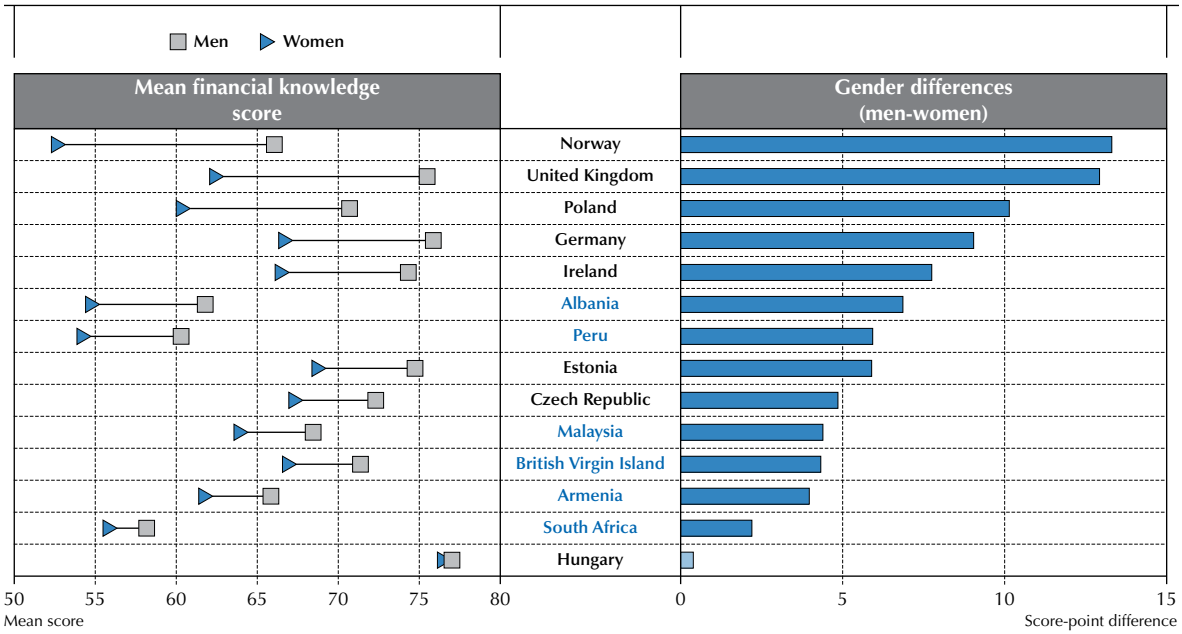
but not among 15-year-old students may be due to the fact that, at least to some extent, gender differences in adulthood are related to the different socio-economic characteristics of men and women (OECD, 2013). For example, as boys and girls grow up, they may be exposed to different opportunities to learn and improve their financial competencies, such as different access to labour and financial markets, and therefore they may develop different levels of financial knowledge and different financial strategies in adulthood over time.

Box VI.3.1 **Gender differences in financial knowledge among adults**

Studies conducted in some of the countries and economies that participated in the 2012 PISA financial literacy assessment (including Australia [ANZ, 2011, Agnew, Bateman and Thorp, 2013], Colombia [World Bank, 2013], France [Bigot, Croutte and Müller, 2011, Arrondel, Debbich and Savignac, 2013], Italy [Fornero and Monticone, 2011], New Zealand [Crossan, Feslier and Hurnard, 2011; ANZ and Commission for Financial Literacy and Retirement Income, 2013] and the United States [FINRA Investor Education Foundation, 2009, 2013; Lusardi and Mitchell, 2011]) reported that men perform better than women on surveys measuring financial knowledge. The OECD/INFE financial literacy survey documented that women also had lower scores on financial knowledge questions than men in the Czech Republic, Estonia, Poland and various other countries (OECD, 2013), as reported in Figure VI.3.a. No gender differences were found in the Russian Federation (Klapper and Panos, 2011).

Figure VI.3a

Gender differences in financial literacy performance (adults)



Note: Statistically significant gender differences are marked in a darker tone (see Annex A3).
Countries are ranked in descending order of the score-point difference related to gender (men - women).
Source: OECD (2013), *Women and Financial Education: Evidence, Policy Responses and Guidance*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264202733-en.
StatLink http://dx.doi.org/10.1787/888933094906

THE RELATIONSHIP BETWEEN SOCIO-ECONOMIC STATUS, IMMIGRANT BACKGROUND AND FINANCIAL LITERACY

This section examines student performance in financial literacy across a number of different background characteristics of the students, their families and their communities, including:

i) their socio-economic status (as captured by the *PISA index of social, economic and cultural status*);

ii) their parents' education and occupation, including whether their parents work in the financial sector;

iii) their immigrant status, meaning whether the student or their parents were born in another country;

iv) their home language, meaning whether or not the student usually speaks the language of the assessment at home (captured by a variable indicating whether it is the assessment language or another language); and

v) their school location (captured by a variable indicating whether the student attends a school located in a rural area of fewer than 3 000 people, a town of 3 000 to about 100 000 people, or a city with over 100 000 people).

To what extent do these factors explain differences in financial literacy performance across students, as compared to other domains, such as mathematics and reading? This section analyses the relationship between each of these factors and performance in financial literacy, as compared to mathematics and reading. At the end of the chapter, all factors are considered together. On average across OECD countries and economies, students' socio-economic status explains a larger proportion of the variation in financial literacy than gender and immigrant background. Among the components of socio-economic status, parents' occupation explains a larger proportion of performance variation than parents' education. Overall, the demographic and socio-economic factors considered in this analysis explain 22% of the total variation in financial literacy performance, which is similar to the proportions of explained variation in mathematics (23%) and slightly lower than that in reading (27%).

Socio-economic status

In PISA, a student's socio-economic status is considered to be a combination of several background factors. It is estimated by an index, the *PISA index of social, cultural and economic status*, which is based on indicators such as parents' education and occupation, the number and type of home possessions, which are used to indicate levels of family wealth, and the educational resources available at home. The index is built to be internationally comparable (see the *PISA 2012 Technical Report* [OECD, forthcoming]). Students are considered socio-economically advantaged if they are among the 25% of students with the highest *PISA index of social, economic and cultural status* in their country or economy (top quartile); socio-economically disadvantaged students are those among the 25% of students with the lowest *PISA index of social, economic and cultural status* (bottom quartile).

Figure VI.3.4 describes the relationship between socio-economic status and performance. It shows that, on average across OECD countries and economies, financial literacy performance is positively associated with socio-economic status, but that there is more variation in performance than socio-economic status can predict. In other words, many students with below-average socio-economic status have high financial literacy scores and vice versa.

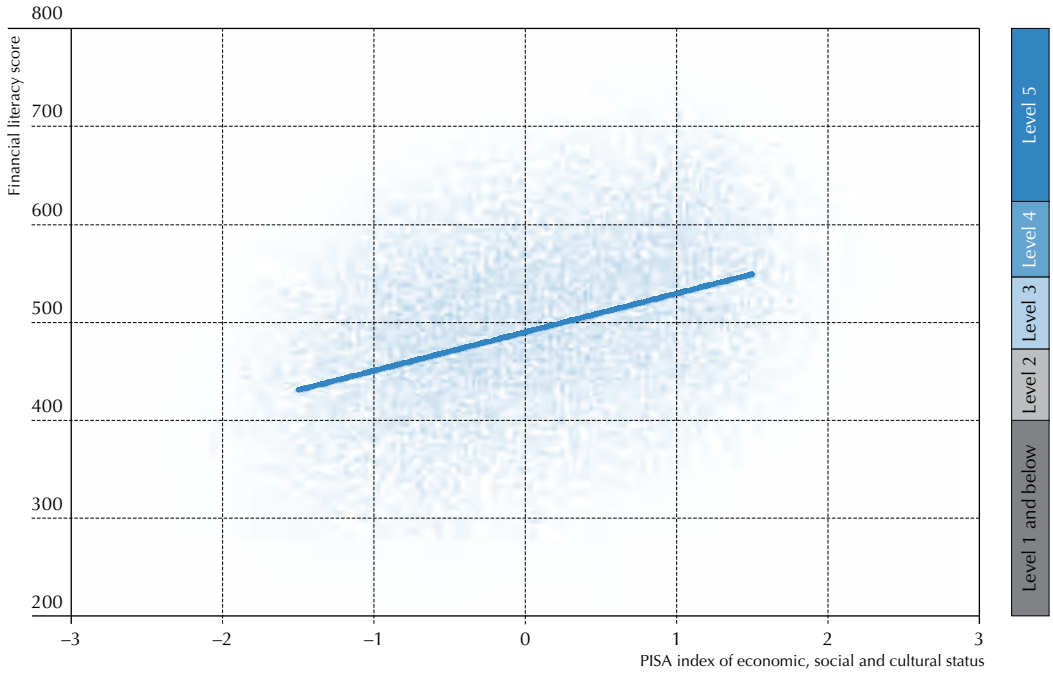
Equity means providing all students, regardless of gender, family background or socio-economic status, with similar learning opportunities. PISA measures equity by the strength of the relationship between students' socio-economic status and their performance: the stronger the impact of a student's socio-economic status on his or her performance, the less equitably the country/economy provides students with opportunities for learning. PISA results in other domains (see Volume II) consistently indicate that high performance and greater equity in learning opportunities and outcomes are not mutually exclusive: one does not have to be sacrificed to achieve the other.

Figure VI.3.5 shows the relationship between financial literacy and socio-economic status. On average across OECD countries and economies, 14% of the variation in student performance in financial literacy within each country and economy is associated with the *PISA index of economic, social and cultural status*. Estonia combines high performance and high equity as it displays above-average performance and above-average equity (i.e. a weak association between performance and socio-economic status). Italy and the Russian Federation also display above-average equity. In contrast, in New Zealand, the relationship between student performance and socio-economic status is stronger than average. Another way of exploring this relationship is to consider the performance difference between relatively advantaged students (the top quarter of socio-economic status) and more disadvantaged students (the bottom quarter of socio-economic status). This difference amounts to 91 score points, on average across OECD countries and economies, equivalent to more than one PISA proficiency level. The difference between advantaged and disadvantaged students is smallest in Estonia, at 53 score points, and largest in New Zealand, at 127 score points.

On average across OECD countries and economies, financial literacy performance increases by 41 score points with a one-unit increase in the index of socio-economic status (Figure VI.3.5, Table VI.3.4). As Figure VI.3.5 shows, performance differences across socio-economic groups are smaller than the OECD average (meaning that the slope of the gradient is relatively flat) in Colombia, Croatia, Estonia, Italy, Latvia, Poland, Shanghai-China and Spain. In contrast, performance differences across socio-economic groups are larger than the OECD average (meaning that the slope of the gradient is relatively steep) in France, Israel, New Zealand and the Slovak Republic, at over 45 score points. The slope is steepest in New Zealand, at over 64 score points, equivalent to almost one PISA proficiency level (75 score points).[2]

■ Figure VI.3.4 ■

Students' socio-economic status and financial literacy, OECD countries and economies



Note: Each dot represents a student in an OECD country or economy.
Source: OECD, PISA 2012 Database.

How to read this figure
Every dot in Figure VI.3.4 represents a student from an OECD country or economy. The horizontal axis represents the student's socio-economic status (as measured by the *PISA index of economic, social and cultural status*). The values of the index have been standardised to a mean of zero for the population of students in the 13 OECD countries and economies that participated in the assessment of financial literacy, with each country given equal weight. A one-point difference on the scale of the index represents a difference of one standard deviation on the distribution of this measure. The student's financial literacy score in PISA 2012 is shown on the vertical axis. The dark line that appears among the dots represents the relationship between student performance and socio-economic status, what is known as the socio-economic gradient. The line depicts the typical performance of a student given his or her socio-economic status. The strength of the socio-economic gradient refers to how well socio-economic status predicts performance. When the dots are very close to the dark line, the student's performance in financial literacy is the same as would be predicted given his or her socio-economic status, so the socio-economic gradient is considered strong. If the dots are far away from the line, the student's actual performance is not the same as would be predicted by his or her socio-economic status, so the socio-economic gradient is considered weak. The strength of the socio-economic gradient is measured by the proportion of the variation in performance that is explained by differences in socio-economic status.
The slope of the socio-economic gradient refers to the impact of socio-economic status on performance, or the average difference in performance between two students whose socio-economic status differs by one unit on the *PISA index of economic, social and cultural status*. As such, it is a summary measure of the differences in performance observed across socio-economic groups. A flat line, parallel to the horizontal axis, implies that there are only small differences in performance related to socio-economic status; in other words, advantaged and disadvantaged students perform equally well. A steep line, however, signals large performance differences related to socio-economic status.
StatLink http://dx.doi.org/10.1787/888933094906

Is socio-economic status more strongly related to financial literacy than to mathematics and reading performance? On average across the OECD, there are almost no differences among the three domains considered – financial literacy, mathematics and reading – in the degree to which the *PISA index of economic, social and cultural status* explains variations in scores (Figure VI.3.6 and Table VI.3.5). However, when looking at countries and economies, there are some differences in the extent to which socio-economic status can explain financial literacy, mathematics and reading performance: socio-economic status is more strongly associated with financial literacy than with mathematics performance in Colombia, and it is more strongly associated with financial literacy than with reading performance in Spain. In contrast, socio-economic status is more strongly associated with mathematics performance than with financial literacy in Poland, and it is more strongly associated with reading performance than with financial literacy in Australia, the Flemish Community of Belgium and Italy, but most of these differences are small.

It is also interesting to see whether one of the components of the *PISA index of economic, social and cultural status*, namely family wealth, is more strongly related to financial literacy than it is to mathematics and reading performance. Unlike mathematics and reading, financial literacy is not part of the curriculum in many schools; and, as discussed in

■ Figure VI.3.5 ■

Comparing countries' and economies' performance in financial literacy and equity

Countries/economies with mean performance in financial literacy **above** the OECD average Countries/economies where the strength of the relationship between financial literacy performance and socio-economic status is **below** the OECD average Countries/economies where performance differences across the socio-economic spectrum are **below** the OECD average
Countries/economies with mean performance in financial literacy not statistically different from the OECD average Countries/economies where the strength of the relationship between financial literacy performance and socio-economic status is not statistically different from the OECD average Countries/economies where performance differences across the socio-economic spectrum are not statistically different from the OECD average
Countries/economies with mean performance in financial literacy **below** the OECD average Countries/economies where the strength of the relationship between financial literacy performance and socio-economic status is **above** the OECD average Countries/economies where performance differences across the socio-economic spectrum are **above** the OECD average

	Mean performance in financial literacy	**Strength of the relationship between financial literacy performance and socio-economic status**	**Performance difference across socio-economic groups**
Country/Economy	Mean score	Percentage of explained variance in financial literacy performance	Score-point difference in financial literacy associated with one-unit increase in the PISA index of economic, social and cultural status
OECD average-13	500	13.6	41
Estonia	529	6.7	24
Australia	526	11.3	42
Flemish Community (Belgium)	541	11.3	37
Poland	510	12.2	31
Shanghai-China	603	12.5	29
Czech Republic	513	13.3	45
New Zealand	520	19.0	64
Latvia	501	13.2	32
United States	492	16.6	41
Italy	466	7.5	25
Russian Federation	486	9.6	36
Croatia	480	10.4	33
Colombia	379	13.0	33
Israel	476	14.4	50
Spain	484	14.6	32
France	486	15.5	50
Slovenia	485	16.3	41
Slovak Republic	470	18.2	48

Note: Countries and economies are presented in three groups: those whose mean performance is above the OECD average, those whose mean performance is not statistically different from the OECD average, and those whose mean performance is below the OECD average. Within each group, countries and economies are ranked in descending order of the strength of the relationship between performance and socio-economic status.

Source: OECD, PISA 2012 Database, Table VI.3.4.

StatLink http://dx.doi.org/10.1787/888933094906

Chapter 1, even in those countries and economies where financial education is included in the curriculum, it is not systematically taught in schools and it is generally not part of students' examinations.

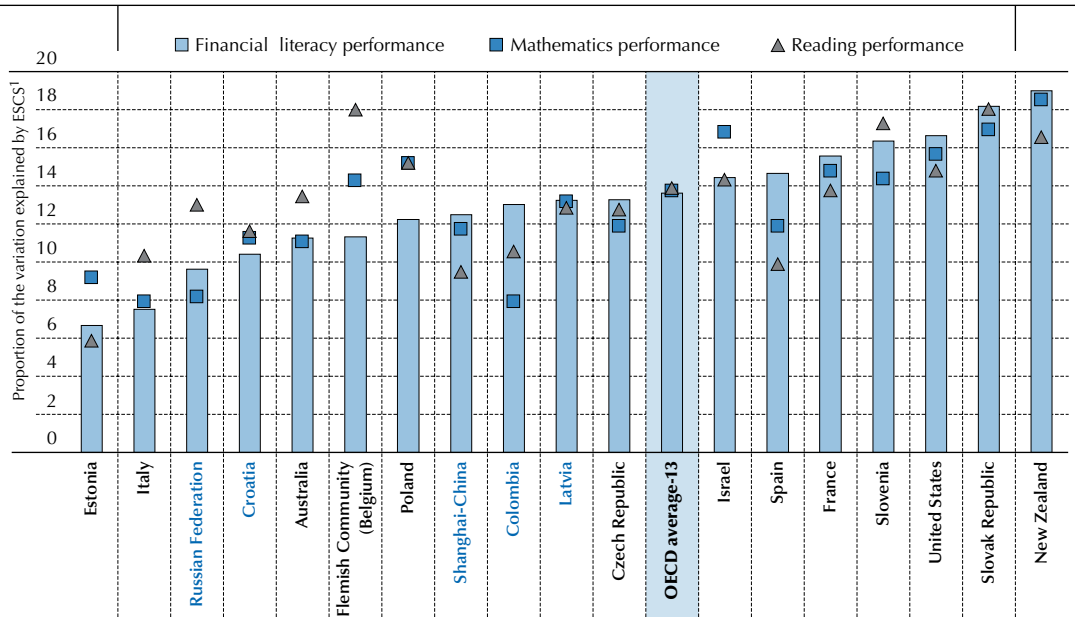
Figure VI.3.7 shows that, in some countries and economies, the *PISA index of family wealth* is more strongly related to financial literacy than to mathematics and reading performance. In Colombia and the United States, family wealth explains the largest proportion (more than 10%) of the variation in financial literacy performance. The family wealth index is more strongly associated with financial literacy than mathematics performance in Shanghai-China, and it is more strongly associated with financial literacy than reading performance in Israel, New Zealand, Shanghai-China and Spain. However, in Poland, family wealth is more strongly associated with mathematics performance than with financial literacy.

Parental influence

Parents can have an important influence on their children's knowledge and skills in financial literacy because their own occupations and education affect the environment in which their children grow up. They are also an important source of financial socialisation through their example as role models and through direct teaching, especially when financial education is not offered in schools. This section examines the relationship between students' financial literacy and their

■ Figure VI.3.6 ■

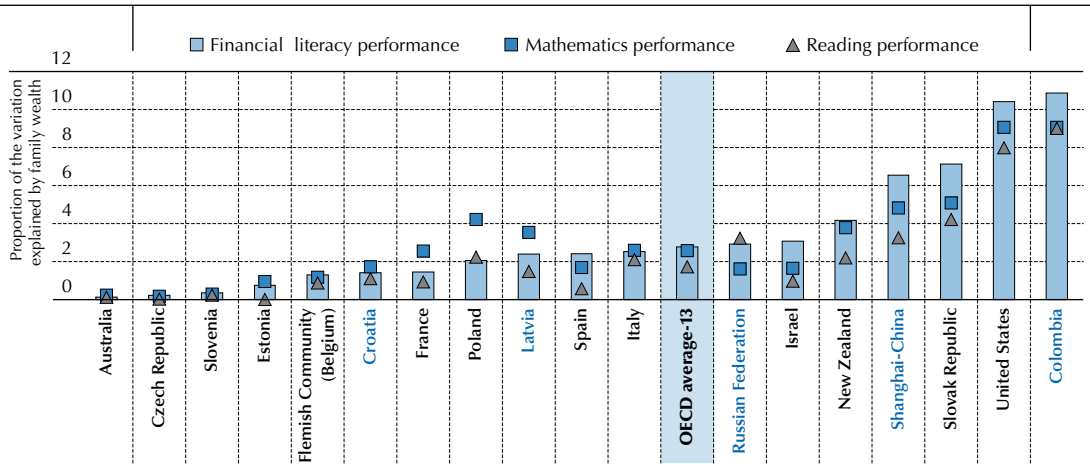
Proportion of the variation in students' performance explained by socio-economic status



1. ESCS refers to the *PISA index of economic, social and cultural status*.
Countries and economies are ranked in ascending order of the proportion of explained variation in financial literacy performance.
Source: OECD, PISA 2012 Database, Table VI.3.5.
StatLink http://dx.doi.org/10.1787/888933094906

■ Figure VI.3.7 ■

Proportion of the variation in students' performance explained by family wealth



Countries and economies are ranked in ascending order of the proportion of explained variation in financial literacy performance.
Source: OECD, PISA 2012 Database, Table VI.3.5.
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parents' education and occupations. It then examines the association between financial literacy and the frequency with which students discuss money matters with their parents.

Several studies have examined the role of parents in how their children develop financial literacy. For instance, Webley and Nyhus (2006) found that parental behaviour, including discussing financial matters with children, and parents' attitudes, such as conscientiousness and future orientation, have an impact on children's economic behaviour. Grinstein-Weiss et al. (2012) examined the relationship between the family context of low-income homeowners in the United States when they were children and the way they manage their mortgage as adults. They found that respondents fell behind less often on loan repayments and were less likely to experience bankruptcy when their parents had taught

them about money management, compared with respondents who had received little or no teaching of this kind from their parents. In addition, children and young adults typically turn to their parents for advice about money (Danske Bank, 2011; IEFP, 2006; Australian Government Financial Literacy Foundation, 2007). Some 60% of 16-29 year-olds in the United Kingdom listed parents as the most important source of advice about saving (Bradley, 2012).

Is there a difference in financial literacy performance related to parent's education and to parent's occupation? How do differences in financial literacy performance compare to differences in mathematics and reading performance? Is more frequent discussion about money matters with parents related to better financial literacy performance?

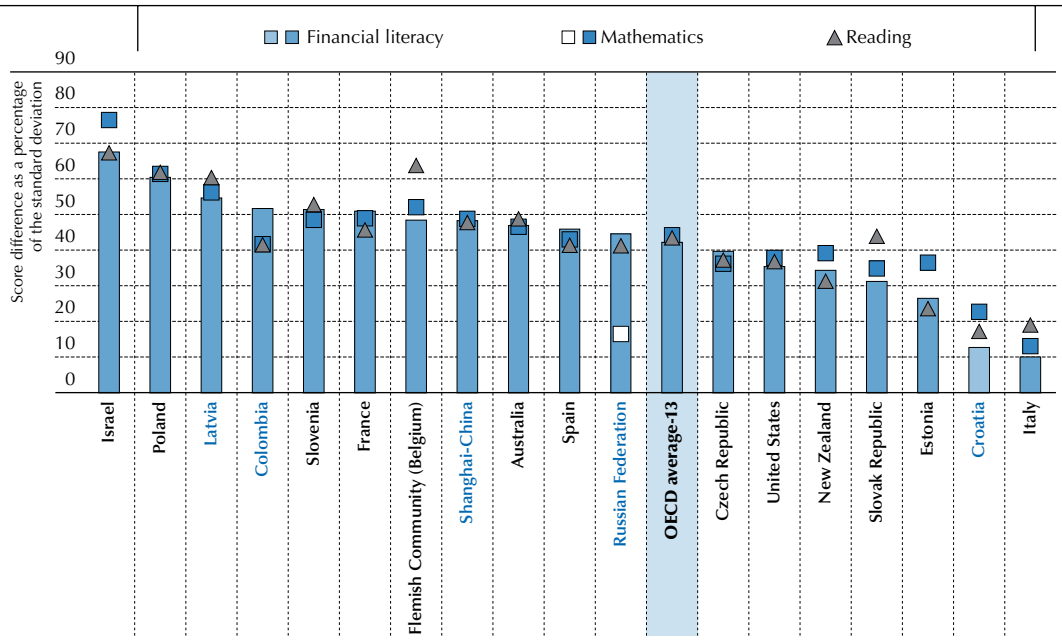
PISA results confirm that the highest level of parental education is related to student performance in financial literacy. On average across OECD countries and economies, 48% of students have at least one parent with tertiary education, while 52% have no parent with tertiary education. Figure VI.3.8 shows that, on average across OECD countries and economies, the performance gap related to the highest level of parental education is very similar in financial literacy, mathematics and reading performance. The performance gap related to the highest level of parental education is smaller in financial literacy than in mathematics in Croatia, Estonia and Israel, and is smaller in financial literacy than in reading in the Flemish Community of Belgium, Italy and the Slovak Republic. However, in the Russian Federation, the performance gap related to the highest level of parental education is larger in financial literacy than in mathematics.

In almost all participating countries and economies, students whose mother and/or father attained tertiary education perform better in financial literacy than students whose parents did not attain tertiary education. Figure VI.3.9 shows that, on average across OECD countries and economies, the difference in financial literacy performance between students with at least one parent with tertiary education and students with no parent with tertiary education is 40 score points; this difference is largest in Israel (75 score points), Colombia (55 points), and France (51 points); it is smallest in Italy (9 score points). In Colombia, France, the Russian Federation and Spain, students with at least one parent with tertiary education also perform better than students with similar performance in mathematics and reading whose parents did not attain tertiary education.

■ Figure VI.3.8 ■

Difference in financial literacy, mathematics and reading performance related to parents' highest educational status

Score-point difference between students with at least one parent with tertiary education and students with no parent with tertiary education expressed as a percentage of the overall variation in performance



Notes: Values that are statistically significant are marked in a darker tone (see Annex A3). All differences in reading performance are statistically significant.

Countries and economies are ranked in descending order of the difference in financial literacy performance between students with at least one parent with tertiary education and students with no parent with tertiary education

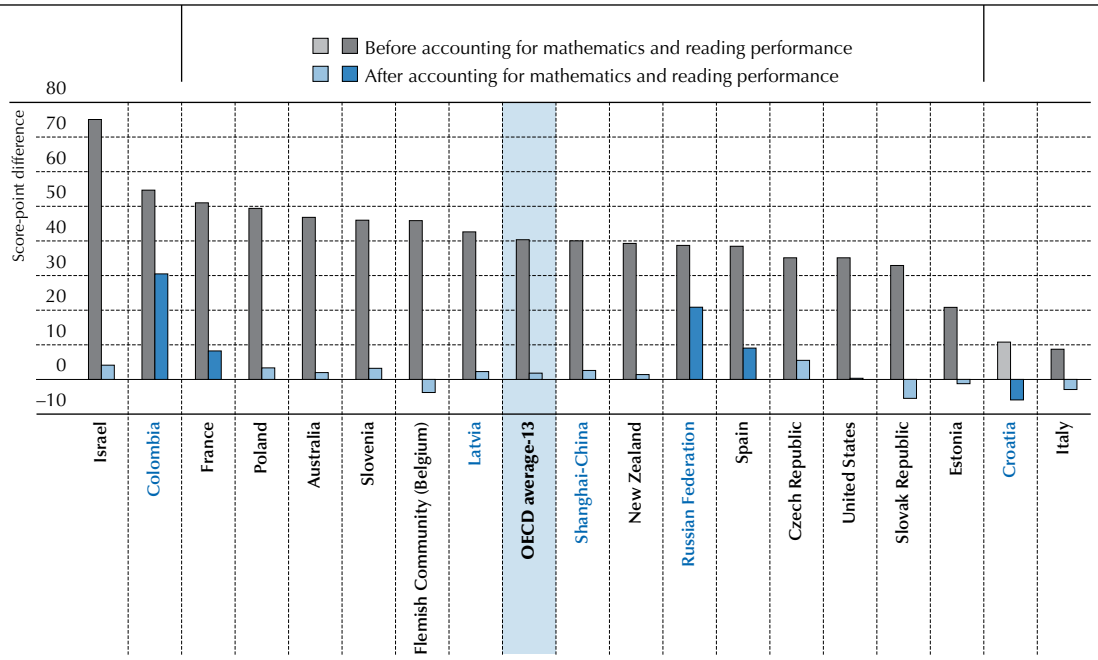
Source: OECD, PISA 2012 Database, Table VI.3.6.

StatLink http://dx.doi.org/10.1787/888933094906

■ Figure VI.3.9 ■

Differences in financial literacy performance related to parents' highest educational status, before and after accounting for mathematics and reading performance

Financial literacy score-point difference between students with at least one parent with tertiary education and students with no parent with tertiary education



Note: Statistically significant differences are marked in a darker tone (see Annex A3).
Countries and economies are ranked in descending order of the score-point difference in financial literacy between students with at least one parent with tertiary education and students with no parent with tertiary education
Source: OECD, PISA 2012 Database, Table VI.3.6.
StatLink http://dx.doi.org/10.1787/888933094906

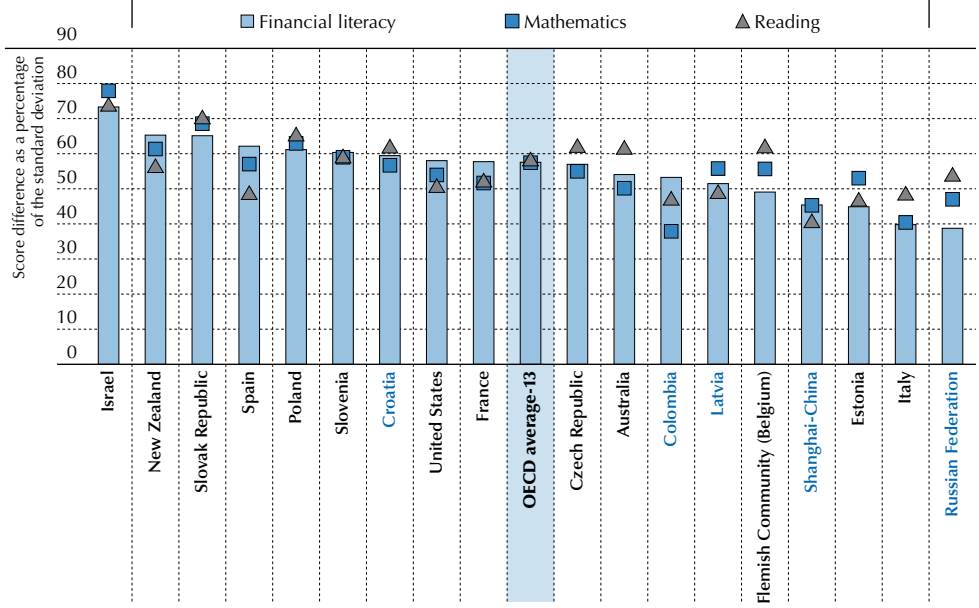
Students' financial literacy is also strongly related to the occupation of their parents (Table VI.3.7). Parents' occupational status classifies students according to the highest occupational status of their father or mother. The higher-status group includes the children of managers, professionals, technicians and associate professionals, such as teachers (within ISCO major groups 1, 2 and 3). On average across OECD countries, 54% of students are in this higher-status group; 46% are in the lower-status group, with their parents in semi-skilled or elementary occupations (ISCO 4 to 9). Figure VI.3.10 shows that, on average across OECD countries and economies, the performance gap related to parents' highest occupational status is similar in financial literacy, mathematics and reading performance. Across countries and economies, the performance difference related to parents' highest occupational status is larger in financial literacy than in mathematics in Colombia and is larger in financial literacy than in reading in New Zealand and Spain. However, in Australia, the Flemish Community of Belgium, Italy and the Russian Federation, the performance difference is *smaller* in financial literacy than in reading.

In all participating countries and economies, students with at least one parent in a skilled occupation (ISCO 1 to 3) perform better in financial literacy, mathematics and reading than students whose parents have a semi-skilled or elementary occupation (ISCO 4 to 9). Figure VI.3.11 shows that, on average across OECD countries and economies, the difference in financial literacy performance between students with at least one parent in a skilled occupation and students whose parents work in semi-skilled or low-skilled occupations is 54 score points. This difference is smallest in Italy and the Russian Federation (34 score points) and largest in Israel (79 score points). In Colombia, France, New Zealand, Spain and the United States, students with at least one parent in a skilled occupation also perform better than students with similar performance in mathematics and reading whose parents work in semi-skilled or low-skilled occupations. Box VI.3.2 looks at parents' occupations in more detail by examining the level of financial literacy of students whose parents work in the financial sector in Australia, the Czech Republic, Italy, the Russian Federation, Shanghai-China and the United States.

■ Figure VI.3.10 ■

Difference in financial literacy, mathematics and reading performance related to parents' highest occupational status

Score-point difference between students with at least one parent in a skilled occupation (ISCO 1-3) and students whose parents work in semi-skilled or low-skilled occupations (ISCO 4-9) expressed as a percentage of the overall variation in performance



Notes: All values are statistically significant (see Annex A3).
Semi-skilled or elementary occupations include major ISCO groups 4, 5, 6, 7, 8 and 9. Skilled occupations include major ISCO groups 1, 2 and 3.
Countries and economies are ranked in descending order of the difference in financial literacy performance between students whose parents' highest occupation is skilled and students whose parents' highest occupation is semi-skilled or elementary.
Source: OECD, PISA 2012 Database, Table VI.3.7.
StatLink http://dx.doi.org/10.1787/888933094906

PISA 2012 also provides evidence about students' performance in financial literacy and how frequently they discuss money matters, such as spending, saving, banking and investment, with their parents/guardians. On average across OECD countries and economies, 16% of students report that they never discuss money matters with their parents, 69% discuss money matters with parents weekly or monthly, and 15% discuss such matters every day.

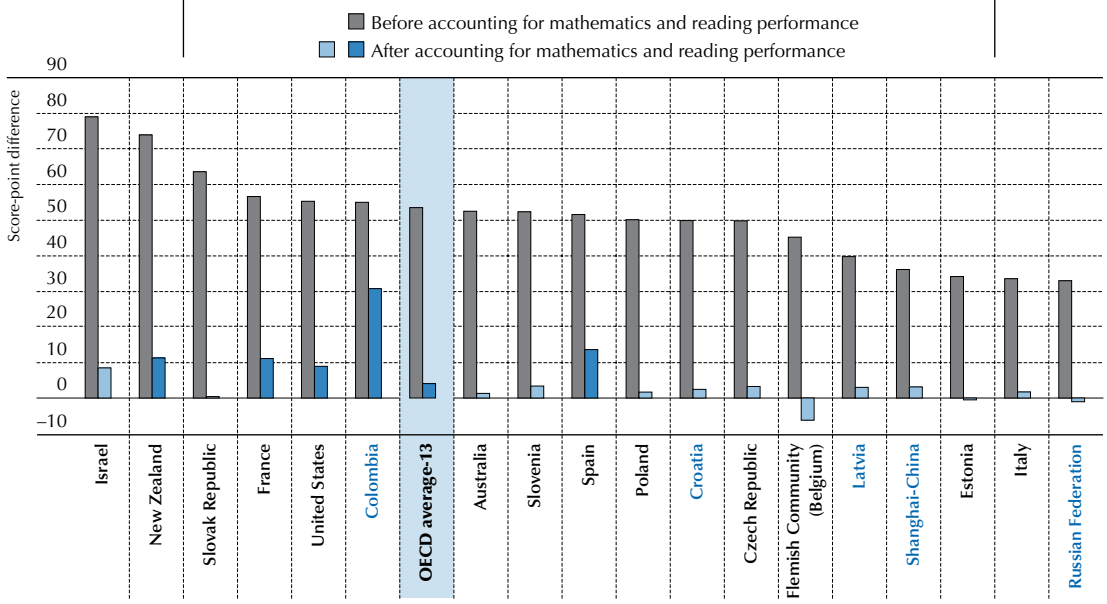
The relationship between performance in financial literacy and discussing money matters with parents is not entirely straightforward. On average across the OECD, it appears that talking about money almost every day or never is associated with poorer performance in financial literacy than discussing the subject every week or every month (Figure VI.3.12).

Table VI.3.9 shows that, in several countries and economies, discussing matters such as spending, saving, banking and investment monthly or weekly is associated with a higher score in financial literacy than discussing these matters very often (almost every day) or never. In France, Italy, Spain and the United States, after accounting for their socio-economic status, students who never discuss money matters with their parents tend to perform worse than students who discuss the subject at least sometimes (monthly, weekly or daily). However, this does not mean that discussing the subject more often is always associated with higher performance. Comparing students of similar socio-economic status, students in Australia, the Czech Republic and Slovenia score higher in financial literacy if they discuss money matters weekly, monthly or never than if they discuss the subject every day. This suggests that, at least in some countries, discussing money matters very often is associated with poorer performance, even after accounting for students' socio-economic status, possibly indicating that low-performing students lack confidence and seek more advice.

■ Figure VI.3.11 ■

Differences in financial literacy performance related to parents' highest occupational status, before and after accounting for mathematics and reading performance

Financial literacy score-point difference between students with at least one parent in a skilled occupation (ISCO 1-3) and students whose parents work in semi-skilled or low-skilled occupations (ISCO 4-9)



Note: Statistically significant differences are marked in a darker tone (see Annex A3). All differences in financial literacy before accounting for mathematics and reading performance are statistically significant.

Countries and economies are ranked in descending order of the score-point difference in financial literacy between students with at least one parent in a skilled occupation (ISCO 1-3) and students whose parents work in semi-skilled or low-skilled occupations (ISCO 4-9) with similar performance in mathematics and reading.

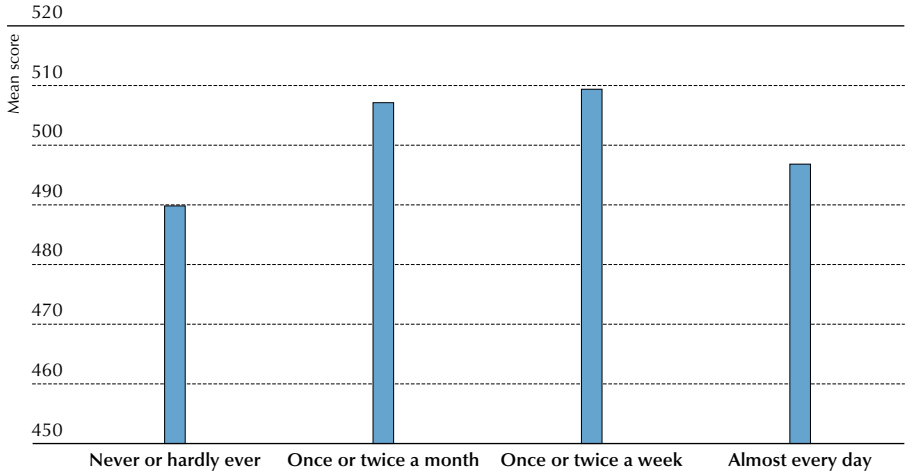
Source: OECD, PISA 2012 Database, Table VI.3.7.

StatLink http://dx.doi.org/10.1787/888933094906

■ Figure VI.3.12 ■

Financial literacy performance, by frequency of discussing money matters with parents, after accounting for socio-economic status, OECD countries and economies

Financial literacy performance, in score points, after accounting for socio-economic status



Note: Discussing money matters refers to, for example, talking about spending, saving, banking and investment.

Source: OECD, PISA 2012 Database, Table VI.3.9.

StatLink http://dx.doi.org/10.1787/888933094906

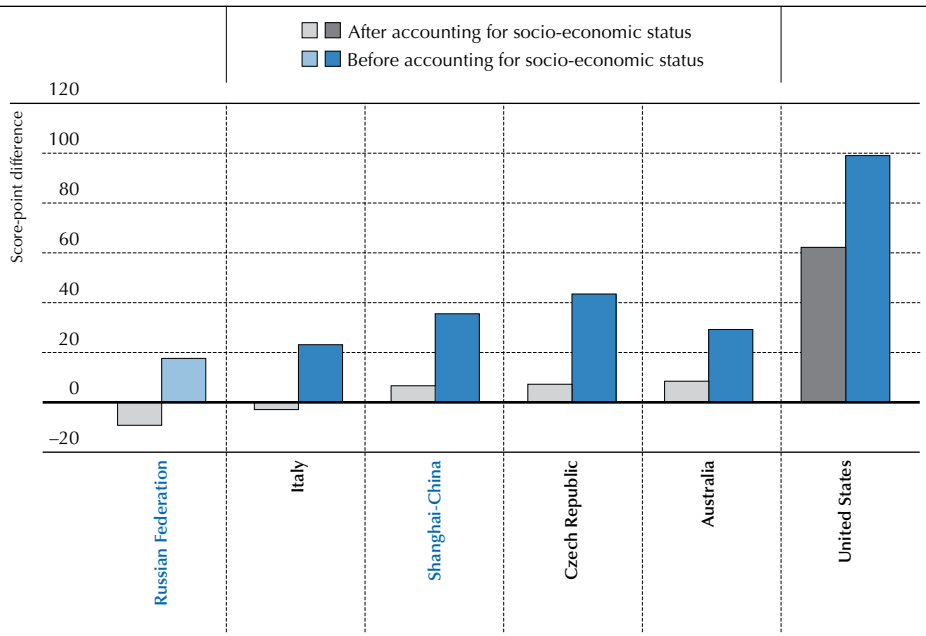
Box VI.3.2 **Parents' occupations in finance and students' financial literacy**

Financial literacy is also related to the type of occupation in which parents are engaged, as shown in Figure VI.3.b. Among the countries and economies with available data, in Australia, the Czech Republic, Italy, Shanghai-China and the United States, students whose parents work in finance[3] show higher performance than students whose parents work in other occupations. However, after accounting for students' socio-economic status, the relationship is significant only in the United States. In the United States, the difference in performance between students who have at least one parent working in a finance-related occupation and students with neither parent working in finance, after accounting for socio-economic status, is 62 score points. This result reinforces the idea that family characteristics can have a sizeable impact on the financial literacy of students.

Figure VI.3b

Parents' occupations in finance and financial literacy performance

Score-point difference between students with at least one parent working in finance and students with no parent working in finance



Notes: Score-point differences that are statistically significant are marked in a darker tone (see Annex A3).
Only countries and economies with available data are reported.
Finance-related occupations are defined as: finance managers; financial and insurance services branch manager; finance professionals; financial and investment advisers; financial analysts; financial and mathematical associate professionals; securities and finance dealers and brokers; statistical, finance and insurance clerks.
Countries and economies are ranked in ascending order of the score-point difference, after accounting for socio-economic status.
Source: OECD, PISA 2012 Database, Table VI.3.8.
StatLink http://dx.doi.org/10.1787/888933094906

Box VI.3.3 **Financial literacy performance and school location**

In some countries and economies, student performance varies considerably according to the location of the schools (which can be used as an indicator of where students live). Differences in the size and population density of communities may result in different opportunities for learning, since both school systems and opportunities for learning outside school can vary by location. Larger communities might provide students with opportunities to be exposed to a wider range of simple and more complex financial products and services than smaller communities. This would give students in large communities more chances to engage directly in basic financial decisions and to shop around for products, e.g. to choose a savings account or a mobile phone plan. More familiarity with ordinary financial life and experience with a more complex financial environment can help students develop

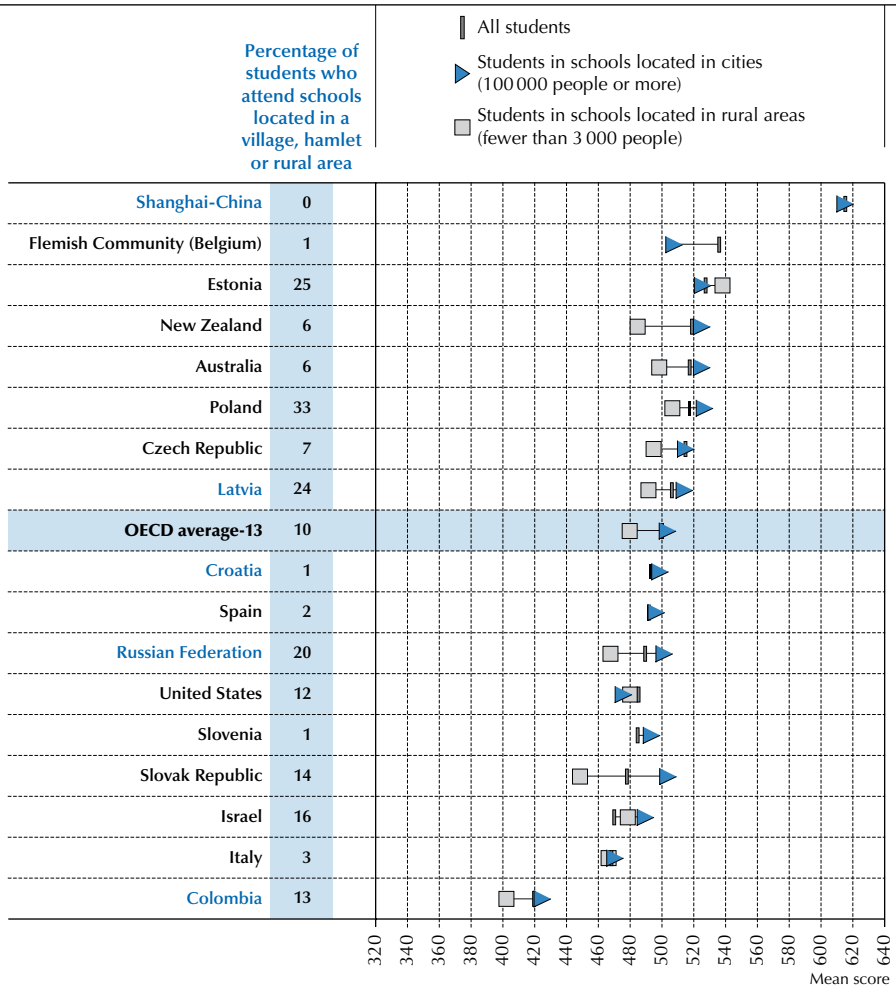
...

better knowledge and skills in financial literacy either directly or by boosting their motivation to learn. In some countries and economies, there may also be considerable regional variation in financial literacy (see Figure VI.2.3 for mean performance across regions in the countries that collected regional data).

Figure VI.3.c shows that, after accounting for the *PISA index of economic, social and cultural status*, students tend to have higher scores in financial literacy if they attend schools in cities (more than 100 000 people) than if they attend schools in rural areas (fewer than 3 000 people). On average across OECD countries and economies, even after accounting for differences in socio-economic status, students in city schools outperform students in rural schools by 24 score points. Students attending schools in cities perform better in financial literacy than students in rural areas in Australia, Latvia, New Zealand, Poland, the Russian Federation and the Slovak Republic. This gap is largest in the Slovak Republic, at 56 score points. Performance gaps between students in city schools and students in rural schools are similar in mathematics and reading (Table VI.3.12).

■ Figure VI.3c ■

Financial literacy performance, by school location, after accounting for socio-economic status



Countries and economies are ranked in descending order of the mean performance of all students, after accounting for socio-economic status.
Source: OECD, PISA Database 2012, Table VI.3.12
StatLink http://dx.doi.org/10.1787/888933094906

Box VI.3.4. The potential role of schools in financial literacy

Although financial literacy is not yet widely taught in schools (see Chapter 1), schools already have an impact on performance in financial literacy. This can be shown by analysing the variation in performance within schools, which indicates differences in student achievement, and between schools, which reflects differences in outcomes, in selection mechanisms that assign students to schools, and in policies and practices across different schools. Figure VI.3.d shows how much of the variation in student performance lies between schools in each country. On average across OECD countries and economies, 37% of the overall performance difference is between schools and 61% within schools. The proportion of the variation in financial literacy performance between schools is smaller than the OECD average in Australia, Colombia, Estonia, Latvia, New Zealand, Poland, the Russian Federation, Spain and the United States.

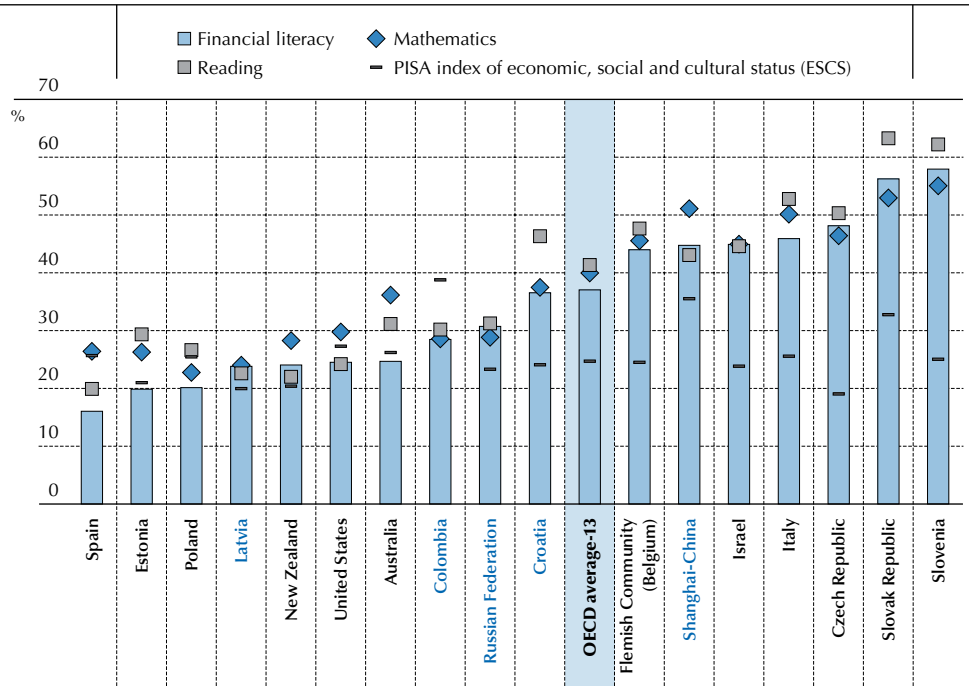
In most countries and economies, the between-school variation is much larger in student outcome measures – such as reading, mathematics, or indeed financial literacy – than in student background factors that influence performance, such as the *PISA index of economic, social and cultural status* (ESCS). Only 25% of the socio-economic variation lies between schools, on average across OECD countries. This means that in most countries, students within the same school tend to be more diverse in their socio-economic status than in their performance (Table VI.3.13).

The between-school and within-school variations in financial literacy proficiency can be split into two components: one that is unique to financial literacy and one that is also observed in mathematics. Figure VI.3.e shows that, on average, about one-quarter of the between-school variation and more than one-third of the within-school variation in financial literacy performance can be considered unique to financial literacy, as they are not accounted for by differences in mathematics performance between and within schools. This suggests that a relatively large proportion of the between-school variation in performance is unique to financial literacy, and that the differences in financial literacy performance between schools do not stem solely from differences in mathematics performance.

■ Figure VI.3d ■

Between-school differences in financial literacy, mathematics and reading performance

Proportion of variation between schools as a percentage of the overall (within- and between-school) variation



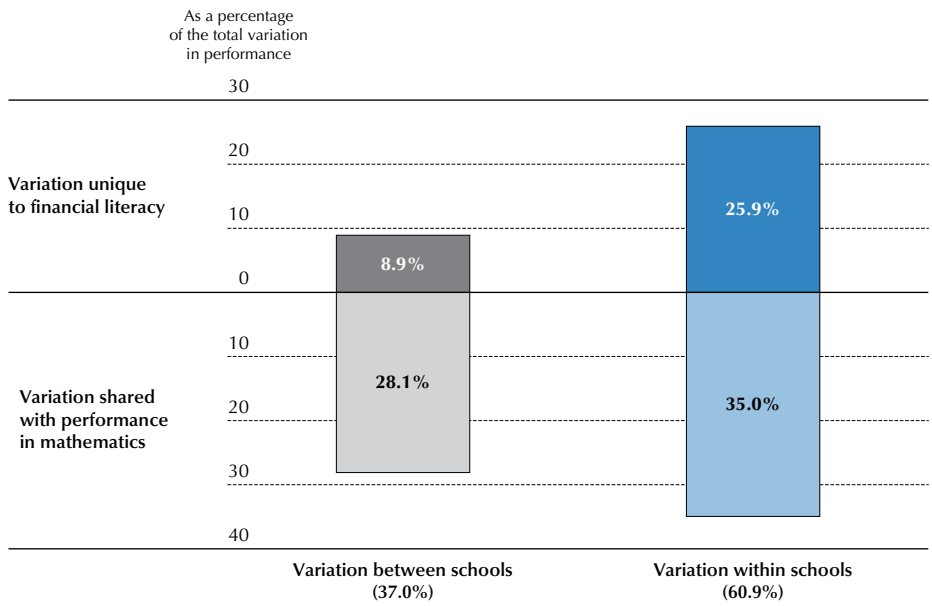
Countries and economies are ranked in ascending order of the proportion of variation in financial literacy performance that lies between schools.

Source: OECD, PISA 2012 Database, Table VI.3.13

StatLink http://dx.doi.org/10.1787/888933094906

■ Figure VI.3e ■

Between- and within-school differences that are unique to financial literacy, or that are shared with mathematics performance



Note: The figure shows the components of the performance variation in financial literacy for the OECD average-13.
Source: OECD, PISA 2012 Database, Table VI.3.14.
StatLink http://dx.doi.org/10.1787/888933094906

Immigrant background and language spoken at home

Financial literacy is an important component of the successful integration of immigrants into their new country of residence. Financial literacy can help them to be aware of and use formal financial products and services including remittances, and facilitate their full participation in society. Financially literate immigrant students may also help to facilitate their families' integration process and understanding of the financial landscape.

How well are students with an immigrant background performing in financial literacy? To what extent are performance gaps in financial literacy between immigrant and non-immigrant students related to other factors, such as socio-economic status, language spoken at home, and performance in mathematics and reading? This section compares the financial literacy of students with an immigrant background with that of students without an immigrant background in the same country, and with the performance of students in other countries.

More than 10% of students across the countries and economies participating in the financial literacy assessment are foreign-born or have foreign-born parents. Figure VI.3.13 shows that the performance difference related to immigrant background is larger in financial literacy than in either mathematics or reading in Estonia and New Zealand; it is smaller (in absolute value) in financial literacy than in mathematics and reading in Australia; and it is smaller in financial literacy than in mathematics in Slovenia.

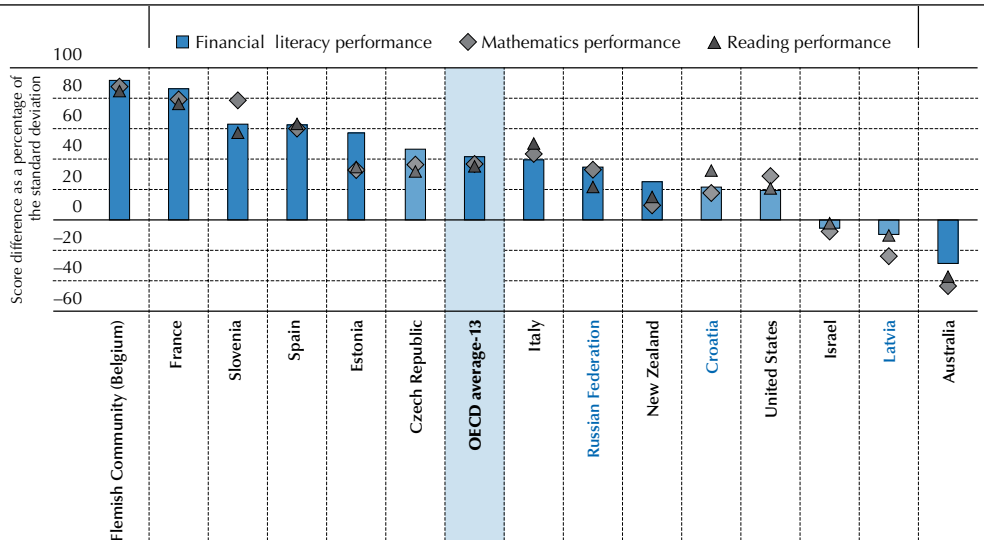
Some countries show a performance gap in financial literacy related to immigrant background across the performance distribution (Table VI.3.10). Students in Estonia and France without an immigrant background perform better than students with an immigrant background both among high achievers (i.e. the 25% of students with the highest scores in financial literacy) and among low achievers (i.e. the 25% of students with the lowest scores in financial literacy), even after taking into account socio-economic status and language spoken at home. In France, the difference in performance is larger among low achievers (77 score points) than among high achievers (41 score points).

On average across OECD countries and economies, students without an immigrant background perform better in financial literacy than students with an immigrant background by 37 score points (Figure VI.3.14, Table VI.3.10). The difference in financial literacy performance between immigrant and non-immigrant students is higher than the

■ Figure VI.3.13 ■

Difference related to immigration status in financial literacy, mathematics and reading performance

Score-point difference between students with no immigrant background and students with an immigrant background expressed as a percentage of the overall variation in performance

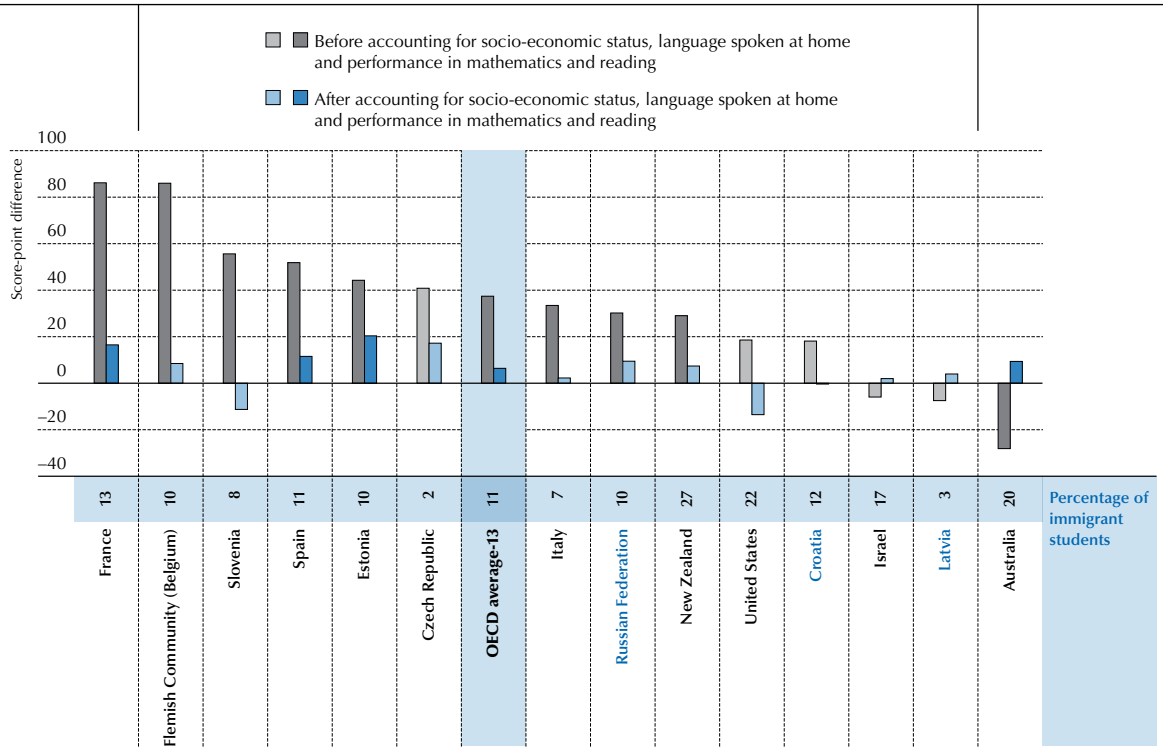


Notes: Values that are statistically significant are marked in a darker tone (see Annex A3).
Countries and economies are ranked in descending order of the difference in financial literacy performance between students with no immigrant background and students with an immigrant background.
Source: OECD, PISA 2012 Database, Table VI.3.10.
StatLink http://dx.doi.org/10.1787/888933094906

■ Figure VI.3.14 ■

Difference in financial literacy performance between immigrant and non-immigrant students

Before and after accounting for socio-economic status, laguage spoken at home and performance in mathematics and reading



Note: Score-point differences that are statistically significant are marked in a darker tone (see Annex A3).
Countries and economies are ranked in descending order of the score-point difference between immigrant and non-immigrant students, after accounting for socio-economic status.
Source: OECD, PISA 2012 Database, Table VI.3.10
StatLink http://dx.doi.org/10.1787/888933094906

OECD average in the Flemish Community of Belgium, Estonia, France, Slovenia and Spain. In the Flemish Community of Belgium and France, the mean difference in performance between students without an immigrant background and students with an immigrant background is over 80 score points. However, this difference shrinks after taking into account a number of factors, such as socio-economic status, whether the language spoken at home is the same as the assessment language, and performance in mathematics and reading. On average across OECD countries and economies, non-immigrant students perform slightly better in financial literacy than immigrant students with similar socio-economic status, language spoken at home, and performance in mathematics and reading. In Estonia and France, the mean difference in performance between students without an immigrant background and students with an immigrant background with similar socio-economic status, language spoken at home, and performance in mathematics and reading is over 15 score points. Interestingly, in Australia, the performance difference between non-immigrant and immigrant students is negative (i.e. immigrant students perform better), but becomes positive when looking at students with similar socio-economic status, language spoken at home, and performance in mathematics and reading.

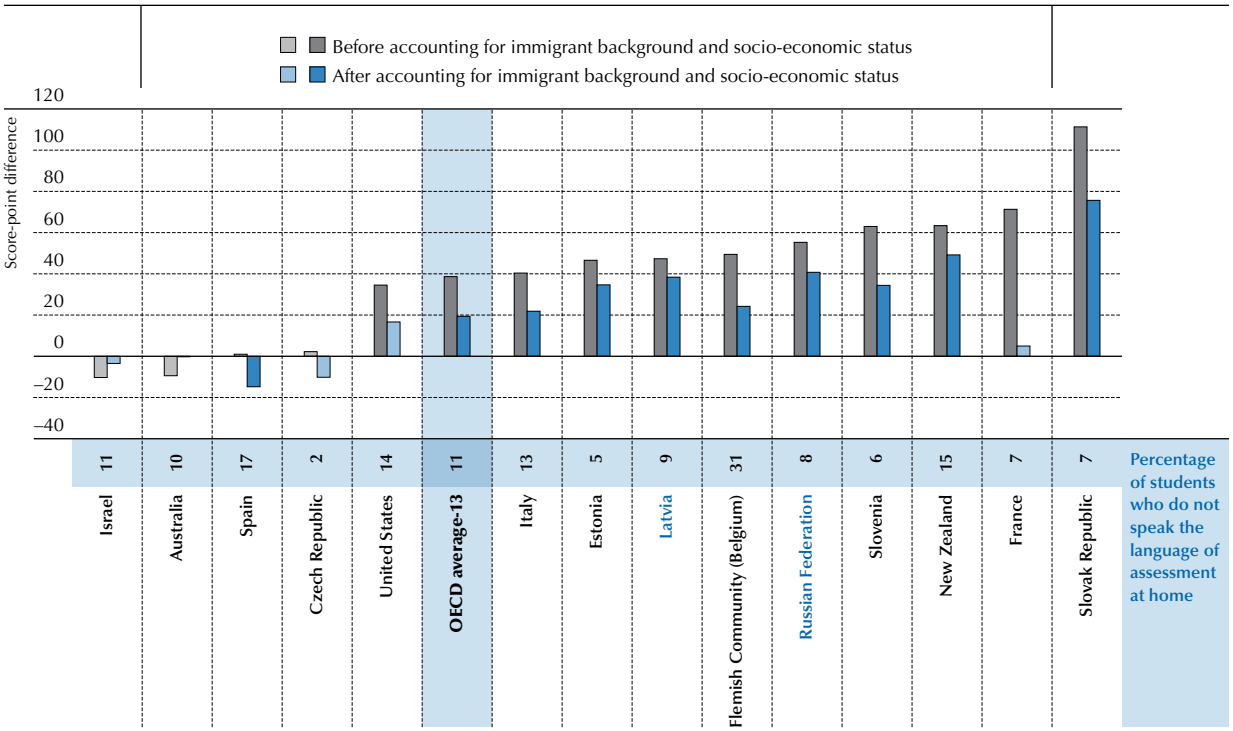
Students who speak a different language at home from the one in which they were assessed are likely to face more difficulties in interacting with the financial landscape – including making sense of financial documents, such as bank statements or contracts – than those who speak the same language at home. On average across the countries and economies participating in the financial literacy assessment, about 9% of students speak a language at home that is different from the language they use at school.

As shown in Figure VI.3.15, across OECD countries and economies, students who do not speak the assessment language at home score 19 points lower than students who speak the assessment language at home, after accounting for immigrant background and socio-economic status. The score-point difference is largest in the Slovak Republic (76 score points), New Zealand (49 score points) and the Russian Federation (41 score points).

■ Figure VI.3.15 ■

Difference in financial literacy performance, by language at home

Before and after accounting for immigrant background and socio-economic status



Note: Score-point differences that are statistically significant are marked in a darker tone (see Annex A3).
Countries and economies are ranked in ascending order of the score-point difference between students who do not speak the language of assessment at home and students who do.
Source: OECD, PISA 2012 Database, Table VI.3.11.
StatLink http://dx.doi.org/10.1787/888933094906

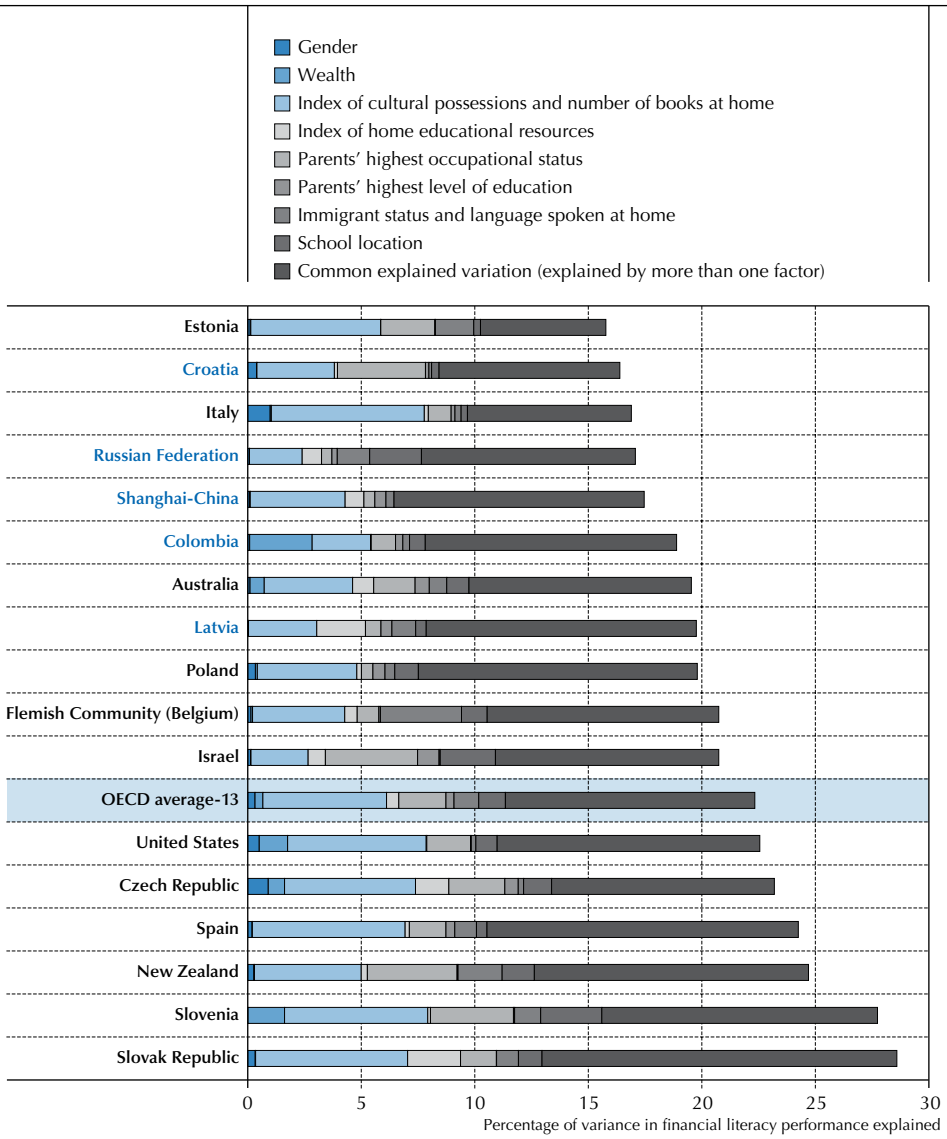
MAIN BACKGROUND FACTORS EXPLAINING VARIATIONS IN STUDENT PERFORMANCE

Figure VI.3.16 summarises, for each country and economy, the degree to which various demographic and socio-economic factors presented above are associated with financial literacy. Since these components tend to be related to each other – for example, a student whose parents are better educated is also likely to have parents in higher-status occupations – the figure displays the influence of these factors together, and shows the variation in student performance explained by each factor, once the influence of the others has been accounted for. Socio-economic status is only one aspect of a student's background. In addition to the components of the *PISA index of social, economic and cultural status*, the figure also includes gender, school location (related to home background through community context), as well as immigrant status and home language (relative to the language of assessment in PISA). The final segment shows the variance explained jointly by all factors (Table VI.3.15).

The demographic and socio-economic factors considered in this analysis explain between 16% (Estonia) and 29% (the Slovak Republic) of the total variation in financial literacy performance. Among these factors, socio-economic status

■ Figure VI.3.16 ■

Proportion of the variation in financial literacy performance explained by demographic and socio-economic factors



Countries and economies are ranked in ascending order of the variation in financial literacy performance explained by the sum of socio-economic factors

Source: OECD, PISA 2012 Database, Table VI.3.15.

StatLink http://dx.doi.org/10.1787/888933094906

exerts a relatively powerful influence on performance across countries, as is also the case in mathematics and reading. Among the components of socio-economic status, parents' occupation explains a larger proportion of the variation in performance in financial literacy (and also in mathematics and reading) than parents' education. On average across OECD countries and economies, immigrant background and language spoken at home jointly account for about 1% of the total variation in performance in financial literacy and of the variation in mathematics and reading performance; school location explains about 1% of performance variation in financial literacy, and between 1% and 2% of the performance variation in mathematics and reading. Gender explains less than 1% of the performance variation in financial literacy, compared with 1% of the performance variation in mathematics and 2% of the variation in reading performance.

Notes

1. The OECD average corresponds to the arithmetic mean of the 13 OECD countries and economies that participated in the financial literacy assessment in PISA 2012: Australia, the Flemish Community of Belgium, the Czech Republic, Estonia, France, Israel, Italy, New Zealand, Poland, the Slovak Republic, Slovenia, Spain and the United States. Whenever results for some OECD country or economy are missing, the OECD average is computed on the remaining countries and economies with available data.

2. In OECD partner countries and economies where the number of students who no longer attend school by the time they are 15 is large, these figures cannot necessarily be interpreted as providing evidence of an equitable distribution of education opportunities and outcomes.

3. Finance-related occupations are defined as: finance managers; financial and insurance services branch manager; finance professionals; financial and investment advisers; financial analysts; financial and mathematical associate professionals; securities and finance dealers and brokers; statistical, finance and insurance clerks.

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4

Students' Experience, Attitudes and Behaviour, and their Performance in Financial Literacy

This chapter explores the relationship between students' experiences with money matters (through holding bank accounts and debit cards and through their sources of money), and their performance in the financial literacy assessment. The chapter also analyses the relationship between students' attitudes and their performance in the assessment. It concludes by examining students' performance in relation to their behaviour in a hypothetical spending situation.

When it comes to finances, direct experience is important in developing habits and shaping behaviour (Whitebread and Bingham, 2013). Studies on students' access to money and to financial products, and on their saving behaviour, show that one of the ways they develop financial and economic understanding is through personal experiences and learning by doing (Furnham, 1999; Otto, 2013; Schug and Birkey, 1985).

As the definition of financial literacy used in this assessment highlights, financial literacy involves not only the knowledge, understanding and skills to deal with financial issues, but also non-cognitive attributes, such as attitudes, motivation and confidence. These attributes are applied in conjunction with financial knowledge and understanding to make the kinds of decisions about finances that can improve financial well-being and result in greater participation in the economy and society.

Are experiences with money and financial products associated with 15-year-old students' knowledge and skills in financial literacy? And is financial literacy performance related to students' attitudes and financial behaviour? This chapter discusses the association between experience with money matters and students' performance in financial literacy, focusing on whether students hold basic financial products and on their sources of money. The chapter then discusses the potential role of various attitudes, explores their association with financial literacy, and concludes by examining financial decisions, looking at how students think they would behave in a hypothetical spending situation and how these decisions are associated with gender, socio-economic status and financial literacy.

Information about students' experience with money matters and financial behaviour is based on their responses to a short questionnaire appended to the PISA 2012 assessment booklets; information about students' attitudes is collected through the student questionnaire (see Annex A5). In some countries and economies, responses to specific questions about financial experience, attitudes and behaviour contain a substantial proportion of missing values (item non-response). Results are only reported for countries and variables with sufficient valid observations. Annex A3 contains more details on missing values per country/economy.

What the data tell us

- There is a large variation in the proportion of students with a bank account. In Australia, the Flemish Community of Belgium, Estonia, France, New Zealand and Slovenia, more than 70% of students hold a bank account, but in Israel, Poland and the Slovak Republic, fewer than 30% do.
- In the Flemish Community of Belgium, Estonia, New Zealand, and Slovenia, students with a bank account score higher in financial literacy than students with similar socio-economic status who do not hold a bank account.
- Over 80% of students in 16 of 18 participating countries and economies receive money in the form of gifts. On average across OECD countries and economies, students who receive gifts of money perform 26 score points higher in financial literacy than students who do not, after taking socio-economic status into account.
- Students' financial literacy performance is associated with their level of perseverance in all 18 participating countries and economies, and with their openness to problem solving in 15 participating countries and economies.
- On average across seven OECD countries and economies with available data, 63% of students say that they would save money if they want to buy something for which they do not have enough money.

STUDENTS' EXPERIENCES WITH MONEY MATTERS AND FINANCIAL LITERACY

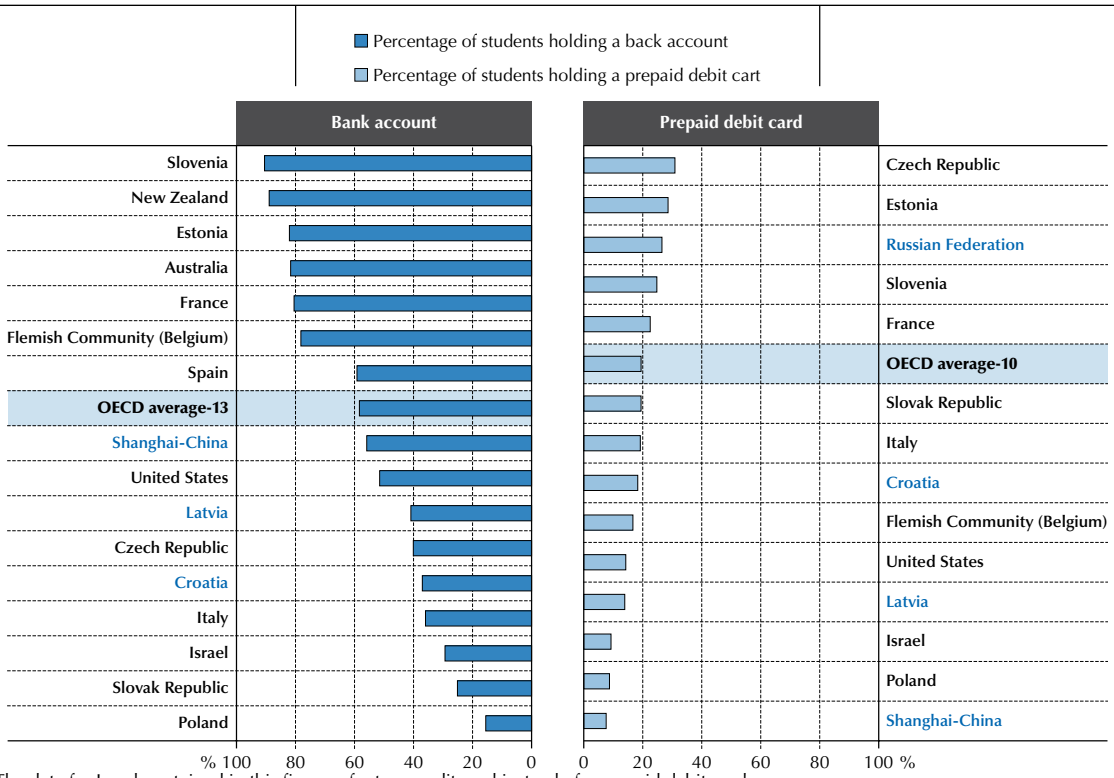
Students who hold bank accounts and prepaid debit cards and their performance in financial literacy

Do 15-year-olds hold basic financial products, such as bank accounts and prepaid debit cards? Is experience with holding these products related to students' performance in financial literacy? There is a large variation in the proportion of 15-year-old students with bank accounts across the participating countries and economies with available data (Figure VI.4.1). In Australia, the Flemish Community of Belgium, Estonia, France, New Zealand and Slovenia, more than 70% of students hold a bank account, but in Israel, Poland and the Slovak Republic, fewer than 30% do. Holding a prepaid debit card is somewhat less common in other countries/economies, ranging from 7% to 8% of students in Poland and Shanghai-China to over 20% of students in Estonia, France, the Russian Federation and Slovenia, to 31% of students in the Czech Republic.

Figure VI.4.2 shows that having a bank account is associated with a higher score in financial literacy in many countries and economies. On average, students in the 13 participating OECD countries and economies[1] who hold a bank account score 33 points higher than students who do not. This difference is largest in New Zealand (106 score points).

■ Figure VI.4.1 ■

Percentage of students holding a bank account and/or a prepaid debit card

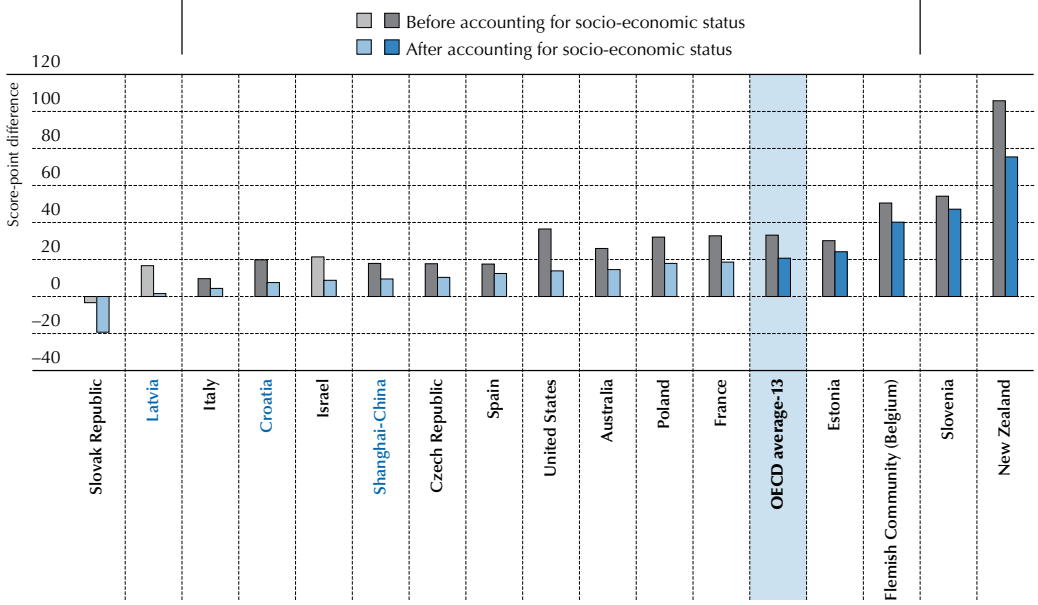


Note: The data for Israel contained in this figure refer to a credit card instead of a prepaid debit card.
Countries and economies are ranked in descending order of the percentage of students holding a bank account and a prepaid debit card, respectively.
Source: OECD, PISA 2012 Database, Table VI.4.1.
StatLink http://dx.doi.org/10.1787/888933094925

■ Figure VI.4.2 ■

Performance in financial literacy, by whether students hold a bank account

Score-point difference between students who hold a bank account and students who do not



Note: Score-point differences that are statistically significant are marked in a darker tone (see Annex A3).
Countries and economies are ranked in ascending order of the score-point difference between students who hold a bank account and student who do not, after accounting for socio-economic status.
Source: OECD, PISA 2012 Database, Table VI.4.2.
StatLink http://dx.doi.org/10.1787/888933094925

The association between performance in financial literacy and holding a bank account is partly related to socio-economic status. On average across OECD countries and economies, students who hold a bank account score 21 points higher than students who do not, after accounting for their socio-economic status (Table VI.4.2). In particular, there is a positive relationship between financial literacy and holding a bank account in New Zealand (the difference in performance between students who have a bank account and students with similar socio-economic status who do not is equal to 76 score points), Slovenia (47 score points), the Flemish Community of Belgium (40 score points), and Estonia (24 score points). The difference in financial literacy scores between students who have a bank account and students with similar socio-economic status who do not is the largest in New Zealand and Slovenia, both of which are countries where it is relatively easy for 15-year-olds to hold a bank account (meaning that parents' permission is not required; see Box VI.4.1).

In contrast, in most countries and economies with available data, there is no relationship between holding a prepaid debit card and performance in financial literacy. In the Flemish Community of Belgium, the Czech Republic, Estonia, France, Italy, Slovenia and the United States, and before accounting for socio-economic status, students who have a prepaid debit card perform better than students who do not have one (Table VI.4.2). Comparing students of similar socio-economic status, the positive relationship between financial literacy and holding a prepaid debit card is only observed in Estonia, where students who have a prepaid debit card score 48 points higher in financial literacy than students of the same socio-economic status who do not have one. In contrast, the relationship is negative in Croatia, meaning that students who do not have a prepaid debit card perform better in financial literacy than students of the same socio-economic status who have such a card.

The positive relationship between financial literacy and holding a financial product may be interpreted in different ways, and any causal link may go either way. On the one hand, having greater financial knowledge and skills may motivate students to become engaged with formal financial products (instead of, for instance, asking their parents to look after any money they have), as suggested by Otto (2013). On the other hand, it may be that using a bank account is one way for students to learn about money (Sherraden et al., 2011). Some studies have suggested that using a bank account to make deposits could foster the development of a saving habit, based on evidence showing that having a savings account as an adolescent (age 12-17) is related to saving in young adulthood (age 17-23) (Friedline, Elliott and Nam, 2011) and adulthood (Kotlikoff and Bernheim, 2001). Examining cross-country historical evidence of public polices to promote saving, Garon (2013) suggests that countries that fostered saving habits among children in the past tend to display higher saving in recent decades.

Having a bank account has also been shown to be associated with higher financial literacy among adults. The OECD/INFE financial literacy survey conducted in 2010-11 showed, for instance, that adults who hold a payment product, such as a bank account or a debit card, scored higher in financial literacy, on average, than those without such a product, and that respondents with a savings or investment product were typically more financially literate than those without (OECD/INFE, 2013).

More than 20% of students in the Flemish Community of Belgium, the Czech Republic, Estonia, France and Slovenia hold both a bank account and a prepaid debit card (Figure VI.4.3). Generally speaking, more students have a bank account than have a prepaid debit card, and very few students (fewer than 4% in most countries and economies considered in this analysis) have a prepaid debit card but no bank account. Italy is an exception, as about 10% of students have a prepaid debit card without having a bank account. More than half of the 15-year-old students in the Flemish Community of Belgium, Estonia, France, Shanghai-China, Slovenia and the United States have at least one of the two products. In Croatia, the Czech Republic, Italy, Latvia, Poland and the Slovak Republic, more than half of all students do not have either a bank account or a prepaid debit card.

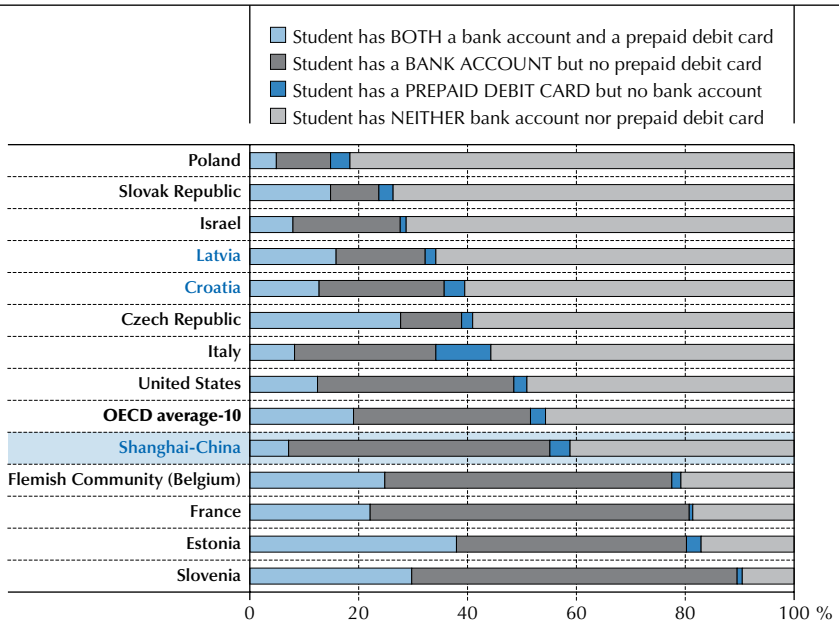
Figure VI.4.4 (Table VI.4.3) displays the average student performance in financial literacy by whether students hold both products, only one, or neither, after accounting for their socio-economic status. In the Czech Republic, Estonia, and Latvia students who have both a bank account and a prepaid debit card score higher than students of similar socio-economic status who hold only one of the two products. After accounting for socio-economic status, in the Flemish Community of Belgium, the Czech Republic, Estonia, Italy, Shanghai-China, Slovenia and the United States, students who have both a bank account and a prepaid debit card score higher than students who do not hold either of the two products.

In the Flemish Community of Belgium, Italy, Slovenia and the United States, among students of similar socio-economic status, those who have one product score higher in financial literacy than those who do not hold either of the products. This pattern is not observed in Croatia, where students who have one product perform better than students who hold both products, and where students who hold a prepaid debit card perform worse than students who do not have one.

The fact that holding both products is associated with a higher score in financial literacy, on average, than holding just one, and that holding one of the two products is associated with a higher score, on average, than holding no financial products may indicate that experiencing different products has provided students with some learning opportunities. Each product may foster the development of different skills; conversely, the association between a lack of use of products and

■ Figure VI.4.3 ■

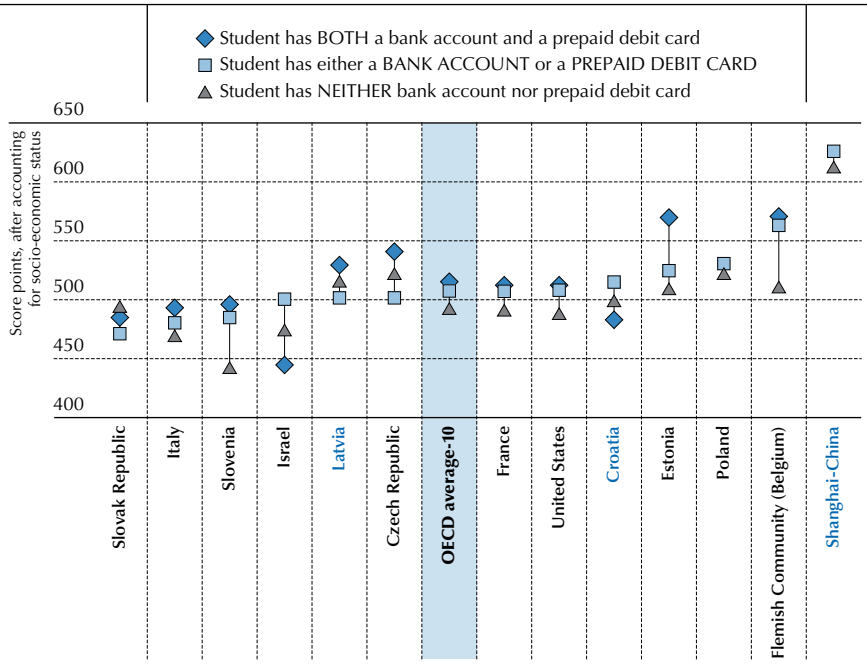
Percentage of students holding a bank account and a prepaid debit card (combined)



Note: The data for Israel contained in this figure refer to a credit card instead of a prepaid debit card.
Countries and economies are ranked in ascending order of the percentage of students holding at least one product.
Source: OECD, PISA 2012 Database, Table VI.4.1.
StatLink http://dx.doi.org/10.1787/888933094925

■ Figure VI.4.4 ■

Performance in financial literacy, by whether students hold a bank account and a prepaid debit card, after accounting for socio-economic status



Note: The data for Israel contained in this figure refer to a credit card instead of a prepaid debit card.
Countries and economies are ranked in ascending order of the performance in financial literacy of students who hold either a bank account or a prepaid debit card.
Source: OECD, PISA 2012 Database, Table VI.4.3.
StatLink http://dx.doi.org/10.1787/888933094925

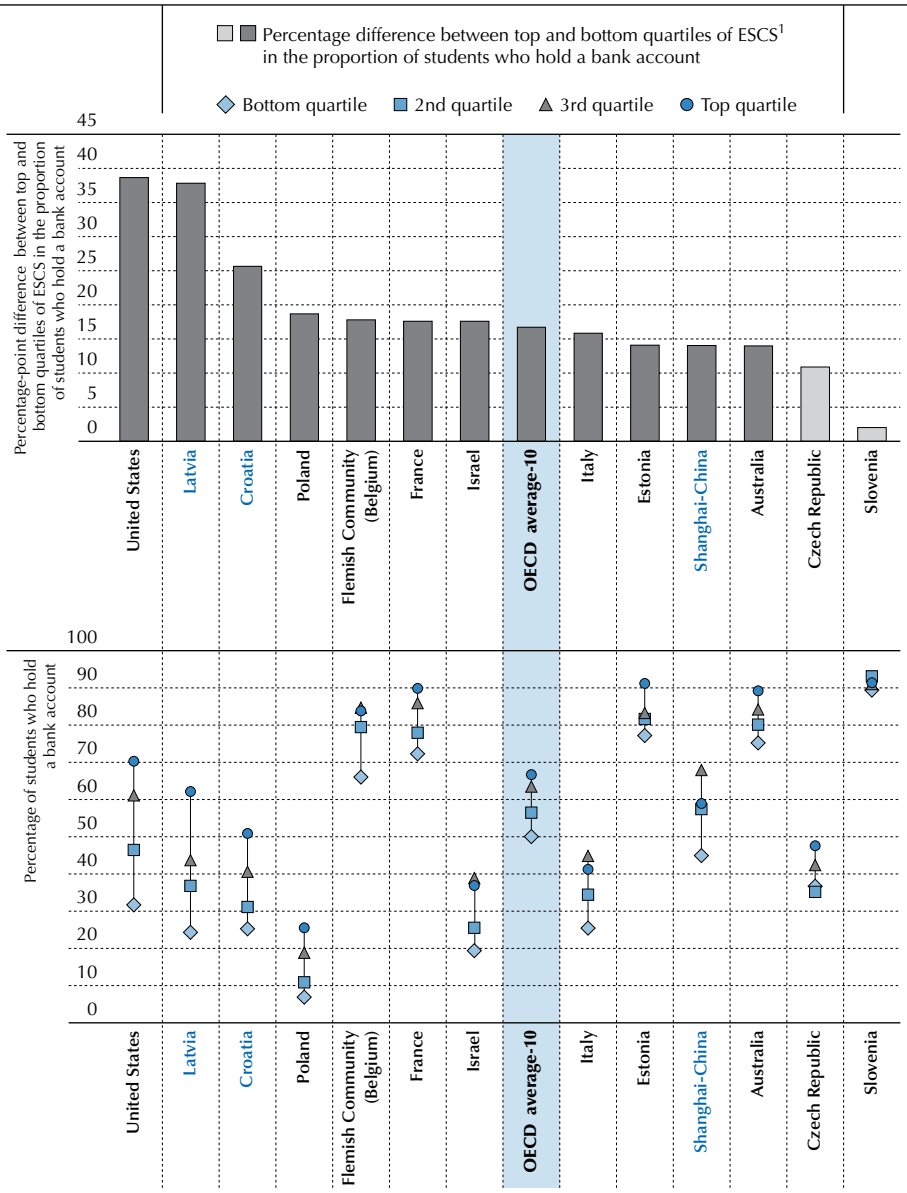
low levels of financial literacy may indicate that students with low financial literacy are less interested in using these products to manage their money or make payments, perhaps because they do not recognise the potential benefits.

In most countries and economies, similar proportions of boys and girls hold bank accounts (Table VI.4.4). There are only a few exceptions: more boys than girls hold a bank account in Croatia (14 percentage-point difference) and Poland (9 percentage-point difference), while more girls than boys hold a bank account in Australia (8 percentage-point difference), Estonia (8 percentage-point difference) and Shanghai-China (11 percentage-point difference). Across all participating countries and economies, a similar percentage of boys and girls hold a prepaid debit card.

Figure VI.4.5 shows a positive relationship between holding a bank account and socio-economic status. In Australia, the Flemish Community of Belgium, Croatia, Estonia, France, Israel, Italy, Latvia, Poland, Shanghai-China and the United States, more advantaged students than disadvantaged students hold a bank account. The difference between

■ Figure VI.4.5 ■

Percentage of students holding a bank account, by socio-economic status



Note: Differences that are statistically significant are marked in a darker tone (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status.*
Countries and economies are ranked in descending order of the difference between the top and bottom quartiles of the PISA index of economic, social and cultural status in the percentage of students who hold a bank account.
Source: OECD, PISA 2012 Database, Table VI.4.5.
StatLink http://dx.doi.org/10.1787/888933094925

advantaged and disadvantaged students (students in the top and bottom quartiles of the *PISA index of economic, social and cultural status*, respectively) in whether or not they hold a bank account is especially large in the United States (39 percentage points), Latvia (38 percentage points) and Croatia (26 percentage points). In Croatia, Estonia, Italy and the United States, more advantaged students than disadvantaged students hold a prepaid debit card (Table VI.4.5).

Box VI.4.1 **Legal framework for young people's access to financial products**

The legal framework in relation to the use of basic financial products by 15-year-olds, and by minors (under the age of 18) more generally, varies across countries.[2] The cross-country differences found in PISA and discussed above are consistent with different legislation across countries concerning 15-year-olds' rights to have a bank account and a payment card in their own name.

In New Zealand and Slovenia, 15-year-olds do not need the consent of their parents to legally open, hold and operate a current or savings account. In these countries, 15-year-olds can also hold and use a prepaid card or debit card (although in New Zealand, banks can decide to restrict debit cards to people 16 years old and older). According to student reports from the PISA student questionnaire, New Zealand and Slovenia also have the highest percentage of students holding a bank account.

Most other countries require parents' consent for 15-year-olds to open and operate savings and current accounts. In some cases, the account has to be opened and/or operated by parents on behalf of their children. For instance, in all Australian states and territories, minors can enter into contracts with financial institutions, but banking institutions may apply additional requirements (which may vary, depending on the age of the young person), such as joint account ownership with a parent or guardian. In Colombia, parents can open savings accounts on behalf of, or jointly with, their children. In the Czech Republic, in addition to parents' consent, banks can introduce other restrictions or conditions, such as putting limits on maximum withdrawals, allowing withdrawals only by parents, etc. In Estonia, 15-year-olds can open an account with the permission of parents/guardians. In France, 16-year-olds may open a current account, which includes an ATM card and a cheque book, with their parents' agreement. In Italy, children and teens cannot open current accounts but can open saving accounts jointly with parents/guardians (savings accounts for teens aged 12 to 17 have some limitations, e.g. on the number of withdrawals or the maximum amount that can be withdrawn). In Latvia, minors from 16 years of age may open and operate an account with their parents' permission and under the conditions defined by the account (e.g. they are allowed to operate their account independently after the age of 18). In Spain, parents can open savings and current accounts in the names of their children. In the United States, financial institutions (banks and credit unions) generally offer accounts only with the consent or co-ownership of the parent/guardian, but some institutions allow minors to own their own account.

Most countries also require parents' consent to allow 15-year-olds to open and operate cash withdrawal/ATM cards, prepaid cards and debit cards. This is the case in Croatia, the Czech Republic, Estonia, Italy and Latvia. In some countries, such as Croatia and Italy, in addition to parents' permission, there are limitations to the operations that can be carried out by the minors with these cards. In Spain, minors over 14 years may be supplementary cardholders, but the main cardholder must be a parent/legal representative.

Some countries link access to current accounts by minors to their employment status. In Colombia, people under 18 can open and use a current account in their own name only if they work. In Israel, 15-year-olds can have savings accounts without the consent of their parent/guardian if the young person receives a salary on an ongoing basis.

Access to credit cards is generally more restrictive than access to debit cards for people under 18. For instance, in the United States, consumers under the age of 21 seeking to obtain a credit card need to prove that they are independently able to repay charges unless they have a co-signer or similar party who is at least 21 years old. Credit cards are not issued to minors in the Czech Republic, Italy and New Zealand.

Students' sources of money and financial literacy

Whether students are using financial products, such as a bank account, also depends on whether they have access to money. "Money and transactions" is one of the content areas of the PISA financial literacy assessment and most financial decisions relate to money in some way or another. It is therefore relevant to investigate where students get their money from and how their sources of money relate to financial literacy performance.

Figure VI.4.6 shows the extent to which students in each country and economy receive money from a number of different sources. The most frequent source of money in all countries and economies is gifts from friends or relatives: over 80% of students in all countries and economies, except Israel and Italy, receive money in the form of gifts. The receipt of allowances and pocket money without having to do chores at home is also very common in some countries and economies: more than 70% of students in the Flemish Community of Belgium, Croatia, the Russian Federation and Shanghai-China receive money this way. The extent to which students receive pocket money for doing chores or receive money from work (regularly or occasionally) is heterogeneous across countries. Fewer than 30% of students in most countries receive money from selling things.

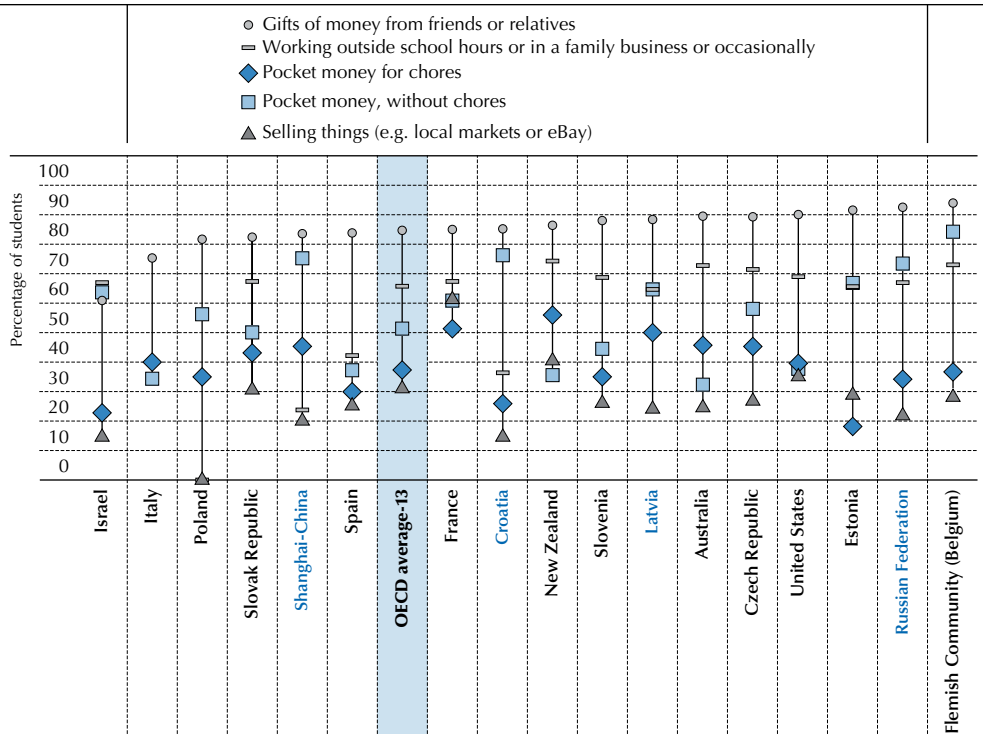
These findings are in line with what has been found in other studies. A survey of 16-18 year-olds in the United States reported similar sources of money: 67% had some form of job, 59% received monetary gifts, and 34% received pocket money (Charles Schwab & Co., 2011). A French study found that about two-thirds of young people aged 15 to 20 received money from their families, and more than half received money from work (IEFP, 2006).

Students' performance and sources of money

Figure VI.4.7 shows how financial literacy varies between students who receive money from various sources and those who do not receive money from those sources, on average across OECD countries and economies and after accounting for socio-economic status. Students who receive gifts of money perform 26 score points higher than students who do not receive such gifts, after taking socio-economic status into account. Students who receive pocket money for regularly doing chores at home and those who work in a family business score about 20 points lower than students who do not receive money from these sources, after accounting for socio-economic status. Students who receive money from an allowance without having to do chores, from working outside of school hours, and from selling things score slightly lower in financial literacy (a difference of less than 10 score points) than students of similar socio-economic status who do not receive money from these sources. Performance differences between students who receive money from various sources and students who do not receive money from those sources are similar in mathematics and reading to those in financial literacy.

■ Figure VI.4.6 ■

Students' sources of money

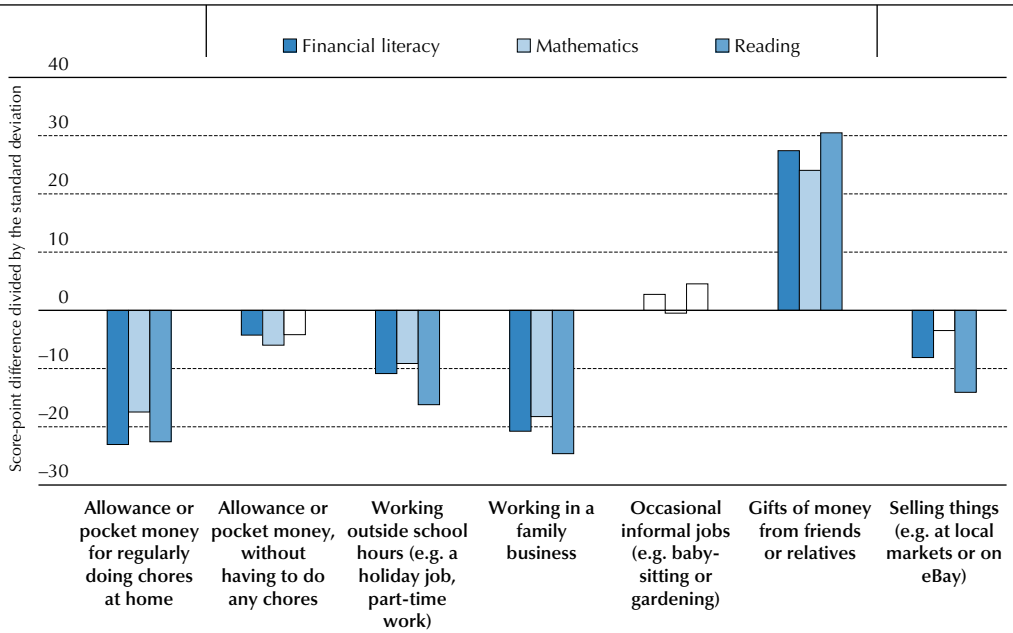


Countries and economies are ranked in ascending order of the percentage of students who receive gifts of money from friends and relatives.
Source: OECD, PISA 2012 Database, Table VI.4.6.
StatLink http://dx.doi.org/10.1787/888933094925

■ Figure VI.4.7 ■

Students' sources of money and financial literacy, after accounting for socio-economic status, OECD countries and economies

OECD average score-point difference between students who have a source of money and students with similar socio-economic status who do not, divided by the standard deviation



Note: White bars represent differences that are not statistically signicant (see Annex A3).
Source: OECD, PISA 2012 Database, Table VI.4.7.
StatLink http://dx.doi.org/10.1787/888933094925

Overall, these results show that earning money from work (either doing chores or working outside the home) is not associated with greater financial literacy. It is possible that students who are spending time performing these tasks have less time to study or experience other aspects of life outside of school. However, the results should be interpreted with caution, as the data do not say how much money students get from these sources, how much time they spend working, or for how long they have been receiving money from the various sources.

Previous research on the benefits of allowances on children's financial skills is inconclusive. Some experimental studies with children in Canada found that allowances (not contingent on performing household chores or other tasks) were associated with greater financial skills among children. These studies hypothesised that simple pocket money may be preferable to earned allowances, because it represents a greater degree of trust than having to work for money, and children may feel more responsible for the money they receive, make a greater effort to use it wisely, and become relatively more economically socialised (Abramovitch, Freedman, and Pliner, 1991; Pliner et al., 1996). Beutler and Dickinson (2008) and Xiao, Ford and Kim (2011) suggest that the quality of the interaction between parents and children on the transfer of money may be more influential on children's financial socialisation than allowances per se: without substantial parental interaction, discussion and guidance about finances, just giving money may not be sufficient for a successful socialisation process.

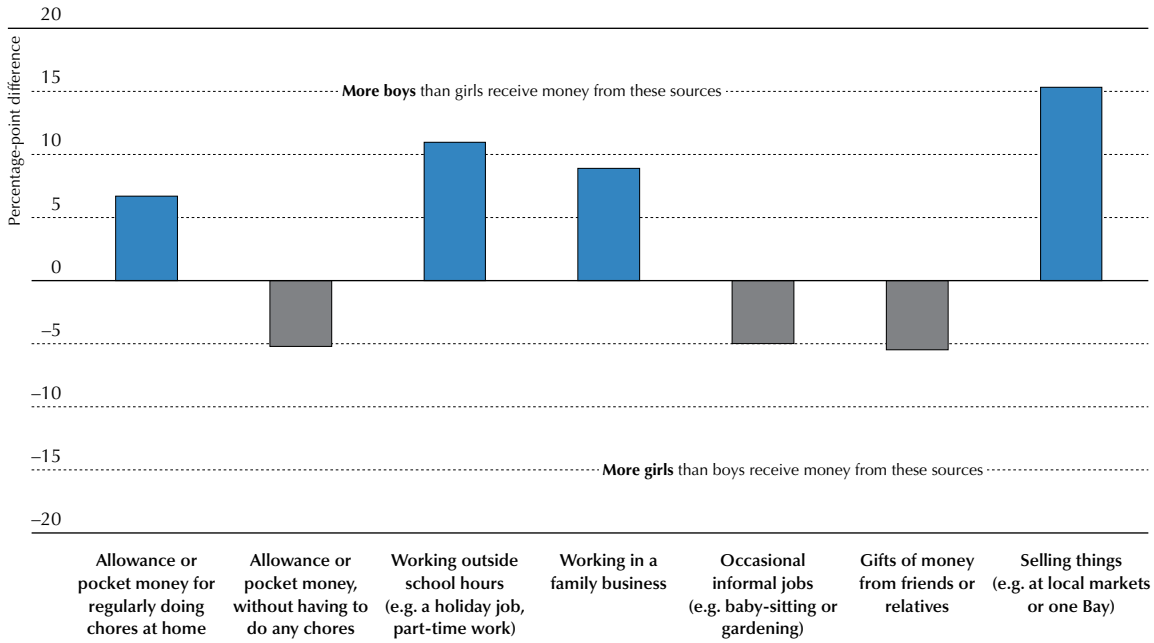
Gender differences in sources of money

Figure VI.4.8 shows how students' sources of money vary by gender on average across OECD countries and economies. In Australia, France, Israel, Italy, Latvia, Poland, Shanghai-China, the Slovak Republic and the United States, more girls than boys receive gifts of money from friends or relatives (Table VI.4.8). In the Flemish Community of Belgium, Croatia, the Czech Republic, France, Poland and Slovenia, more boys than girls receive money for doing chores at home, while in Croatia, Israel, Poland and the United States, more girls than boys receive pocket money without having to do chores. In Italy, more boys than girls receive pocket money without having to do chores. In several countries, more boys than girls receive money from various working activities. In all but five participating countries and economies with available data, more boys than girls receive money from working outside school hours (e.g. a holiday job, part-time

■ Figure VI.4.8 ■

Students' sources of money, by gender, OECD countries and economies

OECD average percentage difference between boys and girls who receive money from these sources



Note: All percentage-point differences are statistically significant (see Annex A3).
Source: OECD, PISA 2012 Database, Table VI.4.8.
StatLink http://dx.doi.org/10.1787/888933094925

work). In all but five participating countries and economies with available data, more boys than girls receive money from working in a family business. In Australia, the Flemish Community of Belgium and Israel, more girls than boys receive money from occasional jobs (such as baby-sitting or gardening), but in the Russian Federation, more boys than girls receive money from occasional jobs. In all but two countries with available data, more boys than girls get money from selling things.

Overall, these results suggest that more boys than girls are involved in regular working activities, and receive money in exchange for work inside and outside the household, while more girls than boys seems to receive money without working (pocket money and gifts), perhaps indicating that boys begin to seek ways of becoming less dependent financially at an earlier age than girls. To the extent that these gender differences reflect the way in which today's adults were socialised when they were younger, these results might help explain differences in labour market participation today between men and women (OECD, 2012). At the same time, gender differences observed among 15-year-olds today may translate into gender differences that will be observed for the same cohorts in the future.

Previous evidence from a representative sample of students in the United States between the ages of 12 and 18 in the early 1990s found gender differences in their sources of money (Meeks, 1998). Boys were significantly more likely to be paid for jobs at home than girls (as found in PISA) although girls were more likely than boys to have earnings from the marketplace (in contrast with the PISA results).

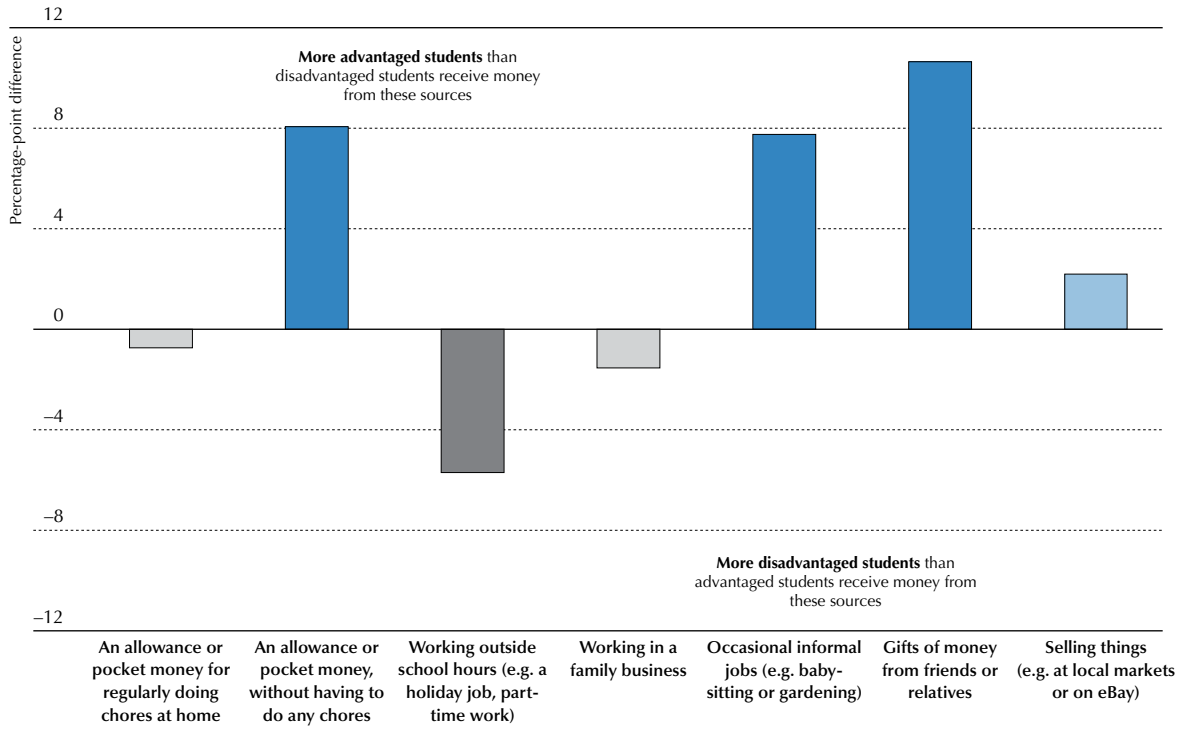
Differences in sources of money by socio-economic status

Across participating countries and economies, sources of money also differ by students' socio-economic status (Figure VI.4.9 and Table VI.4.9). In Australia, France, Israel, Italy, Spain and the United States, more advantaged students (those in the top quartile of the *PISA index of economic, social and cultural status*) than disadvantaged students receive money in the form of gifts; in the Czech Republic, France, Latvia, the Russian Federation, Slovenia, Spain and Shanghai-China, more advantaged students than disadvantaged students receive pocket money without having to do chores; and in Croatia, Israel and Shanghai-China, more advantaged students than disadvantaged students receive money from selling things.

■ Figure VI.4.9 ■

Students' sources of money, by socio-economic status, OECD countries and economies

OECD average percentage difference between students in the top and bottom quartiles of socio-economic status who receive money from these sources



Note: Percentage-point differences that are statistically significant are marked in a darker tone (see Annex A3).
Source: OECD, PISA 2012 Database, Table VI.4.9.
StatLink http://dx.doi.org/10.1787/888933094925

In contrast, in Italy and the Slovak Republic, more disadvantaged students (those in the bottom quartile of the *PISA index of economic, social and cultural status*) than advantaged students receive an allowance for doing chores at home; in Estonia and Italy, more disadvantaged students than advantaged students work outside of school hours; and in Spain, more disadvantaged students than advantaged students work in a family business.

STUDENTS' ATTITUDES AND FINANCIAL LITERACY

Attitudes are considered important elements of financial literacy. As mentioned in Chapter 1, the definition of financial literacy used in PISA 2012 contains motivation, confidence and attitudes, which can have an impact on money-management behaviour (Johnson and Staten, 2010). Generally speaking, non-cognitive personality traits are relevant predictors of economic and social outcomes in addition to cognitive skills (Borghans et al., 2008). More specifically, research from behavioural psychology yields interesting results with regard to the link between personality and financial literacy (Noon and Fogarty, 2007), which may help better inform policy makers to improve the efficiency of financial education.

Do attitudes toward learning influence students' ability to apply their knowledge and skills to real-life situations? This section looks at whether students' attitudes toward learning are associated with their performance in financial literacy.

The PISA 2012 student questionnaire asks students if they would give up easily when confronted with a problem. Perseverance is an attitude that may be important to students when confronted with certain financial situations, such as saving for long-term goals or shopping around for better financial conditions. PISA results show an association between students' financial literacy and their perseverance. In all 18 participating countries and economies, students who agreed with the statement "when confronted with a problem, I give up easily" have significantly lower financial literacy than those who disagreed (Figure VI.4.10a). After accounting for mathematics and reading scores, the students who answered that they would give up easily show lower levels of financial literacy, on average across OECD countries and economies (Table VI.4.10).

Likewise, students' openness to solve complex problems may influence their use of knowledge in making financial decisions as they grow up, when they are likely to face relatively complex financial problems, such as deciding when they can afford to leave home, or choosing a mortgage or a pension plan. The general student questionnaire asks students if they like to solve complex problems. Again, PISA results demonstrate an association between students' performance in the financial literacy assessment and their openness to problem solving. In 15 of the 18 countries and economies, students who agreed with the statement "I like to solve complex problems" show better performance than those who disagreed (Figure VI.4.10b). Across OECD countries and economies, after accounting for mathematics and reading scores, the students who answered that they like to solve complex problems show greater proficiency in financial literacy (Table VI.4.10). These initial findings are consistent with the association between financial skills and attitudes as expressed in the PISA definition of financial literacy.

STUDENTS' SPENDING BEHAVIOUR AND FINANCIAL LITERACY

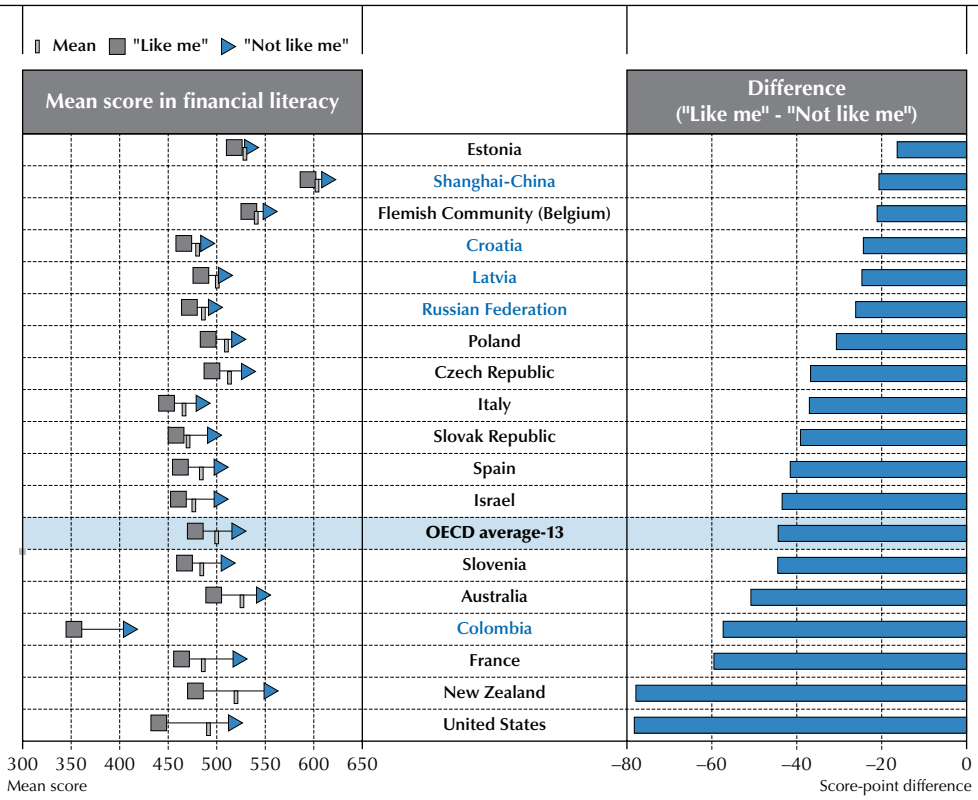
PISA 2012 asked students "If you don't have enough money to buy something you really want (e.g. an item of clothing, sports equipment) what are you most likely to do?", allowing them to choose among various hypothetical strategies, including buying the item anyway with money that should be used for something else; trying to borrow from a family member; trying to borrow from a friend; saving up money; or not buying it. Data are available for the Flemish Community of Belgium, Croatia, the Czech Republic, Israel, Italy, Poland, Shanghai-China, Slovenia and Spain.

Figure VI.4.11 shows the extent to which financial literacy varies across students who say they would save and students who say that they would buy the item anyway. 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

■ Figure VI.4.10a ■

Differences in financial literacy performance, by level of perseverance

Students' response to how well the statement "When confronted with a problem, I give up easily" describes them



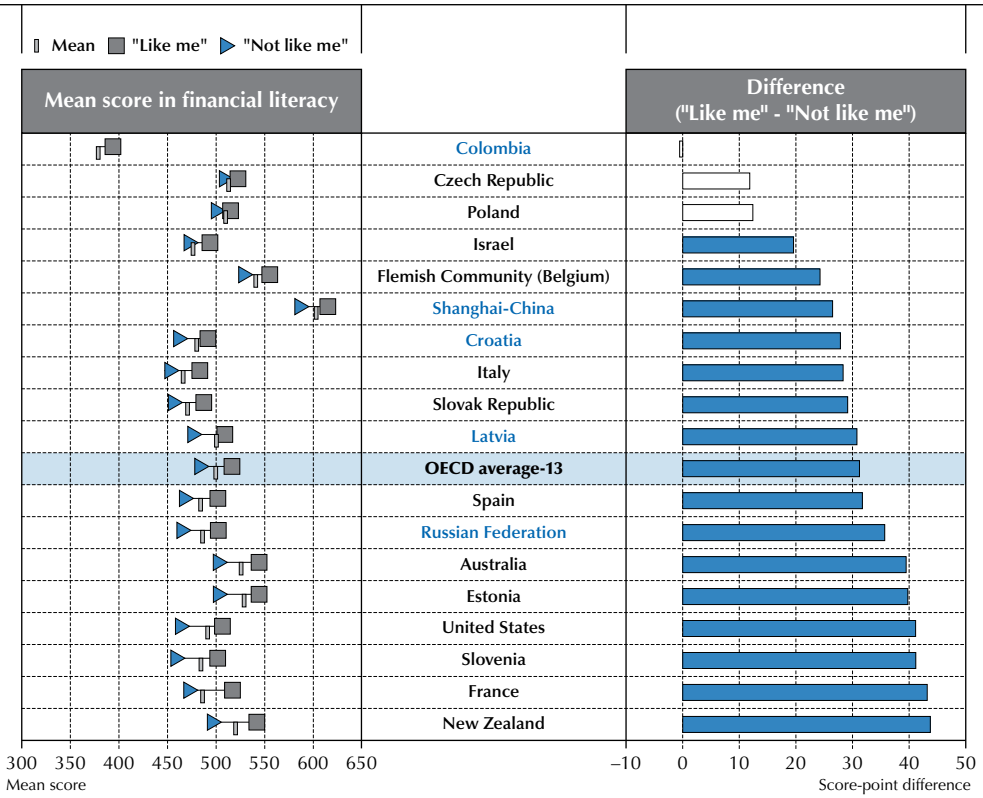
Note: "Like me" includes students who answered "very much like me", "mostly like me" or "somewhat like me". "Not like me" includes students who answered either "not much like me" or "not at all like me". All differences are statistically significant (see Annex A3).
Countries and economies are ranked in descending order of the score-point difference ("like me" - "not like me").
Source: OECD, PISA 2012 Database, Table VI.4.10.

StatLink http://dx.doi.org/10.1787/888933094925

■ Figure VI.4.10b ■

Differences in financial literacy performance, by level of openness to problem solving

Students' response to how well the statement "I like to solve complex problems" describes them



Note: "Like me" includes students who answered "very much like me", "mostly like me" or "somewhat like me". "Not like me" includes students who answered either "not much like me" or "not at all like me". Statistically significant differences are shown in darker tone (Annex A3).
Countries and economies are ranked in ascending order of the score-point difference ("like me" - "not like me").
Source: OECD, PISA 2012 Database, Table VI.4.10.
StatLink http://dx.doi.org/10.1787/888933094925

or a lack of understanding of the finite nature of money, or, in other words, that money spent on one item cannot be spent again on something else. After comparing students of similar socio-economic status, students in Italy and Slovenia who would save perform better than students who would buy the item anyway. This result also holds after accounting for both socio-economic status and two attitudes that are likely to be related to financial behaviour, perseverance and openness to problem solving.

On average across the seven OECD countries and economies for which data are available, most students (63%) say that they would save if they want to buy something for which they do not have enough money. Alternatively, they would try to borrow from family (18%, on average) or they would not buy it (12%, on average). Few report that they would borrow money from friends (2%) or buy it anyway (6%) (Figure VI.4.12).

In some countries and economies with available data, spending behaviour also varies by gender (Table VI.4.14). If students in Shanghai-China want to buy something for which they do not have enough money, more girls than boys would save for it, and more boys than girls would spend money that should be used for something else or try to borrow from friends. In Israel, more boys than girls would borrow from friends.

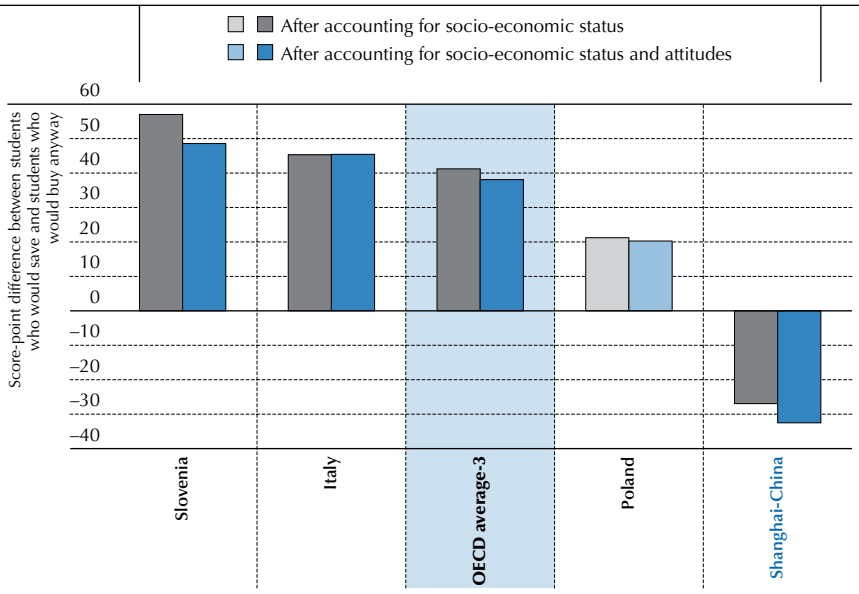
Spending behaviour is analysed by quartiles of the *PISA index of economic, social and cultural status* for one country and one economy with available data: Poland and Shanghai-China (Table VI.4.15). In both, more socio-economically advantaged students than disadvantaged students would buy with money set aside for something else. More disadvantaged students than advantaged students would save up money (Shanghai-China) and not buy the item (Poland).

The fact that the majority of students reported that they would save if they wished to buy something they really want is consistent with the idea that young people strive for independence during adolescence, and that saving is a way for

■ Figure VI.4.11 ■

Financial literacy performance, by students' spending behaviour

Results based on students' self-reports to the question "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?"

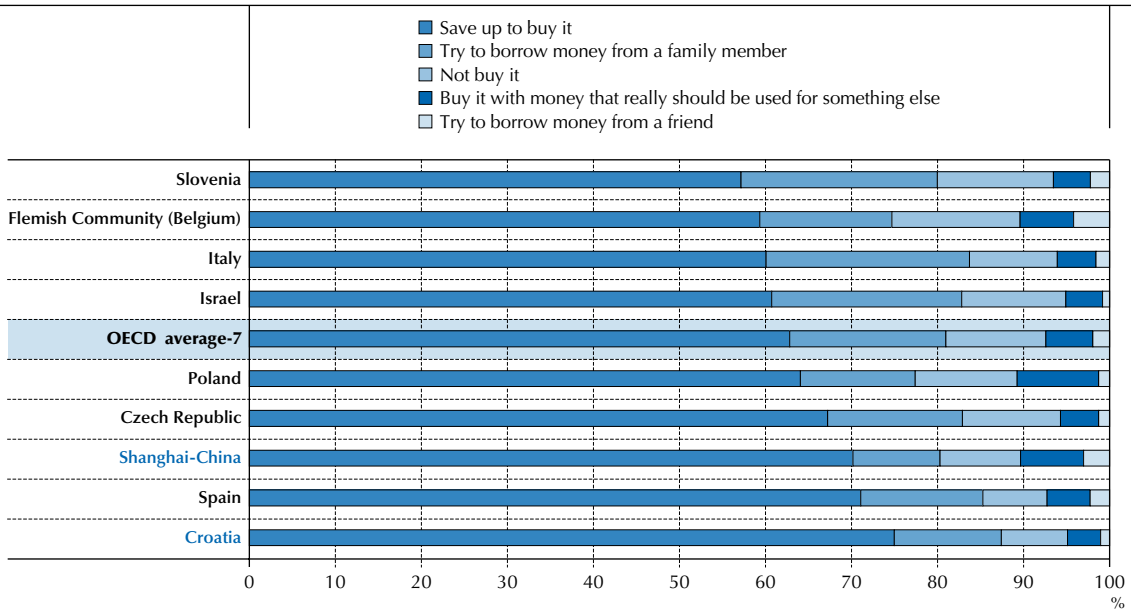


Note: Score-point differences that are statistically significant are marked in a darker tone (see Annex A3).
Countries and economies are ranked in descending order of the score-point difference in financial literacy between students who would save and students who would buy anyway, after accounting for socio-economic status and attitudes (perseverance and openness to problem solving).
Source: OECD, PISA 2012 Database, Table VI.4.13.

■ Figure VI.4.12 ■

Students' spending behaviour

Results based on students' self-reports to the question "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?"



Countries and economies are ranked in ascending order of the percentage of students who would "save up to buy it".
Source: OECD, PISA 2012 Database, Table VI.4.11.

StatLink http://dx.doi.org/10.1787/888933094925

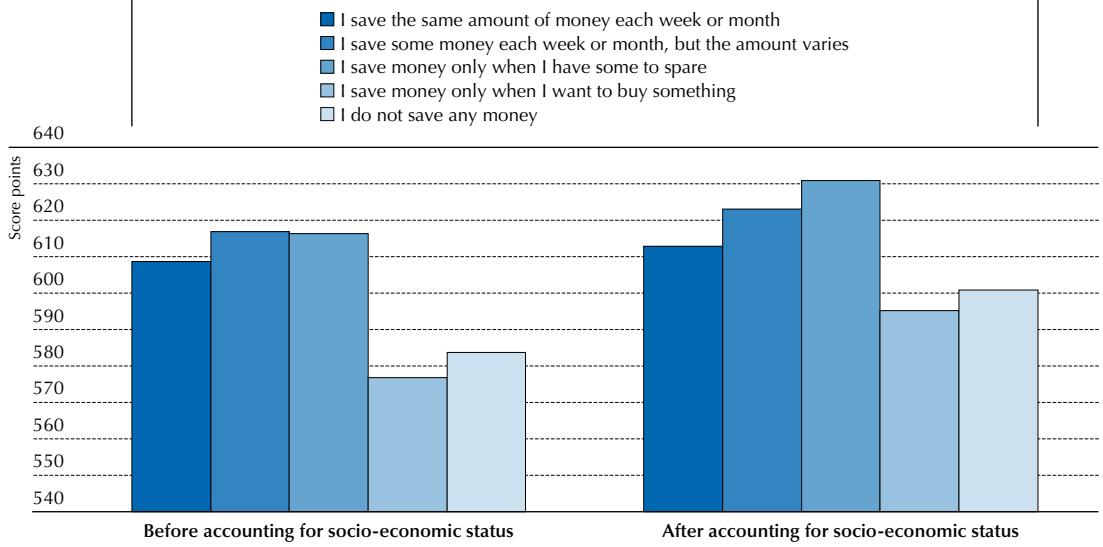
Box VI.4.2 **Students' saving behaviour and financial literacy in Shanghai-China**

Shanghai-China is the only participating country/economy with available data on a question about saving behaviour.[3] The questionnaire asked students to choose which one among a series of statements about saving money best applies to them. Students can indicate that they save the same amount of money each week or month; they save some money each week or month, but the amount varies; they save money only when they have money to spare; they save money only when they want to buy something; they do not save any money; or that they have no money so they do not save.

After accounting for socio-economic status, students in Shanghai-China who save only when they have money to spare perform better than students who do not save by 33 score points (Figure VI.4.a). Students who save a variable amount each week/month and students who save only when they have money to spare perform better than students who save only when they want to buy something, after taking socio-economic status into account. The average financial literacy of students who save a fixed or variable amount each week or month is not different from that of students who do not save at all. Overall, these results suggest that for students in Shanghai-China, setting money aside regularly or when they have some to spare, is associated with higher financial literacy than saving only if students need to buy something, even after comparing students of similar socio-economic status.

■ Figure VI.4a ■

Financial literacy performance, by students' saving behaviour, Shanghai-China



Source: OECD, PISA 2012 Database, Table VI.4.17.

StatLink http://dx.doi.org/10.1787/888933094925

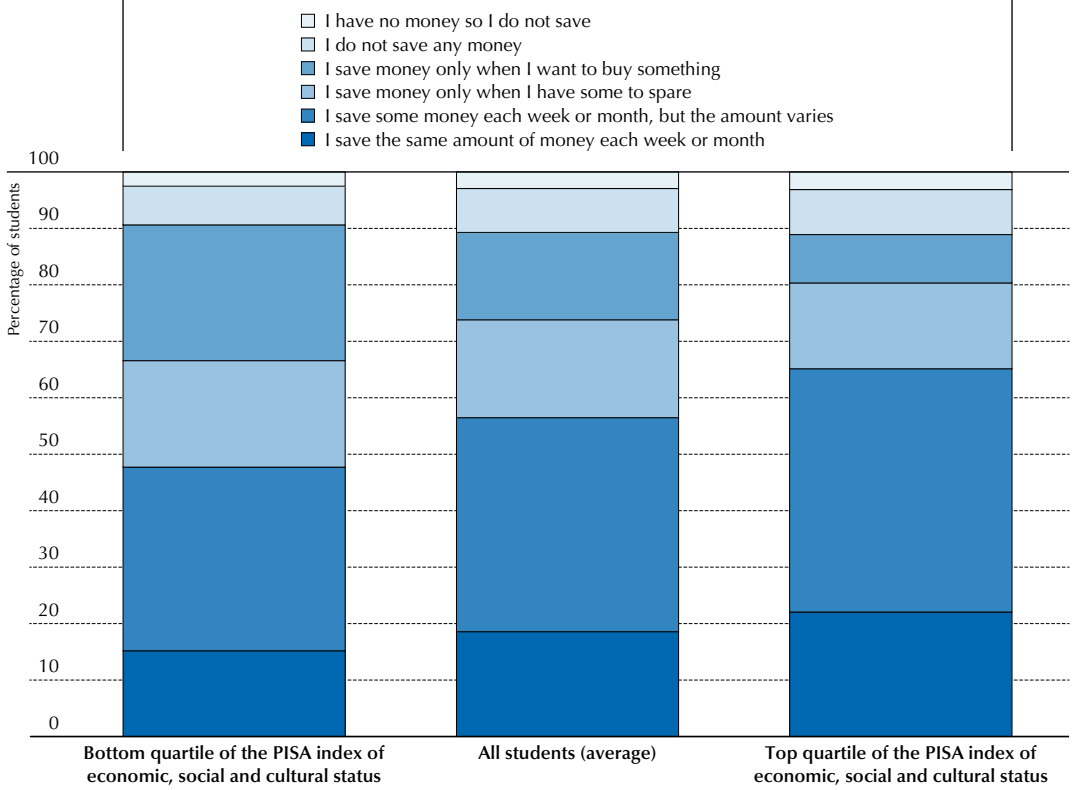
Students in Shanghai-China are likely (38%) to answer that they save varying amounts at regular intervals (monthly or weekly). As Figure VI.4.b shows, about 19% reported that they save the same amount each week or month, about 17% save only when they have money to spare, and 16% save only when they want to buy something. Few responded that they do not save any money (8%) or that they do not save because they do not have any money (3%).

Saving behaviour in Shanghai-China does not vary much by gender (Table VI.4.19). More boys than girls, by a difference of five percentage points, reported that they do not save any money.

Advantaged students (those in the top quartile of the *PISA index of economic, social and cultural status*) are 11 percentage points more likely than disadvantaged students (those in the bottom quartile of socio-economic status) to report that they save a variable amount each week or month (Figure VI.4.b). However, disadvantaged students are 16 percentage points more likely to say that they save money only when they want to buy something. The share of students who reported that they do not save (e.g. replying "I do not save any money" and "I have no money so I do not save") does not change across the socio-economic spectrum (Table VI.4.20).

■ Figure VI.4b ■

Students' saving behaviour, by socio-economic status, Shanghai-China



Source: OECD, PISA 2012 Database, Tables VI.4.16 and VI.4.20.
StatLink http://dx.doi.org/10.1787/888933094925

them to become more autonomous in their spending choices (Coleman and Hendry, 1999; Otto, 2013). If children and adolescents who live at home expect their parents to cover for unforeseen circumstances, they may be more motivated to save for something that they want rather than "for a rainy day" (Otto, 2013). For instance, Furnham (1999) found that adolescents between the ages of 11 and 16 reported saving for something special they want to buy (71%) more often than saving simply to have more money (52%). Similarly, a study of young people and children in the United Kingdom whose families were eligible for the Child Trust Fund found that most children and young people saved for a specific purpose (Kempson, Atkinson and Collard, 2006).

The fact that a majority of students indicated that they would save is encouraging for their future. Evidence from a British study following young people for 18 years suggests that saving at age 16 is linked to saving at age 34 (Ashby, Schoon and Webley, 2011). Similarly, a study in the United States finds that young people who have a savings account during adolescence are significantly more likely to have a savings account and save more in young adulthood (Friedline, Elliott and Nam, 2011).

Notes

1. The OECD average corresponds to the arithmetic mean of the 13 OECD countries and economies that participated in the optional financial literacy assessment in PISA 2012: Australia, the Flemish Community of Belgium, the Czech Republic, Estonia, France, Israel, Italy, New Zealand, Poland, the Slovak Republic, Slovenia, Spain and the United States. Whenever results for some OECD country or economy are missing, the OECD average is computed on the remaining countries and economies with available data.

2. This information was collected directly from the financial authorities of the participating countries and economies in January 2014.

3. Annex A3 provides more details about missing values in the other countries and economies.

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5

Selected Policy and Practical Implications of the Financial Literacy Assessment

Young people on the brink of adulthood are poised to make complex financial decisions that will have an impact on the rest of their lives. Results from the PISA 2012 financial literacy assessment show that many students, including those living in countries that are high-performers in the main PISA assessment, need to improve their financial literacy. This chapter discusses selected implications of those results for policy and practice.

FINANCIAL LITERACY IS AN ESSENTIAL LIFE SKILL FOR YOUNG PEOPLE

Globalisation and digital technologies have made financial services and products both more complex and more widely accessible, at the same time as responsibility for many crucial financial decisions, such as investing in additional education, saving for a child's education or planning for retirement, is increasingly assumed by individuals. Most 15-year-old students already have some experience with financial transactions, from using a bank account to buying call-credit for their mobile phone. Developing the skills associated with financial literacy has thus become essential for young people on the brink of adulthood and poised to make complex financial decisions that could have an impact on the rest of their lives.

Several governments promote financial education policies for their citizens as key complements to financial regulations, consumer protection frameworks, and financial inclusion strategies, with a view to supporting financial stability, promoting inclusive growth, and enhancing individual financial well-being (OECD/INFE, 2009). Other governments focus on strengthening fundamental skills, like mathematics, in school, with the expectation that students with a better understanding of mathematical concepts will also be able to apply that understanding in financial contexts. Recognising the important role of financial education and the need for international evidence and good practice, the OECD created the International Network on Financial Education (INFE) in 2008. By 2014, the network comprised 240 public institutions from 108 countries working together to share good practice, carry out analytical work and develop policy instruments on financial education. Global and regional fora – such as the G20 and the Asia-Pacific Economic Cooperation (APEC) – have recently acknowledged the significance of this work for financial and economic development (G20, 2012; G20, 2013; OECD/INFE, 2012).

LARGE PROPORTIONS OF STUDENTS HAVE ONLY BASIC SKILLS IN FINANCIAL LITERACY

Results from the PISA 2012 financial literacy assessment, the first of its kind, show that many students, in countries and economies at all levels of economic and financial development, including those that are high-performers in the main PISA assessment, need to improve their financial literacy.

Across the 13 OECD countries and economies that participated in the assessment, only one in ten students is a top performer in financial literacy. To solve some of the most challenging financial literacy tasks in PISA, students need to understand key financial concepts, such as the risks inherent in certain financial products, and have a basic knowledge of financial consumer rights and responsibilities. Relevant financial literacy skills also include planning for the short and long term, taking into account the implications of financial decisions for individuals as well as for the society, and understanding the wider financial landscape, such as knowing the purpose of income tax or how pension and insurance systems function. Top performers in the PISA financial literacy assessment are better prepared not only to confront the financial decisions they will need to make, but also to enter the labour market and participate fully in society as employees, entrepreneurs and citizens.

Perhaps more importantly, the PISA financial literacy assessment finds that more than 15% of students in the participating OECD countries and economies perform below the baseline level of proficiency. Students at this level can only complete the simplest financial tasks, such as recognising the difference between needs and wants and making simple spending decisions by comparing the value of goods based on a comparison of their price per unit.

Low-performing students need to improve their abilities to fully participate in economic life. They need to acquire the knowledge and skills that will allow them to understand a range of financial services, such as mortgage and insurance products. These students may already be regularly engaged in financial transactions, such as paying on line, managing their money in a bank account, or choosing whether to spend or save.

Differences in students' performance in financial literacy across and within countries are large. On average, 247 score points separate the highest-performing 10% of students and the lowest-performing 10%, and almost 225 score points separate the mean performance of the highest- and lowest-performing countries and economies. In the highest-performing economies and countries – Shanghai-China, the Flemish Community of Belgium, Estonia, Australia, New Zealand and the Czech Republic – at least one in three – and up to three in four – students can systematically solve moderately difficult financial tasks, such as understanding a pay slip, which will be relevant later on in their lives. These students can also understand key financial concepts, such as compound interest, that are essential for making sensible

choices of credit and savings products, and for taking into account the long-term consequences when making a financial decision, such as the overall cost implication of paying back a loan over a longer period. In contrast, in the lowest-performing countries, students are, on average, only able to perform very simple tasks that are immediately relevant to them, such as recognising the purpose of an invoice. Large disparities in skills among 15-year-olds signal that not all students are offered an opportunity to develop their financial literacy. These disparities are likely to lead to even larger gaps in financial literacy as these students become adults, as those adults who are less proficient in financial literacy may have fewer opportunities to improve their skills.

BUILD ON CORE KNOWLEDGE AND SKILLS

Performance in financial literacy is strongly correlated with performance in mathematics and reading. Basic skills in mathematics and reading are pre-requisites for understanding financial concepts, services and products. The strength of the relationship among financial literacy, mathematics and reading, however, varies across countries.

Students in some countries that perform well in financial literacy, such as Australia, the Czech Republic, Estonia, the Flemish Community of Belgium and New Zealand, score higher in financial literacy, on average, than their performance in mathematics and reading would predict. In contrast, in France, Italy and Slovenia, students' scores in financial literacy are lower than those of students in other countries with similar mathematics and reading proficiency. This evidence suggests that, in these countries, the core skills students acquire in school do not help them to complete some of the tasks presented in the assessment of financial literacy.

Countries seek to improve financial literacy skills among students through various approaches. Some incorporate specific financial literacy content into the curriculum, either by identifying how it fits within existing subjects within the curriculum or – less frequently – by creating a stand-alone subject; others focus on helping students to develop a deeper understanding of mathematics concepts. As dedicated financial literacy approaches are relatively new (where they exist), the PISA 2012 financial literacy assessment cannot provide conclusive evidence on which of these strategies, or what combination of them, yields superior outcomes in financial literacy. The next PISA survey of financial literacy, scheduled for 2015, should provide further insights for policy.

PROMOTE POSITIVE ATTITUDES TOWARDS LEARNING

In addition to knowledge and skills, PISA defines financial literacy as encompassing non-cognitive attributes, such as the ability to manage emotional and psychological factors that influence financial decision making. Positive attitudes towards learning, such as perseverance and openness to problem solving, are related to better performance in mathematics; a similar relationship is observed with financial literacy. Reinforcing these attitudes at school may thus have a positive impact on acquiring not only core skills but also skills in financial decision making.

Many financial decisions require continued effort or patience over the long term. Perseverance is therefore important for many financial activities, such as saving for a future expense or repaying loans. Openness to problem solving, which includes the willingness to handle a lot of information and solve complex problems, is also a useful quality when young adults have to choose a loan or an insurance policy, such as when buying their first car. Openness to problem solving is also positively related to performance in financial literacy across countries, and in Colombia, France, Italy, the Russian Federation, Shanghai-China and the Slovak Republic, this relationship holds even after accounting for mathematics and reading performance.

Evidence that there is a positive relationship between financial literacy and holding a bank account may suggest that some kind of experience with financial products reinforces students' financial literacy or that students who are more financially literate are more motivated to use financial products – and perhaps more confident in doing so. It could also indicate parents' involvement in their child's education, as parents may have opened a bank account for their child and taught them how to use it. More national and international research is needed to determine the extent and impact of different experiences in this area.

SUPPORT GIRLS AND UNDERPERFORMING BOYS

Gender differences in financial literacy among 15-year-olds are relatively small, on average, even when comparing students with similar mathematics and reading performance, although gender differences are larger among high- and low-performing students.

This finding is in contrast to the significant gender differences in financial knowledge among adults observed in a number of countries, including Australia, Colombia, France, Italy, New Zealand and the United States (see Chapter 3). Given that women have a longer life expectancy than men and tend to earn less than men over their lifetime, they need to be particularly skilled at financial decision making to secure their long-term financial well-being (OECD, 2013).

Although the different findings need to be interpreted carefully, as the evidence is drawn from different measurement tools, they may indicate that women have fewer opportunities than men (in the workplace, in accessing financial products or within the household), and perhaps less motivation to continue to learn and develop their financial skills as adults. Policies should thus aim to enhance girls' abilities in financial literacy. At the same time, underperforming boys may also require more tailored opportunities to acquire the basic financial literacy skills to make their first important financial decisions as they leave school and start their adult life.

REDUCE INEQUITIES IN FINANCIAL LITERACY RELATED TO SOCIO-ECONOMIC STATUS

The PISA 2012 assessment of financial literacy highlights significant differences in financial literacy related to students' socio-economic status (particularly wealth and whether their parents work in finance in some countries), immigrant background and school location. These findings further emphasise the importance of providing all students with equal access to opportunities to develop their financial literacy skills. Without policy interventions that specifically target disadvantaged students, disparities in financial literacy related to socio-economic status, and their implications for social and economic inclusion, will be reproduced and possibly reinforced in the next generation.

In some countries, many students with an immigrant background (those either born abroad or with foreign-born parents) lack the financial literacy skills needed to participate fully in their country's society. On average, non-immigrant students perform slightly better in financial literacy than immigrant students even after taking into account their socio-economic status, the language spoken at home, and their performance in mathematics and reading. This outcome may reflect immigrant students' lack of financial vocabulary or their parents' lack of experience with the financial system in their new country and thus their inability to offer guidance to their children. Or, it may suggest that students' schools or parents have emphasised the acquisition of core skills over a broader range of life skills.

In most countries, students who attend schools in smaller communities and rural areas show lower levels of financial literacy – and lower proficiency in mathematics, reading and science – than those in big cities. Large communities may offer more and different opportunities to use financial services in real-life contexts, such as shopping around for the best product. Policies and practices could be instrumental in closing this opportunity gap by providing all students with similar opportunities to learn and develop their financial literacy skills through real or realistic practice.

ENHANCE RESEARCH AND EVALUATION OPPORTUNITIES

Given that the PISA 2012 financial literacy assessment is the first survey of its kind, it can be considered as a baseline measure in most participating countries and economies. Further research and future PISA financial literacy rounds will be instrumental in identifying refined and structured ways to help young people to become financially literate. Additional research and collection of evidence from process and impact evaluations of relevant programmes in and outside of schools can also shed light on how these programmes influence students' knowledge and behaviour. For example, research from Brazil provides interesting evidence of the potential impact of financial education (Box VI.5).

Box VI.5 **Providing effective financial education in Brazilian schools**

A growing number of studies conduct impact assessments of programmes that offer financial education in schools. These impact assessments make it possible to identify potentially effective strategies for providing financial education.

The largest and most rigorous impact assessment to date was recently conducted in Brazil. It used a randomised control trial to evaluate the impact of a pilot programme of financial education in high schools. Some 891 schools and 26 000 students in six states participated in the evaluation.

The financial education curriculum was developed by a team of education experts, psychologists and sociologists. The content includes innovative material designed to capture the interest of young adults and be relevant to their lives. It consists of 72 case studies that can be integrated into regular school subjects, such as mathematics, Portuguese, science, geography and history. The textbook discusses such themes as family life, social life, personal property, work, entrepreneurship, large expenditures, the public good, the national economy and the world economy. Teacher guidelines explain how to integrate these case studies into the regular curriculum, and teachers have discretion over the order in which the cases are taught.

The results of the evaluation were positive (Bruhn et al., 2013a). The average level of financial proficiency was statistically significantly higher among students who participated in these classes than among students who did not. The programme led to a 1.4 percentage-point increase in students reporting that they save for purchases, and a greater likelihood that students engage in financial planning and participate in household financial decisions. The level of financial autonomy (i.e. whether students felt empowered, confident and capable of making independent financial decisions and influencing the financial decisions of their families) and attitudes towards savings also improved. There were also positive effects on parents: the evaluation found an increase in financial knowledge among parents, more discussion of financial matters within families, and a larger number of families that drafted a household budget.

The success of the pilot hinged on several factors, including developing high-quality resources and teaching practices (materials were rigorously tested, and teachers were trained through workshops, DVDs and a guidebook); ensuring that the programme was engaging and relevant to the audience (using interactive material with practical exercises, making the content relevant to young people's lives, and encouraging students to try and practice new behaviours); focusing on both the acquisition of knowledge and on shaping attitudes; and involving students' families (Bruhn et al., 2013b).

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Annex A

PISA 2012 TECHNICAL BACKGROUND

All figures and tables in Annex A are available on line

Annex A1: Indices from the student context questionnaire

Annex A2: The PISA target population, the PISA samples and the definition of schools
http://dx.doi.org/10.1787/888933095039

Annex A3: Technical notes on analyses in this volume
http://dx.doi.org/10.1787/888933095058

Annex A4: Quality assurance

Annex A5: The design of the financial literacy assessment

A note regarding Israel

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

ANNEX A1
INDICES FROM THE STUDENT CONTEXT QUESTIONNAIRE

Explanation of the indices

This section explains the indices derived from the student context questionnaire used in PISA 2012.

Several PISA measures reflect indices that summarise responses from students, their parents or school representatives (typically principals) to a series of related questions. The questions were selected from a larger pool of questions on the basis of theoretical considerations and previous research. The *PISA 2012 Assessment and Analytical Framework* (OECD, 2013a) provides an in-depth description of this conceptual framework. Structural equation modelling was used to confirm the theoretically expected behaviour of the indices and to validate their comparability across countries. For this purpose, a model was estimated separately for each country and collectively for all OECD countries. For a detailed description of other PISA indices and details on the methods, see *PISA 2012 Technical Report* (OECD, forthcoming).

There are two types of indices: simple indices and scale indices.

Simple indices are the variables that are constructed through the arithmetic transformation or recoding of one or more items, in exactly the same way across assessments. Here, item responses are used to calculate meaningful variables, such as the recoding of the four-digit ISCO-08 codes into "Highest parents' socio-economic index (HISEI)" or, teacher-student ratio based on information from the school questionnaire.

Scale indices are the variables constructed through the scaling of multiple items. Unless otherwise indicated, the index was scaled using a weighted likelihood estimate (WLE) (Warm, 1989), using a one-parameter item response model (a partial credit model was used in the case of items with more than two categories). For details on how each scale index was constructed see the *PISA 2012 Technical Report* (OECD, forthcoming). In general, the scaling was done in three stages:

- The item parameters were estimated from equal-sized subsamples of students from each OECD country.
- The estimates were computed for all students and all schools by anchoring the item parameters obtained in the preceding step.
- The indices were then standardised so that the mean of the index value for the OECD student population was zero and the standard deviation was one (countries being given equal weight in the standardisation process).

Sequential codes were assigned to the different response categories of the questions in the sequence in which the latter appeared in the student, school or parent questionnaires. Where indicated in this section, these codes were inverted for the purpose of constructing indices or scales. Negative values for an index do not necessarily imply that students responded negatively to the underlying questions. A negative value merely indicates that the respondents answered less positively than all respondents did on average across OECD countries. Likewise, a positive value on an index indicates that the respondents answered more favourably, or more positively, than respondents did, on average, in OECD countries. Terms enclosed in brackets < > in the following descriptions were replaced in the national versions of the student, school and parent questionnaires by the appropriate national equivalent. For example, the term <qualification at ISCED level 5A> was translated in the United States into "Bachelor's degree, post-graduate certificate program, Master's degree program or first professional degree program". Similarly the term <classes in the language of assessment> in Luxembourg was translated into "German classes" or "French classes" depending on whether students received the German or French version of the assessment instruments.

In addition to simple and scaled indices described in this annex, there are a number of variables from the questionnaires that correspond to single items not used to construct indices. These non-recoded variables have prefix of "ST" for the questionnaire items in the student questionnaire, "SC" for the items in the school questionnaire, and "PA" for the items in the parent questionnaire. All the context questionnaires as well as the PISA international database, including all variables, are available through *www.pisa.oecd.org*.

Student-level simple indices

Study programme

In PISA 2012, study programmes available to 15-year-old students in each country were collected both through the student tracking form and the student questionnaire (ST02). All study programmes were classified using ISCED (OECD, 1999). In the PISA international database, all national programmes are indicated in a variable (PROGN) where the first six digits refer to the national centre code and the last two digits to the national study programme code.

The following internationally comparable indices were derived from the data on study programmes:

- Programme level (ISCEDL) indicates whether students are (1) primary education level (ISCED 1); (2) lower-secondary education level; or (3) upper secondary education level.
- Programme designation (ISCEDD) indicates the designation of the study programme: (1) = "A" (general programmes designed to give access to the next programme level); (2) = "B" (programmes designed to give access to vocational studies at the next programme level); (3) = "C" (programmes designed to give direct access to the labour market); or (4) = "M" (modular programmes that combine any or all of these characteristics).
- Programme orientation (ISCEDO) indicates whether the programme's curricular content is (1) general; (2) pre-vocational; (3) vocational; or (4) modular programmes that combine any or all of these characteristics.

Occupational status of parents

Occupational data for both a student's father and a student's mother were obtained by asking open-ended questions in the student questionnaire (ST12, ST16). The responses were coded to four-digit ISCO codes (ILO, 1990) and then mapped to the SEI index of Ganzeboom *et al.* (1992). Higher scores of the SEI indicate higher levels of occupational status. The following three indices are obtained:

- Mother's occupational status (OCOD1).
- Father's occupational status (OCOD2).
- The highest occupational level of parents (HISEI) corresponds to the higher SEI score of either parent or to the only available parent's SEI score.

Some of the analyses distinguish between four different categories of occupations by the major groups identified by the ISCO coding of the highest parental occupation: Elementary (ISCO 9), semi-skilled blue-collar (ISCO 6, 7 and 8), semi-skilled white-collar (ISCO 4 and 5), skilled (ISCO 1, 2 and 3). This classification follows the same methodology used in other OECD publications such as *Education at a Glance* (OECD, 2013b) and the OECD *Skills Outlook 2013: First Results from the Survey of Adult Skills* (OECD, 2013c).[1]

Educational level of parents

The educational level of parents is classified using ISCED (OECD, 1999) based on students' responses in the student questionnaire (ST13, ST14, ST17 and ST18).

Indices were constructed by selecting the highest level for each parent and then assigning them to the following categories: (0) None, (1) ISCED 1 (primary education), (2) ISCED 2 (lower secondary), (3) ISCED Level 3B or 3C (vocational/pre-vocational upper secondary), (4) ISCED 3A (upper secondary) and/or ISCED 4 (non-tertiary post-secondary), (5) ISCED 5B (vocational tertiary), (6) ISCED 5A, 6 (theoretically oriented tertiary and post-graduate). The following three indices with these categories are developed:

- Mother's educational level (MISCED).
- Father's educational level (FISCED).
- Highest educational level of parents (HISCED) corresponds to the higher ISCED level of either parent.

Highest educational level of parents was also converted into the number of years of schooling (PARED). For the conversion of level of education into years of schooling, see Table A1.1 in Volume I (*PISA 2012 Results: What Students Know and Can Do,* OECD, 2014).

Immigration background

Information on the country of birth of students and their parents is collected by using nationally specific ISO coded variables. The ISO codes of the country of birth for students and their parents are available in the PISA international database (COBN_S, COBN_M, and COBN_F).

The *index on immigrant background* (IMMIG) has the following categories: (1) non-immigrant students (those students born in the country of assessment, or those with at least one parent born in that country; students who were born abroad with at least one parent born in the country of assessment are also classified as non-immigrant students), (2) second-generation students (those born in the country of assessment but whose parents were born in another country) and (3) first-generation students (those born outside the country of assessment and whose parents were also born in another country). Students with missing responses for either the student or for both parents, or for all three questions have been given missing values for this variable.

Student-level scale indices

Family wealth

The *index of family wealth* (WEALTH) is based on students' responses on whether they had the following at home: a room of their own, a link to the Internet, a dishwasher (treated as a country-specific item), a DVD player, and three other country-specific items (some items in ST26); and their responses on the number of cellular phones, televisions, computers, cars and the rooms with a bath or shower (ST27).

Home educational resources

The *index of home educational resources* (HEDRES) is based on the items measuring the existence of educational resources at home including a desk and a quiet place to study, a computer that students can use for schoolwork, educational software, books to help with students' school work, technical reference books and a dictionary (some items in ST26).

1. Note that for ISCO coding 0 "Armed forces", the following recoding was followed: "Officers" were coded as "Managers" (ISCO 1), and "Other armed forces occupations" (drivers, gunners, seaman, generic armed forces) as "Plant and Machine operators" (ISCO 8). In addition, all answers starting with "97" (housewives, students, and "vague occupations") were coded into missing.

Cultural possessions

The *index of cultural possessions* (CULTPOSS) is based on students' responses to whether they had the following at home: classic literature, books of poetry and works of art (some items in ST26).

Economic, social and cultural status

The *PISA index of economic, social and cultural status* (ESCS) was derived from the following three indices: highest occupational status of parents (HISEI), highest educational level of parents in years of education according to ISCED (PARED), and home possessions (HOMEPOS). The *index of home possessions* (HOMEPOS) comprises all items on the indices of WEALTH, CULTPOSS and HEDRES, as well as books in the home recoded into a four-level categorical variable (0-10 books, 11-25 or 26-100 books, 101-200 or 201-500 books, more than 500 books).

The *PISA index of economic, social and cultural status* (ESCS) was derived from a principal component analysis of standardised variables (each variable has an OECD mean of zero and a standard deviation of one), taking the factor scores for the first principal component as measures of the index of economic, social and cultural status.

Principal component analysis was also performed for each participating country to determine to what extent the components of the index operate in similar ways across countries. The analysis revealed that patterns of factor loading were very similar across countries, with all three components contributing to a similar extent to the index (for details on reliability and factor loadings, see the *PISA 2012 Technical Report*, OECD, forthcoming).

The imputation of components for students with missing data on one component was done on the basis of a regression on the other two variables, with an additional random error component. The final values on the *PISA index of economic, social and cultural status* (ESCS) for 2012 have an OECD mean of 0 and a standard deviation of one.

Perseverance

The *index of perseverance* (PERSEV) was constructed using student responses (ST93) over whether they report that the following statements describe them very much, mostly, somewhat, not much, not at all: When confronted with a problem, I give up easily; I put off difficult problems; I remain interested in the tasks that I start; I continue working on tasks until everything is perfect; when confronted with a problem, I do more than what is expected of me.

Openness to problem solving

The *index of openness to problem solving* (OPENPS) was constructed using student responses (ST94) over whether they report that the following statements describe them very much, mostly, somewhat, not much, not at all: I can handle a lot of information; I am quick to understand things; I seek explanations for things; I can easily link facts together; I like to solve complex problems.

The rotated design of the student questionnaire

A major innovation in PISA 2012 is the rotated design of the student questionnaire. One of the main reasons for a rotated design, which had been implemented for the cognitive assessment for a long time, was to extend the content coverage of the student questionnaire. Table A1.1 provides an overview of the rotation design and content of questionnaire forms for the main survey.

The *PISA 2012 Technical Report* (OECD, forthcoming) provides all details regarding the rotated design of the student questionnaire in PISA 2012, including its implications in terms of (a) proficiency estimates, (b) international reports and trends, (c) further analyses, (d) structure and documentation of the international database, and (e) logistics. The rotated design has negligible implications for proficiency estimates and correlations of proficiency estimates with context constructs. The international database (available at *www.pisa.oecd.org*) includes all background variables for each student. The variables based on questions that students answered reflect their responses; those that are based on questions that were not administered show a distinctive missing code. Rotation allows the estimation of a full co-variance matrix which means that all variables can be correlated with all other variables. It does not affect conclusions in terms of whether or not an effect would be considered significant in multilevel models.

Table A1.1 Student questionnaire rotation design

Form A	Common Question Set (all forms)	Question Set 1 – Mathematics Attitudes / Problem Solving	Question Set 3 – Opportunity to Learn / Learning Strategies
Form B	Common Question Set (all forms)	Question Set 2 – School Climate / Attitudes towards School / Anxiety	Question Set 1 – Mathematics Attitudes / Problem Solving
Form C	Common Question Set (all forms)	Question Set 3 – Opportunity to Learn / Learning Strategies	Question Set 2 – School Climate / Attitudes towards School / Anxiety

Note: For details regarding the questions in each question set, please refer to the *PISA 2012 Technical Report* (forthcoming).

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ANNEX A2

THE PISA TARGET POPULATION, THE PISA SAMPLES AND THE DEFINITION OF SCHOOLS

Definition of the PISA target population

PISA 2012 provides an assessment of the cumulative yield of education and learning at a point at which most young adults are still enrolled in initial education.

A major challenge for an international survey is to ensure that international comparability of national target populations is guaranteed in such a venture.

Differences between countries in the nature and extent of pre-primary education and care, the age of entry into formal schooling and the institutional structure of educational systems do not allow the definition of internationally comparable grade levels of schooling. Consequently, international comparisons of educational performance typically define their populations with reference to a target age group. Some previous international assessments have defined their target population on the basis of the grade level that provides maximum coverage of a particular age cohort. A disadvantage of this approach is that slight variations in the age distribution of students across grade levels often lead to the selection of different target grades in different countries, or between education systems within countries, raising serious questions about the comparability of results across, and at times within, countries. In addition, because not all students of the desired age are usually represented in grade-based samples, there may be a more serious potential bias in the results if the unrepresented students are typically enrolled in the next higher grade in some countries and the next lower grade in others. This would exclude students with potentially higher levels of performance in the former countries and students with potentially lower levels of performance in the latter.

In order to address this problem, PISA uses an age-based definition for its target population, i.e. a definition that is not tied to the institutional structures of national education systems. PISA assesses students who were aged between 15 years and 3 (complete) months and 16 years and 2 (complete) months at the beginning of the assessment period, plus or minus a 1 month allowable variation, and who were enrolled in an educational institution with Grade 7 or higher, regardless of the grade levels or type of institution in which they were enrolled, and regardless of whether they were in full-time or part-time education. Educational institutions are generally referred to as schools in this publication, although some educational institutions (in particular, some types of vocational education establishments) may not be termed schools in certain countries. As expected from this definition, the average age of students across OECD countries was 15 years and 9 months. The range in country means was 2 months and 5 days (0.18 years), from the minimum country mean of 15 years and 8 months to the maximum country mean of 15 years and 10 months.

Given this definition of population, PISA makes statements about the knowledge and skills of a group of individuals who were born within a comparable reference period, but who may have undergone different educational experiences both in and outside of schools. In PISA, these knowledge and skills are referred to as the yield of education at an age that is common across countries. Depending on countries' policies on school entry, selection and promotion, these students may be distributed over a narrower or a wider range of grades across different education systems, tracks or streams. It is important to consider these differences when comparing PISA results across countries, as observed differences between students at age 15 may no longer appear as students' educational experiences converge later on.

If a country's scale scores in reading, scientific or mathematical literacy are significantly higher than those in another country, it cannot automatically be inferred that the schools or particular parts of the education system in the first country are more effective than those in the second. However, one can legitimately conclude that the cumulative impact of learning experiences in the first country, starting in early childhood and up to the age of 15, and embracing experiences both in school, home and beyond, have resulted in higher outcomes in the literacy domains that PISA measures.

The PISA target population did not include residents attending schools in a foreign country. It does, however, include foreign nationals attending schools in the country of assessment.

To accommodate countries that desired grade-based results for the purpose of national analyses, PISA 2012 provided a sampling option to supplement age-based sampling with grade-based sampling.

Population coverage

All countries attempted to maximise the coverage of 15-year-olds enrolled in education in their national samples, including students enrolled in special educational institutions. As a result, PISA 2012 reached standards of population coverage that are unprecedented in international surveys of this kind.

The sampling standards used in PISA permitted countries to exclude up to a total of 5% of the relevant population either by excluding schools or by excluding students within schools. All but eight countries, Luxembourg (8.40%), Canada (6.38%), Denmark (6.18%), Norway (6.11%), Estonia (5.80%), Sweden (5.44%), the United Kingdom (5.43%) and the United States (5.35%), achieved this standard, and in 30 countries and economies, the overall exclusion rate was less than 2%. When language exclusions were accounted for

(i.e. removed from the overall exclusion rate), Norway, Sweden, the United Kingdom and the United States no longer had an exclusion rate greater than 5%. For details, see *www.pisa.oecd.org*.

Exclusions within the above limits include:

- At the school level: i) schools that were geographically inaccessible or where the administration of the PISA assessment was not considered feasible; and ii) schools that provided teaching only for students in the categories defined under "within-school exclusions", such as schools for the blind. The percentage of 15-year-olds enrolled in such schools had to be less than 2.5% of the nationally desired target population [0.5% maximum for i) and 2% maximum for ii)]. The magnitude, nature and justification of school-level exclusions are documented in the *PISA 2012 Technical Report* (OECD, forthcoming).
- At the student level: i) students with an intellectual disability; ii) students with a functional disability; iii) students with limited assessment language proficiency; iv) other – a category defined by the national centres and approved by the international centre; and v) students taught in a language of instruction for the main domain for which no materials were available. Students could not be excluded solely because of low proficiency or common discipline problems. The percentage of 15-year-olds excluded within schools had to be less than 2.5% of the nationally desired target population.

Table A2.1 describes the target population of the countries participating in PISA 2012. Further information on the target population and the implementation of PISA sampling standards can be found in the *PISA 2012 Technical Report* (OECD, forthcoming).

- ***Column 1*** shows the *total number of 15-year-olds* according to the most recent available information, which in most countries meant the year 2011 as the year before the assessment.
- ***Column 2*** shows the number of 15-year-olds enrolled in schools in Grade 7 or above (as defined above), which is referred to as the *eligible population*.
- ***Column 3*** shows the *national desired target population*. Countries were allowed to exclude up to 0.5% of students a priori from the eligible population, essentially for practical reasons. The following a priori exclusions exceed this limit but were agreed with the PISA Consortium: Belgium excluded 0.23% of its population for a particular type of student educated while working; Canada excluded 1.14% of its population from Territories and Aboriginal reserves; Chile excluded 0.04% of its students who live in Easter Island, Juan Fernandez Archipelago and Antarctica; Indonesia excluded 1.55% of its students from two provinces because of operational reasons; Ireland excluded 0.05% of its students in three island schools off the west coast; Latvia excluded 0.08% of its students in distance learning schools; and Serbia excluded 2.11% of its students taught in Serbian in Kosovo.
- ***Column 4*** shows the number of students enrolled in schools that were excluded from the national desired target population either from the sampling frame or later in the field during data collection.
- ***Column 5*** shows the size of the national desired target population after subtracting the students enrolled in excluded schools. This is obtained by subtracting Column 4 from Column 3.
- ***Column 6*** shows the *percentage of students enrolled in excluded schools*. This is obtained by dividing Column 4 by Column 3 and multiplying by 100.
- ***Column 7*** shows the *number of students participating in PISA 2012*. Note that in some cases this number does not account for 15-year-olds assessed as part of additional national options.
- ***Column 8*** shows the *weighted number of participating students*, i.e. the number of students in the nationally defined target population that the PISA sample represents.

Each country *attempted* to maximise the coverage of PISA's target population within the sampled schools. In the case of each sampled school, all eligible students, namely those 15 years of age, regardless of grade, were first listed. Sampled students who were to be excluded had still to be included in the sampling documentation, and a list drawn up stating the reason for their exclusion.

- ***Column 9*** indicates the *total number of excluded students*, which is further described and classified into specific categories in Table A2.2.
- ***Column 10*** indicates the *weighted number of excluded students*, i.e. the overall number of students in the nationally defined target population represented by the number of students excluded from the sample, which is also described and classified by exclusion categories in Table A2.2. Excluded students were excluded based on five categories: i) students with an intellectual disability – the student has a mental or emotional disability and is cognitively delayed such that he/she cannot perform in the PISA testing situation; ii) students with a functional disability – the student has a moderate to severe permanent physical disability such that he/she cannot perform in the PISA testing situation; iii) students with a limited assessment language proficiency – the student is unable to read or speak any of the languages of the assessment in the country and would be unable to overcome the language barrier in the testing situation (typically a student who has received less than one year of instruction in the languages of the assessment may be excluded); iv) other – a category defined by the national centres and approved by the international centre; and v) students taught in a language of instruction for the main domain for which no materials were available.
- ***Column 11*** shows the *percentage of students excluded within schools*. This is calculated as the weighted number of excluded students (Column 10), divided by the weighted number of excluded and participating students (Column 8 plus Column 10), then multiplied by 100.

[Part 1/2]

Table A2.1a PISA target populations and samples

		Population and sample information							
		Total population of 15-year-olds	Total enrolled population of 15-year-olds at Grade 7 or above	Total in national desired target population	Total school-level exclusions	Total in national desired target population after all school exclusions and before within-school exclusions	School-level exclusion rate (%)	Number of participating students	Weighted number of participating students
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OECD	Australia	291 967	288 159	288 159	5 702	282 457	1.98	17 774	250 779
	Austria	93 537	89 073	89 073	106	88 967	0.12	4 756	82 242
	Belgium	123 469	121 493	121 209	1 324	119 885	1.09	9 690	117 912
	Canada	417 873	409 453	404 767	2 936	401 831	0.73	21 548	348 070
	Chile	274 803	252 733	252 625	2 687	249 938	1.06	6 857	229 199
	Czech Republic	96 946	93 214	93 214	1 577	91 637	1.69	6 535	82 101
	Denmark	72 310	70 854	70 854	1 965	68 889	2.77	7 481	65 642
	Estonia	12 649	12 438	12 438	442	11 996	3.55	5 867	11 634
	Finland	62 523	62 195	62 195	523	61 672	0.84	8 829	60 047
	France	792 983	755 447	755 447	27 403	728 044	3.63	5 682	701 399
	Germany	798 136	798 136	798 136	10 914	787 222	1.37	5 001	756 907
	Greece	110 521	105 096	105 096	1 364	103 732	1.30	5 125	96 640
	Hungary	111 761	108 816	108 816	1 725	107 091	1.59	4 810	91 179
	Iceland	4 505	4 491	4 491	10	4 481	0.22	3 508	4 169
	Ireland	59 296	57 979	57 952	0	57 952	0.00	5 016	54 010
	Israel	118 953	113 278	113 278	2 784	110 494	2.46	6 061	107 745
	Italy	605 490	566 973	566 973	8 498	558 475	1.50	38 142	521 288
	Japan	1 241 786	1 214 756	1 214 756	26 099	1 188 657	2.15	6 351	1 128 179
	Korea	687 104	672 101	672 101	3 053	669 048	0.45	5 033	603 632
	Luxembourg	6 187	6 082	6 082	151	5 931	2.48	5 260	5 523
	Mexico	2 114 745	1 472 875	1 472 875	7 307	1 465 568	0.50	33 806	1 326 025
	Netherlands	194 000	193 190	193 190	7 546	185 644	3.91	4 460	196 262
	New Zealand	60 940	59 118	59 118	579	58 539	0.98	5 248	53 414
	Norway	64 917	64 777	64 777	750	64 027	1.16	4 686	59 432
	Poland	425 597	410 700	410 700	6 900	403 800	1.68	5 662	379 275
	Portugal	108 728	127 537	127 537	0	127 537	0.00	5 722	96 034
	Slovak Republic	59 723	59 367	59 367	1 480	57 887	2.49	5 737	54 486
	Slovenia	19 471	18 935	18 935	115	18 820	0.61	7 229	18 303
	Spain	423 444	404 374	404 374	2 031	402 343	0.50	25 335	374 266
	Sweden	102 087	102 027	102 027	1 705	100 322	1.67	4 739	94 988
	Switzerland	87 200	85 239	85 239	2 479	82 760	2.91	11 234	79 679
	Turkey	1 266 638	965 736	965 736	10 387	955 349	1.08	4 848	866 681
	United Kingdom	738 066	745 581	745 581	19 820	725 761	2.66	12 659	688 236
	United States	3 985 714	4 074 457	4 074 457	41 142	4 033 315	1.01	6 111	3 536 153
Partners	Albania	76 910	50 157	50 157	56	50 101	0.11	4 743	42 466
	Argentina	684 879	637 603	637 603	3 995	633 608	0.63	5 908	545 942
	Brazil	3 574 928	2 786 064	2 786 064	34 932	2 751 132	1.25	20 091	2 470 804
	Bulgaria	70 188	59 684	59 684	1 437	58 247	2.41	5 282	54 255
	Colombia	889 729	620 422	620 422	4	620 418	0.00	11 173	560 805
	Costa Rica	81 489	64 326	64 326	0	64 326	0.00	4 602	40 384
	Croatia	48 155	46 550	46 550	417	46 133	0.90	6 153	45 502
	Cyprus[1, 2]	9 956	9 956	9 955	128	9 827	1.29	5 078	9 650
	Hong Kong-China	84 200	77 864	77 864	813	77 051	1.04	4 670	70 636
	Indonesia	4 174 217	3 599 844	3 544 028	8 039	3 535 989	0.23	5 622	2 645 155
	Jordan	129 492	125 333	125 333	141	125 192	0.11	7 038	111 098
	Kazakhstan	258 716	247 048	247 048	7 374	239 674	2.98	5 808	208 411
	Latvia	18 789	18 389	18 375	655	17 720	3.56	5 276	16 054
	Liechtenstein	417	383	383	1	382	0.26	293	314
	Lithuania	38 524	35 567	35 567	526	35 041	1.48	4 618	33 042
	Macao-China	6 600	5 416	5 416	6	5 410	0.11	5 335	5 366
	Malaysia	544 302	457 999	457 999	225	457 774	0.05	5 197	432 080
	Montenegro	8 600	8 600	8 600	18	8 582	0.21	4 744	7 714
	Peru	584 294	508 969	508 969	263	508 706	0.05	6 035	419 945
	Qatar	11 667	11 532	11 532	202	11 330	1.75	10 966	11 003
	Romania	146 243	146 243	146 243	5 091	141 152	3.48	5 074	140 915
	Russian Federation	1 272 632	1 268 814	1 268 814	17 800	1 251 014	1.40	6 418	1 172 539
	Serbia	80 089	75 870	74 272	1 987	72 285	2.67	4 684	67 934
	Shanghai-China	108 056	90 796	90 796	1 252	89 544	1.38	6 374	85 127
	Singapore	53 637	52 163	52 163	293	51 870	0.56	5 546	51 088
	Chinese Taipei	328 356	328 336	328 336	1 747	326 589	0.53	6 046	292 542
	Thailand	982 080	784 897	784 897	9 123	775 774	1.16	6 606	703 012
	Tunisia	132 313	132 313	132 313	169	132 144	0.13	4 407	120 784
	United Arab Emirates	48 824	48 446	48 446	971	47 475	2.00	11 500	40 612
	Uruguay	54 638	46 442	46 442	14	46 428	0.03	5 315	39 771
	Viet Nam	1 717 996	1 091 462	1 091 462	7 729	1 083 733	0.71	4 959	956 517

Notes: For a full explanation of the details in this table please refer to the *PISA 2012 Technical Report* (OECD, forthcoming). The figure for total national population of 15-year-olds enrolled in Column 2 may occasionally be larger than the total number of 15-year-olds in Column 1 due to differing data sources. Information for the adjudicated regions is available on line (Table A2.1b).

1. Footnote by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

2. Footnote by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

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[Part 2/2]

Table A2.1a **PISA target populations and samples**

		Population and sample information				Coverage indices		
		Number of excluded students	Weighted number of excluded students	Within-school exclusion rate (%)	Overall exclusion rate (%)	Coverage index 1: Coverage of national desired population	Coverage index 2: Coverage of national enrolled population	Coverage index 3: Coverage of 15-year-old population
		(9)	(10)	(11)	(12)	(13)	(14)	(15)
OECD	Australia	505	5 282	2.06	4.00	0.960	0.960	0.859
	Austria	46	1 011	1.21	1.33	0.987	0.987	0.879
	Belgium	39	367	0.31	1.40	0.986	0.984	0.955
	Canada	1,796	21 013	5.69	6.38	0.936	0.926	0.833
	Chile	18	548	0.24	1.30	0.987	0.987	0.834
	Czech Republic	15	118	0.14	1.83	0.982	0.982	0.847
	Denmark	368	2 381	3.50	6.18	0.938	0.938	0.908
	Estonia	143	277	2.33	5.80	0.942	0.942	0.920
	Finland	225	653	1.08	1.91	0.981	0.981	0.960
	France	52	5 828	0.82	4.42	0.956	0.956	0.885
	Germany	8	1 302	0.17	1.54	0.985	0.985	0.948
	Greece	136	2 304	2.33	3.60	0.964	0.964	0.874
	Hungary	27	928	1.01	2.58	0.974	0.974	0.816
	Iceland	155	156	3.60	3.81	0.962	0.962	0.925
	Ireland	271	2 524	4.47	4.47	0.955	0.955	0.911
	Israel	114	1 884	1.72	4.13	0.959	0.959	0.906
	Italy	741	9 855	1.86	3.33	0.967	0.967	0.861
	Japan	0	0	0.00	2.15	0.979	0.979	0.909
	Korea	17	2 238	0.37	0.82	0.992	0.992	0.879
	Luxembourg	357	357	6.07	8.40	0.872	0.916	0.893
	Mexico	58	3 247	0.24	0.74	0.993	0.993	0.627
	Netherlands	27	1 056	0.54	4.42	0.956	0.956	1.012
	New Zealand	255	2 030	3.66	4.61	0.954	0.954	0.876
	Norway	278	3 133	5.01	6.11	0.939	0.939	0.916
	Poland	212	11 566	2.96	4.59	0.954	0.954	0.891
	Portugal	124	1 560	1.60	1.60	0.984	0.984	0.883
	Slovak Republic	29	246	0.45	2.93	0.971	0.971	0.912
	Slovenia	84	181	0.98	1.58	0.984	0.984	0.940
	Spain	959	14 931	3.84	4.32	0.957	0.957	0.884
	Sweden	201	3 789	3.84	5.44	0.946	0.946	0.930
	Switzerland	256	1 093	1.35	4.22	0.958	0.958	0.914
	Turkey	21	3 684	0.42	1.49	0.985	0.985	0.684
	United Kingdom	486	20 173	2.85	5.43	0.946	0.946	0.932
	United States	319	162 194	4.39	5.35	0.946	0.946	0.887
Partners	Albania	1	10	0.02	0.14	0.999	0.999	0.552
	Argentina	12	641	0.12	0.74	0.993	0.993	0.797
	Brazil	44	4 900	0.20	1.45	0.986	0.986	0.691
	Bulgaria	6	80	0.15	2.55	0.974	0.974	0.773
	Colombia	23	789	0.14	0.14	0.999	0.999	0.630
	Costa Rica	2	12	0.03	0.03	1.000	1.000	0.496
	Croatia	91	627	1.36	2.24	0.978	0.978	0.945
	Cyprus[1,2]	157	200	2.03	3.29	0.967	0.967	0.969
	Hong Kong-China	38	518	0.73	1.76	0.982	0.982	0.839
	Indonesia	2	860	0.03	0.26	0.997	0.982	0.634
	Jordan	19	304	0.27	0.39	0.996	0.996	0.858
	Kazakhstan	25	951	0.45	3.43	0.966	0.966	0.806
	Latvia	14	76	0.47	4.02	0.960	0.959	0.854
	Liechtenstein	13	13	3.97	4.22	0.958	0.958	0.753
	Lithuania	130	867	2.56	4.00	0.960	0.960	0.858
	Macao-China	3	3	0.06	0.17	0.998	0.998	0.813
	Malaysia	7	554	0.13	0.18	0.998	0.998	0.794
	Montenegro	4	8	0.10	0.31	0.997	0.997	0.897
	Peru	8	549	0.13	0.18	0.998	0.998	0.719
	Qatar	85	85	0.77	2.51	0.975	0.975	0.943
	Romania	0	0	0.00	3.48	0.965	0.965	0.964
	Russian Federation	69	11 940	1.01	2.40	0.976	0.976	0.921
	Serbia	10	136	0.20	2.87	0.971	0.951	0.848
	Shanghai-China	8	107	0.13	1.50	0.985	0.985	0.788
	Singapore	33	315	0.61	1.17	0.988	0.988	0.952
	Chinese Taipei	44	2 029	0.69	1.22	0.988	0.988	0.891
	Thailand	12	1 144	0.16	1.32	0.987	0.987	0.716
	Tunisia	5	130	0.11	0.24	0.998	0.998	0.913
	United Arab Emirates	11	37	0.09	2.09	0.979	0.979	0.832
	Uruguay	15	99	0.25	0.28	0.997	0.997	0.728
	Viet Nam	1	198	0.02	0.73	0.993	0.993	0.557

Notes: For a full explanation of the details in this table please refer to the *PISA 2012 Technical Report* (OECD, forthcoming). The figure for total national population of 15-year-olds enrolled in Column 2 may occasionally be larger than the total number of 15-year-olds in Column 1 due to differing data sources. Information for the adjudicated regions is available on line (Table A2.1b).

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- ***Column 12*** shows the *overall exclusion rate*, which represents the weighted percentage of the national desired target population excluded from PISA either through school-level exclusions or through the exclusion of students within schools. It is calculated as the school-level exclusion rate (Column 6 divided by 100) plus within-school exclusion rate (Column 11 divided by 100) multiplied by 1 minus the school-level exclusion rate (Column 6 divided by 100). This result is then multiplied by 100.
- ***Column 13*** presents an *index of the extent to which the national desired target population is covered by the PISA sample*. Canada, Denmark, Estonia, Luxembourg, Norway, Sweden, the United Kingdom and the United States were the only countries where the coverage is below 95%.
- ***Column 14*** presents an *index of the extent to which 15-year-olds enrolled in schools are covered by the PISA sample*. The index measures the overall proportion of the national enrolled population that is covered by the non-excluded portion of the student sample. The index takes into account both school-level and student-level exclusions. Values close to 100 indicate that the PISA sample represents the entire education system as defined for PISA 2012. The index is the weighted number of participating students (Column 8) divided by the weighted number of participating and excluded students (Column 8 plus Column 10), times the nationally defined target population (Column 5) divided by the eligible population (Column 2) (times 100).
- ***Column 15*** presents an *index of the coverage of the 15-year-old population*. This index is the weighted number of participating students (Column 8) divided by the total population of 15-year-old students (Column 1).

This high level of coverage contributes to the comparability of the assessment results. For example, even assuming that the excluded students would have systematically scored worse than those who participated, and that this relationship is moderately strong, an exclusion rate in the order of 5% would likely lead to an overestimation of national mean scores of less than 5 score points (on a scale with an international mean of 500 score points and a standard deviation of 100 score points). This assessment is based on the following calculations: if the correlation between the propensity of exclusions and student performance is 0.3, resulting mean scores would likely be overestimated by 1 score point if the exclusion rate is 1%, by 3 score points if the exclusion rate is 5%, and by 6 score points if the exclusion rate is 10%. If the correlation between the propensity of exclusions and student performance is 0.5, resulting mean scores would be overestimated by 1 score point if the exclusion rate is 1%, by 5 score points if the exclusion rate is 5%, and by 10 score points if the exclusion rate is 10%. For this calculation, a model was employed that assumes a bivariate normal distribution for performance and the propensity to participate. For details, see the PISA 2012 Technical Report (OECD, forthcoming).

Sampling procedures and response rates

The accuracy of any survey results depends on the quality of the information on which national samples are based as well as on the sampling procedures. Quality standards, procedures, instruments and verification mechanisms were developed for PISA that ensured that national samples yielded comparable data and that the results could be compared with confidence.

Most PISA samples were designed as two-stage stratified samples (where countries applied different sampling designs, these are documented in the PISA 2012 Technical Report [OECD, forthcoming]). The first stage consisted of sampling individual schools in which 15-year-old students could be enrolled. Schools were sampled systematically with probabilities proportional to size, the measure of size being a function of the estimated number of eligible (15-year-old) students enrolled. A minimum of 150 schools were selected in each country (where this number existed), although the requirements for national analyses often required a somewhat larger sample. As the schools were sampled, replacement schools were simultaneously identified, in case a sampled school chose not to participate in PISA 2012.

In the case of Iceland, Liechtenstein, Luxembourg, Macao-China and Qatar, all schools and all eligible students within schools were included in the sample.

Experts from the PISA Consortium performed the sample selection process for most participating countries and monitored it closely in those countries that selected their own samples. The second stage of the selection process sampled students within sampled schools. Once schools were selected, a list of each sampled school's 15-year-old students was prepared. The number of selected students was different in countries and economies that did or did not participate in the financial literacy optional assessment. In countries and economies that did not take part, 35 students were then selected from this list with equal probability (all 15-year-old students were selected if fewer than 35 were enrolled). The number of students to be sampled per school could deviate from 35, but could not be less than 20. Details about countries that took part in the financial literacy optional assessment are reported later.

Data-quality standards in PISA required minimum participation rates for schools as well as for students. These standards were established to minimise the potential for response biases. In the case of countries meeting these standards, it was likely that any bias resulting from non-response would be negligible, i.e. typically smaller than the sampling error.

A minimum response rate of 85% was required for the schools initially selected. Where the initial response rate of schools was between 65 and 85%, however, an acceptable school response rate could still be achieved through the use of replacement schools. This procedure brought with it a risk of increased response bias. Participating countries were, therefore, encouraged to persuade as many of the schools in the original sample as possible to participate. Schools with a student participation rate between 25% and 50% were not regarded as participating schools, but data from these schools were included in the database and contributed to the various estimations. Data from schools with a student participation rate of less than 25% were excluded from the database.

[Part 1/1]

Table A2.2a Exclusions

		Student exclusions (unweighted)						Student exclusions (weighted)					
		Number of excluded students with functional disability (Code 1)	Number of excluded students with intellectual disability (Code 2)	Number of excluded students because of language (Code 3)	Number of excluded students for other reasons (Code 4)	Number of excluded students because of no materials available in the language of instruction (Code 5)	Total number of excluded students	Weighted number of excluded students with functional disability (Code 1)	Weighted number of excluded students with intellectual disability (Code 2)	Weighted number of excluded students because of language (Code 3)	Weighted number of excluded students for other reasons (Code 4)	Number of excluded students because of no materials available in the language of instruction (Code 5)	Total weighted number of excluded students
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD	Australia	39	395	71	0	0	505	471	3 925	886	0	0	5 282
	Austria	11	24	11	0	0	46	332	438	241	0	0	1 011
	Belgium	5	22	12	0	0	39	24	154	189	0	0	367
	Canada	82	1 593	121	0	0	1 796	981	18 682	1 350	0	0	21 013
	Chile	3	15	0	0	0	18	74	474	0	0	0	548
	Czech Republic	1	8	6	0	0	15	1	84	34	0	0	118
	Denmark	10	204	112	42	0	368	44	1 469	559	310	0	2 381
	Estonia	7	134	2	0	0	143	14	260	3	0	0	277
	Finland	5	80	101	15	24	225	43	363	166	47	35	653
	France	52	0	0	0	0	52	5 828	0	0	0	0	5 828
	Germany	0	4	4	0	0	8	0	705	597	0	0	1 302
	Greece	3	18	4	111	0	136	49	348	91	1 816	0	2 304
	Hungary	1	15	2	9	0	27	36	568	27	296	0	928
	Iceland	5	105	27	18	0	155	5	105	27	18	0	156
	Ireland	13	159	33	66	0	271	121	1 521	283	599	0	2 524
	Israel	9	91	14	0	0	114	133	1 492	260	0	0	1 884
	Italy	64	566	111	0	0	741	596	7 899	1 361	0	0	9 855
	Japan	0	0	0	0	0	0	0	0	0	0	0	0
	Luxembourg	6	261	90	0	0	357	6	261	90	0	0	357
	Mexico	21	36	1	0	0	58	812	2 390	45	0	0	3 247
	Netherlands	5	21	1	0	0	27	188	819	50	0	0	1 056
	New Zealand	27	118	99	0	11	255	235	926	813	0	57	2 030
	Norway	11	192	75	0	0	278	120	2 180	832	0	0	3 133
	Poland	23	89	6	88	6	212	1 470	5 187	177	4 644	89	11 566
	Portugal	69	48	7	0	0	124	860	605	94	0	0	1 560
	Korea	2	15	0	0	0	17	223	2 015	0	0	0	2 238
	Slovak Republic	2	14	0	13	0	29	22	135	0	89	0	246
	Slovenia	13	27	44	0	0	84	23	76	81	0	0	181
	Spain	56	679	224	0	0	959	618	11 330	2 984	0	0	14 931
	Sweden	120	0	81	0	0	201	2 218	0	1 571	0	0	3 789
	Switzerland	7	99	150	0	0	256	41	346	706	0	0	1 093
	Turkey	5	14	2	0	0	21	757	2 556	371	0	0	3 684
	United Kingdom	40	405	41	0	0	486	1 468	15 514	3 191	0	0	20 173
	United States	37	219	63	0	0	319	18 399	113 965	29 830	0	0	162 194
Partners	Albania	0	0	1	0	0	1	0	0	10	0	0	10
	Argentina	1	11	0	0	0	12	84	557	0	0	0	641
	Brazil	17	27	0	0	0	44	1 792	3 108	0	0	0	4 900
	Bulgaria	6	0	0	0	0	6	80	0	0	0	0	80
	Colombia	12	10	1	0	0	23	397	378	14	0	0	789
	Costa Rica	0	2	0	0	0	2	0	12	0	0	0	12
	Croatia	10	78	3	0	0	91	69	539	19	0	0	627
	Cyprus[1,2]	8	54	60	35	0	157	9	64	72	55	0	200
	Hong Kong-China	4	33	1	0	0	38	57	446	15	0	0	518
	Indonesia	1	0	1	0	0	2	426	0	434	0	0	860
	Jordan	8	6	5	0	0	19	109	72	122	0	0	304
	Kazakhstan	9	16	0	0	0	25	317	634	0	0	0	951
	Latvia	3	7	4	0	0	14	8	45	24	0	0	76
	Liechtenstein	1	7	5	0	0	13	1	7	5	0	0	13
	Lithuania	10	120	0	0	0	130	66	801	0	0	0	867
	Macao-China	0	1	2	0	0	3	0	1	2	0	0	3
	Malaysia	3	4	0	0	0	7	274	279	0	0	0	554
	Montenegro	3	1	0	0	0	4	7	1	0	0	0	8
	Peru	3	5	0	0	0	8	269	280	0	0	0	549
	Qatar	23	43	19	0	0	85	23	43	19	0	0	85
	Romania	0	0	0	0	0	0	0	0	0	0	0	0
	Russian Federation	25	40	4	0	0	69	4 345	6 934	660	0	0	11 940
	Serbia	4	4	2	0	0	10	53	55	28	0	0	136
	Shanghai-China	1	6	1	0	0	8	14	80	14	0	0	107
	Singapore	5	17	11	0	0	33	50	157	109	0	0	315
	Chinese Taipei	6	36	2	0	0	44	296	1 664	70	0	0	2 029
	Thailand	2	10	0	0	0	12	13	1 131	0	0	0	1 144
	Tunisia	4	1	0	0	0	5	104	26	0	0	0	130
	United Arab Emirates	3	7	1	0	0	11	26	9	2	0	0	37
	Uruguay	9	6	0	0	0	15	66	33	0	0	0	99
	Viet Nam	0	1	0	0	0	1	0	198	0	0	0	198

Exclusion codes:

Code 1 Functional disability – student has a moderate to severe permanent physical disability.

Code 2 Intellectual disability – student has a mental or emotional disability and has either been tested as cognitively delayed or is considered in the professional opinion of qualified staff to be cognitively delayed.

Code 3 Limited assessment language proficiency – student is not a native speaker of any of the languages of the assessment in the country and has been resident in the country for less than one year.

Code 4 Other reasons defined by the national centres and approved by the international centre.

Code 5 No materials available in the language of instruction.

Notes: For a full explanation of the details in this table please refer to the *PISA 2012 Technical Report* (OECD, forthcoming). Information for the adjudicated regions is available on line (Table A2.2b).

1. Footnote by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

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[Part 1/2]

Table A2.3a Response rates

		Initial sample – before school replacement					Final sample – after school replacement		
		Weighted school participation rate before replacement (%)	Weighted number of responding schools (weighted also by enrolment)	Weighted number of schools sampled (responding and non-responding) (weighted also by enrolment)	Number of responding schools (unweighted)	Number of responding and non-responding schools (unweighted)	Weighted school participation rate after replacement (%)	Weighted number of responding schools (weighted also by enrolment)	Weighted number of schools sampled (responding and non-responding) (weighted also by enrolment)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OECD	Australia	98	268 631	274 432	757	790	98	268 631	274 432
	Austria	100	88 967	88 967	191	191	100	88 967	88 967
	Belgium	84	100 482	119 019	246	294	97	115 004	119 006
	Canada	91	362 178	396 757	828	907	93	368 600	396 757
	Chile	92	220 009	239 429	200	224	99	236 576	239 370
	Czech Republic	98	87 238	88 884	292	297	100	88 447	88 797
	Denmark	87	61 749	71 015	311	366	96	67 709	70 892
	Estonia	100	12 046	12 046	206	206	100	12 046	12 046
	Finland	99	59 740	60 323	310	313	99	59 912	60 323
	France	97	703 458	728 401	223	231	97	703 458	728 401
	Germany	98	735 944	753 179	227	233	98	737 778	753 179
	Greece	93	95 107	102 087	176	192	99	100 892	102 053
	Hungary	98	99 317	101 751	198	208	99	101 187	101 751
	Iceland	99	4 395	4 424	133	140	99	4 395	4 424
	Ireland	99	56 962	57 711	182	185	99	57 316	57 711
	Israel	91	99 543	109 326	166	186	94	103 075	109 895
	Italy	89	478 317	536 921	1 104	1 232	97	522 686	536 821
	Japan	86	1 015 198	1 175 794	173	200	96	1 123 211	1 175 794
	Korea	100	661 575	662 510	156	157	100	661 575	662 510
	Luxembourg	100	5 931	5 931	42	42	100	5 931	5 931
	Mexico	92	1 323 816	1 442 242	1 431	1 562	95	1 374 615	1 442 234
	Netherlands	75	139 709	185 468	148	199	89	165 635	185 320
	New Zealand	81	47 441	58 676	156	197	89	52 360	58 616
	Norway	85	54 201	63 653	177	208	95	60 270	63 642
	Poland	85	343 344	402 116	159	188	98	393 872	402 116
	Portugal	95	122 238	128 129	186	195	96	122 713	128 050
	Slovak Republic	87	50 182	57 353	202	236	99	57 599	58 201
	Slovenia	98	18 329	18 680	335	353	98	18 329	18 680
	Spain	100	402 604	403 999	902	904	100	402 604	403 999
	Sweden	99	98 645	99 726	207	211	100	99 536	99 767
	Switzerland	94	78 825	83 450	397	422	98	82 032	83 424
	Turkey	97	921 643	945 357	165	170	100	944 807	945 357
	United Kingdom	80	564 438	705 011	477	550	89	624 499	699 839
	United States	67	2 647 253	3 945 575	139	207	77	3 040 661	3 938 077
Partners	Albania	100	49 632	49 632	204	204	100	49 632	49 632
	Argentina	95	578 723	606 069	218	229	96	580 989	606 069
	Brazil	93	2 545 863	2 745 045	803	886	95	2 622 293	2 747 688
	Bulgaria	99	57 101	57 574	186	188	100	57 464	57 574
	Colombia	87	530 553	612 605	323	363	97	596 557	612 261
	Costa Rica	99	64 235	64 920	191	193	99	64 235	64 920
	Croatia	99	45 037	45 636	161	164	100	45 608	45 636
	Cyprus[1,2]	97	9 485	9 821	117	131	97	9 485	9 821
	Hong Kong-China	79	60 277	76 589	123	156	94	72 064	76 567
	Indonesia	95	2 799 943	2 950 696	199	210	98	2 892 365	2 951 028
	Jordan	100	119 147	119 147	233	233	100	119 147	119 147
	Kazakhstan	100	239 767	239 767	218	218	100	239 767	239 767
	Latvia	88	15 371	17 488	186	213	100	17 428	17 448
	Liechtenstein	100	382	382	12	12	100	382	382
	Lithuania	98	33 989	34 614	211	216	100	34 604	34 604
	Macao-China	100	5 410	5 410	45	45	100	5 410	5 410
	Malaysia	100	455 543	455 543	164	164	100	455 543	455 543
	Montenegro	100	8 540	8 540	51	51	100	8 540	8 540
	Peru	98	503 915	514 574	238	243	99	507 602	514 574
	Qatar	100	11 333	11 340	157	164	100	11 333	11 340
	Romania	100	139 597	139 597	178	178	100	139 597	139 597
	Russian Federation	100	1 243 564	1 243 564	227	227	100	1 243 564	1 243 564
	Serbia	90	65 537	72 819	143	160	95	69 433	72 752
	Shanghai-China	100	89 832	89 832	155	155	100	89 832	89 832
	Singapore	98	50 415	51 687	170	176	98	50 945	51 896
	Chinese Taipei	100	324 667	324 667	163	163	100	324 667	324 667
	Thailand	98	757 516	772 654	235	240	100	772 452	772 654
	Tunisia	99	129 229	130 141	152	153	99	129 229	130 141
	United Arab Emirates	99	46 469	46 748	453	460	99	46 469	46 748
	Uruguay	99	45 736	46 009	179	180	100	46 009	46 009
	Viet Nam	100	1 068 462	1 068 462	162	162	100	1 068 462	1 068 462

Note: Information for the adjudicated regions is available on line (Table A2.3b).

1. Footnote by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

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[Part 2/2]

Table A2.3a Response rates

		Final sample – after school replacement		Final sample – students within schools after school replacement				
		Number of responding schools (unweighted)	Number of responding and non-responding schools (unweighted)	Weighted student participation rate after replacement (%)	Number of students assessed (weighted)	Number of students sampled (assessed and absent) (weighted)	Number of students assessed (unweighted)	Number of students sampled (assessed and absent) (unweighted)
		(9)	(10)	(11)	(12)	(13)	(14)	(15)
OECD	Australia	757	790	87	213 495	246 012	17 491	20 799
	Austria	191	191	92	75 393	82 242	4 756	5 318
	Belgium	282	294	91	103 914	114 360	9 649	10 595
	Canada	840	907	81	261 928	324 328	20 994	25 835
	Chile	221	224	95	214 558	226 689	6 857	7 246
	Czech Republic	295	297	90	73 536	81 642	6 528	7 222
	Denmark	339	366	89	56 096	62 988	7 463	8 496
	Estonia	206	206	93	10 807	11 634	5 867	6 316
	Finland	311	313	91	54 126	59 653	8 829	9 789
	France	223	231	89	605 371	676 730	5 641	6 308
	Germany	228	233	93	692 226	742 416	4 990	5 355
	Greece	188	192	97	92 444	95 580	5 125	5 301
	Hungary	204	208	93	84 032	90 652	4 810	5 184
	Iceland	133	140	85	3 503	4 135	3 503	4 135
	Ireland	183	185	84	45 115	53 644	5 016	5 977
	Israel	172	186	90	91 181	101 288	6 061	6 727
	Italy	1 186	1 232	93	473 104	510 005	38 084	41 003
	Japan	191	200	96	1 034 803	1 076 786	6 351	6 609
	Korea	156	157	99	595 461	603 004	5 033	5 101
	Luxembourg	42	42	95	5 260	5 523	5 260	5 523
	Mexico	1 468	1 562	94	1 193 866	1 271 639	33 786	35 972
	Netherlands	177	199	85	148 432	174 697	4 434	5 215
	New Zealand	177	197	85	40 397	47 703	5 248	6 206
	Norway	197	208	91	51 155	56 286	4 686	5 156
	Poland	182	188	88	325 389	371 434	5 629	6 452
	Portugal	187	195	87	80 719	92 395	5 608	6 426
	Slovak Republic	231	236	94	50 544	53 912	5 737	6 106
	Slovenia	335	353	90	16 146	17 849	7 211	7 921
	Spain	902	904	90	334 382	372 042	26 443	29 027
	Sweden	209	211	92	87 359	94 784	4 739	5 141
	Switzerland	410	422	92	72 116	78 424	11 218	12 138
	Turkey	169	170	98	850 830	866 269	4 847	4 939
	United Kingdom	505	550	86	528 231	613 736	12 638	14 649
	United States	161	207	89	2 429 718	2 734 268	6 094	6 848
Partners	Albania	204	204	92	39 275	42 466	4 743	5 102
	Argentina	219	229	88	457 294	519 733	5 804	6 680
	Brazil	837	886	90	2 133 035	2 368 438	19 877	22 326
	Bulgaria	187	188	96	51 819	54 145	5 280	5 508
	Colombia	352	363	93	507 178	544 862	11 164	12 045
	Costa Rica	191	193	89	35 525	39 930	4 582	5 187
	Croatia	163	164	92	41 912	45 473	6 153	6 675
	Cyprus[1,2]	117	131	93	8 719	9 344	5 078	5 458
	Hong Kong-China	147	156	93	62 059	66 665	4 659	5 004
	Indonesia	206	210	95	2 478 961	2 605 254	5 579	5 885
	Jordan	233	233	95	105 493	111 098	7 038	7 402
	Kazakhstan	218	218	99	206 053	208 411	5 808	5 874
	Latvia	211	213	91	14 579	16 039	5 276	5 785
	Liechtenstein	12	12	93	293	314	293	314
	Lithuania	216	216	92	30 429	33 042	4 618	5 018
	Macao-China	45	45	99	5 335	5 366	5 335	5 366
	Malaysia	164	164	94	405 983	432 080	5 197	5 529
	Montenegro	51	51	94	7 233	7 714	4 799	5 117
	Peru	240	243	96	398 193	414 728	6 035	6 291
	Qatar	157	164	100	10 966	10 996	10 966	10 996
	Romania	178	178	98	137 860	140 915	5 074	5 188
	Russian Federation	227	227	97	1 141 317	1 172 539	6 418	6 602
	Serbia	152	160	93	60 366	64 658	4 681	5 017
	Shanghai-China	155	155	98	83 821	85 127	6 374	6 467
	Singapore	172	176	94	47 465	50 330	5 546	5 887
	Chinese Taipei	163	163	96	281 799	292 542	6 046	6 279
	Thailand	239	240	99	695 088	702 818	6 606	6 681
	Tunisia	152	153	90	108 342	119 917	4 391	4 857
	United Arab Emirates	453	460	95	38 228	40 384	11 460	12 148
	Uruguay	180	180	90	35 800	39 771	5 315	5 904
	Viet Nam	162	162	100	955 222	956 517	4 959	4 966

Note: Information for the adjudicated regions is available on line (Table A2.3b).

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PISA 2012 also required a minimum participation rate of 80% of students within participating schools. This minimum participation rate had to be met at the national level, not necessarily by each participating school. Follow-up sessions were required in schools in which too few students had participated in the original assessment sessions. Student participation rates were calculated over all original schools, and also over all schools, whether original sample or replacement schools, and from the participation of students in both the original assessment and any follow-up sessions. A student who participated in the original or follow-up cognitive sessions was regarded as a participant. Those who attended only the questionnaire session were included in the international database and contributed to the statistics presented in this publication if they provided at least a description of their father's or mother's occupation.

Table A2.3 shows the response rates for students and schools, before and after replacement.

- ***Column 1*** shows the weighted participation rate of schools before replacement. This is obtained by dividing Column 2 by Column 3.
- ***Column 2*** shows the weighted number of responding schools before school replacement (weighted by student enrolment).
- ***Column 3*** shows the *weighted number of sampled schools before school replacement* (including both responding and non-responding schools, weighted by student enrolment).
- ***Column 4*** shows the unweighted number of responding schools before school replacement.
- ***Column 5*** shows the unweighted number of responding and non-responding schools before school replacement.
- ***Column 6*** shows the *weighted participation rate of schools after replacement*. This is obtained by dividing Column 7 by Column 8.
- ***Column 7*** shows the weighted number of responding schools after school replacement (weighted by student enrolment).
- ***Column 8*** shows the *weighted number of schools sampled after school replacement* (including both responding and non-responding schools, weighted by student enrolment).
- ***Column 9*** shows the unweighted number of responding schools after school replacement.
- ***Column 10*** shows the unweighted number of responding and non-responding schools after school replacement.
- ***Column 11*** shows the *weighted student participation rate after replacement*. This is obtained by dividing Column 12 by Column 13.
- ***Column 12*** shows the weighted number of students assessed.
- ***Column 13*** shows the *weighted number of students sampled* (including both students who were assessed and students who were absent on the day of the assessment).
- ***Column 14*** shows the *unweighted number of students assessed.* Note that any students in schools with student-response rates less than 50% were not included in these rates (both weighted and unweighted).
- ***Column 15*** shows the *unweighted number of students sampled* (including both students that were assessed and students who were absent on the day of the assessment). Note that any students in schools where fewer than half of the eligible students were assessed were not included in these rates (neither weighted nor unweighted).

Sample for the financial literacy option

Out of the 65 countries and economies that participated in PISA 2012, 18 also implemented the optional (paper-based) financial literacy assessment. Within these countries and economies, sampled schools selected with equal probability 43 students (instead of 35 in sampled schools in countries that did not participate in the financial literacy option) with the same procedure as described above. Of these 43 students, 35 were given the core assessment, and the remaining 8 were administered the financial literacy assessment.

Table A2.4 reports data about the final sample for financial literacy.

- ***Column 1*** shows the unweighted number of participating schools;
- ***Column 2*** shows the unweighted number of participating students;
- ***Column 3*** shows the *weighted number of participating students,* i.e. the number of students in the nationally defined target population that the PISA financial literacy sample represents.

Definition of schools

In some countries, sub-units within schools were sampled instead of schools and this may affect the estimation of the between-school variance components. In Austria, the Czech Republic, Germany, Hungary, Japan, Romania and Slovenia, schools with more than one study programme were split into the units delivering these programmes. In the Netherlands, for schools with both lower and upper secondary programmes, schools were split into units delivering each programme level. In the Flemish Community of Belgium, in the case of multi-campus schools, implantations (campuses) were sampled, whereas in the French Community, in the case of multi-campus schools, the larger administrative units were sampled. In Australia, for schools with more than one campus, the individual campuses were listed for sampling. In Argentina, Croatia and Dubai (United Arab Emirates), schools that had more than one campus had the locations listed for sampling. In Spain, the schools in the Basque region with multi-linguistic models were split into linguistic models for sampling.

[Part 1/1]

Table A2.4a Sample size for financial literacy

		Financial literacy assessment		
		Number of participating schools (unweighted)	Number of participating students (unweighted)	Weighted number of participating students
		(1)	(2)	(3)
OECD	Australia	768	3 293	251 074
	Austria	0	0	0
	Flemish Community (Belgium)	161	1 093	65 113
	Canada	0	0	0
	Chile	0	0	0
	Czech Republic	288	1 207	81 263
	Denmark	0	0	0
	Estonia	200	1 088	11 666
	Finland	0	0	0
	France	225	1 068	707 723
	Germany	0	0	0
	Greece	0	0	0
	Hungary	0	0	0
	Iceland	0	0	0
	Ireland	0	0	0
	Israel	153	1 006	95 320
	Italy	1 158	7 068	520 888
	Japan	0	0	0
	Korea	0	0	0
	Luxembourg	0	0	0
	Mexico	0	0	0
	Netherlands	0	0	0
	New Zealand	176	957	52 498
	Norway	0	0	0
	Poland	177	1 054	377 884
	Portugal	0	0	0
	Slovak Republic	224	1 055	53 592
	Slovenia	307	1 312	17 697
	Spain	179	1 108	366 860
	Sweden	0	0	0
	Switzerland	0	0	0
	Turkey	0	0	0
	United Kingdom	0	0	0
	United States	158	1 133	3 524 645
Partners	Albania	0	0	0
	Argentina	0	0	0
	Brazil	0	0	0
	Bulgaria	0	0	0
	Colombia	346	2 100	565 754
	Costa Rica	0	0	0
	Croatia	163	1 145	45 485
	Cyprus	0	0	0
	Hong Kong-China	0	0	0
	Indonesia	0	0	0
	Jordan	0	0	0
	Kazakhstan	0	0	0
	Latvia	203	970	15 699
	Liechtenstein	0	0	0
	Lithuania	0	0	0
	Macao-China	0	0	0
	Malaysia	0	0	0
	Montenegro	0	0	0
	Peru	0	0	0
	Qatar	0	0	0
	Romania	0	0	0
	Russian Federation	219	1 187	1 162 454
	Serbia	0	0	0
	Shanghai-China	155	1 197	85 838
	Singapore	0	0	0
	Chinese Taipei	0	0	0
	Thailand	0	0	0
	Tunisia	0	0	0
	United Arab Emirates	0	0	0
	Uruguay	0	0	0
	Viet Nam	0	0	0

Note: Information for the adjudicated regions is available on line (Table A2.4b).

1. Footnote by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

2. Footnote by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

StatLink http://dx.doi.org/10.1787/888933095039

Reference

OECD (forthcoming), *PISA 2012 Technical Report*, OECD Publishing, Paris.

ANNEX A3
TECHNICAL NOTES ON ANALYSES IN THIS VOLUME

Methods and definitions

Relative performance in financial literacy

Relative performance in financial literacy is defined as the difference between a student's actual performance in financial literacy and his or her expected performance, based on performance in other domains:

$$RP_i^{fl} = y_i^{fl} - E(y_i^{fl} \mid y_i^{mr})$$

where y_i^{fl} represents student *i*'s performance in financial literacy, and y_i^{mr} is a vector of student *i*'s performance in other domains (such as mathematics and reading).

A student's (conditionally) expected performance is estimated using regression models; relative performance is therefore based on residuals from regression models. All analyses of relative performance in this volume derive residuals from parametric regression models which allow for curvilinear shapes and, when more than one domain enters the conditioning arguments, for interaction terms (second- or third-degree polynomials). However, different regression methods can be used, including non-parametric ones. Figure VI.2.12, for instance, graphically displays a non-parametric regression of financial literacy performance on mathematics performance.

Effect sizes

An effect size is a measure of the strength of the relationship between two variables. The term effect size is commonly used to refer to standardised differences. Standardising a difference is useful when a metric has no intrinsic meaning – as is the case with PISA performance scales or scale indices. Indeed, a standardised difference allows comparisons of the strength of between-group differences across measures that vary in their metric.

A standardised difference is obtained by dividing the raw difference between two groups, such as boys and girls, by a measure of the variation in the underlying data. In this Volume, the pooled standard deviation was used to standardise differences. The effect size between two subgroups is thus calculated as:

$$\frac{m_1 - m_2}{\sqrt{\sigma_{1,2}^2}}$$

where m_1 and m_2, respectively, represent the mean values for the subgroups 1 and 2 $\sigma_{1,2}^2$ represents the variance for the population pooling subgroups 1 and 2.

Statistics based on multilevel models

Statistics based on multilevel models include variance components (between- and within-school variance), the *index of inclusion* derived from these components, and regression coefficients where this has been indicated. Multilevel models are generally specified as two-level regression models (the student and school levels), with normally distributed residuals, and estimated with maximum likelihood estimation. Where the dependent variable is financial literacy performance, the estimation uses five plausible values for each student's performance on the financial literacy scale. Models were estimated using Mplus® software.

In multilevel models, weights are used at both the student and school levels. The purpose of these weights is to account for differences in the probabilities of students being selected in the sample. Since PISA applies a two-stage sampling procedure, these differences are due to factors at both the school and the student levels. For the multilevel models, student final weights (W_FSTUWT) were used. Within-school-weights correspond to student final weights, rescaled to sum up within each school to the school sample size. Between-school weights correspond to the sum of student final weights (W_FSTUWT) within each school. The definition of between-school weights has changed with respect to PISA 2009.

The index of inclusion is defined and estimated as:

$$100 * \frac{\sigma_w^2}{\sigma_w^2 + \sigma_b^2}$$

where σ_w^2 and σ_b^2, respectively, represent the within- and between-variance estimates.

The results in multilevel models, and the between-school variance estimate in particular, depend on how schools are defined and organised within countries and by the units that were chosen for sampling purposes. For example, in some countries, some of the schools in the PISA sample were defined as administrative units (even if they spanned several geographically separate institutions, as in Italy); in others they were defined as those parts of larger educational institutions that serve 15-year-olds; in still others they were defined as physical school buildings; and in others they were defined from a management perspective (e.g. entities having a principal). The *PISA 2012 Technical Report* (OECD, forthcoming) and Annex A2 provide an overview of how schools were defined. In Slovenia, the primary sampling unit is defined as a group of students who follow the same study programme within a school (an educational track within a school). So in this particular case the between-school variation is actually the within-school, between-track difference. The use of stratification variables in the selection of schools may also affect the estimate of the between-school variation, particularly if stratification variables are associated with between-school differences.

Because of the manner in which students were sampled, the within-school variation includes variation between classes as well as between students.

Range of ranks

To calculate the range of ranks for countries and economies (participants), data are simulated using the mean and standard error of the mean for each relevant participant to generate a distribution of possible values. Some 10 000 simulations are implemented and, based on these values, 10 000 possible rankings for each participant are produced. For each participant, the counts for each rank are aggregated from largest to smallest until they equal 9 500 or more. Then the range of ranks per participant is reported, including all the ranks that have been aggregated. This means that there is at least 95% confidence about the range of ranks, and it is safe to assume unimodality in this distribution of ranks. This method has been used in all cycles of PISA since 2003, including PISA 2012.

The main difference between the range of ranks (see Figure VI.2.3 in Chapter 2) and the comparison of participants' mean performance (see Figure VI.2.2) is that the former takes into account the asymmetry of the distribution of rank estimates, while the latter does not. Therefore, sometimes there is a slight difference between the range of ranks and counting the number of participants above a given participant, based on pairwise comparisons of the selected participants' performance. For instance, Estonia and Australia do not have statistically significantly different mean scores and share the same set of participants whose mean score is not statistically different from theirs (Figure VI.2.2). However, the rank for Estonia can be restricted to be, with 95% confidence, between 3rd and 4th, while the range of ranks for Australia is between 3rd and 5th (Figure VI.2.3). Since it is safe to assume that the distribution of rank estimates for each country has a single mode (unimodality), the results of range of ranks for participants should be used when examining their rankings.

Standard errors and significance tests

The statistics in this report represent estimates of national performance based on samples of students, rather than values that could be calculated if every student in every country had answered every question. Consequently, it is important to measure the degree of uncertainty of the estimates. In PISA, each estimate has an associated degree of uncertainty, which is expressed through a standard error. The use of confidence intervals provides a way to make inferences about the population means and proportions in a manner that reflects the uncertainty associated with the sample estimates. From an observed sample statistic and assuming a normal distribution, it can be inferred that the corresponding population result would lie within the confidence interval in 95 out of 100 replications of the measurement on different samples drawn from the same population.

In many cases, readers are primarily interested in whether a given value in a particular country is different from a second value in the same or another country, e.g. whether girls in a country perform better than boys in the same country. In the tables and charts used in this report, differences are labelled as statistically significant when a difference of that size, smaller or larger, would be observed less than 5% of the time, if there was actually no difference in corresponding population values. Similarly, the risk of reporting a correlation as significant if there is, in fact, no correlation between two measures, is contained at 5%.

Throughout the report, significance tests were undertaken to assess the statistical significance of the comparisons made.

Gender differences and differences between subgroup means

Gender differences in student performance or other indices were tested for statistical significance. Positive differences indicate higher scores for boys while negative differences indicate higher scores for girls. Generally, differences marked in bold in the tables in this volume are statistically significant at the 95% confidence level.

Similarly, differences between other groups of students (e.g. native students and students with an immigrant background) were tested for statistical significance. The definitions of the subgroups can in general be found in the tables and the text accompanying the analysis. All differences marked in bold in the tables presented in Annex B of this report are statistically significant at the 95% level.

Differences between subgroup means, after accounting for other variables

For many tables, subgroup comparisons were performed both on the observed difference ("before accounting for other variables") and after accounting for other variables, such as the *PISA index of economic, social and cultural status of students* (ESCS). The adjusted differences were estimated using linear regression and tested for significance at the 95% confidence level. Significant differences are marked in bold.

Performance differences between the top and bottom quartiles of PISA indices and scales

Differences in average performance between the top and bottom quarters of the PISA indices and scales were tested for statistical significance. Figures marked in bold indicate that performance between the top and bottom quarters of students on the respective index is statistically significantly different at the 95% confidence level.

Change in the performance per unit of the index

For many tables, the difference in student performance per unit of the index shown was calculated. Figures in bold indicate that the differences are statistically significantly different from zero at the 95% confidence level.

Missing responses to questions about the provision of financial education in school and money management

In some countries and economies responses to specific questions contain substantial shares of missing values (item non response). This is the case for some variables about the provision of financial education in school (Chapter 1), and about money management experiences and behaviour (Chapters 3 and 4). For each question and for each country and economy, percentages and mean performance are reported only when the share of valid observations available is sufficiently large. For each variable and country/economy, results are omitted when the response is missing for at least 15% of students in a country.

When analyses are performed by population subgroups (i.e. by gender or quartiles of socio-economic status), results are also omitted when the share of missing values within a given subpopulation is larger or equal to 15% (e.g., in analyses by gender, results are not reported if the share of missing values among boys and/or girls is larger or equal to 15%, even if the share of missing values is less than 15% for the whole population).

Table A3.1 reports the share of missing values for the relevant questions about the provision of financial education in school in the school questionnaire. Table A3.2 reports the share of missing values for the relevant questions in the money management questionnaire.

[Part 1/2]

Table A3.1 Percentage of missing values to questions about the provision of financial education in school

Results based on school principals' reports

		Percentage of students according to the availability of financial education in the their school		Percentage of students according to the number of hours during which financial education is taught as…									
				…a separate subject		…a cross-curricular subject		…part of business or economics course		…part of mathematics		…part of humanities subjects	
		Missing		Missing		Missing		Missing		Missing		Missing	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	1.06	(0.4)	0.79	(0.4)	0.53	(0.3)	0.37	(0.2)	0.49	(0.2)	0.68	(0.3)
	Flemish Community (Belgium)	5.43	(1.6)	8.54	(2.1)	8.18	(2.1)	6.25	(1.8)	9.08	(2.3)	6.27	(1.8)
	Czech Republic	3.88	(1.5)	3.67	(1.5)	4.28	(1.6)	5.89	(1.9)	4.28	(1.6)	4.49	(1.6)
	Estonia	0.79	(0.6)	4.34	(1.5)	4.34	(1.5)	4.34	(1.5)	3.69	(1.4)	4.34	(1.5)
	France	2.29	(1.0)	8.57	(1.9)	8.96	(2.0)	10.25	(1.9)	10.35	(2.0)	10.40	(2.0)
	Israel	0.76	(0.8)	4.48	(1.1)	4.48	(1.1)	4.48	(1.1)	4.48	(1.1)	4.48	(1.1)
	Italy	3.92	(0.9)	10.67	(1.2)	13.78	(1.8)	10.67	(1.1)	10.70	(1.1)	10.21	(1.1)
	New Zealand	0.57	(0.2)	5.90	(2.4)	5.88	(2.3)	1.33	(1.0)	4.83	(2.1)	2.67	(1.2)
	Poland	1.86	(1.3)	7.21	(2.2)	8.13	(2.2)	7.23	(2.2)	7.22	(2.2)	5.74	(2.0)
	Slovak Republic	0.24	(0.2)	0.93	(0.6)	3.63	(1.2)	0.96	(0.6)	1.27	(0.8)	0.89	(0.7)
	Slovenia	0.40	(0.2)	0.73	(0.2)	0.73	(0.2)	0.73	(0.2)	0.73	(0.2)	0.73	(0.2)
	Spain	1.22	(0.9)	8.54	(2.1)	9.42	(2.2)	8.66	(2.1)	10.95	(2.4)	9.90	(2.4)
	United States	0.81	(0.6)	3.85	(1.9)	4.34	(2.0)	4.46	(2.0)	5.10	(2.2)	4.10	(1.9)
Partners	Colombia	3.91	(1.1)	7.95	(2.0)	7.67	(1.9)	8.63	(2.0)	8.74	(2.0)	8.49	(2.0)
	Croatia	2.81	(1.4)	1.40	(1.0)	2.04	(1.2)	2.01	(1.2)	2.65	(1.4)	2.28	(1.2)
	Latvia	4.97	(1.5)	4.81	(1.4)	5.94	(1.5)	7.18	(1.8)	4.52	(1.3)	3.37	(1.0)
	Russian Federation	0.74	(0.4)	2.30	(0.7)	2.40	(1.0)	1.35	(0.7)	1.72	(0.8)	0.92	(0.6)
	Shanghai-China	0.00	c	1.39	(0.9)	1.95	(1.0)	1.95	(1.0)	2.53	(1.2)	1.95	(1.0)

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[Part 2/2]

Table A3.1 Percentage of missing values to questions about the provision of financial education in school

Results based on school principals' reports

		Percentage of students who attend schools where financial education is provided by…								Percentage of students in schools where teachers attended or not a programme of professional development with a focus on financial education in the last twelve months			
		…teachers		…people from the private sector		…people from the public sector		…people from NGOs		Staff who teach financial education		All other teaching staff	
		Missing		Missing		Missing		Missing		Missing		Missing	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	0.41	(0.2)	0.92	(0.4)	0.95	(0.4)	0.92	(0.4)	1.47	(0.5)	1.47	(0.5)
	Flemish Community (Belgium)	5.86	(1.5)	4.93	(1.3)	5.79	(1.5)	6.50	(1.7)	9.62	(2.4)	9.80	(2.4)
	Czech Republic	2.79	(1.3)	4.71	(1.6)	3.87	(1.5)	2.79	(1.3)	3.43	(1.4)	2.84	(1.3)
	Estonia	3.85	(1.5)	4.13	(1.5)	4.13	(1.5)	4.13	(1.5)	3.63	(1.4)	4.40	(1.6)
	France	9.75	(2.1)	10.26	(2.1)	10.26	(2.1)	10.26	(2.1)	15.27	(2.4)	16.71	(2.3)
	Israel	5.79	(1.5)	5.79	(1.5)	5.79	(1.5)	5.79	(1.5)	3.33	(1.5)	3.33	(1.5)
	Italy	9.97	(1.2)	a	a	a	a	19.26	(1.5)	13.42	(1.3)	18.63	(1.6)
	New Zealand	1.21	(0.8)	4.37	(1.9)	4.20	(1.7)	4.62	(1.7)	1.57	(0.9)	4.33	(1.2)
	Poland	5.81	(2.0)	7.79	(2.3)	7.79	(2.3)	7.79	(2.3)	5.23	(1.9)	7.90	(2.1)
	Slovak Republic	0.91	(0.6)	3.73	(1.8)	5.26	(2.1)	4.86	(2.0)	2.05	(0.9)	2.45	(1.0)
	Slovenia	2.85	(0.6)	1.67	(0.4)	1.67	(0.4)	1.67	(0.4)	2.07	(0.4)	2.75	(0.6)
	Spain	8.23	(2.0)	15.14	(2.7)	15.14	(2.7)	15.14	(2.7)	8.87	(2.3)	12.71	(2.7)
	United States	0.99	(0.7)	5.72	(1.9)	5.72	(1.9)	5.72	(1.9)	2.84	(1.4)	5.23	(1.8)
Partners	Colombia	9.02	(2.6)	11.54	(2.3)	10.39	(2.2)	13.91	(2.5)	9.30	(2.1)	13.01	(2.6)
	Croatia	3.62	(1.5)	4.52	(1.6)	3.93	(1.5)	4.52	(1.6)	3.38	(1.5)	4.62	(1.6)
	Latvia	3.56	(1.1)	8.40	(1.9)	8.40	(1.9)	8.40	(1.9)	7.16	(1.6)	8.04	(1.6)
	Russian Federation	1.51	(0.7)	2.68	(1.0)	2.51	(1.1)	2.68	(1.0)	3.63	(1.3)	4.38	(1.4)
	Shanghai-China	1.96	(1.0)	3.84	(1.5)	3.84	(1.5)	3.84	(1.5)	4.08	(1.5)	14.95	(2.8)

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[Part 1/2]

Percentage of missing values to money management questions

Table A3.2 *Results based on students' self-reports*

		Holding a bank account		Holding a prepaid debit card		Discussing money matters with parents		Discussing money matters with friends		Receive money from an allowance or pocket money for regularly doing chores at home		Receive money from an allowance or pocket money, without having to do any chores	
		Missing		Missing		Missing		Missing		Missing		Missing	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	10.0	(0.9)	15.3	(1.1)	9.88	(0.9)	11.51	(1.0)	10.3	(1.0)	11.7	(1.0)
	Flemish Community (Belgium)	5.7	(1.1)	8.9	(1.5)	5.43	(1.0)	5.60	(1.0)	10.7	(1.6)	7.6	(1.4)
	Czech Republic	8.9	(1.7)	9.9	(1.8)	9.78	(1.5)	12.61	(2.0)	9.1	(1.6)	9.9	(1.6)
	Estonia	5.5	(1.1)	10.0	(1.4)	5.85	(1.1)	6.62	(1.1)	10.2	(1.2)	8.6	(1.2)
	France	10.1	(1.4)	12.4	(1.4)	10.90	(1.6)	12.79	(1.6)	9.0	(1.3)	8.8	(1.3)
	Israel	4.1	(1.0)	6.4	(1.4)	3.25	(1.0)	4.51	(1.2)	4.2	(0.9)	4.3	(1.1)
	Italy	11.1	(0.6)	11.8	(0.8)	9.49	(0.8)	10.08	(0.8)	11.6	(0.8)	12.5	(0.8)
	New Zealand	9.1	(1.4)	18.0	(1.9)	9.02	(1.6)	10.30	(1.6)	10.1	(1.4)	11.1	(1.5)
	Poland	10.3	(1.3)	11.8	(1.4)	10.42	(1.5)	11.31	(1.4)	13.6	(1.6)	14.1	(1.8)
	Slovak Republic	12.4	(1.7)	13.0	(1.8)	12.09	(1.6)	16.94	(1.9)	11.5	(1.5)	12.4	(1.7)
	Slovenia	6.8	(1.3)	13.0	(1.6)	4.33	(1.0)	5.18	(0.9)	6.1	(1.2)	6.2	(1.2)
	Spain	11.2	(1.5)	17.1	(1.5)	12.79	(1.5)	15.47	(1.7)	11.9	(1.4)	12.4	(1.5)
	United States	4.1	(1.0)	9.5	(1.6)	5.43	(1.3)	7.10	(1.4)	3.7	(0.9)	4.6	(1.0)
Partners	Colombia	19.0	(2.4)	22.1	(2.5)	20.22	(2.4)	26.23	(2.2)	20.5	(2.4)	19.8	(2.5)
	Croatia	7.1	(1.0)	6.8	(1.1)	4.80	(1.0)	6.85	(1.2)	3.9	(0.9)	3.4	(0.8)
	Latvia	9.4	(1.4)	14.1	(1.9)	6.50	(1.3)	10.07	(1.5)	8.8	(1.4)	10.4	(1.6)
	Russian Federation	16.0	(1.7)	12.2	(1.5)	13.88	(2.1)	16.39	(2.3)	10.5	(1.5)	9.7	(1.3)
	Shanghai-China	1.2	(0.4)	3.2	(0.8)	1.76	(0.6)	1.80	(0.5)	1.7	(0.5)	2.1	(0.6)

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[Part 2/2]

Percentage of missing values to money management questions

Table A3.2 *Results based on students' self-reports*

		Receive money from working outside school hours (e.g. a holiday job, part-time work)		Receive money from working in a family business		Receive money from occasional informal jobs (e.g. baby-sitting or gardening)		Receive gifts of money from friends or relatives		Receive money from selling things (e.g. at local markets or on eBay)		Spending behaviour		Saving behaviour	
		Missing		Missing		Missing		Missing		Missing		Missing		Missing	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	11.1	(1.0)	12.4	(1.0)	11.2	(1.0)	10.3	(1.0)	12.1	(1.0)	15.0	(1.0)	18.2	(1.1)
	Flemish Community (Belgium)	9.3	(1.6)	10.9	(1.7)	9.9	(1.7)	6.9	(1.2)	10.9	(1.5)	13.1	(1.4)	18.4	(1.9)
	Czech Republic	10.6	(1.7)	11.9	(1.8)	10.5	(1.7)	8.8	(1.6)	11.4	(1.8)	12.5	(1.9)	18.5	(2.4)
	Estonia	9.5	(1.4)	12.0	(1.4)	9.4	(1.1)	7.9	(1.1)	11.5	(1.3)	15.3	(1.8)	22.1	(2.0)
	France	10.2	(1.4)	10.1	(1.3)	9.3	(1.3)	8.6	(1.3)	9.2	(1.3)	19.7	(2.1)	20.2	(1.6)
	Israel	3.5	(0.9)	4.0	(0.9)	3.5	(0.9)	4.4	(1.1)	3.9	(1.0)	10.6	(1.5)	24.1	(1.9)
	Italy	13.6	(0.8)	13.9	(0.8)	13.9	(0.8)	12.1	(0.8)	13.8	(0.9)	14.7	(1.0)	21.6	(1.0)
	New Zealand	10.3	(1.4)	10.7	(1.5)	9.8	(1.4)	9.5	(1.3)	9.5	(1.4)	18.0	(1.7)	21.5	(2.1)
	Poland	16.1	(1.6)	17.1	(1.8)	17.5	(1.7)	13.7	(1.6)	17.0	(1.8)	10.7	(1.5)	20.8	(2.1)
	Slovak Republic	12.4	(1.7)	13.5	(1.9)	14.4	(1.8)	11.6	(1.7)	13.3	(1.9)	15.8	(1.9)	22.3	(2.5)
	Slovenia	6.6	(1.2)	6.7	(1.2)	6.7	(1.2)	6.4	(1.3)	7.0	(1.2)	14.9	(1.6)	20.0	(1.9)
	Spain	13.4	(1.5)	12.8	(1.5)	12.6	(1.5)	10.6	(1.5)	13.1	(1.4)	14.5	(1.5)	16.1	(1.6)
	United States	4.8	(1.0)	4.7	(1.0)	4.4	(1.0)	3.4	(0.8)	5.0	(0.9)	15.1	(1.8)	23.4	(1.8)
Partners	Colombia	20.4	(2.5)	21.2	(2.5)	22.9	(2.5)	20.9	(2.4)	22.5	(2.5)	22.2	(2.0)	35.4	(2.4)
	Croatia	4.6	(1.0)	4.8	(1.0)	5.4	(1.1)	3.7	(0.9)	4.7	(1.0)	12.6	(1.5)	27.2	(1.7)
	Latvia	12.7	(1.8)	12.8	(1.9)	10.2	(1.5)	7.8	(1.4)	12.4	(1.8)	18.2	(2.0)	31.2	(2.3)
	Russian Federation	11.2	(1.5)	12.1	(1.6)	12.1	(1.5)	10.0	(1.4)	11.4	(1.5)	17.0	(2.4)	26.8	(2.1)
	Shanghai-China	3.0	(0.8)	3.3	(0.8)	3.2	(0.8)	2.0	(0.6)	3.2	(0.8)	3.5	(0.7)	4.5	(0.8)

StatLink http://dx.doi.org/10.1787/888933095058

Reference

OECD (forthcoming), *PISA 2012 Technical Report*, OECD Publishing, Paris.

ANNEX A4
QUALITY ASSURANCE

Quality assurance procedures were implemented in all parts of PISA 2012, as was done for all previous PISA surveys.

The consistent quality and linguistic equivalence of the PISA 2012 assessment instruments were facilitated by providing countries with precise translation and adaptation guidelines, also including instructions for selecting and training the translators. For each country, the translation and format of the assessment instruments (including test materials, marking guides, questionnaires and manuals) were verified by expert translators appointed by the PISA Consortium before they were used in the PISA 2012 field trial and main study. These translators' mother tongue was the language of instruction in the country concerned and they were knowledgeable about education systems. For further information on the PISA translation procedures, see the *PISA 2012 Technical Report* (OECD, forthcoming).

The survey was implemented through standardised procedures. The PISA Consortium provided comprehensive manuals that explained the implementation of the survey, including precise instructions for the work of School Co-ordinators and scripts for Test Administrators to use during the assessment sessions. Proposed adaptations to survey procedures, or proposed modifications to the assessment session script, were submitted to the PISA Consortium for approval prior to verification. The PISA Consortium then verified the national translation and adaptation of these manuals.

To establish the credibility of PISA as valid and unbiased and to encourage uniformity in administering the assessment sessions, Test Administrators in participating countries were selected using the following criteria: it was required that the Test Administrator not be the mathematics, reading or science instructor of any students in the sessions he or she would administer for PISA; it was recommended that the Test Administrator not be a member of the staff of any school where he or she would administer for PISA; and it was considered preferable that the Test Administrator not be a member of the staff of any school in the PISA sample. Participating countries organised an in-person training session for Test Administrators.

Participating countries and economies were required to ensure that: Test Administrators worked with the School Co-ordinator to prepare the assessment session, including updating student tracking forms and identifying excluded students; no extra time was given for the cognitive items (while it was permissible to give extra time for the student questionnaire); no instrument was administered before the two one-hour parts of the cognitive session; Test Administrators recorded the student participation status on the student tracking forms and filled in a Session Report Form; no cognitive instrument was permitted to be photocopied; no cognitive instrument could be viewed by school staff before the assessment session; and Test Administrators returned the material to the national centre immediately after the assessment sessions.

National Project Managers were encouraged to organise a follow-up session when more than 15% of the PISA sample was not able to attend the original assessment session.

National Quality Monitors from the PISA Consortium visited all national centres to review data-collection procedures. Finally, School Quality Monitors from the PISA Consortium visited a sample of seven schools during the assessment. For further information on the field operations, see the *PISA 2012 Technical Report* (OECD, forthcoming).

Marking procedures were designed to ensure consistent and accurate application of the marking guides outlined in the PISA Operations Manuals. National Project Managers were required to submit proposed modifications to these procedures to the Consortium for approval. Reliability studies to analyse the consistency of marking were implemented.

Software specially designed for PISA facilitated data entry, detected common errors during data entry, and facilitated the process of data cleaning. Training sessions familiarised National Project Managers with these procedures.

For a description of the quality assurance procedures applied in PISA and in the results, see the *PISA 2012 Technical Report* (OECD, forthcoming).

The results of adjudication showed that the PISA Technical Standards were fully met in all countries and economies that participated in PISA 2012, with the exception of Albania. Albania submitted parental occupation data that were incomplete and appeared inaccurate, since there was over-use of a narrow range of occupations. It was not possible to resolve these issues during the course of data cleaning, and as a result neither parental occupation data nor any indices which depend on this data are included in the international dataset. Results for Albania are omitted from any analyses which depend on these indices.

Reference

OECD (forthcoming), *PISA 2012 Technical Report*, OECD Publishing, Paris.

ANNEX A5
THE DESIGN OF THE FINANCIAL LITERACY ASSESSMENT

How the PISA 2012 assessment of financial literacy was designed

In 2012, in addition to the PISA 2012 core survey, which focused on mathematics, with reading, science and problem solving as minor areas of assessment, PISA conducted its first assessment of the financial literacy of 15-year-old students. The assessment was optional for countries. Development of the PISA 2012 financial literacy tasks was co-ordinated by an international consortium of educational research institutions contracted by the OECD, under the guidance of a group of financial literacy experts from participating countries (members of the financial literacy expert group are listed in Annex C of this Volume). The development process involved a field trial in which samples of 15-year-olds from participating countries participated. The financial literacy expert group recommended the final selection of tasks. The selection was made with regard to both the technical quality of the tasks, assessed on the basis of their performance in the field trial, and their cultural appropriateness and interest level for 15-year-olds, as judged by the participating countries. Another criterion for selecting the set of materials was its adherence to the framework described in Chapter 1 of this volume, in order to maintain the balance across content, processes and contexts. The consortium also ensured that the set of questions covered a range of difficulty, allowing for accurate measurement and description of the financial literacy competency of all 15-year-old students, from the least proficient to the highly able.

The structure of the financial literacy assessment

The assessment of financial literacy used paper-based test items. It was designed as a two-hour test comprising four 30-minute clusters of test material from three cognitive domains. Financial literacy was allocated two clusters (that is, 60 minutes of testing time). Analysis of completion rates in the field trial was used to determine that the vast majority of students could be expected to complete 20 financial literacy items within 30 minutes. Accordingly, from the 75 financial literacy tasks administered in the field trial, 40 items were selected for the main survey of the optional assessment of financial literacy in PISA 2012.

In addition, a short questionnaire on students' behaviours toward money matters was included at the back of the financial literacy cognitive booklets, and up to five minutes was allocated to complete it.

In the assessment of financial literacy, each test booklet that included the two clusters of financial literacy items also included one cluster of reading test items and one cluster of mathematics items. To reduce any effects from the order of the clusters within a booklet, four test booklets containing financial literacy clusters were created, with the financial literacy, reading and mathematics clusters appearing in different positions.

Around 29 000 students completed the assessment of financial literacy in 2012, representing approximately nine million 15-year-old students of the 18 participating countries and economies. Annex A2 provides the definition of the PISA target population and its coverage, as well as information on the financial literacy sample.

Response formats and coding

PISA paper-based test items require responses in different formats. Decisions about the form in which the data are collected – the response formats of the items – are based on what is considered appropriate given the kind of evidence that is being collected, and also on technical and pragmatic considerations. In the assessment of financial literacy, two broad types of items were used: constructed-response items and selected-response items.

Constructed-response items require students to generate their own answers. The format of the answer may be a single word or figure, or may be longer: a few sentences or a worked calculation. Constructed-response items that require a more extended answer are ideal for collecting information about students' capacity to explain decisions or demonstrate a process of analysis.

The second broad type of item, with regard to format and coding, is selected response. This kind of item requires students to choose one or more alternatives from a given set of options. The most common type in this category is the simple multiple-choice item, which usually requires the selection of one from a set of four options. A second type of selected-response item is complex multiple choice, in which students respond to a series of Yes/No questions. Selected-response items are typically regarded as most suitable for assessing items associated with identifying and recognising information, but they are also a useful way of measuring students' understanding of higher-order concepts that they themselves may not easily be able to express.

All except the most simple of constructed-response items were coded by expert judges who were trained and monitored. Selected response and very short "closed" constructed-response items did not require expert coding. The majority of the items selected for the main survey of the financial literacy assessment did not require expert judgement.

Most items were coded dichotomously (full credit or no credit), but where appropriate an item's coding scheme allowed for partial credit. Partial credit made possible more nuanced scoring of items. Some answers, even though incomplete, were better than others. When incomplete answers for a particular question indicated a higher level of financial literacy than inaccurate or incorrect answers, a scoring scheme was devised that allows partial credit for that question. Such "partial credit" items yielded more than one score point.

Distribution of items

In the assessment of financial literacy, items for assessment are distributed across the categories of the three dimensions: content, processes and contexts (see Chapter 1 of this volume). While each PISA financial literacy item is categorised according to a single category of content, processes and contexts, it is recognised that, since PISA aims to reflect real-life situations and problems, often elements of more than one category are present in a task. In such cases, the item is identified with the category judged most integral to responding successfully to the task.

Figure A5 shows the distribution of the 40 test items that were used in the financial literacy assessment by three dimensions (content, processes and contexts) and by the two types of items used (constructed-response items and selected-response items).

■ Figure A5 ■

Distribution of items in financial literacy

Assessment areas		Number of items	Number of constructed-response items	Number of selected-response items
Content	Planning and managing finances	13	6	7
	Money and transaction	11	5	6
	Risk and reward	9	5	4
	Financial landscape	7	3	4
	Total	*40*	*19*	*21*
Processes	Evaluate financial issues	13	10	3
	Analyse information in a financial context	10	2	8
	Apply financial knowledge and understanding	10	5	5
	Identify financial information	7	2	5
	Total	*40*	*19*	*21*
Contexts	Individual	16	6	10
	Home and family	14	6	8
	Education and work	6	4	2
	Societal	4	3	1
	Total	*40*	*19*	*21*

Source: OECD, PISA 2012 Database

The money management questionnaire

A short questionnaire on students' experience and behaviour with money matters was included at the back of the financial literacy cognitive booklets. This questionnaire covered the following key non-cognitive aspects of financial literacy: whether students have ever learned how to manage money in a course; frequency of discussing money matters with parents and friends; sources of money; access to financial products (bank account and prepaid debit card); behaviours regarding saving money; and decisions in hypothetical spending situations. The frequency with which students discuss money matters with their parents and its relationship to student's performance in financial literacy is analysed in Chapter 3 of this volume. Chapter 4 analyses students' financial literacy performance in relation to their experience with financial products, sources of money, hypothetical spending and saving behaviour.

The student questionnaire

Students also answered a background questionnaire about themselves, their homes and their schools, as well as their learning experiences and attitudes. Relevant information from the student questionnaire is analysed in relation to student's performance in financial literacy in Chapters 3 and 4 of this volume. Chapter 3 examines students' performance in relation to their demographic and socio-economic characteristics, such as gender, socio-economic status, and immigrant background. Students' attitudes towards learning and financial literacy performance are analysed in Chapter 4.

The school questionnaire

The school questionnaire collects information about the structure, organisation and resources of the school, as well as about the school's policies and practices. The school questionnaire is completed by the principals of all PISA sample schools. Chapter 3 of this volume analyses student performance in financial literacy in relation to school location. The questionnaire also collects information about the provision of financial education in schools (i.e. whether financial education is available, whether it is compulsory for students, whether it is integrated into other subjects, who teaches it, and whether teachers receive specific related professional development). This information is reported in Chapter 1 of this volume. Data users should note that there are differences in the reference points in some of the data items of the school questionnaire. For example, the question about financial education being compulsory (SC45Q01) does not specify a grade, whereas the question about its availability (SC47Q01) specifies the "national modal grade for 15-year-olds". Similarly, the reference period in the question about how financial education is taught (SC46) specifies "last academic year", whereas the question about the availability of financial education in the school (SC47Q01) leaves the reference period unspecified.

Annex B

PISA 2012 DATA

All tables in Annex B are available on line

Annex B: Results for countries and economies

Chapter 1
http://dx.doi.org/10.1787/888933094963

Chapter 2
http://dx.doi.org/10.1787/888933094982

Chapter 3
http://dx.doi.org/10.1787/888933095001

Chapter 4
http://dx.doi.org/10.1787/888933095020

A note regarding Israel

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

[Part 1/1]

Availability of financial education

Table VI.1.1 *Results based on school principals' reports*

		Percentage of students according to the availability of financial education in their school					
		Not available		Available < 2 years		Available ≥ 2 years	
		%	S.E.	%	S.E.	%	S.E.
OECD	Australia	27.5	(1.8)	11.0	(1.4)	61.5	(2.1)
	Flemish Community (Belgium)	19.5	(3.3)	7.2	(2.1)	73.4	(3.8)
	Czech Republic	16.9	(3.0)	38.4	(3.8)	44.7	(3.7)
	Estonia	78.2	(2.6)	11.2	(2.0)	10.6	(1.6)
	France	60.8	(3.3)	8.7	(1.9)	30.5	(3.1)
	Israel	74.2	(3.8)	17.5	(3.5)	8.3	(2.0)
	Italy	65.3	(1.8)	11.8	(1.4)	22.9	(1.8)
	New Zealand	30.0	(4.1)	11.4	(2.7)	58.5	(3.9)
	Poland	53.7	(4.3)	15.0	(2.9)	31.2	(3.7)
	Slovak Republic	15.2	(2.4)	39.7	(4.0)	45.0	(3.9)
	Slovenia	66.9	(1.5)	16.0	(1.2)	17.1	(1.2)
	Spain	84.2	(3.0)	6.5	(2.1)	9.3	(2.2)
	United States	33.5	(4.3)	9.1	(2.2)	57.4	(4.2)
	OECD average-13	48.2	(0.9)	15.7	(0.7)	36.2	(0.8)
Partners	Colombia	51.1	(4.0)	17.3	(3.2)	31.6	(3.6)
	Croatia	65.8	(3.5)	21.3	(2.8)	12.9	(2.7)
	Latvia	28.3	(3.5)	36.1	(3.5)	35.5	(3.4)
	Russian Federation	37.2	(3.1)	17.9	(2.4)	44.9	(3.4)
	Shanghai-China	50.3	(4.0)	41.4	(3.9)	8.4	(2.4)

StatLink http://dx.doi.org/10.1787/888933094963

[Part 1/3]

Teaching financial education

Table VI.1.2 *Results based on school principals' reports*

		Percentage of students according to the number of hours during which financial education is taught as a separate subject in their school										Percentage of students according to the number of hours during which financial education is taught as a cross-curricular subject in their school									
		None		1-4 hours a year		5-19 hours a year		20-49 hours a year		50 or more hours a year		None		1-4 hours a year		5-19 hours a year		20-49 hours a year		50 or more hours a year	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	69.9	(1.9)	4.4	(0.8)	5.5	(0.8)	5.9	(0.8)	14.4	(1.4)	63.5	(1.9)	16.8	(1.5)	13.5	(1.5)	4.2	(0.8)	2.0	(0.8)
	Flemish Community (Belgium)	72.3	(3.6)	9.3	(2.2)	3.6	(1.5)	5.4	(1.9)	9.4	(2.4)	34.2	(3.6)	41.6	(3.9)	19.6	(3.6)	3.7	(1.4)	0.7	(0.7)
	Czech Republic	72.8	(3.3)	5.8	(1.7)	10.4	(2.4)	7.0	(1.8)	4.0	(1.4)	20.6	(2.5)	20.9	(2.7)	46.3	(3.9)	9.9	(2.3)	2.3	(0.9)
	Estonia	93.4	(1.4)	0.8	(0.6)	2.2	(0.8)	2.9	(1.1)	0.7	(0.2)	36.1	(2.9)	31.8	(2.7)	25.5	(2.7)	5.8	(1.5)	0.8	(0.6)
	France	73.0	(3.0)	2.9	(1.2)	3.6	(1.4)	13.6	(2.4)	7.0	(1.7)	72.1	(3.5)	6.0	(1.8)	12.6	(2.3)	5.1	(1.7)	4.1	(1.4)
	Israel	78.4	(3.2)	5.1	(2.0)	7.8	(2.3)	3.8	(1.6)	4.9	(2.0)	56.1	(3.8)	24.9	(3.7)	11.9	(2.5)	4.7	(1.3)	2.3	(1.4)
	Italy	81.5	(1.8)	2.9	(0.8)	3.1	(1.0)	3.4	(1.1)	9.2	(1.2)	82.9	(1.9)	7.0	(1.5)	4.9	(1.0)	2.4	(0.7)	2.8	(0.7)
	New Zealand	55.3	(4.6)	3.5	(1.5)	6.2	(2.1)	5.0	(2.2)	30.1	(4.0)	80.0	(3.4)	9.7	(2.2)	8.1	(2.6)	1.9	(1.0)	0.4	(0.4)
	Poland	97.5	(1.3)	1.3	(1.0)	0.5	(0.6)	0.6	(0.5)	0.0	c	86.1	(2.6)	7.3	(1.8)	5.8	(2.0)	0.8	(0.8)	0.0	c
	Slovak Republic	80.4	(3.7)	6.9	(2.0)	3.1	(1.3)	6.9	(2.5)	2.8	(1.5)	8.8	(2.1)	22.9	(3.3)	48.9	(4.1)	12.4	(2.7)	7.0	(2.4)
	Slovenia	81.7	(1.4)	4.6	(0.6)	1.6	(0.3)	1.8	(0.4)	10.3	(1.1)	53.7	(1.8)	32.9	(1.6)	9.8	(0.8)	2.7	(0.4)	0.9	(0.4)
	Spain	93.4	(2.1)	0.3	(0.3)	0.8	(0.8)	2.2	(1.2)	3.2	(1.6)	69.9	(3.6)	15.3	(2.9)	8.9	(1.9)	5.3	(2.1)	0.6	(0.7)
	United States	45.0	(4.5)	3.6	(1.8)	2.0	(1.1)	7.4	(2.0)	42.0	(4.5)	54.9	(5.1)	12.2	(3.1)	17.4	(4.1)	5.9	(1.9)	9.7	(3.2)
	OECD average-13	76.5	(0.8)	4.0	(0.4)	3.9	(0.4)	5.1	(0.5)	10.6	(0.6)	55.3	(0.9)	19.2	(0.7)	17.9	(0.8)	5.0	(0.4)	2.6	(0.4)
Partners	Colombia	62.6	(4.3)	5.0	(1.8)	5.6	(1.5)	15.4	(3.2)	11.4	(2.5)	60.6	(3.9)	10.1	(2.3)	7.8	(1.8)	14.2	(3.2)	7.3	(1.7)
	Croatia	82.5	(3.0)	2.0	(1.0)	2.0	(1.1)	1.9	(1.0)	11.7	(2.7)	89.1	(2.3)	6.1	(2.0)	2.4	(1.2)	1.7	(0.5)	0.6	(0.6)
	Latvia	92.1	(2.2)	4.0	(1.6)	0.5	(0.5)	1.4	(0.9)	2.1	(1.1)	60.6	(3.7)	15.7	(2.8)	17.0	(2.8)	6.6	(1.8)	0.0	c
	Russian Federation	68.1	(2.9)	8.0	(1.9)	11.2	(1.8)	10.5	(2.2)	2.2	(0.9)	66.5	(3.3)	12.9	(2.2)	13.7	(2.6)	5.8	(1.6)	1.1	(0.8)
	Shanghai-China	76.4	(2.9)	6.6	(1.8)	6.0	(1.9)	5.1	(1.6)	5.9	(2.0)	68.3	(3.5)	16.5	(2.9)	10.0	(2.6)	3.6	(1.4)	1.5	(1.0)

Note: Base: all students.

StatLink http://dx.doi.org/10.1787/888933094963

[Part 2/3]

Teaching financial education

Table VI.1.2 *Results based on school principals' reports*

		Percentage of students according to the number of hours during which financial education is taught as a part of a business or economics course in their school										Percentage of students according to the number of hours during which financial education is taught as a part of a mathematics course in their school					
		None		1-4 hours a year		5-19 hours a year		20-49 hours a year		50 or more hours a year		None		1-4 hours a year		5-19 hours a year	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	16.9	(1.4)	10.0	(1.2)	23.2	(1.7)	20.0	(1.7)	29.9	(1.8)	41.1	(1.9)	23.8	(1.7)	21.7	(1.8)
	Flemish Community (Belgium)	21.4	(2.9)	4.8	(1.9)	23.8	(3.9)	12.0	(2.9)	38.0	(4.2)	33.5	(4.2)	40.2	(4.3)	22.4	(3.1)
	Czech Republic	62.7	(2.7)	6.8	(1.9)	16.0	(2.5)	11.3	(2.1)	3.2	(1.3)	10.5	(2.1)	28.0	(3.5)	56.8	(3.7)
	Estonia	56.8	(3.2)	9.4	(2.0)	19.2	(2.3)	13.3	(2.3)	1.3	(0.5)	15.4	(2.2)	47.7	(3.2)	28.3	(3.0)
	France	35.3	(2.5)	13.5	(2.5)	14.7	(2.3)	21.7	(3.0)	14.8	(2.4)	65.4	(3.8)	21.2	(3.2)	12.9	(2.7)
	Israel	64.2	(3.7)	3.7	(1.6)	8.7	(2.0)	6.8	(2.0)	16.6	(2.9)	66.7	(4.1)	19.9	(3.7)	10.0	(2.6)
	Italy	51.0	(2.5)	13.5	(1.4)	16.2	(1.7)	9.2	(1.7)	10.1	(1.4)	70.7	(2.1)	17.7	(1.5)	7.5	(1.5)
	New Zealand	8.0	(2.1)	17.4	(3.1)	17.3	(3.6)	13.4	(2.9)	44.0	(4.2)	55.2	(4.5)	19.5	(3.1)	22.4	(3.4)
	Poland	81.9	(3.2)	9.2	(2.4)	7.0	(2.2)	0.6	(0.3)	1.3	(0.9)	29.0	(3.8)	50.2	(4.3)	18.1	(3.1)
	Slovak Republic	55.1	(2.7)	7.6	(2.5)	15.6	(2.5)	14.2	(2.8)	7.4	(2.1)	5.3	(1.7)	35.4	(3.6)	51.8	(4.0)
	Slovenia	63.6	(1.5)	9.3	(0.9)	10.6	(0.9)	4.5	(0.6)	12.0	(1.0)	63.4	(1.9)	27.8	(1.7)	8.7	(1.0)
	Spain	78.0	(3.2)	2.7	(1.3)	5.0	(1.8)	4.3	(1.7)	10.1	(2.3)	38.7	(4.0)	24.7	(3.2)	30.6	(3.8)
	United States	21.8	(4.0)	9.8	(2.6)	12.4	(2.8)	14.3	(3.1)	41.8	(4.2)	42.7	(4.3)	23.2	(3.4)	15.5	(3.2)
	OECD average-13	47.4	(0.8)	9.1	(0.6)	14.6	(0.7)	11.2	(0.6)	17.7	(0.7)	41.3	(0.9)	29.2	(0.9)	23.6	(0.8)
Partners	Colombia	40.2	(3.6)	13.5	(2.9)	17.4	(3.6)	18.0	(3.1)	10.9	(2.3)	40.4	(4.0)	22.5	(3.7)	23.8	(3.8)
	Croatia	61.7	(3.2)	6.6	(1.7)	10.9	(2.6)	7.3	(2.0)	13.5	(2.5)	48.4	(3.2)	32.2	(3.2)	12.9	(2.5)
	Latvia	75.5	(3.4)	7.8	(1.9)	4.6	(1.3)	9.0	(2.2)	3.2	(1.5)	19.6	(2.8)	36.5	(3.7)	37.2	(4.1)
	Russian Federation	64.4	(3.6)	7.5	(1.9)	11.4	(2.3)	13.3	(2.2)	3.4	(1.3)	60.5	(3.6)	21.6	(3.0)	15.6	(2.6)
	Shanghai-China	55.0	(3.7)	20.2	(3.2)	12.4	(2.8)	6.1	(1.8)	6.2	(1.8)	35.4	(3.4)	51.4	(4.0)	10.7	(2.5)

Note: Base: all students.

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[Part 3/3]

Teaching financial education

Table VI.1.2 *Results based on school principals' reports*

		Percentage of students according to the number of hours during which financial education is taught as a part of a mathematics course in their school				Percentage of students according to the number of hours during which financial education is taught as a part of other social sciences and humanities subjects and/or literature language in their school									
		20-49 hours a year		50 or more hours a year		None		1-4 hours a year		5-19 hours a year		20-49 hours a year		50 or more hours a year	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	8.8	(1.2)	4.6	0.8	13.5	(1.2)	22.8	(1.6)	49.7	(1.9)	10.2	(1.2)	3.9	(0.7)
	Flemish Community (Belgium)	3.2	(1.2)	0.7	(0.7)	18.8	(3.6)	46.4	(4.2)	27.2	(3.7)	4.0	(1.9)	3.7	(1.5)
	Czech Republic	3.6	(1.3)	1.1	(0.8)	10.2	(2.5)	43.6	(3.6)	43.4	(3.8)	2.8	(1.3)	0.0	c
	Estonia	7.2	(1.9)	1.3	(0.8)	17.0	(2.5)	50.3	(3.0)	26.4	(2.7)	5.8	(1.7)	0.6	(0.6)
	France	0.0	c	0.6	(0.6)	60.4	(3.8)	24.7	(3.4)	9.7	(2.3)	3.0	(1.3)	2.1	(1.1)
	Israel	3.5	(1.6)	0.0	c	59.4	(4.0)	27.5	(3.7)	9.2	(2.0)	2.6	(1.3)	1.3	(0.8)
	Italy	3.5	(0.8)	0.6	(0.3)	56.1	(2.2)	21.6	(1.8)	16.6	(1.9)	4.8	(1.3)	0.9	(0.4)
	New Zealand	1.2	(0.6)	1.7	(1.2)	48.3	(4.5)	24.9	(4.1)	21.0	(3.4)	3.9	(1.5)	1.8	(1.4)
	Poland	2.1	(1.2)	0.6	(0.6)	22.5	(3.5)	54.7	(4.2)	21.1	(3.4)	1.7	(0.9)	0.0	c
	Slovak Republic	6.6	(1.8)	0.9	(0.6)	19.8	(2.7)	53.5	(3.9)	23.8	(3.2)	2.5	(1.2)	0.4	(0.4)
	Slovenia	0.1	(0.1)	0.0	c	40.1	(1.9)	42.9	(1.7)	16.3	(1.1)	0.5	(0.2)	0.3	(0.1)
	Spain	5.4	(2.1)	0.6	(0.6)	45.1	(3.8)	25.6	(3.7)	22.5	(3.5)	4.5	(2.0)	2.2	(1.1)
	United States	7.1	(2.2)	11.5	(3.1)	42.7	(4.1)	17.6	(3.4)	15.0	(2.8)	10.3	(3.5)	14.5	(3.5)
	OECD average-13	4.0	(0.4)	1.9	(0.3)	34.9	(0.9)	35.1	(0.9)	23.2	(0.8)	4.4	(0.5)	2.4	(0.4)
Partners	Colombia	10.1	(2.6)	3.2	(1.1)	36.0	(3.9)	22.0	(4.3)	21.9	(3.6)	13.3	(2.2)	6.9	(2.4)
	Croatia	2.8	(1.1)	3.7	(1.7)	70.4	(3.8)	22.7	(3.4)	4.6	(1.5)	0.6	(0.6)	1.6	(1.0)
	Latvia	6.3	(1.8)	0.5	(0.5)	7.9	(2.1)	26.4	(3.6)	43.8	(3.9)	19.9	(2.8)	2.0	(0.9)
	Russian Federation	2.3	(0.9)	0.0	c	16.3	(3.0)	28.5	(3.2)	39.8	(3.6)	13.3	(2.8)	2.1	(1.2)
	Shanghai-China	2.5	(1.3)	0.0	c	25.1	(3.6)	48.3	(4.2)	20.4	(3.1)	4.0	(1.6)	2.1	(1.4)

Note: Base: all students.

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[Part 1/1]

Who provides financial education at school?

Table VI.1.3 *Results based on school principals' reports*

		Percentage of students who attend schools where financial education is:															
		Provided by teachers		Provided by the private sector		Provided by the public sector		Provided by NGOs		Provided both by teachers and other stakeholders (i.e., from the public, private, not-for-profit sectors)		Provided by teachers but not by other stakeholders (i.e., from the public, private, not-for-profit sectors)		Provided only by other stakeholders but not by teachers		Provided neither by teachers nor by other stakeholders	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	95.3	(1.0)	26.3	(1.7)	6.7	(0.9)	12.5	(1.5)	30.5	(1.8)	64.8	(1.8)	0.7	(0.4)	4.0	(0.9)
	Flemish Community (Belgium)	97.6	(0.9)	27.4	(4.1)	7.1	(2.4)	18.0	(2.8)	34.8	(4.4)	62.8	(4.5)	0.0	c	2.4	(0.9)
	Czech Republic	98.8	(0.8)	19.8	(3.0)	4.6	(1.6)	7.9	(2.0)	23.0	(3.2)	75.8	(3.1)	0.0	c	1.2	(0.8)
	Estonia	87.5	(2.4)	10.0	(1.6)	7.0	(1.7)	16.2	(2.4)	23.6	(2.8)	63.8	(3.2)	0.7	(0.5)	11.8	(2.3)
	France	74.4	(2.8)	1.4	(0.9)	1.4	(0.9)	1.4	(0.9)	2.0	(1.1)	72.2	(3.0)	0.0	c	25.8	(2.8)
	Israel	64.9	(3.8)	7.2	(2.4)	2.0	(1.1)	7.5	(1.9)	10.1	(2.2)	54.7	(4.0)	3.7	(1.8)	31.5	(3.7)
	Italy	65.2	(2.4)	a	a	a	a	n	n	n	n	n	n	n	n	n	n
	New Zealand	98.1	(0.9)	38.4	(3.9)	22.6	(3.7)	33.5	(4.5)	52.3	(3.9)	45.8	(3.9)	0.6	(0.5)	1.3	(0.8)
	Poland	84.2	(3.3)	11.4	(2.8)	7.5	(2.3)	3.1	(1.5)	15.0	(3.2)	68.9	(4.0)	0.8	(0.8)	15.3	(3.3)
	Slovak Republic	98.0	(1.1)	23.6	(3.3)	4.8	(1.6)	18.8	(2.9)	30.9	(3.5)	67.1	(3.5)	0.0	c	2.1	(1.1)
	Slovenia	68.5	(1.8)	10.1	(0.9)	6.1	(0.6)	9.1	(0.9)	15.5	(1.1)	52.9	(1.8)	1.3	(0.3)	30.3	(1.8)
	Spain	73.8	(3.5)	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	United States	94.2	(2.1)	43.2	(4.5)	23.9	(3.8)	25.4	(3.9)	42.7	(5.0)	51.2	(4.7)	2.4	(1.7)	3.7	(1.5)
	OECD average-13*	84.7	(0.6)	19.9	(0.9)	8.5	(0.6)	13.9	(0.8)	25.5	(1.0)	61.8	(1.1)	0.9	(0.2)	11.8	(0.6)
Partners	Colombia	83.7	(2.8)	9.6	(2.6)	11.9	(3.0)	3.9	(1.1)	19.4	(3.1)	63.7	(4.0)	2.3	(1.2)	14.6	(2.6)
	Croatia	68.1	(3.5)	3.7	(1.6)	4.1	(1.7)	4.0	(1.2)	7.7	(2.0)	59.9	(3.9)	3.0	(1.5)	29.4	(3.4)
	Latvia	98.9	(0.8)	34.3	(3.8)	13.5	(2.2)	30.4	(4.0)	48.9	(4.1)	49.9	(4.0)	0.0	c	1.1	(0.8)
	Russian Federation	87.8	(2.6)	6.4	(1.6)	3.3	(1.5)	3.7	(1.8)	11.7	(2.3)	75.9	(3.2)	0.3	(0.2)	12.1	(2.6)
	Shanghai-China	88.7	(2.4)	9.8	(2.4)	6.3	(2.1)	6.4	(1.9)	15.0	(2.9)	73.4	(3.6)	3.4	(1.5)	8.2	(2.0)

*The OECD average is computed on the countries and economies with available data.

Note: Base: all students.

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[Part 1/1]

Teachers' professional development in financial education

Table VI.1.4 *Results based on school principals' reports*

		Percentage of students in schools where the following proportion of teachers attended or not a programme of professional development with a focus on financial education in the last twelve months:																	
		Teachers who teach financial education						Teachers who do not teach financial education						All teachers[1]					
		No teachers attended professional development in financial education		Up to 50% of teachers attended professional development in financial education[2]		50% or more teachers attended professional development in financial education[3]		No teachers attended professional development in financial education		Up to 50% of teachers attended professional development in financial education[2]		50% or more teachers attended professional development in financial education[3]		No teachers attended professional development in financial education		Up to 50% of teachers attended professional development in financial education[2]		50% or more teachers attended professional development in financial education[3]	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	49.8	(1.7)	41.2	(2.0)	9.1	(1.3)	73.9	(1.9)	18.6	(1.8)	7.5	(1.0)	48.3	(1.7)	35.5	(2.0)	16.2	(1.5)
	Flemish Community (Belgium)	27.9	(3.8)	49.0	(4.5)	23.1	(3.6)	38.7	(4.6)	61.3	(4.6)	0.0	c	25.4	(3.6)	51.6	(4.5)	23.0	(3.6)
	Czech Republic	32.8	(3.1)	41.8	(3.3)	25.3	(3.0)	46.8	(3.4)	42.8	(3.9)	10.3	(2.4)	27.3	(2.9)	42.2	(4.0)	30.6	(3.5)
	Estonia	63.1	(3.2)	27.8	(2.9)	9.1	(2.2)	68.0	(3.0)	30.8	(2.9)	1.1	(0.8)	53.6	(3.3)	36.7	(3.1)	9.7	(2.3)
	France	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Israel	66.1	(3.8)	24.8	(3.4)	9.1	(2.6)	79.0	(3.6)	13.0	(2.8)	8.0	(2.4)	61.7	(3.7)	21.1	(3.1)	17.1	(3.3)
	Italy	74.4	(2.2)	19.1	(1.9)	6.5	(1.2)	n	n	n	n	n	n	n	n	n	n	n	n
	New Zealand	41.9	(4.2)	29.1	(3.1)	29.0	(3.6)	84.9	(2.6)	15.1	(2.6)	0.0	c	41.7	(4.2)	29.3	(3.2)	29.0	(3.6)
	Poland	74.3	(3.3)	16.0	(2.9)	9.7	(2.6)	85.0	(2.7)	14.9	(2.7)	0.1	(0.1)	73.9	(3.4)	16.5	(3.0)	9.6	(2.5)
	Slovak Republic	55.2	(3.5)	30.8	(3.3)	14.1	(2.3)	66.0	(3.7)	28.6	(3.6)	5.4	(1.7)	45.6	(3.1)	38.3	(3.4)	16.0	(2.5)
	Slovenia	59.6	(1.8)	28.6	(1.6)	11.8	(1.0)	49.9	(1.5)	24.0	(1.4)	26.1	(1.4)	37.1	(1.6)	26.5	(1.6)	36.4	(1.5)
	Spain	80.4	(3.1)	12.7	(2.6)	6.8	(2.2)	89.4	(2.8)	8.9	(2.5)	1.6	(1.2)	77.0	(3.5)	14.6	(2.8)	8.4	(2.4)
	United States	41.7	(4.4)	32.0	(4.3)	26.3	(3.8)	61.4	(4.8)	29.1	(4.4)	9.5	(3.4)	40.9	(4.5)	25.9	(3.9)	33.2	(4.5)
	OECD average-13*	55.6	(0.9)	29.4	(0.9)	15.0	(0.8)	67.6	(1.0)	26.1	(1.0)	6.3	(0.5)	48.4	(1.0)	30.8	(1.0)	20.8	(0.9)
Partners	Colombia	61.2	(3.8)	32.2	(3.8)	6.5	(1.8)	73.7	(3.8)	15.7	(3.3)	10.6	(2.3)	59.0	(3.7)	25.3	(3.4)	15.7	(2.7)
	Croatia	61.3	(3.4)	23.3	(3.2)	15.4	(3.0)	85.5	(2.7)	13.4	(2.6)	1.1	(0.8)	60.1	(3.4)	24.2	(3.3)	15.7	(3.0)
	Latvia	45.4	(4.0)	38.7	(4.0)	15.9	(3.0)	51.5	(4.0)	35.3	(3.6)	13.2	(3.0)	38.8	(3.9)	32.8	(3.9)	28.4	(3.7)
	Russian Federation	74.8	(3.3)	16.6	(2.5)	8.6	(2.3)	78.4	(3.3)	20.0	(3.1)	1.6	(0.9)	72.0	(3.4)	18.4	(2.6)	9.5	(2.4)
	Shanghai-China	54.9	(3.8)	15.8	(2.9)	29.3	(3.4)	63.3	(3.9)	31.6	(3.8)	5.1	(1.7)	54.3	(3.9)	16.4	(3.0)	29.3	(3.4)

*The OECD average is computed on the countries and economies with available data.

Note: Base: all students.

1. All teachers refers to "Teachers who teach financial education" and/or "Teachers who do not teach financial education".

2. The category "Up to 50% of teachers" includes students in schools where the percentage of teachers who attended professional development in financial education is between 0.1 and 49%.

3. The category "50% or more teachers" includes students in schools where the percentage of teachers who attended professional development in financial education is at least 50%.

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[Part 1/1]

Table VI.2.1 Percentage of students at each proficiency level in financial literacy

		Percentage of students at each level										Percentage of students at or above each proficiency level									
		Level 1 or below (below 400.33 score points)		Level 2 (from 400.33 to less than 475.10 score points)		Level 3 (from 475.10 to less than 549.86 score points)		Level 4 (from 549.86 to less than 624.63 score points)		Level 5 (above 624.63 score points)		Level 1 or above (above 325.57 score points)		Level 2 or above (above 400.33 score points)		Level 3 or above (above 475.10 score points)		Level 4 or above (above 549.86 score points)		Level 5 (above 624.63 score points)	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	10.4	(0.7)	19.5	(1.3)	29.4	(1.1)	24.9	(0.9)	15.9	(0.8)	97.1	(0.4)	89.6	(0.7)	70.2	(1.1)	40.8	(1.0)	15.9	(0.8)
	Flemish Community (Belgium)	8.7	(1.0)	15.1	(1.4)	26.2	(1.5)	30.4	(1.7)	19.7	(1.3)	97.7	(0.6)	91.3	(1.0)	76.3	(1.6)	50.1	(1.8)	19.7	(1.3)
	Czech Republic	10.1	(1.5)	21.2	(1.9)	32.8	(1.9)	26.0	(1.7)	9.9	(1.0)	97.5	(0.9)	89.9	(1.5)	68.7	(1.9)	35.9	(1.6)	9.9	(1.0)
	Estonia	5.3	(0.8)	19.1	(1.5)	36.0	(2.1)	28.3	(2.0)	11.3	(1.2)	99.4	(0.3)	94.7	(0.8)	75.6	(1.7)	39.7	(2.0)	11.3	(1.2)
	France	19.4	(1.4)	22.6	(2.1)	30.4	(2.1)	19.4	(1.5)	8.1	(1.1)	92.8	(1.1)	80.6	(1.4)	58.0	(1.9)	27.5	(1.6)	8.1	(1.1)
	Israel	23.0	(2.0)	22.9	(2.1)	27.0	(2.0)	18.6	(1.4)	8.5	(1.2)	89.7	(1.7)	77.0	(2.0)	54.1	(2.3)	27.1	(1.9)	8.5	(1.2)
	Italy	21.7	(0.9)	29.5	(1.0)	31.7	(0.9)	14.9	(0.8)	2.1	(0.3)	93.5	(0.6)	78.3	(0.9)	48.7	(1.1)	17.0	(0.9)	2.1	(0.3)
	New Zealand	16.1	(1.2)	18.0	(1.4)	23.4	(1.5)	23.3	(1.7)	19.3	(1.3)	93.8	(1.1)	83.9	(1.2)	66.0	(1.6)	42.6	(1.8)	19.3	(1.3)
	Poland	9.8	(1.2)	23.2	(1.7)	34.2	(1.8)	25.6	(1.8)	7.2	(1.0)	98.7	(0.4)	90.2	(1.2)	67.0	(1.9)	32.9	(2.0)	7.2	(1.0)
	Slovak Republic	22.8	(2.0)	26.5	(2.1)	28.1	(1.9)	16.9	(1.6)	5.7	(1.0)	90.5	(1.3)	77.2	(2.0)	50.7	(2.3)	22.6	(1.8)	5.7	(1.0)
	Slovenia	17.6	(1.6)	27.4	(2.2)	31.3	(2.3)	18.0	(1.5)	5.8	(1.0)	95.8	(1.5)	82.4	(1.6)	55.0	(2.1)	23.7	(1.6)	5.8	(1.0)
	Spain	16.5	(1.2)	26.4	(1.6)	34.6	(1.6)	18.6	(1.5)	3.8	(0.9)	96.0	(0.7)	83.5	(1.2)	57.1	(1.8)	22.4	(1.6)	3.8	(0.9)
	United States	17.8	(1.5)	26.2	(1.8)	27.1	(1.8)	19.4	(1.8)	9.4	(1.2)	94.9	(0.9)	82.2	(1.5)	55.9	(2.3)	28.8	(2.3)	9.4	(1.2)
	OECD average-13	15.3	(0.4)	22.9	(0.5)	30.2	(0.5)	21.9	(0.4)	9.7	(0.3)	95.2	(0.3)	84.7	(0.4)	61.8	(0.5)	31.6	(0.5)	9.7	(0.3)
Partners	Colombia	56.5	(2.0)	26.1	(1.8)	13.1	(1.3)	3.7	(1.0)	0.7	(0.3)	70.6	(1.8)	43.5	(2.0)	17.5	(1.7)	4.4	(1.1)	0.7	(0.3)
	Croatia	16.5	(1.4)	30.8	(1.7)	31.6	(1.7)	17.4	(1.7)	3.8	(0.7)	95.6	(0.7)	83.5	(1.4)	52.7	(2.1)	21.2	(1.9)	3.8	(0.7)
	Latvia	9.7	(1.2)	26.8	(1.8)	36.2	(2.1)	22.7	(1.9)	4.6	(0.9)	98.3	(0.7)	90.3	(1.2)	63.6	(2.1)	27.4	(1.9)	4.6	(0.9)
	Russian Federation	16.7	(1.4)	25.4	(1.5)	33.1	(1.7)	20.5	(1.6)	4.3	(0.8)	95.6	(0.7)	83.3	(1.4)	57.9	(1.9)	24.8	(1.8)	4.3	(0.8)
	Shanghai-China	1.6	(0.4)	5.1	(0.9)	18.6	(1.4)	32.2	(1.6)	42.6	(1.7)	99.8	(0.1)	98.4	(0.4)	93.3	(1.0)	74.8	(1.8)	42.6	(1.7)

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Table VI.2.2 Mean score and variation in student performance in financial literacy

		Mean score		Standard deviation		Percentiles													
						5th		10th		25th		50th (median)		75th		90th		95th	
		Mean	S.E.	S.D.	S.E.	Score	S.E.	Score	S.E.	Score	S.E.	Score	S.E.	Score	S.E.	Score	S.E.	Score	S.E.
OECD	Australia	526	(2.1)	101	(1.7)	357	(5.9)	398	(4.7)	461	(3.4)	528	(2.7)	595	(3.6)	653	(4.0)	689	(5.6)
	Flemish Community (Belgium)	541	(3.5)	97	(2.5)	369	(8.8)	409	(6.7)	480	(6.3)	550	(4.1)	611	(3.9)	660	(6.8)	685	(6.0)
	Czech Republic	513	(3.2)	88	(3.1)	363	(15.7)	399	(7.2)	456	(5.9)	516	(4.2)	573	(3.5)	624	(5.8)	652	(5.8)
	Estonia	529	(3.0)	79	(1.8)	398	(7.5)	428	(5.0)	476	(3.7)	530	(4.0)	582	(4.3)	631	(5.1)	659	(6.4)
	France	486	(3.4)	105	(3.1)	302	(12.9)	347	(9.6)	423	(5.8)	494	(4.3)	557	(5.5)	616	(6.7)	643	(6.9)
	Israel	476	(6.1)	115	(4.5)	265	(18.1)	322	(16.1)	410	(9.2)	487	(6.5)	556	(6.6)	616	(8.7)	648	(10.3)
	Italy	466	(2.1)	87	(1.5)	314	(4.4)	350	(4.3)	412	(3.6)	472	(2.6)	528	(2.9)	574	(2.9)	598	(3.4)
	New Zealand	520	(3.7)	118	(2.8)	315	(13.8)	361	(9.6)	442	(6.2)	527	(6.0)	603	(4.8)	667	(6.4)	703	(8.4)
	Poland	510	(3.7)	82	(2.1)	374	(8.9)	401	(5.9)	454	(5.3)	514	(5.0)	566	(3.7)	611	(6.3)	638	(6.5)
	Slovak Republic	470	(4.9)	105	(3.6)	280	(18.2)	331	(13.0)	409	(7.6)	477	(6.0)	541	(6.1)	596	(6.9)	630	(8.5)
	Slovenia	485	(3.3)	90	(2.4)	332	(11.1)	366	(8.3)	426	(4.7)	486	(4.3)	546	(5.7)	598	(6.8)	631	(8.5)
	Spain	484	(3.2)	85	(2.1)	337	(9.1)	371	(6.0)	429	(5.1)	489	(3.9)	543	(4.3)	593	(4.0)	617	(5.8)
	United States	492	(4.9)	99	(2.5)	325	(10.4)	364	(7.3)	424	(6.1)	490	(6.8)	561	(7.2)	620	(8.3)	656	(8.2)
	OECD average-13	500	(1.0)	96	(0.8)	333	(3.3)	373	(2.4)	439	(1.6)	505	(1.3)	566	(1.4)	620	(1.7)	650	(2.0)
Partners	Colombia	379	(4.7)	106	(3.5)	192	(16.2)	241	(9.8)	312	(6.3)	383	(5.5)	451	(5.3)	508	(6.5)	543	(10.9)
	Croatia	480	(3.8)	85	(2.3)	332	(9.5)	373	(5.4)	427	(5.3)	481	(4.7)	540	(5.0)	586	(5.9)	616	(7.1)
	Latvia	501	(3.3)	78	(2.7)	370	(10.7)	402	(6.1)	449	(5.1)	503	(4.7)	556	(4.7)	598	(5.5)	621	(7.8)
	Russian Federation	486	(3.7)	88	(2.2)	330	(8.7)	367	(6.2)	432	(6.3)	492	(4.6)	549	(4.5)	593	(5.4)	619	(6.3)
	Shanghai-China	603	(3.2)	83	(2.5)	459	(9.6)	495	(6.9)	549	(5.0)	610	(3.8)	662	(4.0)	704	(3.7)	728	(6.2)

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Table VI.2.2 **Mean score and variation in student performance in financial literacy**

		Range of performance							
		Inter-quartile range (75th - 25th percentile)		Inter-decile range (90th - 10th percentile)		Top range (90th - 50th percentile)		Bottom range (50th - 10th percentile)	
		Range	S.E.	Range	S.E.	Range	S.E.	Range	S.E.
OECD	Australia	134	(4.4)	255	(6.2)	125	(4.3)	129	(5.2)
	Flemish Community (Belgium)	130	(6.2)	251	(8.6)	110	(6.8)	141	(6.8)
	Czech Republic	118	(5.7)	225	(9.3)	108	(6.7)	117	(7.1)
	Estonia	106	(4.5)	203	(6.8)	101	(5.2)	102	(5.2)
	France	134	(6.5)	269	(12.4)	123	(8.0)	146	(9.7)
	Israel	145	(8.6)	294	(15.3)	129	(8.0)	165	(13.9)
	Italy	116	(4.1)	224	(4.7)	102	(3.0)	122	(4.0)
	New Zealand	162	(7.4)	306	(10.9)	139	(7.9)	166	(10.7)
	Poland	112	(5.4)	210	(7.9)	97	(6.4)	112	(6.2)
	Slovak Republic	133	(7.7)	265	(14.1)	119	(7.3)	146	(12.3)
	Slovenia	120	(6.4)	232	(10.3)	112	(6.9)	120	(8.6)
	Spain	114	(5.4)	222	(7.4)	103	(4.6)	119	(6.0)
	United States	137	(6.2)	256	(10.1)	130	(7.0)	126	(8.3)
	OECD average-13	128	(1.7)	247	(2.8)	115	(1.8)	132	(2.4)
Partners	Colombia	139	(6.5)	267	(10.6)	125	(6.6)	142	(9.6)
	Croatia	113	(5.8)	213	(7.5)	105	(6.0)	108	(5.9)
	Latvia	106	(6.1)	196	(7.9)	95	(5.8)	101	(6.6)
	Russian Federation	117	(6.6)	226	(8.0)	101	(5.7)	125	(5.7)
	Shanghai-China	113	(5.2)	208	(7.8)	94	(4.6)	114	(6.4)

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Table VI.2.3 **Top performers in financial literacy, mathematics and/or reading**

		15-year-old students who are:								Percentage of top performers in financial literacy who are also top performers in mathematics		Percentage of top performers in financial literacy who are also top performers in reading	
		Not top performers in any of the three domains		Top performers in at least one subject, but not in financial literacy		Top performers in financial literacy, but not in any of the other two subjects assessed		Top performers in financial literacy and at least one other subject					
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	77.4	(1.1)	6.7	(0.7)	4.2	(0.5)	11.7	(0.7)	59.6	(3.4)	49.3	(2.9)
	Flemish Community (Belgium)	66.2	(2.0)	14.1	(1.5)	3.0	(0.6)	16.7	(1.3)	82.0	(3.1)	34.8	(4.6)
	Czech Republic	82.1	(1.3)	8.0	(0.9)	2.4	(0.8)	7.5	(0.9)	70.6	(6.1)	42.8	(5.9)
	Estonia	73.4	(1.5)	15.3	(1.5)	1.8	(0.6)	9.5	(1.2)	79.6	(4.6)	47.5	(6.7)
	France	76.3	(1.6)	15.6	(1.3)	1.0	(0.4)	7.1	(1.1)	84.9	(6.1)	59.0	(6.4)
	Israel	81.3	(1.7)	10.2	(1.3)	1.9	(0.7)	6.7	(1.0)	69.1	(7.0)	54.7	(9.3)
	Italy	87.7	(0.8)	10.2	(0.7)	0.4	(0.1)	1.8	(0.2)	73.3	(5.9)	42.3	(5.8)
	New Zealand	74.4	(1.8)	6.3	(1.2)	3.9	(1.2)	15.4	(1.3)	61.5	(4.9)	59.6	(6.5)
	Poland	82.0	(1.5)	10.8	(1.2)	0.8	(0.3)	6.4	(1.1)	81.8	(4.7)	60.7	(8.2)
	Slovak Republic	88.6	(1.4)	5.7	(1.1)	1.0	(0.4)	4.6	(0.9)	81.4	(6.4)	27.5	(8.2)
	Slovenia	84.6	(1.4)	9.6	(1.1)	0.5	(0.3)	5.2	(1.0)	86.3	(8.2)	42.7	(9.5)
	Spain	88.7	(1.1)	7.5	(1.0)	1.3	(0.5)	2.5	(0.7)	58.5	(9.8)	35.8	(9.1)
	United States	84.7	(1.6)	5.9	(0.9)	2.1	(0.5)	7.3	(1.0)	55.6	(6.9)	65.9	(6.2)
	OECD average-13	80.6	(0.4)	9.7	(0.3)	1.9	(0.2)	7.9	(0.3)	72.6	(1.7)	47.9	(2.0)
Partners	Colombia	98.2	(0.6)	1.1	(0.4)	0.3	(0.2)	0.4	(0.2)	49.1	(23.0)	32.6	(28.5)
	Croatia	90.2	(1.4)	6.1	(1.0)	0.6	(0.3)	3.1	(0.7)	73.1	(8.4)	59.6	(9.4)
	Latvia	85.1	(1.5)	10.2	(1.2)	0.7	(0.3)	3.9	(0.9)	76.9	(9.1)	58.4	(10.1)
	Russian Federation	89.5	(1.3)	6.3	(1.0)	1.7	(0.5)	2.6	(0.6)	60.4	(8.5)	18.3	(6.8)
	Shanghai-China	36.3	(2.0)	21.1	(1.7)	1.4	(0.5)	41.2	(1.8)	96.2	(1.2)	59.3	(2.6)

Note: Top performers are students performing at Level 5 or above on the assessments.

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Table VI.2.4 Correlation of financial literacy performance with performance in mathematics and reading

		Correlation[1] between performance in financial literacy and performance in mathematics and reading				For comparison: correlation[1] between performance in mathematics and reading		Variation in financial literacy performance associated with mathematics and reading performance									
		Financial literacy and mathematics		Financial literacy and reading		Mathematics and reading		Total explained variation[2]		Variation uniquely associated with mathematics performance[2]		Variation uniquely associated with reading performance[2]		Variation associated with more than one domain[2]		Residual (unexplained) variation[2]	
		Corr.	S.E.	Corr.	S.E.	Corr.	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	0.84	(0.01)	0.83	(0.01)	0.76	(0.01)	79.0	(0.9)	10.4	(0.8)	8.7	(0.7)	59.9	(1.3)	21.0	(0.9)
	Flemish Community (Belgium)	0.86	(0.01)	0.80	(0.01)	0.78	(0.01)	78.0	(1.5)	14.1	(1.5)	4.3	(0.8)	59.6	(1.9)	22.0	(1.5)
	Czech Republic	0.84	(0.01)	0.76	(0.02)	0.73	(0.02)	75.3	(1.6)	17.1	(1.9)	4.6	(1.0)	53.7	(2.4)	24.7	(1.6)
	Estonia	0.80	(0.01)	0.76	(0.02)	0.73	(0.02)	70.5	(1.8)	13.5	(1.8)	6.4	(1.2)	50.7	(2.3)	29.5	(1.8)
	France	0.84	(0.01)	0.82	(0.01)	0.81	(0.02)	76.0	(1.7)	9.6	(1.6)	4.9	(1.2)	61.5	(2.1)	24.0	(1.7)
	Israel	0.83	(0.01)	0.77	(0.02)	0.81	(0.01)	71.4	(1.8)	12.2	(1.9)	2.7	(0.9)	56.5	(2.1)	28.6	(1.8)
	Italy	0.73	(0.01)	0.72	(0.01)	0.71	(0.01)	61.6	(1.8)	9.9	(1.1)	8.2	(1.2)	43.5	(1.6)	38.4	(1.8)
	New Zealand	0.85	(0.01)	0.86	(0.01)	0.80	(0.01)	81.4	(1.4)	8.0	(1.2)	8.6	(1.0)	64.7	(1.7)	18.6	(1.4)
	Poland	0.84	(0.01)	0.80	(0.02)	0.78	(0.02)	76.0	(1.8)	12.2	(1.8)	5.4	(1.1)	58.5	(2.1)	24.0	(1.8)
	Slovak Republic	0.85	(0.01)	0.83	(0.02)	0.80	(0.02)	78.2	(1.9)	9.7	(1.6)	6.3	(1.2)	62.2	(2.4)	21.8	(1.9)
	Slovenia	0.83	(0.01)	0.83	(0.01)	0.75	(0.02)	79.3	(1.2)	10.1	(1.5)	9.9	(1.5)	59.3	(2.3)	20.7	(1.2)
	Spain	0.79	(0.02)	0.65	(0.02)	0.72	(0.02)	64.4	(2.5)	21.7	(2.5)	1.5	(0.6)	41.3	(2.8)	35.6	(2.5)
	United States	0.86	(0.01)	0.84	(0.01)	0.79	(0.01)	80.0	(1.5)	9.6	(1.3)	6.9	(1.0)	63.5	(2.0)	20.0	(1.5)
	OECD average-13	0.83	(0.00)	0.79	(0.00)	0.77	(0.00)	74.7	(0.5)	12.2	(0.5)	6.0	(0.3)	56.5	(0.6)	25.3	(0.5)
Partners	Colombia	0.51	(0.03)	0.52	(0.03)	0.73	(0.02)	30.2	(3.3)	3.5	(1.3)	4.6	(1.5)	22.1	(2.8)	69.8	(3.3)
	Croatia	0.85	(0.01)	0.80	(0.01)	0.74	(0.02)	79.2	(1.5)	14.5	(1.5)	6.9	(1.2)	57.8	(2.2)	20.8	(1.5)
	Latvia	0.75	(0.03)	0.75	(0.02)	0.68	(0.03)	66.8	(3.0)	11.2	(2.4)	10.3	(2.3)	45.3	(3.2)	33.2	(3.0)
	Russian Federation	0.73	(0.02)	0.68	(0.02)	0.75	(0.02)	57.9	(2.4)	11.0	(1.8)	4.3	(1.1)	42.6	(2.2)	42.1	(2.4)
	Shanghai-China	0.88	(0.01)	0.82	(0.01)	0.81	(0.02)	80.9	(1.2)	14.1	(1.6)	3.1	(0.6)	63.7	(2.0)	19.1	(1.2)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. The reported correlations are pairwise correlations between the corresponding latent constructs.
2. Total explained variance is the R-squared coefficient from a regression of financial literacy performance on mathematics and reading performance. Variation uniquely associated with each domain is measured as the difference between the R-squared of the full regression and the R-squared of a regression of financial literacy on the two remaining domains only. The residual variation is computed as (100 - total explained variation).
3. "Students around the world" refers to 15-year-old students in countries and economies that participated in the 2012 PISA assessment of financial literacy. National samples are weighted according to the size of the target population using final student weights.
4. This column reports the difference between actual performance and the fitted value from a regression using a second-degree polynomial as regression function (math, math sq., read, read sq., mathXread).
5. This column reports the percentage of students for whom the difference between actual performance and the fitted value from a regression is positive.
6. This column reports the difference between actual performance and the fitted value from a regression using a cubic polynomial as regression function.

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Table V1.2.4 Correlation of financial literacy performance with performance in mathematics and reading

		Relative performance in problem solving compared with students around the world[1] with similar scores in…											
		… Mathematics and reading (expected performance)				… Mathematics							
		Relative performance across all students[4] (actual minus expected score)		Percentage of students who perform above their expected score[5]		Relative performance across all students[6]		Relative performance among strong and top performers in mathematics (at or above Level 4)[6]		Relative performance among moderate and low performers in mathematics (at or below Level 3)[6]		Difference in relative performance: strong and top performers minus moderate and low performers	
		Score dif.	S.E.	%	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	**18**	(1.8)	**65.5**	(1.7)	**19**	(2.1)	**29**	(3.2)	**14**	(2.3)	**14**	(3.3)
	Flemish Community (Belgium)	**9**	(2.4)	**57.9**	(2.2)	2	(2.8)	2	(3.6)	3	(3.7)	-1	(4.7)
	Czech Republic	**19**	(2.4)	**66.3**	(2.4)	**14**	(2.6)	4	(3.7)	**18**	(3.0)	**-14**	(4.1)
	Estonia	**5**	(2.5)	54.5	(2.5)	-1	(2.7)	**-15**	(3.9)	**11**	(2.9)	**-26**	(4.2)
	France	**-24**	(2.4)	**31.2**	(2.1)	**-31**	(2.7)	**-28**	(3.1)	**-33**	(3.9)	4	(4.9)
	Israel	-5	(3.1)	47.4	(2.2)	-1	(3.5)	1	(5.1)	-2	(4.1)	4	(6.1)
	Italy	**-14**	(1.8)	**38.3**	(1.5)	**-19**	(1.8)	**-39**	(2.7)	**-12**	(2.0)	**-27**	(3.1)
	New Zealand	**12**	(2.7)	**60.1**	(2.6)	**14**	(3.0)	**28**	(4.9)	6	(3.4)	**22**	(5.6)
	Poland	2	(2.3)	52.1	(2.3)	2	(2.8)	-6	(3.3)	**7**	(3.2)	**-13**	(3.5)
	Slovak Republic	2	(2.8)	54.1	(3.0)	**-11**	(3.3)	**-9**	(4.3)	**-11**	(3.8)	1	(4.7)
	Slovenia	**-8**	(1.8)	**41.8**	(2.2)	**-17**	(2.3)	**-18**	(3.7)	**-16**	(2.8)	-2	(4.5)
	Spain	4	(2.4)	52.8	(2.3)	-1	(2.6)	**-11**	(4.1)	2	(3.0)	**-14**	(4.9)
	United States	1	(1.4)	50.8	(1.9)	**9**	(1.6)	**20**	(3.4)	**6**	(1.8)	**14**	(3.8)
	OECD average-13	**2**	(0.6)	**51.8**	(0.6)	**-2**	(0.7)	**-3**	(1.1)	0	(0.9)	**-3**	(1.2)
Partners	Colombia	-5	(2.8)	49.4	(1.5)	**-9**	(3.2)	**-46**	(14.4)	**-8**	(3.2)	**-38**	(14.5)
	Croatia	2	(2.2)	52.8	(2.7)	4	(2.5)	-2	(3.6)	**6**	(2.7)	**-8**	(3.8)
	Latvia	1	(2.9)	50.1	(2.9)	-5	(3.3)	**-22**	(4.2)	3	(4.0)	**-25**	(5.1)
	Russian Federation	**14**	(2.4)	**61.6**	(2.1)	0	(3.1)	**-16**	(4.8)	5	(3.5)	**-21**	(5.3)
	Shanghai-China	0	(2.7)	49.0	(2.7)	1	(3.0)	-3	(3.1)	**16**	(5.0)	**-19**	(5.2)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. The reported correlations are pairwise correlations between the corresponding latent constructs.
2. Total explained variance is the R-squared coefficient from a regression of financial literacy performance on mathematics and reading performance. Variation uniquely associated with each domain is measured as the difference between the R-squared of the full regression and the R-squared of a regression of financial literacy on the two remaining domains only. The residual variation is computed as (100 - total explained variation).
3. "Students around the world" refers to 15-year-old students in countries and economies that participated in the 2012 PISA assessment of financial literacy. National samples are weighted according to the size of the target population using final student weights.
4. This column reports the difference between actual performance and the fitted value from a regression using a second-degree polynomial as regression function (math, math sq., read, read sq., mathXread).
5. This column reports the percentage of students for whom the difference between actual performance and the fitted value from a regression is positive.
6. This column reports the difference between actual performance and the fitted value from a regression using a cubic polynomial as regression function.

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[Part 1/3]

Gender differences in student performance in financial literacy

Table VI.3.1 *Results based on students' self-reports*

		Mean score						Standard deviation						5th Percentiles					
		Boys		Girls		Difference (B - G)		Boys		Girls		Difference (B - G)		Boys		Girls		Difference (B - G)	
		Mean	S.E.	Mean	S.E.	Score dif.	S.E.	S.D.	S.E.	S.D.	S.E.	Dif.	S.E.	Mean	S.E.	Mean	S.E.	Score dif.	S.E.
OECD	Australia	524	(3.4)	528	(2.4)	-3	(4.0)	108	(2.3)	94	(2.4)	14	(3.5)	342	(7.7)	375	(8.8)	**-34**	(9.8)
	Flemish Community (Belgium)	547	(4.7)	536	(4.8)	11	(6.4)	99	(4.0)	96	(3.2)	**3**	(5.1)	374	(11.5)	364	(12.8)	10	(19.0)
	Czech Republic	516	(4.5)	510	(4.3)	6	(6.0)	90	(4.4)	87	(3.5)	3	(5.2)	362	(23.9)	361	(20.7)	1	(33.6)
	Estonia	527	(4.5)	531	(4.1)	-3	(6.2)	83	(2.6)	74	(2.8)	**9**	(4.0)	392	(9.1)	409	(12.3)	-18	(16.3)
	France	483	(4.7)	489	(4.5)	-6	(6.2)	118	(5.0)	92	(3.4)	**26**	(6.0)	274	(19.0)	323	(15.8)	**-50**	(23.5)
	Israel	474	(9.0)	480	(5.6)	-6	(9.2)	127	(5.8)	100	(4.2)	**27**	(5.6)	247	(16.8)	306	(17.7)	**-59**	(18.7)
	Italy	470	(3.1)	462	(2.2)	**8**	(3.4)	92	(2.1)	81	(1.6)	**11**	(2.4)	308	(7.1)	321	(5.6)	-13	(9.2)
	New Zealand	521	(6.5)	519	(4.7)	3	(8.5)	130	(4.2)	105	(3.5)	**25**	(5.5)	286	(15.4)	340	(15.1)	**-54**	(19.4)
	Poland	512	(4.7)	508	(4.2)	3	(5.0)	88	(3.2)	76	(2.5)	**12**	(4.1)	366	(9.7)	380	(8.0)	-14	(12.8)
	Slovak Republic	469	(5.8)	472	(6.2)	-3	(6.9)	106	(4.1)	104	(4.6)	**2**	(4.7)	287	(13.8)	268	(25.8)	19	(27.1)
	Slovenia	481	(5.2)	489	(5.0)	-8	(7.8)	95	(3.4)	83	(3.8)	12	(5.4)	323	(9.3)	345	(19.4)	-22	(23.2)
	Spain	487	(4.3)	481	(4.3)	6	(5.8)	87	(2.5)	82	(3.3)	**5**	(3.9)	331	(13.9)	340	(12.6)	-9	(16.6)
	United States	492	(6.3)	491	(6.0)	1	(7.4)	102	(3.7)	96	(3.4)	**6**	(5.1)	320	(15.9)	328	(15.8)	-8	(25.0)
	OECD average-13	500	(1.5)	500	(1.3)	1	(1.8)	102	(1.1)	90	(0.9)	**12**	(1.3)	324	(3.9)	343	(4.3)	**-19**	(5.7)
Partners	Colombia	379	(6.3)	379	(5.8)	0	(7.6)	110	(4.5)	101	(5.0)	**8**	(6.3)	190	(14.8)	193	(25.8)	-3	(26.1)
	Croatia	483	(5.8)	478	(4.3)	5	(6.9)	89	(3.8)	80	(2.9)	**9**	(5.0)	327	(18.5)	338	(8.7)	-11	(20.7)
	Latvia	495	(4.8)	506	(4.3)	-11	(6.3)	81	(4.1)	74	(2.9)	**8**	(4.8)	356	(11.7)	385	(9.4)	-28	(16.1)
	Russian Federation	487	(4.5)	486	(4.2)	1	(4.7)	92	(3.1)	84	(3.0)	**8**	(4.1)	322	(12.1)	341	(12.0)	-19	(15.6)
	Shanghai-China	603	(4.6)	604	(3.9)	-1	(5.5)	86	(3.1)	81	(3.1)	**5**	(3.7)	455	(10.7)	463	(15.8)	-7	(16.7)

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

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[Part 2/3]

Gender differences in student performance in financial literacy

Table VI.3.1 *Results based on students' self-reports*

		10th Percentiles						25th Percentiles						50th Percentiles					
		Boys		Girls		Difference (B - G)		Boys		Girls		Difference (B - G)		Boys		Girls		Difference (B - G)	
		Mean	S.E.	Mean	S.E.	Score dif.	S.E.	Mean	S.E.	Mean	S.E.	Score dif.	S.E.	Mean	S.E.	Mean	S.E.	Score dif.	S.E.
OECD	Australia	385	(6.3)	410	(6.1)	**-24**	(8.3)	454	(5.2)	466	(3.5)	**-13**	(6.1)	529	(4.5)	526	(3.6)	2	(6.1)
	Flemish Community (Belgium)	409	(9.9)	409	(10.6)	1	(13.7)	485	(10.9)	478	(7.8)	7	(12.8)	558	(6.2)	543	(6.0)	15	(8.5)
	Czech Republic	404	(11.6)	396	(9.8)	8	(15.7)	461	(9.1)	452	(6.8)	8	(11.0)	518	(5.8)	515	(5.8)	3	(7.6)
	Estonia	419	(10.2)	436	(7.9)	-17	(11.3)	471	(7.3)	482	(7.4)	-11	(10.9)	528	(6.4)	531	(4.9)	-3	(7.8)
	France	329	(12.6)	368	(10.2)	**-38**	(15.9)	408	(9.0)	436	(7.6)	**-29**	(11.0)	493	(6.8)	493	(4.5)	0	(7.8)
	Israel	296	(17.9)	353	(11.3)	**-57**	(17.9)	394	(14.7)	422	(8.5)	-27	(17.4)	487	(9.4)	486	(7.6)	1	(11.7)
	Italy	344	(8.8)	354	(4.2)	-10	(9.8)	412	(5.4)	412	(3.8)	0	(6.2)	478	(3.5)	467	(2.5)	**11**	(4.0)
	New Zealand	338	(17.1)	378	(13.6)	-40	(23.1)	437	(13.6)	446	(8.7)	-8	(16.2)	532	(10.9)	524	(6.8)	8	(12.0)
	Poland	396	(8.0)	406	(8.6)	-10	(11.4)	450	(7.3)	457	(6.6)	-6	(9.0)	516	(7.6)	513	(5.9)	3	(8.6)
	Slovak Republic	329	(14.3)	331	(19.6)	-2	(22.1)	399	(9.6)	417	(9.0)	-18	(11.1)	472	(6.7)	482	(8.0)	-10	(9.8)
	Slovenia	357	(9.3)	381	(12.9)	-23	(16.3)	412	(8.9)	438	(6.4)	**-26**	(11.7)	484	(7.4)	487	(6.9)	-3	(10.7)
	Spain	370	(7.7)	371	(8.9)	-1	(10.9)	430	(8.9)	428	(5.9)	2	(10.1)	493	(5.2)	485	(5.8)	8	(7.4)
	United States	360	(8.7)	369	(10.5)	-9	(13.0)	422	(8.3)	426	(7.8)	-3	(10.4)	489	(9.2)	491	(8.3)	-2	(10.5)
	OECD average-13	364	(3.2)	382	(3.0)	**-17**	(4.2)	434	(2.6)	443	(2.0)	**-10**	(3.2)	506	(2.0)	503	(1.7)	3	(2.5)
Partners	Colombia	237	(11.6)	244	(15.6)	-7	(18.8)	307	(7.8)	317	(10.2)	-10	(12.6)	378	(8.1)	388	(7.3)	-10	(10.8)
	Croatia	373	(8.1)	372	(7.2)	1	(10.3)	427	(7.6)	427	(8.1)	0	(9.8)	482	(8.2)	480	(5.0)	3	(9.4)
	Latvia	395	(10.1)	410	(7.7)	-15	(13.1)	443	(8.7)	457	(6.5)	-14	(10.9)	499	(7.3)	507	(6.7)	-8	(8.6)
	Russian Federation	362	(8.5)	373	(9.4)	-11	(13.0)	431	(7.6)	433	(7.3)	-3	(9.6)	495	(5.3)	491	(5.3)	4	(7.0)
	Shanghai-China	489	(8.7)	503	(7.6)	-14	(10.5)	546	(7.2)	552	(7.1)	-5	(9.1)	609	(6.1)	610	(5.6)	-1	(7.9)

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

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[Part 3/3]

Gender differences in student performance in financial literacy

Table VI.3.1 *Results based on students' self-reports*

		75th Percentiles						90th Percentiles						95th Percentiles					
		Boys		Girls		Difference (B - G)		Boys		Girls		Difference (B - G)		Boys		Girls		Difference (B - G)	
		Mean	S.E.	Mean	S.E.	Score dif.	S.E.	Mean	S.E.	Mean	S.E.	Score dif.	S.E.	Mean	S.E.	Mean	S.E.	Score dif.	S.E.
OECD	Australia	598	(5.3)	591	(3.7)	7	(5.9)	660	(7.6)	647	(5.8)	13	(9.8)	695	(9.5)	684	(7.9)	11	(13.0)
	Flemish Community (Belgium)	616	(5.7)	604	(6.4)	12	(9.1)	667	(7.7)	649	(6.8)	18	(10.2)	693	(10.6)	675	(6.9)	18	(12.9)
	Czech Republic	577	(5.0)	569	(5.2)	8	(6.7)	632	(8.5)	615	(6.1)	17	(9.5)	656	(8.3)	645	(8.9)	11	(11.8)
	Estonia	586	(6.8)	578	(7.3)	8	(10.1)	636	(9.8)	624	(8.2)	12	(13.4)	663	(10.5)	654	(12.8)	10	(18.1)
	France	566	(5.2)	550	(8.3)	16	(9.7)	627	(8.2)	601	(8.4)	**27**	(11.2)	657	(11.0)	630	(9.5)	26	(15.0)
	Israel	563	(10.3)	550	(7.2)	14	(13.1)	630	(12.6)	602	(7.8)	**28**	(13.5)	665	(16.1)	632	(10.5)	33	(19.0)
	Italy	536	(3.7)	519	(3.4)	**17**	(4.7)	584	(4.0)	563	(3.8)	**21**	(5.0)	608	(4.4)	586	(3.8)	**22**	(5.2)
	New Zealand	613	(8.0)	594	(6.8)	19	(10.8)	683	(10.5)	649	(7.2)	**34**	(13.1)	719	(11.6)	681	(14.0)	**38**	(19.5)
	Poland	571	(6.4)	561	(4.6)	10	(7.4)	623	(9.7)	600	(5.4)	**23**	(10.5)	655	(9.9)	622	(8.1)	**33**	(11.7)
	Slovak Republic	542	(9.1)	541	(7.9)	1	(11.4)	602	(10.2)	590	(8.3)	12	(12.1)	636	(12.1)	622	(13.0)	14	(17.0)
	Slovenia	544	(10.1)	546	(7.9)	-2	(13.6)	607	(9.6)	591	(8.4)	15	(12.3)	639	(10.8)	616	(15.5)	22	(19.5)
	Spain	549	(7.1)	537	(7.0)	12	(9.6)	597	(6.5)	587	(8.7)	10	(11.8)	621	(8.9)	612	(10.9)	9	(14.8)
	United States	569	(10.3)	555	(9.1)	13	(11.9)	625	(10.2)	614	(14.0)	11	(16.1)	659	(11.1)	654	(14.9)	4	(18.8)
	OECD average-13	572	(2.1)	561	(1.9)	**10**	(2.7)	629	(2.5)	610	(2.2)	**19**	(3.2)	659	(3.0)	640	(3.1)	**19**	(4.3)
Partners	Colombia	453	(8.1)	449	(5.8)	4	(9.2)	519	(12.0)	500	(7.5)	20	(12.2)	557	(13.7)	530	(11.4)	27	(17.8)
	Croatia	545	(7.0)	535	(5.1)	10	(8.2)	594	(8.7)	577	(7.1)	18	(12.0)	624	(8.8)	604	(9.7)	20	(13.6)
	Latvia	553	(7.4)	559	(7.0)	-6	(10.2)	594	(9.3)	601	(8.2)	-7	(13.1)	618	(15.0)	622	(7.7)	-4	(16.7)
	Russian Federation	553	(5.6)	544	(6.8)	9	(7.9)	598	(9.0)	590	(6.4)	8	(9.5)	624	(8.2)	617	(8.7)	8	(11.7)
	Shanghai-China	664	(5.6)	660	(6.0)	5	(8.6)	707	(8.0)	700	(5.0)	7	(9.2)	732	(9.9)	726	(7.5)	6	(11.5)

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

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[Part 1/1]

Gender differences in financial literacy performance, after accounting for performance in mathematics and reading

Table VI.3.2 *Results based on students' self-reports*

		Score-point difference between boys and girls (B-G)						Gender effect size: Difference in performance related to gender divided by the variation in scores within each country/economy (standard deviation)										Relative performance in financial literacy: Financial literacy score-point difference between boys and girls after accounting for performance in mathematics and reading					
		Financial literacy		Mathematics		Reading		Financial literacy		Mathematics		Reading		Difference in effect size between financial literacy and mathematics		Difference in effect size between financial literacy and reading		After accounting for mathematics		After accounting for reading		After accounting for mathematics and reading	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Dif.	S.E.	Dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	-3	(4.0)	**13**	(3.9)	**-34**	(3.7)	-0.03	(0.04)	**0.15**	(0.04)	**-0.35**	(0.04)	**-0.18**	(0.02)	**0.32**	(0.02)	**-16**	(2.2)	**27**	(2.3)	**6**	(2.0)
	Flemish Community (Belgium)	11	(6.4)	**21**	(6.5)	**-27**	(5.3)	0.11	(0.07)	**0.21**	(0.07)	**-0.31**	(0.06)	**-0.10**	(0.04)	**0.42**	(0.04)	-6	(3.7)	**36**	(3.9)	**10**	(3.7)
	Czech Republic	6	(6.0)	**23**	(6.9)	**-26**	(6.6)	0.07	(0.07)	**0.24**	(0.07)	**-0.28**	(0.07)	**-0.17**	(0.04)	**0.35**	(0.05)	**-12**	(3.6)	**26**	(3.7)	1	(3.7)
	Estonia	-3	(6.2)	6	(6.9)	**-44**	(7.1)	-0.04	(0.08)	0.06	(0.07)	**-0.51**	(0.08)	**-0.10**	(0.04)	**0.46**	(0.04)	**-7**	(3.0)	**29**	(3.5)	**10**	(3.1)
	France	-6	(6.2)	**15**	(6.0)	**-37**	(7.0)	-0.05	(0.06)	**0.14**	(0.06)	**-0.35**	(0.06)	**-0.20**	(0.04)	**0.29**	(0.05)	**-19**	(3.8)	**25**	(4.3)	0	(4.2)
	Israel	-6	(9.2)	5	(9.0)	**-50**	(10.2)	-0.05	(0.08)	0.05	(0.08)	**-0.40**	(0.08)	**-0.10**	(0.05)	**0.35**	(0.06)	-10	(5.4)	**31**	(6.4)	4	(5.6)
	Italy	**8**	(3.4)	**18**	(3.5)	**-35**	(3.7)	**0.09**	(0.04)	**0.18**	(0.03)	**-0.34**	(0.03)	**-0.09**	(0.02)	**0.43**	(0.03)	-3	(2.2)	**30**	(2.3)	**15**	(2.2)
	New Zealand	3	(8.5)	**27**	(8.1)	**-28**	(7.8)	0.02	(0.07)	**0.27**	(0.08)	**-0.27**	(0.07)	**-0.25**	(0.04)	**0.29**	(0.04)	**-25**	(4.5)	**30**	(4.5)	4	(4.0)
	Poland	3	(5.0)	9	(6.1)	**-36**	(6.2)	0.04	(0.06)	0.10	(0.07)	**-0.39**	(0.07)	-0.06	(0.04)	**0.43**	(0.04)	-4	(2.9)	**30**	(2.9)	**12**	(2.8)
	Slovak Republic	-3	(6.9)	2	(7.3)	**-36**	(7.7)	-0.03	(0.07)	0.02	(0.07)	**-0.36**	(0.08)	-0.05	(0.04)	**0.33**	(0.05)	-5	(3.6)	**29**	(4.7)	**12**	(4.1)
	Slovenia	-8	(7.8)	7	(7.5)	**-43**	(7.0)	-0.09	(0.09)	0.08	(0.08)	**-0.49**	(0.08)	**-0.17**	(0.05)	**0.40**	(0.04)	**-14**	(4.5)	**30**	(3.6)	**11**	(4.3)
	Spain	6	(5.8)	**18**	(5.8)	**-16**	(6.6)	0.07	(0.07)	**0.21**	(0.07)	**-0.17**	(0.07)	**-0.13**	(0.05)	**0.24**	(0.06)	**-8**	(3.8)	**16**	(4.5)	-3	(3.9)
	United States	1	(7.4)	**14**	(6.6)	**-31**	(6.5)	0.01	(0.07)	**0.16**	(0.07)	**-0.34**	(0.07)	**-0.15**	(0.04)	**0.35**	(0.04)	**-13**	(3.6)	**30**	(3.6)	**9**	(3.6)
	OECD average-13	1	(1.8)	**14**	(1.8)	**-34**	(1.9)	0.01	(0.02)	**0.14**	(0.02)	**-0.35**	(0.02)	**-0.13**	(0.01)	**0.36**	(0.01)	**-11**	(1.0)	**28**	(1.1)	**7**	(1.0)
Partners	Colombia	0	(7.6)	**18**	(8.2)	-3	(6.9)	0.00	(0.07)	**0.18**	(0.08)	-0.03	(0.07)	**-0.18**	(0.07)	0.03	(0.07)	-10	(6.1)	1	(6.7)	-5	(6.2)
	Croatia	5	(6.9)	**23**	(7.2)	**-37**	(6.6)	0.06	(0.08)	**0.26**	(0.08)	**-0.42**	(0.07)	**-0.19**	(0.04)	**0.49**	(0.05)	**-13**	(3.5)	**36**	(4.1)	**9**	(3.3)
	Latvia	-11	(6.3)	8	(6.6)	**-58**	(6.4)	-0.14	(0.08)	0.09	(0.07)	**-0.69**	(0.07)	**-0.23**	(0.06)	**0.55**	(0.05)	**-16**	(4.7)	**33**	(4.3)	**12**	(5.5)
	Russian Federation	1	(4.7)	**13**	(5.5)	**-30**	(5.4)	0.02	(0.05)	**0.14**	(0.06)	**-0.34**	(0.06)	**-0.12**	(0.05)	**0.36**	(0.05)	**-8**	(3.8)	**23**	(4.3)	5	(4.5)
	Shanghai-China	-1	(5.5)	-5	(7.1)	**-34**	(5.2)	-0.01	(0.07)	-0.05	(0.07)	**-0.40**	(0.06)	0.04	(0.03)	**0.39**	(0.04)	3	(2.6)	**28**	(3.1)	**13**	(2.5)

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

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[Part 1/5]

Table VI.3.3 Percentage of students at each proficiency level in financial literacy, mathematics and reading, by gender

Results based on students' self-reports

		Financial literacy																			
		Boys										Girls									
		Level 1 and below (less than 400.33 score points)		Level 2 (from 400.33 score points to less than 475.10 score points)		Level 3 (from 475.10 score points to less than 549.86 score points)		Level 4 (from 549.86 score points to less than 624.63 score points)		Level 5 (above 624.63 score points)		Level 1 and below (less than 400.33 score points)		Level 2 (from 400.33 score points to less than 475.10 score points)		Level 3 (from 475.10 score points to less than 549.86 score points)		Level 4 (from 549.86 score points to less than 624.63 score points)		Level 5 (above 624.63 score points)	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	12.3	(0.9)	19.1	(1.8)	27.0	(1.4)	24.3	(1.4)	17.3	(1.2)	8.4	(0.8)	19.8	(1.5)	31.7	(1.6)	25.6	(1.3)	14.6	(1.1)
	Flemish Community (Belgium)	8.7	(1.5)	14.3	(2.0)	23.7	(2.3)	31.6	(2.5)	21.7	(2.2)	8.6	(1.2)	15.8	(1.8)	28.6	(2.0)	29.2	(2.4)	17.7	(1.8)
	Czech Republic	9.5	(1.8)	20.5	(2.7)	33.3	(2.4)	25.5	(2.0)	11.3	(1.4)	10.8	(2.2)	22.0	(2.7)	32.3	(2.9)	26.6	(2.7)	8.3	(1.4)
	Estonia	6.4	(1.4)	20.1	(2.8)	33.9	(3.5)	27.1	(2.4)	12.5	(1.8)	4.1	(1.2)	18.0	(2.3)	38.3	(2.8)	29.7	(2.7)	10.0	(1.7)
	France	23.4	(2.0)	19.8	(2.9)	26.6	(2.6)	19.8	(2.0)	10.4	(1.5)	15.5	(1.8)	25.3	(2.3)	34.2	(2.5)	19.0	(2.1)	5.9	(1.7)
	Israel	26.1	(2.8)	20.1	(2.5)	24.6	(2.7)	18.3	(2.5)	10.8	(2.0)	19.3	(2.2)	26.2	(3.1)	29.7	(2.6)	18.8	(2.4)	5.9	(1.3)
	Italy	22.0	(1.4)	26.7	(1.4)	31.3	(1.5)	16.8	(1.1)	3.2	(0.4)	21.4	(1.0)	32.4	(1.2)	32.1	(1.1)	13.0	(1.1)	1.0	(0.3)
	New Zealand	18.1	(2.0)	16.6	(2.1)	20.5	(2.1)	22.8	(2.4)	22.1	(2.2)	14.0	(1.8)	19.4	(2.1)	26.3	(2.2)	23.8	(2.4)	16.5	(1.8)
	Poland	10.9	(1.8)	23.3	(2.2)	30.8	(2.7)	25.2	(2.3)	9.9	(1.8)	8.7	(1.6)	23.1	(2.5)	37.4	(2.7)	26.1	(2.6)	4.7	(1.2)
	Slovak Republic	25.3	(2.4)	25.9	(2.8)	25.5	(2.4)	16.8	(2.0)	6.5	(1.5)	20.3	(2.6)	27.1	(2.7)	30.8	(2.8)	17.0	(2.1)	4.7	(1.0)
	Slovenia	21.2	(2.6)	25.5	(2.6)	29.5	(2.2)	16.8	(2.2)	7.0	(1.6)	13.8	(2.1)	29.4	(3.2)	33.2	(3.8)	19.2	(2.5)	4.4	(1.2)
	Spain	16.5	(1.8)	25.3	(2.7)	33.6	(2.2)	20.1	(2.0)	4.5	(1.3)	16.5	(1.7)	27.7	(2.8)	35.8	(3.0)	17.0	(2.4)	3.0	(1.2)
	United States	19.0	(1.8)	25.7	(2.5)	24.7	(2.7)	20.5	(2.8)	10.1	(1.7)	16.8	(2.1)	26.8	(2.4)	29.4	(2.7)	18.3	(2.4)	8.8	(1.5)
	OECD average-13	16.9	(0.5)	21.8	(0.7)	28.1	(0.7)	22.0	(0.6)	11.3	(0.5)	13.7	(0.5)	24.1	(0.7)	32.3	(0.7)	21.8	(0.6)	8.1	(0.4)
Partners	Colombia	57.8	(2.8)	23.4	(2.6)	12.9	(1.8)	4.7	(1.5)	1.2	(0.6)	55.1	(2.4)	28.8	(2.0)	13.2	(1.7)	2.6	(0.9)	0.2	(0.2)
	Croatia	15.9	(2.2)	31.0	(2.6)	29.7	(2.5)	18.6	(2.5)	4.8	(1.2)	17.1	(2.0)	30.5	(2.0)	33.5	(2.2)	16.2	(1.9)	2.7	(0.9)
	Latvia	11.3	(2.1)	27.8	(2.7)	34.9	(2.7)	21.4	(2.4)	4.6	(1.3)	7.9	(1.8)	25.7	(2.7)	37.6	(3.5)	24.2	(2.8)	4.6	(1.3)
	Russian Federation	17.5	(1.9)	24.4	(1.9)	31.7	(2.7)	21.6	(2.1)	4.8	(1.3)	16.0	(1.8)	26.3	(2.3)	34.5	(2.6)	19.5	(2.6)	3.7	(1.1)
	Shanghai-China	1.3	(0.6)	5.9	(1.2)	18.9	(1.8)	30.9	(2.9)	43.0	(2.8)	1.8	(0.5)	4.4	(1.1)	18.3	(2.0)	33.3	(3.2)	42.2	(2.8)

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[Part 2/5]

Table VI.3.3 Percentage of students at each proficiency level in financial literacy, mathematics and reading, by gender

Results based on students' self-reports

		Mathematics													
		Boys													
		Below Level 1 (below 357.77 score points)		Level 1 (from 357.77 to less than 420.07 score points)		Level 2 (from 420.07 to less than 482.38 score points)		Level 3 (from 482.38 to less than 544.68 score points)		Level 4 (from 544.68 to less than 606.99 score points)		Level 5 (from 606.99 to less than 669.30 score points)		Level 6 (above 669.30 score points)	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	4.0	(0.6)	10.4	(1.1)	22.0	(1.3)	28.9	(1.6)	19.5	(1.9)	10.6	(0.9)	4.6	(0.8)
	Flemish Community (Belgium)	2.7	(0.8)	6.6	(1.5)	12.5	(1.9)	24.6	(2.2)	20.7	(2.3)	20.5	(1.9)	12.4	(1.8)
	Czech Republic	7.5	(2.1)	11.4	(2.3)	20.7	(2.7)	22.7	(2.5)	20.5	(2.4)	13.1	(1.8)	4.3	(0.9)
	Estonia	3.2	(1.1)	8.7	(1.9)	17.4	(2.3)	23.8	(2.4)	23.4	(2.2)	14.9	(1.8)	8.6	(1.4)
	France	6.9	(1.4)	10.5	(1.4)	16.8	(2.2)	20.2	(1.9)	21.4	(2.3)	15.5	(2.1)	8.7	(1.4)
	Israel	16.1	(2.5)	16.0	(2.5)	17.5	(1.9)	22.5	(2.3)	15.6	(2.1)	8.5	(1.3)	3.8	(1.1)
	Italy	10.7	(1.0)	13.6	(1.0)	19.4	(1.3)	24.1	(1.3)	20.5	(1.1)	9.1	(0.9)	2.6	(0.5)
	New Zealand	6.9	(1.8)	12.0	(2.7)	17.5	(2.2)	22.7	(2.2)	20.1	(2.4)	11.7	(1.9)	9.1	(1.6)
	Poland	4.4	(1.2)	12.0	(1.7)	21.2	(2.2)	25.5	(2.5)	21.3	(2.0)	11.0	(1.8)	4.7	(1.4)
	Slovak Republic	13.3	(1.9)	17.0	(2.3)	20.1	(2.7)	22.3	(2.7)	16.5	(1.9)	8.4	(1.5)	2.4	(0.9)
	Slovenia	7.7	(1.7)	11.6	(1.8)	22.4	(3.2)	23.0	(2.2)	19.0	(1.9)	12.6	(1.7)	3.7	(1.0)
	Spain	8.5	(1.7)	13.2	(1.7)	22.4	(2.2)	27.5	(2.4)	20.2	(2.4)	7.1	(1.6)	1.2	(0.5)
	United States	7.7	(1.5)	16.0	(2.2)	26.2	(2.2)	24.8	(2.3)	15.5	(2.5)	7.5	(2.0)	2.2	(0.9)
	OECD average-13	7.7	(0.4)	12.2	(0.5)	19.7	(0.6)	24.0	(0.6)	19.5	(0.6)	11.6	(0.5)	5.3	(0.3)
Partners	Colombia	45.3	(3.0)	25.4	(2.6)	17.8	(2.4)	6.9	(1.2)	2.8	(0.8)	1.5	(0.9)	0.3	(0.2)
	Croatia	7.2	(1.5)	16.7	(2.5)	27.6	(3.0)	24.9	(2.1)	15.0	(1.6)	6.6	(1.7)	1.9	(0.9)
	Latvia	5.3	(1.6)	10.6	(2.4)	22.6	(2.9)	27.0	(3.2)	21.2	(2.2)	9.4	(1.6)	3.9	(1.3)
	Russian Federation	8.0	(1.6)	14.2	(1.6)	23.9	(2.8)	24.6	(3.3)	19.7	(2.1)	7.8	(1.6)	1.7	(0.7)
	Shanghai-China	1.3	(0.5)	3.4	(0.9)	5.6	(1.2)	11.3	(1.6)	18.6	(1.8)	24.0	(2.3)	35.8	(2.6)

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[Part 3/5]

Table VI.3.3 Percentage of students at each proficiency level in financial literacy, mathematics and reading, by gender
Results based on students' self-reports

		Mathematics													
		Girls													
		Below Level 1 (below 357.77 score points)		Level 1 (from 357.77 to less than 420.07 score points)		Level 2 (from 420.07 to less than 482.38 score points)		Level 3 (from 482.38 to less than 544.68 score points)		Level 4 (from 544.68 to less than 606.99 score points)		Level 5 (from 606.99 to less than 669.30 score points)		Level 6 (above 669.30 score points)	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	4.2	(0.6)	13.2	(1.2)	25.6	(1.3)	27.7	(1.7)	18.5	(1.4)	7.5	(0.8)	3.3	(0.7)
	Flemish Community (Belgium)	4.1	(1.1)	9.1	(1.4)	16.1	(2.0)	24.6	(2.0)	21.7	(2.4)	16.1	(2.2)	8.4	(1.5)
	Czech Republic	7.2	(1.7)	16.7	(2.0)	24.7	(2.2)	26.7	(2.6)	15.7	(1.9)	7.0	(1.4)	2.0	(0.7)
	Estonia	3.5	(1.2)	7.0	(1.2)	18.1	(2.0)	27.9	(2.2)	23.9	(2.4)	13.1	(1.8)	6.5	(1.2)
	France	6.0	(1.4)	10.5	(1.9)	18.1	(2.0)	27.7	(2.6)	23.0	(2.1)	11.2	(1.5)	3.5	(0.9)
	Israel	13.2	(2.0)	17.4	(3.0)	23.6	(2.8)	23.3	(3.1)	14.2	(2.1)	6.6	(1.5)	1.7	(0.8)
	Italy	11.7	(0.8)	16.1	(1.0)	24.6	(1.1)	25.1	(1.5)	16.4	(1.0)	5.3	(0.6)	0.8	(0.2)
	New Zealand	7.1	(1.7)	12.7	(1.6)	27.8	(2.7)	22.9	(2.4)	18.7	(2.4)	8.2	(1.4)	2.6	(1.0)
	Poland	4.6	(1.0)	11.4	(1.8)	24.4	(2.5)	28.4	(2.1)	20.9	(1.9)	7.2	(1.3)	3.2	(1.0)
	Slovak Republic	12.5	(1.9)	14.8	(2.0)	24.0	(2.4)	23.7	(2.1)	16.6	(2.6)	6.0	(1.7)	2.3	(0.9)
	Slovenia	4.3	(1.1)	12.0	(1.6)	29.6	(2.9)	26.4	(3.5)	17.1	(2.2)	7.8	(1.7)	2.8	(1.1)
	Spain	9.4	(1.5)	16.3	(2.5)	28.9	(2.6)	26.2	(2.2)	14.5	(2.2)	4.2	(1.1)	0.6	(0.3)
	United States	7.1	(1.5)	20.8	(1.9)	28.1	(2.6)	24.9	(2.7)	13.7	(1.8)	4.7	(1.1)	0.8	(0.4)
	OECD average-13	7.3	(0.4)	13.7	(0.5)	24.1	(0.6)	25.8	(0.7)	18.1	(0.6)	8.1	(0.4)	3.0	(0.3)
Partners	Colombia	52.7	(3.2)	24.7	(2.8)	16.1	(2.0)	4.9	(1.1)	1.5	(0.7)	0.1	(0.2)	0.0	(0.0)
	Croatia	11.9	(1.7)	20.7	(2.2)	28.9	(2.7)	22.8	(2.1)	12.0	(1.9)	3.1	(0.9)	0.6	(0.3)
	Latvia	5.1	(1.7)	11.6	(2.2)	23.2	(2.4)	29.4	(2.8)	20.9	(2.7)	8.5	(1.5)	1.2	(0.8)
	Russian Federation	10.0	(1.4)	15.5	(2.6)	26.1	(2.9)	25.7	(2.6)	15.8	(1.8)	6.2	(1.3)	0.7	(0.5)
	Shanghai-China	1.3	(0.5)	2.7	(0.9)	4.6	(1.3)	9.9	(1.5)	18.7	(2.0)	25.0	(2.3)	37.8	(2.7)

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[Part 4/5]

Table VI.3.3 Percentage of students at each proficiency level in financial literacy, mathematics and reading, by gender
Results based on students' self-reports

		Reading															
		Boys															
		Below Level 1b (less than 262.04 score points)		Level 1b (from 262.04 to less than 334.75 score points)		Level 1a (from 334.75 to less than 407.47 score points)		Level 2 (from 407.47 to less than 480.18 score points)		Level 3 (from 480.18 to less than 552.89 score points)		Level 4 (from 552.89 to less than 625.61 score points)		Level 5 (from 625.61 to less than 698.32 score points)		Level 6 (above 698.32 score points)	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	1.5	(0.4)	4.7	(0.6)	10.6	(1.3)	23.3	(1.6)	29.8	(1.6)	20.4	(1.2)	8.4	(1.0)	1.2	(0.4)
	Flemish Community (Belgium)	0.9	(0.5)	2.7	(0.9)	8.2	(1.7)	22.1	(2.0)	33.5	(2.5)	25.4	(2.4)	6.5	(1.3)	0.8	(0.7)
	Czech Republic	1.4	(0.8)	4.7	(1.5)	15.1	(2.6)	27.5	(3.4)	29.5	(3.0)	15.8	(1.9)	5.4	(1.2)	0.7	(0.4)
	Estonia	0.5	(0.5)	4.5	(1.2)	9.6	(1.8)	25.1	(2.1)	32.3	(2.6)	21.1	(2.3)	6.4	(1.4)	0.5	(0.5)
	France	3.6	(0.9)	7.3	(1.5)	14.4	(1.9)	18.0	(1.8)	26.9	(2.6)	20.0	(2.6)	8.1	(1.6)	1.7	(0.5)
	Israel	7.6	(1.5)	8.6	(1.6)	13.2	(2.8)	19.8	(2.2)	22.7	(2.2)	18.5	(1.8)	7.0	(1.4)	2.5	(0.9)
	Italy	4.0	(0.8)	8.1	(0.8)	16.5	(1.0)	23.5	(1.4)	27.9	(1.5)	16.2	(0.9)	3.5	(0.5)	0.4	(0.2)
	New Zealand	2.3	(1.0)	6.8	(1.9)	13.2	(1.8)	18.8	(2.4)	23.7	(2.3)	20.5	(1.9)	11.5	(1.8)	3.3	(1.0)
	Poland	0.6	(0.4)	4.2	(1.0)	13.9	(1.8)	23.5	(2.7)	28.3	(2.7)	20.9	(2.2)	7.5	(1.7)	1.2	(0.5)
	Slovak Republic	3.6	(1.1)	11.1	(1.5)	22.7	(3.0)	26.6	(3.2)	23.0	(2.6)	11.7	(2.1)	1.2	(0.7)	0.1	(0.2)
	Slovenia	1.0	(0.5)	6.5	(1.5)	16.9	(2.1)	29.2	(2.5)	31.8	(1.9)	11.4	(1.7)	2.5	(1.1)	0.6	(0.7)
	Spain	1.8	(0.7)	6.2	(1.2)	15.2	(2.4)	27.0	(2.6)	28.7	(2.9)	15.9	(2.0)	4.4	(1.2)	0.8	(0.4)
	United States	0.6	(0.4)	3.3	(1.2)	12.4	(1.4)	26.5	(2.7)	31.2	(2.5)	17.3	(2.1)	7.2	(1.6)	1.5	(0.7)
	OECD average-13	2.3	(0.2)	6.1	(0.4)	14.0	(0.6)	23.9	(0.7)	28.4	(0.7)	18.1	(0.6)	6.1	(0.4)	1.2	(0.2)
Partners	Colombia	12.9	(1.9)	19.4	(2.4)	27.7	(2.6)	23.9	(2.1)	11.0	(1.6)	4.1	(1.2)	0.8	(0.5)	0.2	(0.2)
	Croatia	1.4	(0.7)	4.6	(1.4)	16.0	(2.1)	31.3	(2.5)	29.0	(2.5)	13.4	(2.0)	3.8	(1.4)	0.5	(0.7)
	Latvia	0.8	(0.6)	4.8	(1.7)	16.3	(2.5)	31.9	(2.8)	31.2	(3.1)	11.0	(1.8)	3.5	(1.2)	0.5	(0.5)
	Russian Federation	2.9	(1.0)	8.5	(1.8)	19.5	(2.6)	32.1	(2.9)	25.9	(2.7)	9.8	(1.9)	1.3	(0.6)	0.0	(0.1)
	Shanghai-China	0.2	(0.2)	0.7	(0.4)	4.2	(1.1)	11.9	(1.8)	24.5	(1.9)	35.1	(2.7)	19.1	(2.6)	4.3	(1.3)

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Table VI.3.3 Percentage of students at each proficiency level in financial literacy, mathematics and reading, by gender
Results based on students' self-reports

		Reading															
		Girls															
		Below Level 1b (less than 262.04 score points)		Level 1b (from 262.04 to less than 334.75 score points)		Level 1a (from 334.75 to less than 407.47 score points)		Level 2 (from 407.47 to less than 480.18 score points)		Level 3 (from 480.18 to less than 552.89 score points)		Level 4 (from 552.89 to less than 625.61 score points)		Level 5 (from 625.61 to less than 698.32 score points)		Level 6 (above 698.32 score points)	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	0.4	(0.2)	1.5	(0.4)	6.3	(0.9)	18.1	(1.2)	31.5	(1.6)	27.7	(1.5)	11.3	(1.1)	3.1	(0.6)
	Flemish Community (Belgium)	0.3	(0.3)	1.2	(0.6)	5.6	(1.5)	16.7	(2.1)	30.1	(2.2)	32.0	(2.1)	12.8	(1.6)	1.4	(0.6)
	Czech Republic	0.7	(0.5)	1.9	(0.8)	9.1	(1.9)	26.1	(3.0)	31.0	(3.2)	22.9	(2.3)	7.0	(1.2)	1.3	(0.5)
	Estonia	0.1	(0.3)	0.8	(0.6)	3.9	(1.1)	17.6	(2.5)	31.8	(2.9)	30.9	(2.5)	12.7	(2.1)	2.3	(1.0)
	France	1.2	(0.7)	2.8	(0.9)	8.1	(1.6)	17.6	(2.7)	27.9	(3.0)	29.0	(2.5)	11.2	(1.7)	2.2	(0.8)
	Israel	2.3	(1.1)	3.9	(1.2)	8.8	(1.7)	17.2	(2.2)	26.6	(2.8)	25.1	(2.8)	12.4	(2.2)	3.6	(1.1)
	Italy	1.7	(0.3)	4.0	(0.7)	10.5	(1.0)	22.5	(1.4)	31.6	(1.2)	23.0	(1.5)	6.2	(0.7)	0.5	(0.2)
	New Zealand	0.4	(0.4)	2.1	(0.9)	8.0	(1.5)	18.7	(2.5)	29.1	(2.8)	26.4	(2.3)	12.0	(1.7)	3.3	(0.8)
	Poland	0.0	c	0.9	(0.5)	6.9	(1.4)	18.0	(2.4)	31.1	(2.8)	30.4	(2.5)	10.6	(1.5)	2.0	(0.8)
	Slovak Republic	3.5	(1.4)	5.6	(1.4)	13.1	(2.3)	24.5	(2.6)	33.5	(2.8)	15.2	(2.3)	4.4	(1.3)	0.2	(0.2)
	Slovenia	0.2	(0.2)	2.0	(0.8)	8.7	(2.1)	22.4	(2.2)	36.7	(3.1)	23.0	(3.2)	6.5	(1.6)	0.6	(0.7)
	Spain	0.4	(0.3)	5.3	(1.3)	13.8	(2.1)	23.7	(3.0)	29.9	(2.8)	20.4	(2.3)	5.7	(1.3)	0.9	(0.4)
	United States	0.2	(0.2)	1.2	(0.5)	6.3	(1.6)	20.9	(3.7)	33.4	(3.1)	25.7	(2.3)	10.5	(1.7)	1.8	(0.9)
	OECD average-13	0.9	(0.2)	2.6	(0.2)	8.4	(0.5)	20.3	(0.7)	31.1	(0.8)	25.5	(0.7)	9.5	(0.4)	1.8	(0.2)
Partners	Colombia	13.1	(2.0)	17.3	(2.0)	25.7	(2.5)	25.7	(3.1)	14.3	(2.3)	3.3	(0.8)	0.5	(0.4)	0.1	(0.1)
	Croatia	0.8	(0.5)	1.9	(0.8)	7.7	(1.5)	23.4	(2.3)	35.3	(2.6)	23.7	(2.3)	6.6	(1.3)	0.6	(0.4)
	Latvia	0.2	(0.2)	0.8	(0.5)	4.4	(1.5)	18.9	(2.9)	37.2	(3.3)	29.2	(2.6)	8.6	(1.8)	0.7	(0.6)
	Russian Federation	0.4	(0.4)	4.9	(1.1)	15.4	(1.9)	30.5	(2.2)	30.4	(3.1)	15.5	(1.7)	2.8	(0.8)	0.1	(0.2)
	Shanghai-China	0.1	(0.2)	0.4	(0.3)	1.0	(0.4)	7.2	(1.6)	18.3	(1.6)	36.7	(2.3)	27.8	(1.9)	8.5	(1.4)

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[Part 1/2]

Table VI.3.4 Financial literacy performance and socio-economic status
Results based on students' self-reports

		PISA index of economic, social and cultural status (ESCS)											
		All students				Bottom quarter		Second quarter		Third quarter		Top quarter	
		Mean index	S.E.	S.D.	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
OECD	Australia	0.25	(0.02)	0.80	(0.01)	-0.85	(0.03)	0.03	(0.03)	0.60	(0.02)	1.20	(0.0)
	Flemish Community (Belgium)	0.19	(0.03)	0.88	(0.02)	-0.95	(0.03)	-0.17	(0.05)	0.62	(0.05)	1.29	(0.0)
	Czech Republic	-0.05	(0.03)	0.72	(0.02)	-0.93	(0.04)	-0.33	(0.04)	0.17	(0.03)	0.91	(0.0)
	Estonia	0.08	(0.03)	0.83	(0.01)	-0.99	(0.03)	-0.25	(0.04)	0.43	(0.04)	1.14	(0.0)
	France	-0.03	(0.03)	0.81	(0.02)	-1.08	(0.04)	-0.31	(0.04)	0.30	(0.03)	0.97	(0.0)
	Israel	0.21	(0.03)	0.86	(0.03)	-0.98	(0.06)	0.02	(0.05)	0.63	(0.03)	1.15	(0.0)
	Italy	-0.03	(0.02)	0.97	(0.01)	-1.26	(0.02)	-0.38	(0.02)	0.26	(0.02)	1.25	(0.0)
	New Zealand	0.08	(0.03)	0.79	(0.02)	-0.97	(0.04)	-0.15	(0.04)	0.42	(0.03)	1.03	(0.0)
	Poland	-0.20	(0.03)	0.92	(0.02)	-1.24	(0.03)	-0.71	(0.03)	0.01	(0.07)	1.12	(0.0)
	Slovak Republic	-0.16	(0.04)	0.93	(0.03)	-1.23	(0.06)	-0.54	(0.03)	0.02	(0.05)	1.11	(0.0)
	Slovenia	0.08	(0.03)	0.88	(0.03)	-1.05	(0.05)	-0.27	(0.04)	0.42	(0.04)	1.22	(0.0)
	Spain	-0.20	(0.05)	1.01	(0.02)	-1.51	(0.05)	-0.57	(0.05)	0.15	(0.07)	1.13	(0.0)
	United States	0.15	(0.05)	0.98	(0.02)	-1.16	(0.06)	-0.13	(0.07)	0.58	(0.06)	1.33	(0.0)
	OECD average-13	0.03	(0.01)	0.88	(0.01)	-1.09	(0.01)	-0.29	(0.01)	0.36	(0.01)	1.14	(0.0)
Partners	Colombia	-1.24	(0.05)	1.15	(0.03)	-2.74	(0.06)	-1.62	(0.06)	-0.83	(0.05)	0.22	(0.1)
	Croatia	-0.37	(0.03)	0.84	(0.02)	-1.36	(0.03)	-0.73	(0.03)	-0.18	(0.04)	0.79	(0.0)
	Latvia	-0.19	(0.03)	0.89	(0.02)	-1.33	(0.03)	-0.60	(0.05)	0.23	(0.05)	0.95	(0.0)
	Russian Federation	-0.08	(0.04)	0.74	(0.02)	-1.04	(0.06)	-0.35	(0.04)	0.25	(0.04)	0.83	(0.0)
	Shanghai-China	-0.40	(0.04)	0.99	(0.02)	-1.69	(0.06)	-0.79	(0.05)	0.06	(0.06)	0.84	(0.0)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
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[Part 2/2]

Financial literacy performance and socio-economic status

Table VI.3.4 *Results based on students' self-reports*

		Relationship between the PISA index of economic, social and cultural status and student performance				Performance in financial literacy, by national quarters of the PISA index of economic, social and cultural status (ESCS)									
		Strength of the relationship		Slope of the relationship		Bottom quarter		Second quarter		Third quarter		Top quarter		Score-point difference between top and bottom quartiles of ESCS	
		Percentage of explained variation in student performance	S.E.	Score-point difference associated with a one-unit increase in the ESCS index	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.
OECD	Australia	11.3	(1.3)	**42**	(2.6)	482	(4.2)	516	(4.2)	546	(4.4)	569	(4.4)	**87**	(6.3)
	Flemish Community (Belgium)	11.3	(1.8)	**37**	(3.2)	503	(6.8)	526	(7.0)	563	(6.4)	581	(5.7)	**78**	(9.1)
	Czech Republic	13.3	(2.1)	**45**	(4.3)	471	(7.4)	504	(6.2)	517	(7.5)	562	(5.5)	**91**	(9.5)
	Estonia	6.7	(2.1)	**24**	(3.8)	508	(6.1)	516	(6.1)	533	(6.1)	562	(5.4)	**53**	(8.0)
	France	15.5	(2.4)	**50**	(4.2)	437	(8.3)	480	(5.8)	488	(7.7)	551	(5.9)	**113**	(9.5)
	Israel	14.4	(2.2)	**50**	(4.9)	421	(8.0)	463	(11.7)	504	(10.2)	534	(6.9)	**114**	(10.0)
	Italy	7.5	(1.0)	**25**	(1.8)	433	(3.9)	463	(3.3)	476	(3.3)	494	(3.3)	**61**	(5.0)
	New Zealand	19.0	(2.6)	**64**	(4.7)	459	(7.5)	509	(8.8)	543	(8.0)	585	(7.4)	**127**	(10.6)
	Poland	12.2	(2.5)	**31**	(3.2)	481	(6.3)	491	(5.8)	520	(6.2)	549	(6.9)	**69**	(8.9)
	Slovak Republic	18.2	(2.9)	**48**	(3.8)	415	(9.1)	459	(7.8)	486	(7.8)	522	(9.5)	**107**	(11.9)
	Slovenia	16.3	(2.9)	**41**	(3.6)	439	(7.3)	473	(5.1)	499	(5.9)	530	(7.4)	**91**	(9.5)
	Spain	14.6	(2.2)	**32**	(2.6)	443	(6.1)	479	(5.7)	495	(5.8)	526	(5.1)	**82**	(7.9)
	United States	16.6	(2.5)	**41**	(3.3)	443	(7.0)	471	(8.3)	506	(7.0)	550	(8.5)	**108**	(9.6)
	OECD average-13	13.6	(0.6)	**41**	(1.0)	457	(1.9)	488	(1.9)	514	(1.9)	547	(1.8)	**91**	(2.5)
Partners	Colombia	13.0	(2.6)	**33**	(3.6)	333	(10.0)	366	(7.8)	386	(7.7)	430	(8.0)	**98**	(12.2)
	Croatia	10.4	(1.8)	**33**	(2.9)	452	(5.5)	463	(6.0)	492	(7.2)	516	(6.5)	**65**	(7.5)
	Latvia	13.2	(2.5)	**32**	(3.4)	465	(7.1)	487	(7.0)	517	(6.6)	533	(6.3)	**68**	(9.2)
	Russian Federation	9.6	(1.9)	**36**	(3.9)	447	(6.8)	481	(5.0)	502	(6.7)	518	(7.0)	**71**	(10.1)
	Shanghai-China	12.5	(2.6)	**29**	(3.2)	562	(7.5)	599	(5.8)	616	(5.4)	638	(6.1)	**75**	(9.9)

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

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[Part 1/2]

Relationship between student performance in financial literacy, mathematics and reading, and factors of socio-economic status

Table VI.3.5 *Results based on students' self-reports*

		Relationship between student performance and the PISA index of economic, social and cultural status (ESCS)															
		Financial literacy				Mathematics				Reading				Difference in strength between financial literacy and mathematics		Difference in strength between financial literacy and reading	
		Strength	S.E.	Slope	S.E.	Strength	S.E.	Slope	S.E.	Strength	S.E.	Slope	S.E.	Strength difference	S.E.	Strength difference	S.E.
OECD	Australia	11.3	(1.3)	**42**	(2.6)	11.1	(1.4)	**37**	(2.5)	13.4	(1.3)	**43**	(2.3)	0.2	(0.8)	**-2.2**	(0.9)
	Flemish Community (Belgium)	11.3	(1.8)	**37**	(3.2)	14.3	(2.1)	**42**	(3.5)	18.2	(2.1)	**41**	(2.9)	-3.0	(1.5)	**-6.9**	(1.3)
	Czech Republic	13.3	(2.1)	**45**	(4.3)	11.9	(2.3)	**47**	(5.2)	12.8	(2.4)	**45**	(5.2)	1.4	(1.7)	0.5	(1.8)
	Estonia	6.7	(2.1)	**24**	(3.8)	9.2	(2.2)	**34**	(4.3)	5.9	(1.9)	**25**	(4.0)	-2.5	(1.4)	0.8	(1.4)
	France	15.5	(2.4)	**50**	(4.2)	14.7	(2.3)	**48**	(3.9)	13.8	(2.3)	**48**	(4.4)	0.8	(1.5)	1.8	(1.6)
	Israel	14.4	(2.2)	**50**	(4.9)	16.8	(2.5)	**52**	(4.8)	14.3	(2.6)	**54**	(6.1)	-2.4	(1.4)	0.1	(2.0)
	Italy	7.5	(1.0)	**25**	(1.8)	7.9	(1.4)	**30**	(2.5)	10.3	(1.1)	**34**	(2.1)	-0.4	(1.2)	**-2.8**	(0.8)
	New Zealand	19.0	(2.6)	**64**	(4.7)	18.5	(2.5)	**55**	(4.7)	16.5	(2.5)	**54**	(4.4)	0.5	(1.5)	2.4	(1.6)
	Poland	12.2	(2.5)	**31**	(3.2)	15.2	(2.7)	**39**	(3.8)	15.2	(2.5)	**39**	(3.4)	**-2.9**	(1.3)	-3.0	(1.8)
	Slovak Republic	18.2	(2.9)	**48**	(3.8)	16.9	(2.8)	**46**	(4.1)	18.0	(3.0)	**46**	(4.3)	1.2	(1.5)	0.1	(2.4)
	Slovenia	16.3	(2.9)	**41**	(3.6)	14.4	(2.7)	**40**	(4.0)	17.3	(2.9)	**41**	(3.5)	2.0	(2.0)	-0.9	(1.5)
	Spain	14.6	(2.2)	**32**	(2.6)	11.9	(2.4)	**30**	(3.3)	9.9	(2.1)	**29**	(3.2)	2.8	(1.6)	**4.7**	(2.1)
	United States	16.6	(2.5)	**41**	(3.3)	15.6	(2.4)	**35**	(3.0)	14.8	(2.6)	**35**	(3.3)	1.0	(1.6)	1.8	(1.5)
	OECD average-13	13.6	(0.6)	**41**	(1.0)	13.7	(0.6)	**41**	(1.1)	13.9	(0.6)	**41**	(1.1)	-0.1	(0.4)	-0.3	(0.5)
Partners	Colombia	13.0	(2.6)	**33**	(3.6)	7.9	(2.0)	**25**	(3.4)	10.5	(2.3)	**30**	(3.5)	**5.1**	(2.2)	2.5	(2.3)
	Croatia	10.4	(1.8)	**33**	(2.9)	11.2	(1.9)	**35**	(3.5)	11.6	(2.1)	**36**	(3.4)	-0.8	(1.1)	-1.2	(1.3)
	Latvia	13.2	(2.5)	**32**	(3.4)	13.1	(2.5)	**36**	(4.1)	12.8	(2.6)	**34**	(3.7)	0.1	(2.4)	0.4	(2.1)
	Russian Federation	9.6	(1.9)	**36**	(3.9)	8.2	(1.8)	**36**	(4.9)	13.0	(1.8)	**43**	(3.5)	1.4	(2.3)	-3.4	(1.9)
	Shanghai-China	12.5	(2.6)	**29**	(3.2)	11.7	(2.7)	**36**	(4.3)	9.5	(2.2)	**26**	(3.2)	0.7	(1.3)	3.0	(1.6)

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

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[Part 2/2]

Relationship between student performance in financial literacy, mathematics and reading, and factors of socio-economic status

Table VI.3.5 *Results based on students' self-reports*

		Relationship between student performance and the PISA index of family wealth															
		Financial literacy				Mathematics				Reading				Difference in strength between financial literacy and mathematics		Difference in strength between financial literacy and reading	
		Strength	S.E.	Slope	S.E.	Strength	S.E.	Slope	S.E.	Strength	S.E.	Slope	S.E.	Strength difference	S.E.	Strength difference	S.E.
OECD	Australia	0.1	(0.2)	4	(2.8)	0.2	(0.3)	5	(2.5)	0.1	(0.2)	4	(2.6)	-0.1	(0.1)	0.0	(0.1)
	Flemish Community (Belgium)	1.3	(0.9)	**15**	(4.7)	1.2	(0.8)	**14**	(4.6)	0.9	(0.7)	**11**	(3.9)	0.1	(0.4)	0.4	(0.5)
	Czech Republic	0.2	(0.3)	5	(3.9)	0.2	(0.3)	5	(4.0)	0.0	(0.2)	-2	(4.1)	0.1	(0.2)	0.2	(0.5)
	Estonia	0.8	(0.7)	**8**	(3.9)	0.9	(0.7)	**11**	(4.6)	0.0	(0.1)	0	(4.3)	-0.2	(0.4)	0.7	(0.7)
	France	1.5	(0.8)	**15**	(4.4)	2.5	(1.0)	**19**	(4.0)	0.9	(0.6)	**12**	(4.6)	-1.1	(0.6)	0.5	(0.5)
	Israel	3.1	(1.5)	**21**	(5.3)	1.6	(1.1)	**15**	(4.9)	1.0	(0.8)	**13**	(5.6)	1.4	(0.9)	**2.1**	(1.1)
	Italy	2.5	(0.5)	**17**	(1.7)	2.6	(0.8)	**20**	(2.8)	2.1	(0.5)	**18**	(2.3)	0.0	(0.7)	0.4	(0.4)
	New Zealand	4.2	(1.4)	**28**	(4.7)	3.8	(1.3)	**23**	(4.3)	2.2	(1.0)	**19**	(4.4)	0.4	(0.8)	**2.0**	(0.8)
	Poland	2.1	(0.9)	**14**	(3.0)	4.2	(1.4)	**22**	(3.8)	2.2	(1.0)	**16**	(3.7)	**-2.1**	(0.9)	-0.2	(0.7)
	Slovak Republic	7.1	(2.3)	**30**	(4.7)	5.1	(1.6)	**26**	(4.0)	4.2	(1.4)	**22**	(4.0)	2.1	(1.3)	2.9	(1.6)
	Slovenia	0.4	(0.5)	6	(4.5)	0.3	(0.4)	6	(4.0)	0.2	(0.4)	5	(4.0)	0.1	(0.3)	0.1	(0.2)
	Spain	2.4	(1.1)	**16**	(3.9)	1.7	(1.1)	**14**	(4.6)	0.6	(0.6)	**9**	(4.5)	0.7	(0.6)	**1.8**	(0.9)
	United States	10.4	(2.3)	**30**	(3.3)	9.1	(2.0)	**24**	(2.5)	8.0	(2.2)	**24**	(3.3)	1.4	(1.7)	2.4	(1.3)
	OECD average-13	2.8	(0.3)	**16**	(1.1)	2.6	(0.3)	**16**	(1.1)	1.7	(0.3)	**12**	(1.1)	0.2	(0.2)	**1.0**	(0.2)
Partners	Colombia	10.9	(2.3)	**32**	(3.4)	9.0	(2.0)	**28**	(3.1)	9.0	(2.1)	**29**	(3.4)	1.8	(1.9)	1.9	(2.1)
	Croatia	1.4	(0.7)	**14**	(3.7)	1.7	(0.8)	**15**	(3.8)	1.1	(0.7)	**12**	(4.1)	-0.3	(0.5)	0.3	(0.5)
	Latvia	2.4	(1.1)	**16**	(3.8)	3.5	(1.3)	**22**	(4.3)	1.5	(0.9)	**14**	(4.2)	-1.1	(1.1)	0.9	(0.9)
	Russian Federation	2.9	(1.1)	**20**	(4.3)	1.6	(0.7)	**16**	(3.8)	3.2	(1.0)	**22**	(3.8)	1.3	(1.0)	-0.3	(1.0)
	Shanghai-China	6.5	(1.8)	**24**	(3.7)	4.8	(1.7)	**26**	(4.9)	3.3	(1.4)	**18**	(4.0)	**1.7**	(0.8)	**3.3**	(1.0)

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

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[Part 1/2]

Parents' highest education and financial literacy performance

Table VI.3.6 *Results based on students' self-reports*

		Percentage of students with …				Performance of students with …				Score-point difference between students with at least one parent with tertiary education and students with no parent with tertiary education					
		No parent with tertiary education		At least one parent with tertiary education		No parent with tertiary education		At least one parent with tertiary education		Financial literacy		Mathematics		Reading	
		%	S.E.	%	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	45.2	(1.1)	54.8	(1.1)	503	(3.2)	550	(2.9)	**47**	(4.4)	**41**	(3.8)	**46**	(4.2)
	Flemish Community (Belgium)	38.8	(1.7)	61.2	(1.7)	517	(5.1)	563	(4.1)	**46**	(5.8)	**51**	(6.7)	**53**	(5.5)
	Czech Republic	65.5	(1.7)	34.5	(1.7)	501	(3.8)	537	(6.4)	**35**	(7.8)	**35**	(8.5)	**34**	(8.3)
	Estonia	43.2	(1.6)	56.8	(1.6)	518	(4.8)	539	(3.6)	**21**	(5.9)	**34**	(6.5)	**20**	(6.4)
	France	45.7	(1.7)	54.3	(1.7)	465	(5.1)	516	(4.4)	**51**	(6.7)	**49**	(5.9)	**47**	(6.7)
	Israel	37.2	(1.8)	62.8	(1.8)	435	(6.9)	510	(6.2)	**75**	(8.3)	**83**	(9.0)	**81**	(10.2)
	Italy	62.1	(0.8)	37.9	(0.8)	463	(2.3)	472	(2.8)	**9**	(2.9)	**13**	(4.2)	**19**	(3.5)
	New Zealand	44.8	(1.5)	55.2	(1.5)	509	(5.8)	548	(5.6)	**39**	(8.5)	**39**	(7.3)	**32**	(7.3)
	Poland	72.3	(1.6)	27.7	(1.6)	497	(3.4)	546	(6.8)	**49**	(6.7)	**56**	(7.9)	**57**	(7.5)
	Slovak Republic	68.1	(1.7)	31.9	(1.7)	460	(5.3)	493	(8.8)	**33**	(9.8)	**37**	(9.9)	**44**	(9.2)
	Slovenia	55.4	(1.7)	44.6	(1.7)	465	(4.7)	511	(4.2)	**46**	(6.1)	**45**	(6.4)	**45**	(5.8)
	Spain	51.0	(2.0)	49.0	(2.0)	467	(3.7)	506	(4.3)	**38**	(5.3)	**38**	(5.6)	**39**	(5.8)
	United States	41.4	(2.0)	58.6	(2.0)	472	(6.0)	508	(5.9)	**35**	(7.8)	**33**	(7.2)	**33**	(7.4)
	OECD average-13	51.6	(0.5)	48.4	(0.5)	483	(1.3)	523	(1.5)	**40**	(1.9)	**43**	(2.0)	**42**	(1.9)
Partners	Colombia	55.6	(1.8)	44.4	(1.8)	355	(5.4)	409	(6.0)	**55**	(7.3)	**42**	(7.9)	**44**	(8.0)
	Croatia	54.0	(1.8)	46.0	(1.8)	476	(4.6)	487	(5.0)	11	(5.7)	**20**	(5.9)	**15**	(6.0)
	Latvia	41.1	(1.6)	58.9	(1.6)	475	(5.0)	518	(4.0)	**43**	(6.4)	**49**	(7.1)	**51**	(7.3)
	Russian Federation	8.0	(1.2)	92.0	(1.2)	451	(9.5)	490	(3.8)	**39**	(10.0)	15	(11.3)	**36**	(8.5)
	Shanghai-China	56.2	(1.9)	43.8	(1.9)	586	(4.7)	626	(4.7)	**40**	(7.1)	**51**	(8.9)	**40**	(6.8)

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

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[Part 2/2]

Parents' highest education and financial literacy performance

Table VI.3.6 *Results based on students' self-reports*

		Education effect size: Difference in performance related to parents' highest level of education divided by the variation in scores within each country/economy (standard deviation)										Relative performance in financial literacy: Financial literacy score-point difference between students with at least one parent with tertiary education and students with no parent with tertiary education, after accounting for performance in mathematics and reading					
		Financial literacy		Mathematics		Reading		Difference in effect size between financial literacy and mathematics		Difference in effect size between financial literacy and reading		After accounting for mathematics		After accounting for reading		After accounting for mathematics and reading	
		Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Dif.	S.E.	Dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	**0.47**	(0.04)	**0.47**	(0.04)	**0.48**	(0.04)	0.00	(0.02)	-0.02	(0.03)	**8**	(2.3)	**7**	(2.6)	2	(2.0)
	Flemish Community (Belgium)	**0.48**	(0.06)	**0.52**	(0.07)	**0.63**	(0.06)	-0.04	(0.04)	**-0.15**	(0.04)	4	(3.9)	-2	(4.1)	-4	(3.6)
	Czech Republic	**0.40**	(0.09)	**0.36**	(0.09)	**0.37**	(0.09)	0.04	(0.05)	0.03	(0.05)	8	(4.3)	**11**	(4.6)	6	(3.9)
	Estonia	**0.26**	(0.07)	**0.36**	(0.07)	**0.23**	(0.07)	**-0.10**	(0.05)	0.03	(0.06)	-2	(3.7)	7	(4.4)	-1	(3.7)
	France	**0.51**	(0.06)	**0.49**	(0.06)	**0.45**	(0.06)	0.02	(0.04)	0.06	(0.04)	**10**	(4.3)	**15**	(4.1)	**8**	(3.8)
	Israel	**0.68**	(0.07)	**0.76**	(0.07)	**0.67**	(0.08)	**-0.09**	(0.04)	0.01	(0.06)	6	(4.9)	**21**	(6.9)	4	(5.0)
	Italy	**0.10**	(0.03)	**0.13**	(0.04)	**0.19**	(0.03)	-0.03	(0.03)	**-0.09**	(0.02)	0	(2.3)	-3	(2.0)	-3	(1.8)
	New Zealand	**0.34**	(0.07)	**0.39**	(0.07)	**0.31**	(0.07)	-0.05	(0.04)	0.03	(0.04)	2	(5.0)	9	(4.9)	1	(4.2)
	Poland	**0.60**	(0.08)	**0.61**	(0.08)	**0.62**	(0.08)	-0.01	(0.04)	-0.01	(0.05)	**8**	(3.3)	**10**	(4.5)	3	(3.2)
	Slovak Republic	**0.31**	(0.09)	**0.35**	(0.09)	**0.44**	(0.09)	-0.04	(0.04)	**-0.12**	(0.05)	2	(4.4)	-5	(4.9)	-5	(4.2)
	Slovenia	**0.51**	(0.07)	**0.49**	(0.06)	**0.53**	(0.06)	0.03	(0.04)	-0.01	(0.04)	**10**	(4.2)	**7**	(3.5)	3	(3.0)
	Spain	**0.46**	(0.06)	**0.43**	(0.06)	**0.41**	(0.06)	0.03	(0.05)	0.05	(0.06)	**11**	(3.9)	**17**	(4.7)	**9**	(3.8)
	United States	**0.35**	(0.08)	**0.38**	(0.08)	**0.36**	(0.08)	-0.02	(0.04)	-0.01	(0.05)	3	(4.0)	5	(4.5)	0	(3.6)
	OECD average-13	**0.42**	(0.02)	**0.44**	(0.02)	**0.44**	(0.02)	-0.02	(0.01)	-0.02	(0.01)	**5**	(1.1)	**8**	(1.2)	2	(1.0)
Partners	Colombia	**0.52**	(0.06)	**0.42**	(0.07)	**0.41**	(0.07)	0.10	(0.07)	0.11	(0.06)	**34**	(6.4)	**34**	(5.8)	**30**	(5.9)
	Croatia	0.13	(0.07)	**0.23**	(0.06)	**0.17**	(0.07)	**-0.10**	(0.04)	-0.04	(0.04)	-6	(3.2)	-1	(3.2)	**-6**	(2.3)
	Latvia	**0.55**	(0.08)	**0.56**	(0.07)	**0.60**	(0.08)	-0.02	(0.06)	-0.06	(0.05)	11	(5.5)	8	(4.2)	2	(4.3)
	Russian Federation	**0.45**	(0.11)	0.16	(0.12)	**0.41**	(0.10)	**0.28**	(0.12)	0.04	(0.09)	**28**	(9.7)	15	(7.9)	**21**	(8.6)
	Shanghai-China	**0.48**	(0.08)	**0.49**	(0.08)	**0.48**	(0.08)	0.00	(0.03)	0.01	(0.05)	5	(3.0)	**8**	(4.1)	3	(2.9)

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

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[Part 1/3]

Parents' highest occupation and financial literacy performance

Table VI.3.7 *Results based on students' self-reports*

		Percentage of students with at least one parent working in an occupation considered as...								Performance in financial literacy, by at least one parent working in an occupation considered as...							
		Skilled (ISCO 1, 2 and 3)		Semi-skilled white-collar (ISCO 4 and 5)		Semi-skilled blue-collar (ISCO 6, 7 and 8)		Elementary (ISCO 9)		Skilled (ISCO 1, 2 and 3)		Semi-skilled white-collar (ISCO 4 and 5)		Semi-skilled blue-collar (ISCO 6, 7 and 8)		Elementary (ISCO 9)	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	Australia	67.4	(1.0)	17.9	(0.9)	10.6	(0.6)	4.1	(0.5)	548	(2.4)	505	(4.2)	489	(7.3)	467	(11.5)
	Flemish Community (Belgium)	58.0	(1.7)	25.0	(1.4)	13.6	(1.1)	3.4	(0.6)	564	(4.4)	527	(6.3)	507	(7.8)	496	(17.6)
	Czech Republic	44.7	(1.9)	37.7	(1.8)	16.5	(1.6)	1.1	(0.4)	543	(4.4)	498	(5.5)	481	(7.2)	c	c
	Estonia	53.5	(1.7)	25.1	(1.4)	19.4	(1.3)	2.1	(0.6)	547	(3.2)	513	(5.7)	508	(7.5)	c	c
	France	57.8	(1.4)	26.2	(1.2)	12.0	(1.0)	3.9	(0.7)	517	(4.2)	465	(6.3)	449	(10.2)	452	(14.4)
	Israel	71.5	(2.0)	14.5	(1.6)	12.4	(1.2)	1.6	(0.4)	511	(5.1)	461	(12.9)	407	(14.1)	c	c
	Italy	43.2	(1.0)	30.8	(0.7)	22.4	(0.7)	3.7	(0.3)	488	(2.8)	467	(2.9)	441	(4.0)	420	(7.5)
	New Zealand	67.5	(1.6)	18.1	(1.3)	11.1	(1.2)	3.3	(0.6)	552	(4.9)	501	(9.6)	451	(11.0)	c	c
	Poland	44.6	(1.9)	23.0	(1.4)	30.6	(1.6)	1.8	(0.4)	539	(5.2)	496	(5.8)	485	(5.6)	c	c
	Slovak Republic	36.4	(1.9)	36.1	(1.8)	22.6	(1.7)	5.0	(1.0)	519	(6.5)	470	(6.4)	438	(7.5)	419	(22.3)
	Slovenia	54.7	(1.8)	25.1	(1.5)	17.4	(1.6)	2.8	(0.5)	511	(4.4)	476	(6.3)	438	(8.3)	420	(14.2)
	Spain	43.8	(2.1)	31.1	(1.7)	19.2	(1.6)	5.9	(0.7)	515	(3.7)	479	(6.0)	451	(7.0)	419	(10.0)
	United States	64.4	(2.2)	19.8	(1.6)	9.9	(1.0)	5.8	(0.9)	516	(5.0)	466	(6.9)	469	(10.2)	421	(12.5)
	OECD average-13	54.4	(0.5)	25.4	(0.4)	16.7	(0.4)	3.4	(0.2)	528	(1.2)	486	(1.9)	463	(2.4)	439	(5.1)
Partners	Colombia	23.8	(1.6)	35.5	(1.6)	33.1	(1.6)	7.6	(0.9)	424	(7.5)	386	(5.0)	361	(7.9)	318	(12.5)
	Croatia	39.8	(1.7)	37.3	(1.5)	20.9	(1.2)	2.0	(0.4)	514	(5.2)	471	(5.1)	451	(6.6)	c	c
	Latvia	49.1	(2.1)	31.3	(2.1)	15.6	(1.4)	4.0	(0.8)	523	(3.9)	497	(6.1)	468	(7.7)	428	(19.7)
	Russian Federation	56.2	(1.8)	27.4	(1.2)	14.8	(1.4)	1.7	(0.4)	503	(4.1)	478	(5.9)	455	(8.4)	c	c
	Shanghai-China	54.8	(1.8)	27.0	(1.4)	16.4	(1.3)	1.8	(0.4)	621	(3.7)	594	(5.9)	572	(6.8)	c	c

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

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[Part 2/3]

Parents' highest occupation and financial literacy performance

Table VI.3.7 *Results based on students' self-reports*

		Score-point difference between students with at least one parent in a skilled occupation (ISCO 1-3) and students whose parents work in semi-skilled or low-skilled occupations (ISCO 4-9)						Occupational status effect size: Difference in performance related to parents' highest occupation divided by the variation in scores within each country/economy (standard deviation)					
		Financial literacy		Mathematics		Reading		Financial literacy		Mathematics		Reading	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.
OECD	Australia	**53**	(4.4)	**44**	(3.7)	**58**	(3.9)	**0.54**	(0.04)	**0.50**	(0.04)	**0.62**	(0.04)
	Flemish Community (Belgium)	**46**	(6.6)	**54**	(6.3)	**52**	(5.6)	**0.49**	(0.07)	**0.56**	(0.06)	**0.62**	(0.06)
	Czech Republic	**50**	(6.1)	**53**	(7.0)	**57**	(6.3)	**0.57**	(0.07)	**0.55**	(0.07)	**0.62**	(0.07)
	Estonia	**35**	(5.3)	**49**	(6.2)	**41**	(6.0)	**0.45**	(0.07)	**0.53**	(0.06)	**0.47**	(0.07)
	France	**58**	(6.4)	**51**	(5.5)	**54**	(6.8)	**0.58**	(0.06)	**0.52**	(0.05)	**0.52**	(0.06)
	Israel	**79**	(8.7)	**82**	(7.7)	**89**	(9.9)	**0.73**	(0.07)	**0.78**	(0.07)	**0.74**	(0.07)
	Italy	**34**	(3.4)	**41**	(3.9)	**49**	(3.9)	**0.40**	(0.04)	**0.40**	(0.04)	**0.49**	(0.04)
	New Zealand	**75**	(8.3)	**62**	(7.9)	**59**	(7.6)	**0.65**	(0.07)	**0.61**	(0.07)	**0.57**	(0.07)
	Poland	**50**	(6.0)	**58**	(7.2)	**61**	(6.4)	**0.61**	(0.07)	**0.63**	(0.07)	**0.66**	(0.06)
	Slovak Republic	**64**	(7.3)	**69**	(8.1)	**68**	(8.4)	**0.65**	(0.07)	**0.69**	(0.07)	**0.70**	(0.07)
	Slovenia	**53**	(6.4)	**54**	(7.0)	**51**	(6.8)	**0.60**	(0.07)	**0.59**	(0.07)	**0.59**	(0.07)
	Spain	**52**	(5.1)	**50**	(6.0)	**46**	(7.2)	**0.62**	(0.06)	**0.57**	(0.06)	**0.49**	(0.08)
	United States	**56**	(6.1)	**46**	(5.8)	**45**	(6.2)	**0.58**	(0.06)	**0.54**	(0.06)	**0.51**	(0.07)
	OECD average-13	**54**	(1.8)	**55**	(1.8)	**56**	(1.9)	**0.58**	(0.02)	**0.57**	(0.02)	**0.59**	(0.02)
Partners	Colombia	**56**	(7.3)	**38**	(8.3)	**50**	(8.4)	**0.53**	(0.07)	**0.38**	(0.08)	**0.47**	(0.07)
	Croatia	**50**	(5.7)	**49**	(6.2)	**54**	(7.1)	**0.59**	(0.07)	**0.57**	(0.06)	**0.62**	(0.08)
	Latvia	**40**	(6.0)	**49**	(6.5)	**41**	(6.4)	**0.51**	(0.07)	**0.56**	(0.07)	**0.49**	(0.07)
	Russian Federation	**34**	(6.1)	**44**	(6.6)	**48**	(5.5)	**0.39**	(0.07)	**0.47**	(0.06)	**0.54**	(0.06)
	Shanghai-China	**37**	(6.4)	**47**	(8.1)	**34**	(5.6)	**0.45**	(0.07)	**0.45**	(0.07)	**0.41**	(0.06)

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

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[Part 3/3]

Parents' highest occupation and financial literacy performance

Table VI.3.7 *Results based on students' self-reports*

		Occupational status effect size: Difference in performance related to parents' highest occupation divided by the variation in scores within each country/economy (standard deviation)				Relative performance in financial literacy: Financial literacy score-point difference between students with at least one parent in a skilled occupation (ISCO 1-3) and students whose parents work in semi-skilled or low-skilled occupations (ISCO 4-9) after accounting for performance in mathematics and reading					
		Difference in effect size between financial literacy and mathematics		Difference in effect size between financial literacy and reading		After accounting for mathematics		After accounting for reading		After accounting for mathematics and reading	
		Dif.	S.E.	Dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	0.04	(0.02)	**-0.08**	(0.03)	**13**	(2.6)	4	(2.8)	2	(2.2)
	Flemish Community (Belgium)	-0.07	(0.04)	**-0.13**	(0.04)	1	(4.2)	0	(4.1)	-5	(3.6)
	Czech Republic	0.02	(0.04)	-0.05	(0.06)	**10**	(3.8)	9	(4.8)	4	(3.6)
	Estonia	-0.08	(0.05)	-0.02	(0.05)	2	(3.9)	**8**	(3.8)	-1	(3.4)
	France	0.06	(0.04)	0.05	(0.05)	**15**	(4.6)	**17**	(4.4)	**11**	(4.1)
	Israel	-0.05	(0.05)	-0.01	(0.06)	**12**	(5.7)	**21**	(7.0)	8	(5.6)
	Italy	-0.01	(0.03)	**-0.09**	(0.03)	**9**	(2.8)	5	(2.3)	2	(2.2)
	New Zealand	0.04	(0.04)	**0.09**	(0.04)	**16**	(5.3)	**21**	(4.5)	**12**	(4.2)
	Poland	-0.02	(0.03)	-0.04	(0.05)	**7**	(2.9)	8	(4.2)	2	(3.0)
	Slovak Republic	-0.03	(0.04)	-0.05	(0.04)	**8**	(3.7)	8	(4.6)	0	(3.6)
	Slovenia	0.01	(0.04)	0.01	(0.04)	**11**	(4.1)	**11**	(3.8)	4	(3.1)
	Spain	0.05	(0.05)	**0.13**	(0.07)	**16**	(4.0)	**27**	(4.5)	**14**	(3.9)
	United States	0.04	(0.05)	0.07	(0.04)	**12**	(5.0)	**16**	(4.1)	**9**	(3.9)
	OECD average-13	0.00	(0.01)	-0.01	(0.01)	**10**	(1.1)	**12**	(1.2)	**5**	(1.0)
Partners	Colombia	**0.15**	(0.08)	0.06	(0.08)	**37**	(6.5)	**32**	(6.8)	**31**	(6.6)
	Croatia	0.03	(0.04)	-0.03	(0.05)	**10**	(3.2)	**9**	(3.7)	3	(2.9)
	Latvia	-0.04	(0.06)	0.02	(0.06)	8	(4.6)	**12**	(4.8)	4	(4.1)
	Russian Federation	-0.08	(0.07)	**-0.15**	(0.06)	4	(6.1)	2	(4.8)	-1	(5.4)
	Shanghai-China	0.00	(0.04)	0.05	(0.04)	5	(3.4)	**10**	(3.8)	4	(3.1)

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

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[Part 1/1]

Parents' occupation in finance and financial literacy performance

Table VI.3.8 *Results based on students' self-reports*

		Percentage of parents working in finance-related occupations		Score-point difference associated with parents working in finance-related occupations			
				Before accounting for ESCS[1]		After accounting for ESCS	
		%	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	9.5	(0.6)	**29**	(6.3)	9	(6.0)
	Flemish Community (Belgium)	2.5	(0.5)	c	c	c	c
	Czech Republic	2.4	(0.5)	**43**	(15.5)	7	(15.1)
	Estonia	0.6	(0.2)	c	c	c	c
	France	2.1	(0.5)	c	c	c	c
	Israel	1.4	(0.4)	c	c	c	c
	Italy	1.3	(0.2)	**23**	(11.7)	-3	(11.7)
	New Zealand	1.5	(0.4)	c	c	c	c
	Poland	2.1	(0.5)	c	c	c	c
	Slovak Republic	0.7	(0.3)	c	c	c	c
	Slovenia	1.7	(0.5)	c	c	c	c
	Spain	1.7	(0.4)	c	c	c	c
	United States	2.8	(0.5)	**99**	(17.5)	**62**	(16.5)
	OECD average-13	2.3	(0.1)	**49**	(6.7)	**19**	(6.5)
Partners	Colombia	0.0	(0.0)	c	c	c	c
	Croatia	0.4	(0.2)	c	c	c	c
	Latvia	2.3	(0.5)	c	c	c	c
	Russian Federation	3.0	(0.4)	18	(18.0)	-9	(17.5)
	Shanghai-China	3.3	(0.5)	**36**	(15.8)	7	(15.3)

Notes: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* were available. Values that are statistically significant are indicated in bold (see Annex A3).
Finance-related occupations are defined as: finance managers; financial and insurance services branch manager; finance professionals; financial and investment advisers; financial analysts; financial and mathematical associate professionals; securities and finance dealers and brokers; statistical, finance and insurance clerks.
1. ESCS refers to the *PISA index of economic, social and cultural status*.

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[Part 1/3]

Students who discuss money matters with parents and financial literacy performance

Table VI.3.9 *Results based on students' self-reports*

		Discuss money matters with parents								Financial literacy, by frequency of discussing money matters with parents, before accounting for socio-economic status							
		Never or hardly ever		Once or twice a month		Once or twice a week		Almost every day		Never or hardly ever		Once or twice a month		Once or twice a week		Almost every day	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	Australia	15.8	(1.2)	39.4	(1.7)	34.8	(1.8)	10.0	(1.1)	531	(8.2)	537	(4.4)	531	(5.4)	516	(9.3)
	Flemish Community (Belgium)	18.3	(1.6)	42.6	(2.0)	27.8	(1.9)	11.2	(1.5)	533	(11.3)	556	(7.1)	543	(8.9)	539	(12.2)
	Czech Republic	15.3	(1.9)	33.0	(2.4)	37.3	(2.3)	14.5	(1.8)	506	(18.2)	531	(7.5)	521	(8.7)	487	(13.2)
	Estonia	12.1	(1.7)	33.0	(2.5)	36.3	(2.3)	18.6	(1.8)	508	(14.3)	532	(6.9)	541	(5.9)	540	(7.6)
	France	17.9	(1.8)	42.8	(2.4)	29.2	(2.0)	10.2	(1.7)	459	(12.0)	496	(7.5)	515	(8.8)	487	(18.8)
	Israel	18.1	(1.7)	35.0	(2.2)	29.0	(2.1)	17.9	(1.9)	469	(15.8)	498	(8.6)	486	(8.6)	477	(11.3)
	Italy	18.4	(1.0)	30.2	(0.9)	30.4	(1.1)	21.0	(1.0)	441	(5.3)	477	(4.1)	485	(4.3)	481	(4.9)
	New Zealand	13.5	(1.8)	41.2	(2.5)	35.1	(2.3)	10.2	(1.7)	502	(19.2)	551	(7.7)	541	(10.6)	521	(17.4)
	Poland	20.5	(1.9)	36.9	(2.0)	30.9	(2.3)	11.8	(1.5)	505	(9.1)	512	(6.3)	515	(7.5)	510	(11.5)
	Slovak Republic	16.9	(2.1)	39.1	(2.5)	29.2	(2.0)	14.8	(2.0)	472	(11.9)	489	(8.8)	491	(8.3)	462	(15.5)
	Slovenia	9.6	(1.9)	37.2	(2.8)	34.1	(2.8)	19.1	(2.1)	456	(30.2)	492	(8.3)	509	(8.8)	460	(12.4)
	Spain	18.9	(2.2)	29.1	(2.2)	31.8	(2.3)	20.1	(1.7)	465	(10.4)	487	(6.3)	491	(8.0)	507	(9.4)
	United States	11.7	(1.8)	32.8	(2.7)	36.3	(2.6)	19.2	(1.6)	468	(12.9)	497	(6.6)	501	(9.8)	473	(11.5)
	OECD average-13	15.9	(0.5)	36.3	(0.6)	32.5	(0.6)	15.3	(0.5)	486	(4.2)	512	(2.0)	513	(2.3)	497	(3.5)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	12.5	(1.5)	39.4	(2.2)	31.8	(1.9)	16.3	(1.6)	468	(12.9)	483	(6.0)	483	(6.1)	483	(8.1)
	Latvia	10.8	(1.6)	34.1	(3.0)	34.7	(2.7)	20.4	(2.1)	477	(12.8)	506	(10.2)	518	(9.0)	499	(9.1)
	Russian Federation	15.3	(1.7)	29.6	(2.6)	29.5	(2.3)	25.5	(2.0)	484	(13.9)	493	(9.4)	502	(7.1)	489	(9.2)
	Shanghai-China	31.6	(2.4)	39.7	(2.1)	22.9	(1.6)	5.9	(1.1)	594	(5.2)	610	(5.6)	610	(7.5)	631	(15.4)

Note: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* were available. Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status*.

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[Part 2/3]

Table VI.3.9 Students who discuss money matters with parents and financial literacy performance
Results based on students' self-reports

		Financial literacy, by frequency of discussing money matters with parents, after accounting for socio-economic status								Score-point difference compared to NEVER discussing money matters with parents, BEFORE accounting for ESCS[1]					
		Never or hardly ever		Once or twice a month		Once or twice a week		Almost every day		Discussing once or twice a month		Discussing once or twice a week		Discussing almost everyday	
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	527	(8.4)	523	(4.4)	521	(5.2)	504	(9.1)	7	(9.6)	1	(9.0)	-15	(11.0)
	Flemish Community (Belgium)	531	(10.8)	546	(6.8)	539	(8.8)	538	(13.1)	23	(12.8)	10	(15.6)	6	(16.6)
	Czech Republic	514	(17.5)	529	(7.1)	521	(8.1)	486	(12.2)	25	(18.9)	14	(18.8)	-19	(21.8)
	Estonia	512	(14.0)	526	(6.7)	534	(5.7)	535	(7.5)	23	(15.4)	**33**	(14.8)	32	(16.4)
	France	468	(10.8)	496	(7.1)	509	(8.1)	485	(17.1)	**36**	(14.0)	**56**	(15.1)	28	(22.5)
	Israel	458	(14.8)	485	(8.3)	476	(8.1)	474	(10.4)	29	(16.8)	17	(17.0)	8	(19.5)
	Italy	448	(5.1)	474	(4.0)	484	(4.1)	483	(4.4)	**36**	(6.6)	**44**	(6.6)	**40**	(6.9)
	New Zealand	509	(15.6)	539	(8.4)	534	(9.1)	526	(14.9)	**49**	(20.4)	39	(24.7)	19	(24.1)
	Poland	511	(9.2)	521	(7.0)	518	(7.7)	515	(10.5)	7	(10.1)	10	(10.9)	5	(15.1)
	Slovak Republic	475	(11.0)	489	(7.7)	497	(7.3)	476	(13.1)	17	(15.5)	20	(14.6)	-9	(18.3)
	Slovenia	473	(20.8)	485	(6.8)	505	(8.7)	458	(10.8)	36	(31.5)	53	(32.2)	5	(27.0)
	Spain	477	(9.6)	493	(6.7)	492	(6.9)	512	(8.8)	22	(11.9)	**26**	(13.2)	**42**	(14.3)
	United States	465	(11.3)	485	(6.5)	494	(8.7)	467	(11.0)	**29**	(14.4)	**33**	(14.2)	5	(18.2)
	OECD average-13	490	(3.6)	507	(1.9)	509	(2.1)	497	(3.2)	**26**	(4.5)	**27**	(4.8)	**11**	(5.1)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	482	(13.2)	494	(5.7)	493	(5.8)	493	(8.2)	15	(14.2)	15	(13.9)	15	(14.6)
	Latvia	489	(12.1)	511	(8.6)	517	(8.5)	508	(9.0)	29	(16.7)	**41**	(17.1)	23	(16.1)
	Russian Federation	490	(13.4)	497	(8.3)	501	(6.9)	491	(9.4)	9	(14.2)	18	(16.0)	5	(18.1)
	Shanghai-China	610	(5.6)	623	(4.7)	616	(7.4)	633	(14.5)	**16**	(6.8)	16	(9.3)	**37**	(16.1)

Note: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* were available. Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status*.

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[Part 3/3]

Table VI.3.9 Students who discuss money matters with parents and financial literacy performance
Results based on students' self-reports

		Score-point difference compared to NEVER discussing money matters with parents, AFTER accounting for ESCS[1]						Score-point difference compared to discussing money matters with parents EVERY DAY, BEFORE accounting for ESCS						Score-point difference compared to discussing money matters with parents EVERY DAY, AFTER accounting for ESCS					
		Discussing once or twice a month		Discussing once or twice a week		Discussing almost everyday		Never discussing		Discussing once or twice a month		Discussing once or twice a week		Never discussing		Discussing once or twice a month		Discussing once or twice a week	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	-4	(9.6)	-6	(9.0)	**-23**	(10.8)	15	(11.0)	**21**	(9.9)	15	(10.3)	**23**	(10.8)	**19**	(9.6)	17	(9.8)
	Flemish Community (Belgium)	15	(12.9)	8	(15.2)	7	(16.4)	-6	(16.6)	17	(14.0)	3	(15.3)	-7	(16.4)	8	(14.6)	1	(15.8)
	Czech Republic	15	(17.8)	7	(17.9)	-27	(22.4)	19	(21.8)	**44**	(14.7)	33	(17.3)	27	(22.4)	**43**	(13.9)	**34**	(16.7)
	Estonia	14	(14.9)	22	(14.2)	23	(16.0)	-32	(16.4)	-8	(10.4)	1	(9.5)	-23	(16.0)	-9	(10.0)	-1	(9.0)
	France	**28**	(12.5)	**41**	(13.7)	16	(20.8)	-28	(22.5)	9	(20.4)	28	(19.7)	-16	(20.8)	12	(18.4)	24	(17.9)
	Israel	27	(16.3)	18	(15.5)	16	(17.2)	-8	(19.5)	21	(14.7)	9	(14.8)	-16	(17.2)	11	(13.7)	2	(13.6)
	Italy	**26**	(6.5)	**36**	(6.4)	**35**	(6.5)	**-40**	(6.9)	-4	(6.0)	4	(6.1)	**-35**	(6.5)	-9	(5.6)	1	(5.7)
	New Zealand	30	(16.8)	25	(19.9)	17	(21.7)	-19	(24.1)	30	(17.8)	20	(20.5)	-17	(21.7)	13	(16.4)	8	(17.7)
	Poland	10	(10.3)	6	(11.3)	4	(14.2)	-5	(15.1)	2	(12.9)	5	(13.2)	-4	(14.2)	6	(12.3)	2	(12.5)
	Slovak Republic	14	(13.6)	22	(12.4)	0	(16.1)	9	(18.3)	26	(18.3)	29	(17.0)	0	(16.1)	13	(15.1)	21	(14.2)
	Slovenia	12	(21.9)	32	(23.2)	-15	(18.9)	-5	(27.0)	**32**	(14.2)	**49**	(15.9)	15	(18.9)	**27**	(11.9)	**47**	(14.3)
	Spain	16	(11.2)	15	(11.9)	**36**	(13.7)	**-42**	(14.3)	**-20**	(10.0)	-16	(12.3)	**-36**	(13.7)	**-20**	(10.0)	-21	(11.4)
	United States	20	(13.2)	**29**	(12.1)	3	(16.7)	-5	(18.2)	24	(12.8)	28	(15.2)	-3	(16.7)	18	(12.3)	26	(14.2)
	OECD average-13	**17**	(3.9)	**20**	(4.1)	7	(4.7)	**-11**	(5.1)	**15**	(3.9)	**16**	(4.1)	-7	(4.7)	**10**	(3.6)	**13**	(3.8)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	12	(13.8)	12	(13.6)	11	(14.2)	-15	(14.6)	0	(9.9)	0	(10.2)	-11	(14.2)	1	(9.6)	1	(9.8)
	Latvia	22	(15.1)	28	(15.6)	19	(15.0)	-23	(16.1)	6	(13.8)	19	(12.7)	-19	(15.0)	3	(12.3)	9	(12.6)
	Russian Federation	7	(14.5)	11	(16.2)	1	(16.1)	-5	(18.1)	4	(13.5)	13	(12.6)	-1	(16.1)	6	(12.0)	10	(12.5)
	Shanghai-China	13	(6.7)	6	(9.1)	23	(15.3)	**-37**	(16.1)	-21	(17.3)	-21	(16.3)	-23	(15.3)	-10	(16.0)	-16	(15.3)

Note: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* were available. Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status*.

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[Part 1/4]

Immigrant background and financial literacy performance

Table VI.3.10 *Results based on students' self-reports*

		Students by immigration background				Financial literacy average score points				Score-point difference between students with no immigrant background and students with an immigrant background - BEFORE accounting for ESCS[1]							
		No immigrant background		Immigrant background		No immigrant background		Immigrant background		Mean		25th percentile		50th percentile		75th percentile	
		%	S.E.	%	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	79.5	(1.1)	20.5	(1.1)	527	(2.3)	555	(5.8)	**-28**	(6.1)	**-22**	(8.6)	**-28**	(9.1)	**-28**	(8.9)
	Flemish Community (Belgium)	89.8	(1.5)	10.2	(1.5)	554	(3.6)	468	(12.8)	**86**	(13.3)	**99**	(15.5)	**97**	(22.2)	**80**	(23.5)
	Czech Republic	97.7	(0.5)	2.3	(0.5)	516	(3.2)	475	(32.8)	41	(32.8)	90	(131.5)	32	(29.1)	17	(31.7)
	Estonia	90.5	(0.9)	9.5	(0.9)	536	(3.2)	492	(10.3)	**44**	(10.7)	**45**	(18.0)	**41**	(13.1)	**47**	(15.9)
	France	87.2	(1.5)	12.8	(1.5)	505	(3.7)	419	(11.4)	**86**	(12.6)	**104**	(19.0)	**83**	(17.8)	**72**	(17.8)
	Israel	83.0	(1.6)	17.0	(1.6)	483	(4.9)	489	(16.8)	-6	(17.2)	-20	(21.7)	-10	(17.5)	-14	(16.1)
	Italy	93.0	(0.5)	7.0	(0.5)	474	(2.2)	441	(6.1)	**33**	(6.6)	**43**	(11.1)	**35**	(11.7)	**25**	(10.0)
	New Zealand	72.5	(2.0)	27.5	(2.0)	533	(5.1)	504	(9.2)	**29**	(11.8)	**48**	(19.9)	22	(15.9)	14	(15.6)
	Poland	99.9	(0.1)	0.1	(0.1)	c	c	c	c	c	c	c	c	c	c	c	c
	Slovak Republic	99.0	(0.4)	1.0	(0.4)	c	c	c	c	c	c	c	c	c	c	c	c
	Slovenia	91.9	(1.0)	8.1	(1.0)	493	(3.7)	437	(9.3)	**56**	(10.3)	**44**	(13.1)	**57**	(20.5)	**63**	(18.8)
	Spain	88.8	(1.1)	11.2	(1.1)	493	(3.5)	441	(7.8)	**52**	(8.8)	**55**	(20.3)	**53**	(10.6)	**48**	(12.3)
	United States	77.8	(2.4)	22.2	(2.4)	504	(5.3)	485	(9.7)	19	(10.7)	**27**	(12.5)	19	(13.1)	18	(13.6)
	OECD average-13	88.5	(0.4)	11.5	(0.4)	511	(1.2)	473	(4.2)	**37**	(4.4)	**47**	(12.9)	**36**	(5.2)	**31**	(5.4)
Partners	Colombia	99.6	(0.2)	0.4	(0.2)	c	c	c	c	c	c	c	c	c	c	c	c
	Croatia	88.5	(1.3)	11.5	(1.3)	484	(4.2)	466	(8.4)	18	(9.3)	9	(14.1)	16	(12.2)	19	(17.3)
	Latvia	96.7	(0.6)	3.3	(0.6)	502	(3.6)	509	(11.8)	-7	(12.6)	-21	(28.9)	-16	(17.0)	12	(18.5)
	Russian Federation	90.1	(1.0)	9.9	(1.0)	490	(3.7)	460	(11.1)	**30**	(10.8)	36	(21.1)	**32**	(13.9)	26	(16.8)
	Shanghai-China	98.9	(0.3)	1.1	(0.3)	c	c	c	c	c	c	c	c	c	c	c	c

Note: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* and language spoken at home were available. Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status.*

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[Part 2/4]

Immigrant background and financial literacy performance

Table VI.3.10 *Results based on students' self-reports*

		Score-point difference between students with no immigrant background and students with an immigrant background - AFTER accounting for ESCS[1]								Score-point difference between students with no immigrant background and students with an immigrant background - AFTER accounting for ESCS and language spoken at home							
		Mean		25th percentile		50th percentile		75th percentile		Mean		25th percentile		50th percentile		75th percentile	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	**-32**	(5.6)	**-27**	(8.1)	**-28**	(8.7)	**-38**	(8.9)	**-31**	(5.7)	**-29**	(7.8)	**-28**	(8.5)	**-32**	(10.9)
	Flemish Community (Belgium)	**65**	(14.3)	**72**	(16.5)	**77**	(16.6)	**55**	(25.9)	**56**	(15.1)	**61**	(21.1)	**69**	(19.2)	47	(25.0)
	Czech Republic	43	(34.9)	71	(127.4)	7	(27.4)	11	(30.8)	48	(45.0)	71	(143.5)	7	(32.7)	17	(51.8)
	Estonia	**41**	(10.0)	**39**	(18.3)	**40**	(12.2)	**40**	(12.8)	**35**	(10.5)	**32**	(15.5)	**37**	(11.8)	**38**	(13.2)
	France	**61**	(11.2)	**74**	(22.9)	**64**	(18.0)	**47**	(11.6)	**59**	(12.7)	**77**	(28.0)	**62**	(23.1)	**41**	(17.0)
	Israel	-13	(15.3)	-19	(20.4)	-19	(16.6)	-22	(16.5)	-12	(18.6)	-26	(24.3)	-24	(18.5)	-21	(24.4)
	Italy	**22**	(6.4)	**32**	(10.7)	**21**	(10.3)	16	(8.7)	12	(7.3)	14	(12.7)	8	(11.6)	8	(10.7)
	New Zealand	**25**	(9.8)	**29**	(14.0)	20	(15.0)	14	(14.4)	5	(10.9)	11	(20.9)	8	(14.6)	-1	(16.4)
	Poland	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Slovak Republic	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Slovenia	**32**	(9.5)	19	(15.8)	**30**	(14.6)	34	(20.6)	12	(13.3)	10	(23.0)	14	(26.2)	21	(20.2)
	Spain	**35**	(9.6)	30	(18.5)	**38**	(12.6)	**35**	(14.8)	**39**	(9.7)	33	(17.2)	**40**	(12.8)	**39**	(14.2)
	United States	-8	(10.3)	-1	(15.2)	-5	(13.3)	-22	(13.8)	-17	(11.2)	-13	(13.0)	-17	(17.4)	-29	(25.0)
	OECD average-13	**25**	(4.4)	**29**	(12.5)	**22**	(4.8)	**16**	(5.3)	**19**	(5.4)	22	(14.2)	**16**	(5.8)	12	(7.1)
Partners	Colombia	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Croatia	6	(9.3)	3	(13.5)	-1	(13.8)	-3	(13.8)	6	(9.3)	3	(13.0)	0	(14.8)	-2	(14.1)
	Latvia	6	(12.8)	-11	(30.0)	6	(15.3)	14	(15.4)	-3	(11.7)	-24	(22.8)	5	(15.7)	9	(20.8)
	Russian Federation	**31**	(9.6)	33	(17.1)	30	(16.1)	**28**	(12.6)	**29**	(9.5)	29	(16.8)	26	(16.2)	**28**	(13.2)
	Shanghai-China	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c

Note: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* and language spoken at home were available. Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status.*

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[Part 3/4]

Immigrant background and financial literacy performance

Table VI.3.10 *Results based on students' self-reports*

		Score-point difference between students with no immigrant background and students with an immigrant background						Effect size: Difference in performance related to students' immigrant background divided by the variation in scores within each country/economy (standard deviation)									
		Financial literacy		Mathematics		Reading		Financial literacy		Mathematics		Reading		Difference in effect size between financial literacy and mathematics		Difference in effect size between financial literacy and reading	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	Australia	**-28**	(6.1)	**-38**	(6.9)	**-35**	(6.1)	**-0.29**	(0.06)	**-0.43**	(0.07)	**-0.37**	(0.06)	**0.15**	(0.04)	**0.09**	(0.04)
	Flemish Community (Belgium)	**86**	(13.3)	**87**	(12.7)	**72**	(9.4)	**0.92**	(0.13)	**0.89**	(0.13)	**0.87**	(0.11)	0.03	(0.07)	0.05	(0.07)
	Czech Republic	41	(32.8)	36	(35.9)	30	(31.3)	0.47	(0.37)	0.37	(0.36)	0.34	(0.35)	0.10	(0.23)	0.13	(0.23)
	Estonia	**44**	(10.7)	**30**	(12.7)	**29**	(9.9)	**0.57**	(0.13)	**0.33**	(0.14)	**0.34**	(0.11)	**0.24**	(0.08)	**0.23**	(0.07)
	France	**86**	(12.6)	**79**	(11.4)	**79**	(13.9)	**0.86**	(0.12)	**0.80**	(0.11)	**0.78**	(0.13)	0.07	(0.06)	0.08	(0.07)
	Israel	-6	(17.2)	-8	(13.2)	-3	(14.9)	-0.05	(0.16)	-0.07	(0.12)	-0.03	(0.13)	0.02	(0.08)	-0.03	(0.09)
	Italy	**33**	(6.6)	**42**	(6.7)	**46**	(7.3)	**0.39**	(0.08)	**0.42**	(0.07)	**0.47**	(0.07)	-0.02	(0.07)	-0.07	(0.06)
	New Zealand	**29**	(11.8)	10	(12.2)	15	(11.0)	**0.25**	(0.10)	0.10	(0.12)	0.15	(0.11)	**0.15**	(0.07)	**0.10**	(0.05)
	Poland	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Slovak Republic	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Slovenia	**56**	(10.3)	**72**	(10.9)	**49**	(12.6)	**0.63**	(0.11)	**0.79**	(0.11)	**0.57**	(0.14)	**-0.16**	(0.08)	0.06	(0.07)
	Spain	**52**	(8.8)	**52**	(8.8)	**58**	(9.5)	**0.62**	(0.10)	**0.60**	(0.10)	**0.62**	(0.10)	0.03	(0.07)	0.00	(0.10)
	United States	19	(10.7)	**25**	(8.9)	**18**	(8.3)	0.19	(0.11)	**0.29**	(0.10)	**0.21**	(0.10)	-0.09	(0.08)	-0.01	(0.07)
	OECD average-13	**37**	(4.4)	**35**	(4.5)	**33**	(4.2)	**0.42**	(0.05)	**0.37**	(0.05)	**0.36**	(0.04)	0.05	(0.03)	0.06	(0.03)
Partners	Colombia	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
	Croatia	18	(9.3)	16	(10.0)	**28**	(9.6)	0.22	(0.11)	0.18	(0.11)	**0.32**	(0.11)	0.04	(0.06)	-0.11	(0.08)
	Latvia	-7	(12.6)	-21	(13.5)	-9	(15.4)	-0.10	(0.16)	-0.24	(0.16)	-0.10	(0.18)	0.14	(0.10)	0.01	(0.12)
	Russian Federation	**30**	(10.8)	**31**	(12.5)	**19**	(9.7)	**0.35**	(0.12)	**0.33**	(0.13)	0.21	(0.11)	0.02	(0.09)	0.13	(0.09)
	Shanghai-China	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c

Note: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* and language spoken at home were available. Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status.*

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[Part 4/4]

Immigrant background and financial literacy performance

Table VI.3.10 *Results based on students' self-reports*

		Relative performance in financial literacy: Financial literacy score-point difference between students with no immigrant background and students with an immigrant background after accounting for performance in mathematics and reading							
		After accounting for mathematics		After accounting for reading		After accounting for mathematics and reading		After accounting for mathematics, reading and ESCS[1] and language spoken at home	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	**8**	(3.1)	2	(3.4)	**10**	(3.0)	**9**	(2.9)
	Flemish Community (Belgium)	**16**	(6.8)	**23**	(8.1)	10	(6.4)	8	(6.5)
	Czech Republic	14	(19.3)	18	(20.4)	12	(17.9)	17	(23.8)
	Estonia	**24**	(5.8)	**25**	(6.2)	**21**	(4.9)	**20**	(5.1)
	France	**21**	(6.9)	**26**	(6.7)	**16**	(6.0)	**16**	(6.1)
	Israel	1	(9.7)	-4	(10.6)	0	(9.3)	2	(10.8)
	Italy	8	(5.6)	5	(5.0)	2	(4.8)	2	(5.3)
	New Zealand	**20**	(6.6)	**15**	(5.4)	**16**	(4.7)	7	(5.2)
	Poland	c	c	c	c	c	c	c	c
	Slovak Republic	c	c	c	c	c	c	c	c
	Slovenia	-2	(6.7)	**14**	(5.7)	-1	(5.2)	-11	(7.0)
	Spain	**13**	(5.6)	**19**	(7.6)	10	(5.7)	**11**	(5.8)
	United States	-5	(6.9)	2	(6.3)	-4	(5.9)	-14	(7.7)
	OECD average-13	**11**	(2.6)	**13**	(2.7)	**8**	(2.3)	**6**	(2.9)
Partners	Colombia	c	c	c	c	c	c	c	c
	Croatia	5	(4.5)	-4	(6.2)	-1	(4.3)	0	(4.3)
	Latvia	6	(7.8)	-2	(8.0)	4	(6.8)	4	(6.8)
	Russian Federation	9	(6.9)	**18**	(7.9)	10	(6.8)	9	(6.5)
	Shanghai-China	c	c	c	c	c	c	c	c

Note: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* and language spoken at home were available. Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status.*

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[Part 1/1]

Table VI.3.11 Language spoken at home and financial literacy performance

Results based on students' self-reports

		Percentage of students, by language spoken at home				Financial literacy, by language spoken at home				Score-point difference between students who speak the language of assessment at home and students who speak another language					
		Language of test		Other language		Language of test		Other language		Before accounting for immigrant background		After accounting for immigrant background		After accounting for immigrant background and ESCS[1]	
		%	S.E.	%	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	90.5	(0.7)	9.5	(0.7)	532	(2.3)	541	(8.3)	-9	(8.7)	10	(8.7)	0	(8.2)
	Flemish Community (Belgium)	69.2	(1.9)	30.8	(1.9)	561	(4.2)	511	(6.5)	**49**	(7.7)	**36**	(8.7)	**24**	(8.2)
	Czech Republic	97.6	(0.5)	2.4	(0.5)	515	(3.2)	513	(19.2)	2	(19.0)	-26	(27.5)	-10	(28.7)
	Estonia	94.6	(0.9)	5.4	(0.9)	534	(3.0)	488	(9.9)	**46**	(9.7)	**35**	(10.5)	**35**	(10.8)
	France	93.2	(1.0)	6.8	(1.0)	499	(3.7)	428	(13.1)	**71**	(13.6)	20	(14.1)	5	(14.5)
	Israel	88.7	(1.3)	11.3	(1.3)	483	(5.4)	493	(11.4)	-10	(11.9)	-9	(15.7)	-4	(15.1)
	Italy	87.0	(0.7)	13.0	(0.7)	477	(2.2)	437	(5.1)	**40**	(5.3)	**36**	(6.0)	**22**	(5.9)
	New Zealand	84.7	(1.5)	15.3	(1.5)	535	(3.8)	472	(12.8)	**63**	(13.4)	**61**	(15.3)	**49**	(12.2)
	Poland	98.7	(0.5)	1.3	(0.5)	c	c	c	c	c	c	c	c	c	c
	Slovak Republic	92.7	(1.1)	7.3	(1.1)	482	(4.7)	371	(21.4)	**111**	(22.1)	**110**	(21.9)	**76**	(18.3)
	Slovenia	93.9	(0.8)	6.1	(0.8)	492	(3.6)	429	(9.7)	**63**	(10.5)	**37**	(14.7)	**34**	(14.4)
	Spain	82.8	(1.5)	17.2	(1.5)	488	(3.6)	487	(7.4)	1	(8.5)	-10	(8.1)	**-15**	(7.4)
	United States	86.2	(1.6)	13.8	(1.6)	504	(4.9)	470	(10.6)	**34**	(10.8)	**33**	(13.1)	17	(12.2)
	OECD average-13	89.2	(0.3)	10.8	(0.3)	508	(1.1)	470	(3.5)	**39**	(3.6)	**28**	(4.3)	**19**	(4.1)
Partners	Colombia	99.1	(0.3)	0.9	(0.3)	c	c	c	c	c	c	c	c	c	c
	Croatia	98.4	(0.4)	1.6	(0.4)	c	c	c	c	c	c	c	c	c	c
	Latvia	90.9	(1.6)	9.1	(1.6)	506	(3.3)	459	(13.3)	**47**	(13.4)	**49**	(13.6)	**38**	(11.8)
	Russian Federation	92.4	(1.9)	7.6	(1.9)	492	(3.6)	436	(11.4)	**55**	(12.0)	**54**	(12.1)	**41**	(12.1)
	Shanghai-China	98.3	(0.3)	1.7	(0.3)	c	c	c	c	c	c	c	c	c	c

Note: This table was calculated considering only students for whom data on immigration status and the *PISA index of economic, social and cultural status* were available. Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status.*

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[Part 1/3]

Table VI.3.12 School location and financial literacy performance

Results based on students' self-reports

		Percentage of students						Average performance in financial literacy					
		Students attending schools located in a village, hamlet or rural area (fewer than 3 000 people)		Students attending schools located in a town (3 000 to 100 000 people)		Students attending schools located in a city or large city (over 100 000 people)		Students attending schools located in a village, hamlet or rural area (fewer than 3 000 people)		Students attending schools located in a town (3 000 to 100 000 people)		Students attending schools located in a city or large city (over 100 000 people)	
		%	S.E.	%	S.E.	%	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	Australia	6.4	(0.9)	29.0	(1.4)	64.6	(1.4)	492	(8.7)	511	(3.7)	539	(3.0)
	Flemish Community (Belgium)	0.5	(0.5)	83.5	(2.8)	16.0	(2.8)	c	c	548	(4.2)	518	(16.1)
	Czech Republic	7.4	(1.6)	65.6	(3.0)	27.0	(2.9)	486	(11.2)	512	(5.2)	522	(9.8)
	Estonia	25.0	(2.1)	45.7	(2.0)	29.4	(1.0)	530	(7.6)	526	(3.5)	535	(4.8)
	France	w	w	w	w	w	w	w	w	w	w	w	w
	Israel	16.1	(2.9)	49.5	(3.4)	34.4	(3.9)	498	(15.2)	460	(7.5)	502	(10.8)
	Italy	2.6	(0.7)	67.2	(2.1)	30.2	(2.0)	455	(12.6)	465	(2.7)	476	(4.4)
	New Zealand	5.5	(1.0)	39.2	(3.7)	55.2	(3.6)	465	(14.3)	518	(7.5)	537	(5.8)
	Poland	32.8	(2.4)	46.0	(2.5)	21.2	(1.0)	490	(5.1)	515	(5.5)	532	(9.5)
	Slovak Republic	13.9	(2.0)	72.6	(2.8)	13.6	(1.8)	421	(16.5)	471	(6.2)	519	(11.0)
	Slovenia	1.3	(0.8)	59.1	(1.9)	39.6	(2.0)	c	c	484	(3.6)	501	(6.5)
	Spain	1.9	(1.0)	56.4	(4.0)	41.6	(3.8)	c	c	480	(4.7)	495	(4.4)
	United States	11.7	(3.1)	51.8	(4.2)	36.5	(3.7)	478	(11.6)	506	(8.0)	479	(8.3)
	OECD average-13	10.1	(0.5)	56.6	(0.8)	33.3	(0.7)	476	(3.9)	499	(1.5)	512	(2.5)
Partners	Colombia	12.7	(1.4)	32.5	(4.2)	54.8	(4.0)	337	(15.6)	364	(10.8)	397	(5.2)
	Croatia	0.9	(0.7)	61.3	(1.9)	37.8	(1.8)	c	c	473	(4.0)	494	(7.6)
	Latvia	24.2	(1.6)	44.0	(2.1)	31.8	(1.9)	472	(8.3)	503	(5.2)	518	(6.1)
	Russian Federation	19.7	(2.1)	33.0	(2.4)	47.3	(2.6)	452	(7.7)	479	(6.5)	506	(4.5)
	Shanghai-China	0.0	c	0.0	c	100.0	c	c	c	c	c	604	(3.3)

Note: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* were available. Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status.*

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[Part 2/3]

School location and financial literacy performance

Table VI.3.12 *Results based on students' self-reports*

		Average performance in financial literacy after accounting for ESCS[1]						Difference in financial literacy score BEFORE accounting for ESCS					
		Students attending schools located in a village, hamlet or rural area (fewer than 3 000 people)		Students attending schools located in a town (3 000 to 100 000 people)		Students attending schools located in a city or large city (over 100 000 people)		Students in town schools compared with rural schools		Students in city schools compared with town schools		Students in city schools compared with rural schools	
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	499	(8.9)	506	(3.6)	525	(3.0)	**19**	(9.2)	**27**	(5.2)	**47**	(9.1)
	Flemish Community (Belgium)	c	c	541	(4.1)	508	(13.3)	c	c	-30	(17.9)	c	c
	Czech Republic	495	(11.7)	517	(4.9)	515	(9.3)	**26**	(12.7)	10	(11.9)	**36**	(16.5)
	Estonia	538	(7.5)	523	(3.5)	526	(4.9)	-4	(8.3)	10	(5.6)	5	(8.8)
	France	w	w	w	w	w	w	w	w	w	w	w	w
	Israel	479	(12.6)	454	(6.6)	490	(10.0)	**-39**	(17.9)	**43**	(13.7)	4	(19.1)
	Italy	467	(12.3)	468	(2.4)	471	(4.0)	10	(12.6)	**11**	(5.3)	21	(13.1)
	New Zealand	485	(13.2)	515	(6.6)	525	(5.0)	**52**	(16.7)	20	(10.2)	**72**	(15.7)
	Poland	507	(5.3)	519	(5.2)	527	(7.4)	**25**	(7.1)	17	(10.9)	**42**	(10.8)
	Slovak Republic	449	(14.9)	478	(5.5)	504	(9.6)	**50**	(18.4)	**48**	(12.4)	**98**	(18.8)
	Slovenia	c	c	482	(3.4)	494	(6.0)	c	c	**17**	(8.1)	c	c
	Spain	c	c	489	(4.2)	497	(3.9)	c	c	**15**	(6.7)	c	c
	United States	480	(12.0)	494	(5.8)	476	(7.6)	28	(14.3)	**-27**	(12.5)	1	(14.7)
	OECD average-13	480	(3.6)	499	(1.3)	504	(2.2)	**31**	(4.2)	**13**	(3.0)	**44**	(4.6)
Partners	Colombia	403	(18.0)	407	(11.5)	425	(5.4)	27	(18.9)	**33**	(12.5)	**60**	(16.3)
	Croatia	c	c	489	(4.0)	499	(7.2)	c	c	**22**	(8.7)	c	c
	Latvia	492	(7.6)	507	(4.9)	514	(5.6)	**31**	(10.0)	15	(8.4)	**46**	(11.3)
	Russian Federation	468	(8.4)	483	(6.0)	502	(4.1)	**27**	(10.4)	**27**	(7.5)	**54**	(9.2)
	Shanghai-China	c	c	c	c	615	(2.9)	c	c	c	c	c	c

Note: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* were available. Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status.*

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[Part 3/3]

School location and financial literacy performance

Table VI.3.12 *Results based on students' self-reports*

		Difference in financial literacy score AFTER accounting for ESCS[1]						Effect size: Difference in performance between students in city schools and students in rural schools divided by the variation in scores within each country/economy (standard deviation)									
		Students in town schools compared with rural schools		Students in city schools compared with town schools		Students in city schools compared with rural schools		Financial literacy		Mathematics		Reading		Difference in effect size between financial literacy and mathematics		Difference in effect size between financial literacy and reading	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Dif.	S.E.	Dif.	S.E.
OECD	Australia	7	(9.6)	**19**	(4.8)	**27**	(9.4)	**0.27**	(0.09)	**0.27**	(0.10)	**0.48**	(0.10)	0.00	(0.06)	**-0.21**	(0.07)
	Flemish Community (Belgium)	c	c	**-33**	(14.8)	c	c	c	c	c	c	c	c	c	c	c	c
	Czech Republic	22	(12.7)	-2	(11.4)	20	(17.3)	0.23	(0.20)	0.15	(0.17)	0.30	(0.27)	0.08	(0.11)	-0.07	(0.16)
	Estonia	-16	(8.4)	3	(5.3)	-13	(9.1)	-0.16	(0.11)	0.18	(0.12)	0.14	(0.14)	**-0.34**	(0.08)	**-0.30**	(0.09)
	France	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w
	Israel	-25	(14.5)	**36**	(12.6)	11	(15.7)	0.10	(0.14)	0.06	(0.13)	0.11	(0.16)	0.04	(0.09)	-0.01	(0.10)
	Italy	1	(12.3)	3	(4.8)	4	(12.8)	0.05	(0.15)	0.15	(0.15)	0.17	(0.22)	-0.10	(0.09)	-0.12	(0.14)
	New Zealand	**30**	(15.1)	10	(8.8)	**40**	(14.9)	**0.35**	(0.13)	0.13	(0.15)	**0.47**	(0.15)	0.22	(0.14)	-0.12	(0.09)
	Poland	13	(6.8)	8	(8.9)	**20**	(9.0)	**0.25**	(0.11)	**0.27**	(0.12)	**0.38**	(0.12)	-0.02	(0.06)	-0.13	(0.09)
	Slovak Republic	29	(16.3)	**26**	(10.7)	**56**	(16.9)	**0.53**	(0.16)	**0.47**	(0.16)	**0.39**	(0.19)	0.05	(0.12)	0.14	(0.13)
	Slovenia	c	c	12	(7.4)	c	c	c	c	c	c	c	c	c	c	c	c
	Spain	c	c	7	(6.0)	c	c	c	c	c	c	c	c	c	c	c	c
	United States	14	(13.7)	-18	(10.1)	-4	(14.5)	-0.04	(0.15)	-0.14	(0.15)	0.07	(0.16)	0.10	(0.08)	-0.11	(0.09)
	OECD average-13	**19**	(3.8)	**5**	(2.7)	**24**	(4.2)	**0.25**	(0.04)	**0.15**	(0.07)	**0.36**	(0.05)	0.10	(0.06)	**-0.11**	(0.04)
Partners	Colombia	5	(18.2)	18	(11.5)	23	(16.9)	0.21	(0.16)	0.28	(0.16)	**0.41**	(0.14)	-0.06	(0.16)	-0.20	(0.14)
	Croatia	c	c	10	(8.2)	c	c	c	c	c	c	c	c	c	c	c	c
	Latvia	16	(9.0)	7	(7.6)	**23**	(10.2)	**0.29**	(0.13)	0.16	(0.13)	**0.32**	(0.15)	0.14	(0.11)	-0.02	(0.11)
	Russian Federation	16	(10.2)	**18**	(7.0)	**34**	(10.1)	**0.39**	(0.11)	**0.32**	(0.13)	**0.28**	(0.11)	0.07	(0.10)	0.11	(0.10)
	Shanghai-China	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c

Note: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* were available. Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status.*

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[Part 1/2]

Variation in financial literacy performance

Table VI.3.13 *Results based on students' self-reports*

		Mean performance[1]		Total variation in financial literacy performance[2]		Variation in financial literacy performance between schools[3]		Variation in financial literacy performance within schools[4]		As a percentage of the average total variation in financial literacy performance across OECD countries and economies		
										Total variation	Between-school variation	Within-school variation
		Mean	S.E.	Variance	S.E.	Variance	S.E.	Variance	S.E.	%	%	%
OECD	Australia	526	(2.1)	10 273	(337)	2 515	(312)	7 671	(274)	109.0	26.7	81.4
	Flemish Community (Belgium)	541	(3.5)	9 481	(491)	4 071	(489)	5 183	(297)	100.6	43.2	55.0
	Czech Republic	513	(3.2)	7 789	(539)	3 589	(529)	3 867	(264)	82.6	38.1	41.0
	Estonia	529	(3.0)	6 232	(283)	1 183	(262)	4 772	(307)	66.1	12.6	50.6
	France	w	w	w	w	w	w	w	w	w	w	w
	Israel	476	(6.1)	13 296	(1040)	5 786	(1008)	7 093	(427)	141.1	61.4	75.3
	Italy	466	(2.1)	7 595	(259)	3 410	(217)	4 016	(121)	80.6	36.2	42.6
	New Zealand	520	(3.7)	13 907	(667)	3 237	(719)	10 210	(605)	147.6	34.3	108.3
	Poland	510	(3.7)	6 698	(347)	1 330	(263)	5 277	(273)	71.1	14.1	56.0
	Slovak Republic	470	(4.9)	11 001	(762)	6 146	(776)	4 783	(294)	116.7	65.2	50.7
	Slovenia	485	(3.3)	8 026	(435)	4 474	(529)	3 247	(204)	85.2	47.5	34.5
	Spain	484	(3.2)	7 243	(362)	1 181	(234)	6 183	(407)	76.9	12.5	65.6
	United States	492	(4.9)	9 857	(494)	2 395	(367)	7 368	(384)	104.6	25.4	78.2
	OECD average-13	500	(1.0)	9 425	(154)	3 490	(153)	5 738	(95)	100.0	37.0	60.9
Partners	Colombia	379	(4.7)	11 146	(741)	3 125	(526)	7 839	(484)	118.3	33.2	83.2
	Croatia	480	(3.8)	7 244	(390)	2 640	(391)	4 581	(311)	76.9	28.0	48.6
	Latvia	501	(3.3)	6 068	(417)	1 370	(260)	4 383	(284)	64.4	14.5	46.5
	Russian Federation	486	(3.7)	7 700	(390)	2 351	(388)	5 300	(281)	81.7	24.9	56.2
	Shanghai-China	603	(3.2)	6 960	(409)	3 121	(357)	3 853	(220)	73.8	33.1	40.9

1. The statistics computed for this table were estimated for all students, whether they had data on socio-economic status or not.
2. The total variation in student performance is calculated from the square of the standard deviation for all students.
3. In some countries, sub-units within schools were sampled instead of schools; this may affect the estimation of between-school variation components (see Annex A3).
4. Due to the unbalanced clustered nature of the data, the sum of the between- and within-school variation components, as an estimate from a sample, does not necessarily add up to the total.
5. The *index of academic inclusion* is calculated as 100*(1-rho), where rho stands for the intra-class correlation of performance, i.e. the variation in student performance between schools, divided by the sum of the variation in student performance between schools and the variation in student performance within schools.
6. The index of social inclusion is calculated as 100 × (1-rho), where rho stands for the intra-class correlation of socio-economic status, i.e. the between-school variation in the *PISA index of economic, social and cultural status* (ESCS) of students, divided by the sum of the between-school variation in students' socio-economic status and the within-school variation in students' socio-economic status.

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[Part 2/2]

Variation in financial literacy performance

Table VI.3.13 *Results based on students' self-reports*

		Index of academic inclusion: Proportion of performance variation within schools[5]						Index of social inclusion: Proportion of ESCS variation within schools[6]	
		Financial literacy		Mathematics		Reading			
		%	S.E.	%	S.E.	%	S.E.	Index	S.E.
OECD	Australia	75.3	(2.6)	63.9	(3.2)	68.8	(2.5)	73.8	(2.1)
	Flemish Community (Belgium)	56.0	(3.2)	54.4	(3.6)	52.3	(3.4)	75.5	(3.2)
	Czech Republic	51.9	(4.4)	53.6	(3.9)	49.7	(3.8)	81.0	(3.3)
	Estonia	80.1	(4.0)	73.7	(3.8)	70.6	(4.0)	79.0	(3.7)
	France	w	w	w	w	w	w	w	w
	Israel	55.1	(4.6)	55.1	(4.5)	55.4	(4.4)	76.2	(3.5)
	Italy	54.1	(1.8)	49.9	(2.0)	47.2	(1.8)	74.4	(1.8)
	New Zealand	75.9	(4.5)	71.8	(4.7)	78.0	(3.8)	79.6	(3.5)
	Poland	79.9	(3.4)	77.3	(3.8)	73.4	(3.6)	74.6	(3.8)
	Slovak Republic	43.8	(3.3)	47.0	(3.4)	36.7	(3.4)	67.3	(4.4)
	Slovenia	42.1	(3.1)	45.0	(4.4)	37.8	(3.3)	75.0	(4.4)
	Spain	84.0	(3.1)	73.6	(4.1)	80.1	(2.9)	74.3	(3.5)
	United States	75.5	(3.1)	70.3	(3.3)	75.8	(3.5)	72.7	(3.5)
	OECD average-13	63.0	(1.0)	60.0	(1.0)	58.6	(0.9)	75.3	(1.0)
Partners	Colombia	71.5	(3.5)	71.4	(3.5)	69.8	(3.6)	61.2	(4.4)
	Croatia	63.4	(4.1)	62.5	(4.5)	53.7	(4.0)	75.9	(3.3)
	Latvia	76.2	(4.0)	76.0	(4.7)	77.4	(3.7)	80.0	(3.8)
	Russian Federation	69.3	(3.9)	71.2	(3.8)	68.7	(3.4)	76.7	(3.3)
	Shanghai-China	55.2	(3.3)	48.9	(3.4)	56.9	(3.4)	64.5	(3.2)

1. The statistics computed for this table were estimated for all students, whether they had data on socio-economic status or not.
2. The total variation in student performance is calculated from the square of the standard deviation for all students.
3. In some countries, sub-units within schools were sampled instead of schools; this may affect the estimation of between-school variation components (see Annex A3).
4. Due to the unbalanced clustered nature of the data, the sum of the between- and within-school variation components, as an estimate from a sample, does not necessarily add up to the total.
5. The *index of academic inclusion* is calculated as 100*(1-rho), where rho stands for the intra-class correlation of performance, i.e. the variation in student performance between schools, divided by the sum of the variation in student performance between schools and the variation in student performance within schools.
6. The *index of social inclusion* is calculated as 100 × (1-rho), where rho stands for the intra-class correlation of socio-economic status, i.e. the between-school variation in the *PISA index of economic, social and cultural status* (ESCS) of students, divided by the sum of the between-school variation in students' socio-economic status and the within-school variation in students' socio-economic status.

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[Part 1/3]

Strength of the relationship between financial literacy and mathematics performance, and between financial literacy and reading performance, between and within schools[1]

Table VI.3.14 *Results based on students' self-reports*

		Variation in student performance in financial literacy						Variation accounted for by students' performance in mathematics[4]			Variation accounted for by students' and schools' performance in mathematics[5]		
		Total[2]		Between schools[3]		Within schools[3]		Total	Between schools	Within schools	Total	Between schools	Within schools
		Variance	S.E.	Variance	S.E.	Variance	S.E.	%	%	%	%	%	%
OECD	Australia	10273	(337)	2515	(312)	7671	(274)	68.7	58.2	72.5	69.1	60.2	72.6
	Flemish Community (Belgium)	9481	(491)	4071	(489)	5183	(297)	63.9	85.4	46.6	64.5	86.7	46.8
	Czech Republic	7789	(539)	3589	(529)	3867	(264)	58.2	71.6	50.4	58.3	72.0	50.4
	Estonia	6232	(283)	1183	(262)	4772	(307)	57.0	47.8	58.1	57.5	50.7	58.2
	France	w	w	w	w	w	w	w	w	w	w	w	w
	Israel	13296	(1040)	5786	(1008)	7093	(427)	59.2	79.2	41.6	60.5	81.8	42.1
	Italy	7595	(259)	3410	(217)	4016	(121)	51.7	75.0	32.3	52.3	77.3	32.5
	New Zealand	13907	(667)	3237	(719)	10210	(605)	73.3	69.8	75.2	73.3	69.8	75.2
	Poland	6698	(347)	1330	(263)	5277	(273)	63.8	57.6	65.0	64.2	59.4	65.0
	Slovak Republic	11001	(762)	6146	(776)	4783	(294)	68.5	80.8	57.6	68.5	80.8	57.6
	Slovenia	8026	(435)	4474	(529)	3247	(204)	69.2	82.7	49.9	69.5	83.3	50.1
	Spain	7243	(362)	1181	(234)	6183	(407)	42.7	28.7	46.6	43.2	31.3	46.6
	United States	9857	(494)	2395	(367)	7368	(384)	70.5	69.8	70.6	70.5	69.8	70.6
	OECD average-13	9425	(154)	3490	(153)	5738	(95)	62.6	68.4	54.8	62.9	69.7	54.9
Partners	Colombia	11146	(741)	3125	(526)	7839	(484)	26.7	61.6	12.0	29.6	73.6	12.5
	Croatia	7244	(390)	2640	(391)	4581	(311)	64.6	75.8	58.7	64.7	76.0	58.8
	Latvia	6068	(417)	1370	(260)	4383	(284)	55.6	51.4	55.2	55.7	51.5	55.2
	Russian Federation	7700	(390)	2351	(388)	5300	(281)	46.9	64.4	39.4	47.1	65.9	39.4
	Shanghai-China	6960	(409)	3121	(357)	3853	(220)	66.8	80.4	55.5	67.4	82.3	55.6

1. The total variation in student performance is calculated from the square of the standard deviation for all students.
2. In some countries/economies, sub-units within schools were sampled instead of schools; this may affect the estimation of between-school variance components (see Annex A3).
3. Due to the unbalanced clustered nature of the data, the sum of the between- and within-school variation components, as an estimate from a sample, does not necessarily add up to the total.
4. Based on the residual variation in a model with student performance in mathematics/reading.
5. Based on the residual variation in a model with student performance in mathematics/reading and school average performance in mathematics/reading.

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[Part 2/3]

Strength of the relationship between financial literacy and mathematics performance, and between financial literacy and reading performance, between and within schools[1]

Table VI.3.14 *Results based on students' self-reports*

		Variation in student performance unique to financial literacy (not accounted for by mathematics performance)[5]						Variation accounted for by students' performance in reading[4]		
		Total		Between schools		Within schools		Total	Between schools	Within schools
		Variance	S.E.	Variance	S.E.	Variance	S.E.	%	%	%
OECD	Australia	3175	(117)	1002	(95)	2105	(74)	70.3	64.0	72.7
	Flemish Community (Belgium)	3368	(178)	541	(137)	2756	(150)	73.7	80.0	68.1
	Czech Republic	3249	(271)	1005	(237)	1918	(133)	70.8	81.2	63.6
	Estonia	2649	(127)	583	(105)	1994	(112)	64.2	52.2	67.3
	France	w	w	w	w	w	w	w	w	w
	Israel	5255	(320)	1050	(232)	4109	(284)	68.8	83.4	57.6
	Italy	3626	(134)	774	(76)	2712	(90)	53.4	74.1	39.9
	New Zealand	3710	(198)	978	(181)	2532	(157)	72.8	71.1	73.9
	Poland	2396	(145)	540	(113)	1845	(115)	70.7	56.6	74.9
	Slovak Republic	3468	(316)	1179	(239)	2028	(127)	71.9	76.7	68.5
	Slovenia	2447	(125)	748	(117)	1621	(98)	69.4	77.2	61.3
	Spain	4115	(246)	812	(153)	3300	(224)	62.9	47.9	67.6
	United States	2911	(160)	723	(138)	2169	(135)	73.1	69.0	75.6
	OECD average-13	3391	(58)	842	(46)	2443	(42)	68.7	70.2	65.6
Partners	Colombia	7846	(478)	826	(233)	6858	(415)	25.6	60.6	13.0
	Croatia	2554	(145)	633	(111)	1889	(109)	72.3	75.0	71.4
	Latvia	2690	(168)	665	(120)	1963	(112)	56.5	36.8	65.0
	Russian Federation	4073	(200)	801	(172)	3211	(185)	53.6	58.5	53.7
	Shanghai-China	2266	(134)	554	(104)	1710	(85)	77.8	84.9	72.0

1. The total variation in student performance is calculated from the square of the standard deviation for all students.
2. In some countries/economies, sub-units within schools were sampled instead of schools; this may affect the estimation of between-school variance components (see Annex A3).
3. Due to the unbalanced clustered nature of the data, the sum of the between- and within-school variation components, as an estimate from a sample, does not necessarily add up to the total.
4. Based on the residual variation in a model with student performance in mathematics/reading.
5. Based on the residual variation in a model with student performance in mathematics/reading and school average performance in mathematics/reading.

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[Part 3/3]

Strength of the relationship between financial literacy and mathematics performance, and between financial literacy and reading performance, between and within schools[1]

Table VI.3.14 *Results based on students' self-reports*

		Variation accounted for by students' and schools' performance in reading[5]			Variation in student performance unique to financial literacy (not accounted for by reading performance)[5]					
		Total	Between schools	Within schools	Total		Between schools		Within schools	
		%	%	%	Variance	S.E.	Variance	S.E.	Variance	S.E.
OECD	Australia	71.0	67.3	72.8	2978	(96)	822	(77)	2086	(71)
	Flemish Community (Belgium)	73.7	80.1	68.1	2492	(175)	811	(152)	1651	(100)
	Czech Republic	71.0	81.7	63.7	2258	(169)	656	(120)	1402	(79)
	Estonia	64.5	54.6	67.4	2211	(133)	537	(102)	1557	(108)
	France	w	w	w	w	w	w	w	w	w
	Israel	69.3	84.2	57.8	4086	(362)	914	(248)	2993	(221)
	Italy	53.7	76.0	39.9	3518	(173)	818	(90)	2415	(77)
	New Zealand	72.9	71.7	73.9	3768	(227)	915	(189)	2666	(214)
	Poland	71.3	58.2	74.9	1924	(103)	556	(79)	1322	(79)
	Slovak Republic	72.1	77.3	68.5	3074	(212)	1394	(192)	1505	(99)
	Slovenia	69.7	78.1	61.4	2432	(198)	978	(134)	1255	(84)
	Spain	64.5	55.1	67.9	2570	(166)	531	(105)	1988	(124)
	United States	73.4	70.3	75.6	2622	(181)	710	(169)	1797	(107)
	OECD average-13	69.1	71.9	65.7	2856	(55)	833	(42)	1886	(34)
Partners	Colombia	28.1	72.6	13.3	8009	(510)	857	(254)	6800	(387)
	Croatia	72.3	75.0	71.4	2008	(135)	661	(116)	1311	(84)
	Latvia	57.2	38.3	65.2	2596	(262)	845	(150)	1526	(96)
	Russian Federation	53.6	58.7	53.7	3571	(237)	970	(190)	2455	(149)
	Shanghai-China	77.8	85.0	72.0	1544	(91)	468	(82)	1078	(65)

1. The total variation in student performance is calculated from the square of the standard deviation for all students.
2. In some countries/economies, sub-units within schools were sampled instead of schools; this may affect the estimation of between-school variance components (see Annex A3).
3. Due to the unbalanced clustered nature of the data, the sum of the between- and within-school variation components, as an estimate from a sample, does not necessarily add up to the total.
4. Based on the residual variation in a model with student performance in mathematics/reading.
5. Based on the residual variation in a model with student performance in mathematics/reading and school average performance in mathematics/reading.

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[Part 1/4]

Proportion of the variation in financial literacy, mathematics and reading performance explained by socio-economic factors

Table VI.3.15 *Results based on students' self-reports*

		Explained variation in financial literacy performance (unique,[1] common and total)					
		Unique to:				Common explained variation (explained by more than one factor)	Total explained variation
		Gender	ESCS[2]	Immigrant status and language spoken at home	School location		
		%	%	%	%	%	%
OECD	Australia	0.0	10.0	0.9	1.1	2.5	14.4
	Flemish Community (Belgium)	0.1	6.3	4.6	0.9	6.0	17.9
	Czech Republic	0.2	10.0	0.9	1.0	1.3	13.4
	Estonia	0.0	5.8	2.9	0.4	1.2	10.2
	France	w	w	w	w	w	w
	Israel	0.0	12.2	0.0	3.0	2.7	17.9
	Italy	0.5	6.3	1.1	0.3	2.1	10.2
	New Zealand	0.0	13.8	2.6	1.8	3.7	21.9
	Poland	0.1	8.7	0.6	1.2	3.9	14.5
	Slovak Republic	0.0	9.9	3.7	2.3	8.8	24.6
	Slovenia	0.0	10.4	1.8	2.6	4.4	19.3
	Spain	0.0	11.1	2.4	0.6	2.9	17.1
	United States	0.2	14.2	0.3	1.5	2.1	18.3
	OECD average-13	0.1	9.9	2.0	1.4	3.6	16.9
Partners	Colombia	0.0	9.5	0.4	0.7	3.5	14.2
	Croatia	0.2	8.9	0.2	0.4	1.8	11.6
	Latvia	0.1	9.0	2.0	1.0	4.8	16.9
	Russian Federation	0.0	5.2	2.2	2.6	4.8	14.7
	Shanghai-China	0.0	11.5	0.5	0.0	0.6	12.6

1. Unique variation is the variation explained by each factor after taking into account the variation explained by the other factors in the model.
2. ESCS refers to the *PISA index of economic, social and cultural status*.

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[Part 2/4]

Proportion of the variation in financial literacy, mathematics and reading performance explained by socio-economic factors

Table VI.3.15 *Results based on students' self-reports*

		Explained variation in financial literacy performance (unique,[1] common and total)									
		Unique to:								Common explained variation (explained by more than one factor)	Total explained variation
		Gender	Index of family wealth	Index of cultural possessions and number of books at home	Index of home educational resources	Parents' highest occupational status	Parents' highest level of education	Immigrant status and language spoken at home	School location		
		%	%	%	%	%	%	%	%	%	%
OECD	Australia	0.1	0.6	3.9	0.9	1.8	0.6	0.8	1.0	9.8	19.5
	Flemish Community (Belgium)	0.1	0.1	4.1	0.6	1.0	0.1	3.6	1.1	10.2	20.7
	Czech Republic	0.9	0.7	5.8	1.5	2.5	0.6	0.2	1.2	9.8	23.2
	Estonia	0.1	0.0	5.7	0.0	2.4	0.0	1.7	0.3	5.5	15.8
	France	w	w	w	w	w	w	w	w	w	w
	Israel	0.1	0.0	2.5	0.8	4.1	0.9	0.1	2.4	9.8	20.7
	Italy	1.0	0.1	6.7	0.2	1.0	0.2	0.3	0.3	7.2	16.9
	New Zealand	0.3	0.0	4.7	0.3	4.0	0.0	1.9	1.4	12.1	24.7
	Poland	0.3	0.1	4.4	0.2	0.5	0.5	0.4	1.0	12.3	19.8
	Slovak Republic	0.3	0.0	6.7	2.3	1.6	0.0	1.0	1.0	15.6	28.6
	Slovenia	0.0	1.6	6.3	0.1	3.7	0.0	1.1	2.7	12.1	27.7
	Spain	0.2	0.0	6.7	0.2	1.6	0.4	1.0	0.5	13.7	24.3
	United States	0.5	1.2	6.1	0.0	1.9	0.0	0.2	0.9	11.6	22.6
	OECD average-13	0.3	0.3	5.4	0.5	2.1	0.4	1.1	1.2	11.0	22.3
Partners	Colombia	0.1	2.8	2.6	0.0	1.1	0.3	0.3	0.7	11.1	18.9
	Croatia	0.4	0.0	3.4	0.1	3.9	0.2	0.1	0.3	8.0	16.4
	Latvia	0.0	0.0	3.0	2.1	0.7	0.5	1.0	0.5	11.9	19.8
	Russian Federation	0.1	0.0	2.3	0.8	0.5	0.2	1.4	2.3	9.4	17.1
	Shanghai-China	0.1	0.0	4.2	0.8	0.5	0.5	0.4	0.0	11.0	17.5

1. Unique variation is the variation explained by each factor after taking into account the variation explained by the other factors in the model.
2. ESCS refers to the *PISA index of economic, social and cultural status.*

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[Part 3/4]

Proportion of the variation in financial literacy, mathematics and reading performance explained by socio-economic factors

Table VI.3.15 *Results based on students' self-reports*

		Explained variation in mathematics performance (unique,[1] common and total)									
		Unique to:								Common explained variation (explained by more than one factor)	Total explained variation
		Gender	Index of family wealth	Index of cultural possessions and number of books at home	Index of home educational resources	Parents' highest occupational status	Parents' highest level of education	Immigrant status and language spoken at home	School location		
		%	%	%	%	%	%	%	%	%	%
OECD	Australia	1.2	0.3	4.2	1.0	1.7	0.7	2.2	0.7	10.1	22.1
	Flemish Community (Belgium)	0.8	0.0	2.9	0.3	2.4	0.1	2.7	0.8	12.1	22.2
	Czech Republic	3.1	0.6	6.8	0.8	2.5	0.6	0.4	0.6	8.5	23.9
	Estonia	0.5	0.0	4.1	0.1	1.8	0.2	0.9	0.7	7.6	16.1
	France	w	w	w	w	w	w	w	w	w	w
	Israel	0.1	0.4	3.6	0.4	4.7	2.1	0.1	3.3	12.8	27.5
	Italy	2.3	0.0	6.1	0.3	0.8	0.0	0.6	0.2	7.1	17.4
	New Zealand	2.8	0.1	4.1	0.1	4.4	0.1	0.2	0.7	10.7	23.2
	Poland	0.8	0.0	5.8	0.3	0.7	0.3	0.4	1.1	14.3	23.7
	Slovak Republic	0.8	0.1	8.6	1.1	2.3	0.0	0.4	0.7	13.7	27.7
	Slovenia	1.0	1.2	6.6	0.0	4.5	0.0	1.2	0.7	11.8	27.1
	Spain	1.2	0.0	6.7	0.0	1.1	0.3	0.5	0.9	11.8	22.5
	United States	2.2	0.8	7.4	0.0	1.7	0.0	0.1	0.5	11.0	23.6
	OECD average-13	1.4	0.3	5.7	0.4	2.3	0.4	0.9	0.9	11.1	23.2
Partners	Colombia	0.6	3.5	4.3	0.9	0.2	0.1	0.0	0.6	6.2	16.4
	Croatia	2.5	0.0	4.3	0.1	2.1	0.0	0.1	0.3	8.0	17.4
	Latvia	1.0	0.2	3.3	0.4	0.9	1.0	0.3	0.1	11.5	18.6
	Russian Federation	0.9	0.1	3.2	0.1	2.9	0.0	1.2	1.8	5.7	15.9
	Shanghai-China	0.0	0.0	3.4	0.9	0.6	1.0	0.2	0.0	9.8	15.8

1. Unique variation is the variation explained by each factor after taking into account the variation explained by the other factors in the model.
2. ESCS refers to the *PISA index of economic, social and cultural status.*

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[Part 4/4]

Proportion of the variation in financial literacy, mathematics and reading performance explained by socio-economic factors

Table VI.3.15 *Results based on students' self-reports*

		Explained variation in reading performance (unique,[1] common and total)									
		Unique to:								Common explained variation (explained by more than one factor)	Total explained variation
		Gender	Index of family wealth	Index of cultural possessions and number of books at home	Index of home educational resources	Parents' highest occupational status	Parents' highest level of education	Immigrant status and language spoken at home	School location		
		%	%	%	%	%	%	%	%	%	%
OECD	Australia	1.8	0.6	5.0	0.5	2.7	0.6	1.6	1.4	13.0	27.1
	Flemish Community (Belgium)	3.4	0.0	5.4	1.1	2.0	0.2	1.8	0.6	14.7	29.3
	Czech Republic	1.0	1.9	5.5	0.4	5.6	0.2	0.2	1.1	12.5	28.5
	Estonia	4.3	0.3	2.3	0.1	4.0	0.1	1.1	0.6	5.2	18.0
	France	w	w	w	w	w	w	w	w	w	w
	Israel	4.2	0.4	2.9	0.4	5.6	0.8	0.0	2.6	9.5	26.5
	Italy	1.4	0.0	6.7	0.2	1.3	0.0	0.8	0.2	11.7	22.3
	New Zealand	0.8	0.0	6.6	0.0	4.0	0.0	1.2	1.3	11.2	25.2
	Poland	2.3	0.0	6.6	0.0	0.9	0.2	0.8	2.3	17.1	30.2
	Slovak Republic	1.3	0.1	6.6	1.1	2.6	0.0	0.9	1.0	18.2	31.9
	Slovenia	4.1	1.8	6.0	0.0	4.3	0.2	0.3	3.9	13.8	34.4
	Spain	0.6	0.3	4.9	0.2	0.3	0.6	1.3	1.0	11.5	20.7
	United States	1.1	0.5	7.2	0.1	0.6	0.0	0.3	1.5	12.1	23.5
	OECD average-13	2.2	0.5	5.5	0.3	2.7	0.3	1.0	1.5	12.5	26.5
Partners	Colombia	0.1	1.9	5.3	0.3	0.6	0.1	0.7	1.5	9.5	20.0
	Croatia	2.9	0.0	4.1	0.0	3.7	0.1	0.3	1.4	11.6	24.0
	Latvia	8.8	0.0	2.4	0.4	0.8	1.0	0.9	0.6	11.9	26.9
	Russian Federation	2.6	0.0	3.0	0.2	2.3	0.3	0.6	2.7	11.5	23.2
	Shanghai-China	2.9	0.2	3.7	1.0	0.5	0.9	0.0	0.0	8.7	17.9

1. Unique variation is the variation explained by each factor after taking into account the variation explained by the other factors in the model.
2. ESCS refers to the *PISA index of economic, social and cultural status.*

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[Part 1/1]

Students who hold a bank account and/or a prepaid debit card

Table VI.4.1 *Results based on students' self-reports*

		Percentage of students holding a bank account						Percentage of students holding a prepaid debit card						Percentage of students holding a bank account and/or a prepaid debit card							
		Yes		No		Do not know		Yes		No		Do not know		Student has BOTH a bank account and a prepaid debit card		Student has a BANK ACCOUNT but no prepaid debit card		Student has a PREPAID DEBIT CARD but no bank account		Student has NEITHER bank account nor prepaid debit card	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	81.6	(1.2)	17.7	(1.2)	0.7	(0.2)	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	78.1	(1.7)	21.0	(1.7)	0.9	(0.5)	16.7	(1.6)	45.1	(1.9)	38.1	(2.1)	24.8	(2.2)	52.7	(2.6)	1.7	(0.4)	20.8	(2.5)
	Czech Republic	40.1	(2.5)	58.9	(2.6)	1.1	(0.5)	31.0	(2.1)	68.0	(2.1)	1.0	(0.4)	27.7	(2.0)	11.2	(1.6)	2.0	(0.8)	59.1	(2.6)
	Estonia	82.0	(2.1)	17.1	(2.0)	0.9	(0.5)	28.7	(2.0)	40.6	(2.5)	30.8	(2.5)	37.9	(2.6)	42.3	(2.8)	2.6	(0.7)	17.1	(2.6)
	France	80.4	(1.6)	18.6	(1.5)	1.0	(0.5)	22.6	(2.0)	76.8	(2.1)	0.6	(0.4)	22.1	(2.1)	58.6	(2.1)	0.6	(0.3)	18.7	(1.5)
	Israel	29.3	(2.9)	68.3	(2.8)	2.4	(0.7)	9.2	(1.4)	86.7	(1.5)	4.0	(0.8)	8.0	(1.6)	19.7	(2.5)	1.1	(0.5)	71.3	(3.0)
	Italy	35.9	(1.3)	62.2	(1.3)	1.9	(0.4)	19.2	(1.1)	75.8	(1.2)	5.0	(0.5)	8.2	(0.7)	25.9	(1.1)	10.2	(0.8)	55.7	(1.5)
	New Zealand	88.9	(1.5)	10.8	(1.6)	0.3	(0.2)	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Poland	15.5	(1.8)	83.4	(1.9)	1.1	(0.5)	8.7	(1.4)	89.8	(1.5)	1.5	(0.6)	4.9	(1.0)	9.9	(1.5)	3.5	(1.0)	81.6	(2.0)
	Slovak Republic	25.1	(1.9)	73.2	(2.2)	1.7	(0.6)	19.5	(1.9)	79.2	(2.0)	1.3	(0.4)	14.8	(1.7)	8.9	(1.5)	2.6	(0.6)	73.7	(2.2)
	Slovenia	90.4	(1.3)	8.6	(1.3)	0.9	(0.3)	24.9	(2.0)	55.9	(2.4)	19.2	(2.0)	29.7	(2.3)	59.8	(2.6)	1.0	(0.4)	9.5	(1.6)
	Spain	59.1	(2.3)	38.7	(2.2)	2.2	(0.8)	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	United States	51.4	(2.4)	47.3	(2.4)	1.3	(0.7)	14.3	(1.6)	82.2	(1.8)	3.4	(0.9)	12.5	(1.6)	36.1	(2.5)	2.4	(0.8)	49.1	(2.6)
	OECD average-13*	58.3	(0.5)	40.4	(0.5)	1.3	(0.1)	19.5	(0.6)	70.0	(0.6)	10.5	(0.4)	19.1	(0.6)	32.5	(0.7)	2.8	(0.2)	45.7	(0.7)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	36.9	(2.1)	62.1	(2.1)	0.9	(0.4)	18.4	(1.9)	80.3	(1.9)	1.4	(0.4)	12.7	(1.5)	23.0	(2.0)	3.7	(0.9)	60.5	(2.4)
	Latvia	40.8	(2.5)	58.1	(2.5)	1.0	(0.4)	13.9	(2.0)	55.0	(2.7)	31.1	(2.6)	15.9	(2.5)	16.3	(2.3)	2.0	(0.8)	65.8	(3.0)
	Russian Federation	n	n	n	n	n	n	26.6	(2.0)	71.7	(2.0)	1.7	(0.5)	n	n	n	n	n	n	n	n
	Shanghai-China	55.8	(1.9)	42.5	(1.9)	1.6	(0.5)	7.6	(1.3)	60.7	(2.1)	31.7	(1.8)	7.2	(1.3)	47.9	(2.6)	3.7	(1.2)	41.1	(2.3)

Note: The data for Israel contained in this table refer to a credit card instead of a prepaid debit card.
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 1/1]

Performance in financial literacy, by whether students hold a bank account and/or prepaid debit card

Table VI.4.2 *Results based on students' self-reports*

		Students holding a bank account						Score-point difference associated with holding a bank account (Yes - No)				Students holding a prepaid debit card						Score-point difference associated with holding a prepaid debit card (Yes - No)			
		Yes		No		Do not know		Before accounting for ESCS[1]		After accounting for ESCS		Yes		No		Do not know		Before accounting for ESCS		After accounting for ESCS	
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Score dif.	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	540	(3.4)	514	(7.0)	c	c	**26**	(7.8)	15	(7.6)	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	558	(4.6)	508	(10.3)	c	c	**51**	(11.1)	**40**	(10.9)	576	(8.4)	555	(6.5)	532	(7.2)	**22**	(11.0)	18	(10.7)
	Czech Republic	531	(6.4)	513	(5.0)	c	c	**18**	(8.1)	10	(7.6)	534	(7.6)	517	(4.5)	c	c	**17**	(8.7)	10	(9.1)
	Estonia	535	(4.2)	505	(8.7)	c	c	**30**	(9.1)	**24**	(9.5)	572	(6.4)	520	(6.7)	512	(7.1)	**53**	(9.1)	**48**	(8.8)
	France	509	(5.1)	476	(10.8)	c	c	**33**	(12.3)	19	(11.9)	522	(9.4)	499	(5.3)	c	c	**23**	(10.8)	10	(9.7)
	Israel	500	(11.4)	479	(7.3)	c	c	22	(14.0)	9	(13.3)	451	(22.5)	491	(5.8)	c	c	-40	(22.4)	**-53**	(21.4)
	Italy	478	(3.2)	468	(2.9)	410	(14.9)	**10**	(4.3)	4	(4.1)	487	(5.4)	470	(2.7)	422	(9.0)	**17**	(6.1)	9	(5.7)
	New Zealand	543	(5.3)	437	(18.9)	c	c	**106**	(19.7)	**76**	(19.8)	n	n	n	n	n	n	n	n	n	n
	Poland	544	(11.2)	512	(4.7)	c	c	**32**	(12.0)	18	(11.0)	513	(15.3)	518	(4.6)	c	c	-5	(15.6)	-18	(15.1)
	Slovak Republic	479	(12.0)	482	(6.5)	c	c	-3	(13.6)	-19	(12.6)	488	(11.8)	481	(6.3)	c	c	7	(12.4)	-12	(11.8)
	Slovenia	494	(4.1)	440	(16.8)	c	c	**54**	(17.7)	**47**	(11.9)	508	(8.4)	479	(5.4)	501	(9.3)	**29**	(10.0)	14	(9.5)
	Spain	499	(5.6)	481	(6.7)	c	c	**18**	(8.7)	13	(8.6)	n	n	n	n	n	n	n	n	n	n
	United States	518	(6.9)	481	(6.1)	c	c	**37**	(8.2)	14	(7.4)	527	(11.1)	501	(5.8)	c	c	**26**	(12.0)	8	(11.1)
	OECD average-13*	518	(2.0)	484	(2.7)	410	(14.9)	**33**	(3.3)	**21**	(3.1)	518	(3.7)	503	(1.7)	492	(4.1)	**15**	(4.0)	3	(3.8)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	500	(7.6)	480	(4.9)	c	c	**20**	(8.3)	8	(8.1)	476	(8.8)	492	(5.0)	c	c	-16	(10.0)	**-25**	(10.0)
	Latvia	513	(7.8)	497	(5.9)	c	c	17	(11.1)	2	(12.0)	523	(10.5)	505	(6.1)	484	(8.6)	18	(13.0)	1	(12.1)
	Russian Federation	n	n	n	n	n	n	n	n	n	n	493	(9.2)	496	(5.4)	c	c	-3	(11.3)	-8	(11.0)
	Shanghai-China	612	(4.5)	594	(6.2)	c	c	**18**	(7.7)	10	(6.9)	631	(16.0)	610	(4.5)	590	(5.7)	21	(15.9)	16	(16.3)

Notes: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* were available. Values that are statistically significant are indicated in bold (see Annex A3). The data for Israel contained in this table refer to a credit card instead of a prepaid debit card.
1. ESCS refers to the *PISA index of economic, social and cultural status.*
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 1/2]

Performance in financial literacy, by whether students hold a bank account and a prepaid debit card (combined)

Table VI.4.3 *Results based on students' self-reports*

		Average financial literacy scores, before accounting for ESCS[1]						Score-point difference in financial literacy, before accounting for ESCS					
		Student has BOTH a bank account and a prepaid debit card		Student has either a BANK ACCOUNT or a PREPAID DEBIT CARD		Student has NEITHER bank account nor prepaid debit card		Both products minus one product		One product minus no product		Both products minus no products	
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	n	n	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	580	(8.3)	572	(5.7)	509	(14.0)	9	(10.1)	**63**	(15.4)	**71**	(16.1)
	Czech Republic	545	(7.4)	501	(13.9)	518	(4.6)	**44**	(15.2)	-17	(14.8)	**27**	(8.6)
	Estonia	575	(6.6)	527	(7.4)	504	(11.3)	**48**	(9.9)	23	(13.1)	**71**	(12.6)
	France	523	(9.6)	506	(5.8)	480	(10.8)	**16**	(10.7)	**26**	(12.2)	**43**	(15.0)
	Israel	469	(22.9)	521	(11.0)	481	(7.1)	**-52**	(24.6)	**39**	(13.7)	-13	(24.0)
	Italy	500	(8.0)	484	(3.7)	466	(3.4)	17	(9.3)	**18**	(5.0)	**35**	(8.8)
	New Zealand	n	n	n	n	n	n	n	n	n	n	n	n
	Poland	c	c	536	(13.4)	514	(4.8)	1	(27.6)	21	(14.2)	22	(23.0)
	Slovak Republic	497	(13.0)	479	(21.0)	483	(6.4)	**18**	(24.5)	-4	(21.9)	14	(14.1)
	Slovenia	511	(8.5)	486	(5.9)	439	(19.8)	**25**	(10.3)	**47**	(21.8)	**72**	(21.9)
	Spain	n	n	n	n	n	n	n	n	n	n	n	n
	United States	533	(12.5)	524	(7.2)	481	(6.2)	9	(14.0)	**43**	(8.4)	**52**	(13.3)
	OECD average-13*	527	(4.2)	514	(3.4)	488	(3.2)	**13**	(5.4)	**26**	(4.7)	**39**	(5.2)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	481	(10.5)	511	(9.5)	482	(5.0)	**-30**	(13.9)	**29**	(9.7)	-1	(11.9)
	Latvia	541	(8.7)	510	(11.6)	503	(7.0)	**31**	(14.7)	7	(13.3)	**38**	(12.5)
	Russian Federation	n	n	n	n	n	n	n	n	n	n	n	n
	Shanghai-China	c	c	619	(5.6)	596	(7.5)	35	(19.4)	**23**	(9.6)	**58**	(19.4)

Notes: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* were available. Values that are statistically significant are indicated in bold (see Annex A3). The data for Israel contained in this table refer to a credit card instead of a prepaid debit card.
1. ESCS refers to the *PISA index of economic, social and cultural status.*
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 2/2]

Performance in financial literacy, by whether students hold a bank account and a prepaid debit card (combined)

Table VI.4.3 *Results based on students' self-reports*

		Average score in financial literacy, after accounting for ESCS[1]						Score-point difference in financial literacy, after accounting for ESCS					
		Student has BOTH a bank account and a prepaid debit card		Student has either a BANK ACCOUNT or a PREPAID DEBIT CARD		Student has NEITHER bank account nor prepaid debit card		Both products minus one product		One product minus no product		Both products minus no products	
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	n	n	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	571	(8.9)	563	(5.9)	510	(13.7)	8	(10.1)	**52**	(15.2)	**60**	(16.0)
	Czech Republic	541	(7.4)	502	(13.6)	522	(4.7)	**39**	(15.5)	-20	(14.0)	**19**	(8.5)
	Estonia	570	(7.3)	525	(8.1)	509	(11.6)	**45**	(9.6)	16	(14.6)	**61**	(13.9)
	France	512	(8.6)	507	(5.8)	491	(10.3)	5	(9.8)	17	(11.8)	21	(13.9)
	Israel	444	(21.8)	500	(10.2)	474	(6.9)	**-56**	(23.3)	**26**	(12.5)	-30	(23.5)
	Italy	493	(7.8)	480	(3.7)	469	(3.2)	13	(9.2)	**11**	(4.9)	**24**	(8.7)
	New Zealand	n	n	n	n	n	n	n	n	n	n	n	n
	Poland	c	c	531	(12.2)	522	(4.6)	-3	(26.0)	9	(13.1)	6	(22.2)
	Slovak Republic	485	(12.3)	471	(16.4)	494	(6.6)	14	(20.1)	-23	(18.0)	-9	(13.9)
	Slovenia	496	(8.3)	485	(5.3)	442	(13.1)	11	(10.1)	**43**	(14.8)	**54**	(16.0)
	Spain	n	n	n	n	n	n	n	n	n	n	n	n
	United States	512	(10.9)	508	(7.0)	488	(5.7)	4	(12.6)	**20**	(8.5)	**24**	(12.0)
	OECD average-13*	515	(4.0)	507	(3.1)	492	(2.8)	8	(5.0)	**15**	(4.2)	**23**	(4.9)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	483	(9.3)	515	(8.5)	499	(5.6)	**-32**	(12.6)	16	(9.4)	-16	(11.1)
	Latvia	529	(8.0)	502	(10.4)	515	(7.3)	**28**	(12.7)	-14	(13.4)	14	(12.3)
	Russian Federation	n	n	n	n	n	n	n	n	n	n	n	n
	Shanghai-China	c	c	626	(5.2)	612	(7.1)	29	(19.2)	14	(8.8)	**43**	(19.2)

Note: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* were available. Values that are statistically significant are indicated in bold (see Annex A3). The data for Israel contained in this table refer to a credit card instead of a prepaid debit card.
1. ESCS refers to the *PISA index of economic, social and cultural status.*
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[Part 1/1]

Students who hold a bank account and/or a prepaid debit card, by gender

Table VI.4.4 *Results based on students' self-reports*

		Hold a bank account						Hold a prepaid debit card					
		Boys		Girls		Difference (B-G)		Boys		Girls		Difference (B-G)	
		%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	78.0	(2.1)	85.7	(1.3)	**-7.7**	(2.3)	n	n	n	n	n	n
	Flemish Community (Belgium)	75.9	(2.5)	81.8	(2.3)	-5.9	(3.4)	25.5	(3.1)	29.2	(4.1)	-3.7	(5.6)
	Czech Republic	39.0	(3.7)	42.0	(3.6)	-3.1	(5.3)	31.4	(3.4)	31.3	(3.0)	0.1	(4.9)
	Estonia	78.7	(3.0)	86.7	(2.4)	**-7.9**	(3.7)	39.0	(3.4)	43.9	(3.9)	-5.0	(5.1)
	France	83.1	(2.4)	79.3	(2.3)	3.8	(3.5)	24.1	(3.3)	21.5	(2.8)	2.6	(4.4)
	Israel	32.2	(4.3)	27.2	(2 .9)	4.9	(4.9)	11.7	(2.0)	6.9	(2.1)	4.8	(2.8)
	Italy	36.1	(1.7)	37.1	(1.9)	-1.1	(2.6)	21.8	(1.9)	18.7	(1.4)	3.1	(2.4)
	New Zealand	88.2	(2.7)	90.0	(1.9)	-1.8	(3.3)	n	n	n	n	n	n
	Poland	20.5	(2.6)	11.4	(2.1)	**9.1**	(3.2)	9.0	(2.1)	8.8	(1.9)	0.2	(2.7)
	Slovak Republic	26.4	(3.3)	24.8	(2.8)	1.6	(4.6)	20.6	(2.8)	18.9	(2.6)	1.7	(3.6)
	Slovenia	89.8	(2.3)	92.8	(1.5)	-3.0	(2.8)	27.7	(3.0)	34.7	(3.9)	-7.0	(5.0)
	Spain	59.9	(3.1)	61.1	(3.2)	-1.3	(4.4)	n	n	n	n	n	n
	United States	53.0	(3.7)	51.4	(3.1)	1.7	(4.7)	15.1	(2.5)	14.6	(2.4)	0.4	(3.5)
	OECD average-13*	58.5	(0.8)	59.3	(0.7)	-0.8	(1.1)	22.6	(0.9)	22.8	(0.9)	-0.3	(1.3)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	44.5	(2.8)	30.4	(2.9)	**14.1**	(4.0)	19.9	(3.0)	17.5	(2.8)	2.4	(4.3)
	Latvia	41.2	(3.9)	41.3	(3.7)	-0.2	(5.7)	20.0	(3.3)	20.4	(3.9)	-0.4	(4.7)
	Russian Federation	n	n	n	n	n	n	30.1	(3.4)	24.1	(3.2)	6.0	(5.2)
	Shanghai-China	50.7	(3.0)	61.9	(2.6)	**-11.2**	(4.0)	15.0	(3.3)	8.1	(1.8)	6.9	(3.6)

Notes: Values that are statistically significant are indicated in bold (see Annex A3). The data for Israel contained in this table refer to a credit card instead of a prepaid debit card.
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 1/1]

Students who hold a bank account and/or a prepaid debit card, by socio-economic status

Table VI.4.5 *Results based on students' self-reports*

		Percentage of students holding a bank account, by quartiles of the PISA index of economic, social and cultural status										Percentage of students holding a prepaid debit card, by quartiles of the PISA index of economic, social and cultural status									
		Bottom quartile		Second quartile		Third quartile		Top quartile		Difference between top and bottom quartiles		Bottom quartile		Second quartile		Third quartile		Top quartile		Difference between top and bottom quartiles	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	75.2	(2.5)	80.1	(2.5)	84.2	(2.1)	89.2	(1.9)	**14.0**	(3.0)	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	66.0	(5.2)	79.4	(4.5)	84.7	(3.6)	83.8	(3.0)	**17.8**	(6.3)	22.2	(6.5)	24.8	(5.4)	31.3	(6.7)	27.4	(5.0)	5.2	(8.1)
	Czech Republic	36.7	(5.6)	35.1	(4.9)	42.3	(4.5)	47.6	(5.4)	10.9	(7.8)	25.8	(4.4)	29.9	(5.1)	31.2	(4.7)	38.8	(4.8)	13.0	(6.8)
	Estonia	77.1	(4.8)	81.6	(3.7)	83.3	(3.5)	91.2	(2.6)	**14.1**	(5.5)	29.0	(6.7)	40.6	(5.7)	41.6	(6.0)	49.9	(4.8)	**20.9**	(8.5)
	France	72.2	(3.8)	77.9	(3.6)	85.8	(3.2)	89.8	(2.6)	**17.6**	(4.6)	n	n	n	n	n	n	n	n	n	n
	Israel	19.3	(4.6)	25.5	(4.1)	38.9	(6.4)	36.9	(5.5)	**17.6**	(6.7)	5.1	(2.3)	10.7	(3.0)	7.4	(2.4)	15.3	(3.2)	**10.3**	(3.8)
	Italy	25.4	(2.9)	34.4	(2.2)	44.8	(2.7)	41.2	(2.6)	**15.8**	(3.8)	8.7	(1.7)	19.9	(2.4)	23.6	(2.0)	27.8	(2.4)	**19.1**	(3.0)
	New Zealand	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Poland	6.8	(3.1)	10.8	(3.1)	18.8	(3.6)	25.5	(3.8)	**18.7**	(4.9)	n	n	n	n	n	n	n	n	n	n
	Slovak Republic	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovenia	89.4	(4.4)	93.1	(2.4)	91.0	(2.2)	91.4	(2.9)	2.0	(5.4)	n	n	n	n	n	n	n	n	n	n
	Spain	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	United States	31.6	(5.2)	46.4	(4.6)	61.1	(4.4)	70.2	(4.4)	**38.6**	(7.0)	6.8	(2.7)	13.4	(4.4)	17.2	(3.4)	22.5	(4.0)	**15.7**	(4.8)
	OECD average-13*	50.0	(1.4)	56.4	(1.2)	63.5	(1.2)	66.7	(1.2)	**16.7**	(1.8)	16.2	(1.8)	23.2	(1.8)	25.4	(1.9)	30.3	(1.7)	**14.0**	(2.5)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	25.2	(4.1)	31.1	(4.2)	40.6	(4.5)	50.8	(5.0)	**25.7**	(6.8)	12.7	(3.5)	18.7	(3.7)	19.6	(3.9)	22.8	(3.9)	**10.1**	(5.0)
	Latvia	24.2	(5.4)	36.8	(5.1)	43.7	(5.6)	62.1	(6.0)	**37.8**	(8.3)	n	n	n	n	n	n	n	n	n	n
	Russian Federation	n	n	n	n	n	n	n	n	n	n	25.1	(4.3)	27.6	(5.3)	26.9	(3.4)	28.8	(4.9)	3.7	(6.6)
	Shanghai-China	44.9	(4.3)	57.4	(5.1)	67.9	(5.3)	58.9	(4.1)	**14.0**	(5.8)	9.8	(3.4)	10.3	(3.0)	9.5	(3.3)	14.3	(3.2)	4.5	(4.6)

Notes: Values that are statistically significant are indicated in bold (see Annex A3). The data for Israel contained in this table refer to a credit card instead of a prepaid debit card.
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 1/1]

Students' sources of money

Table VI.4.6 *Results based on students' self-reports*

		Percentage of students who receive money from:															
		An allowance or pocket money for regularly doing chores at home		An allowance or pocket money, without having to do any chores		Working outside school hours (e.g. a holiday job, part-time work)		Working in a family business		Occasional informal jobs (e.g. baby-sitting or gardening)		Gifts of money from friends or relatives		Selling things (e.g. at local markets or on eBay)		Working outside school hours (e.g. a holiday job, part-time work), or from working in a family business, or from occasional informal jobs (e.g. baby-sitting or gardening)	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	44.1	(1.5)	31.5	(1.6)	51.8	(1.5)	15.3	(1.1)	45.7	(1.6)	89.0	(0.9)	26.7	(1.1)	73.0	(1.3)
	Flemish Community (Belgium)	37.9	(1.8)	83.8	(1.6)	45.8	(2.3)	14.0	(1.6)	53.8	(2.3)	93.4	(1.2)	29.0	(1.8)	72.3	(1.9)
	Czech Republic	46.6	(2.6)	58.7	(2.5)	51.4	(2.5)	16.2	(1.8)	41.6	(2.6)	89.0	(1.3)	27.9	(2.0)	70.9	(2.3)
	Estonia	19.0	(2.0)	67.4	(2.3)	41.6	(2.1)	9.3	(1.4)	45.9	(2.3)	91.6	(1.4)	29.3	(2.4)	65.9	(2.0)
	France	50.7	(1.9)	60.7	(2.1)	31.8	(2.0)	15.5	(1.6)	53.8	(2.3)	85.3	(1.4)	61.9	(2.1)	67.1	(2.2)
	Israel	20.9	(2.0)	64.2	(2.4)	46.1	(2.7)	17.6	(2.1)	44.1	(2.5)	61.6	(2.3)	14.2	(1.6)	67.6	(2.1)
	Italy	40.0	(1.1)	33.7	(1.3)	29.6	(1.2)	21.6	(1.0)	29.0	(1.2)	74.7	(1.1)	23.6	(1.0)	49.3	(1.2)
	New Zealand	57.8	(2.2)	36.5	(2.4)	41.1	(2.1)	20.5	(2.0)	58.3	(2.2)	86.5	(1.7)	41.1	(2.3)	74.7	(1.8)
	Poland	35.0	(2.3)	56.7	(2.4)	n	n	n	n	n	n	82.2	(1.8)	n	n	n	n
	Slovak Republic	42.1	(2.3)	50.2	(2.3)	47.3	(2.6)	20.5	(2.1)	34.6	(2.4)	82.6	(2.2)	31.3	(2.1)	67.4	(2.3)
	Slovenia	35.5	(2.3)	43.4	(1.8)	50.0	(2.2)	24.0	(2.0)	35.5	(2.4)	87.9	(1.5)	27.6	(2.0)	69.0	(2.1)
	Spain	29.8	(2.4)	37.2	(2.6)	20.2	(1.8)	18.0	(2.1)	25.7	(1.8)	83.4	(1.9)	26.5	(2.3)	40.9	(2.3)
	United States	39.7	(2.6)	37.8	(2.2)	32.6	(2.0)	15.1	(1.4)	56.7	(2.2)	90.2	(1.6)	36.5	(2.1)	69.3	(1.8)
	OECD average-13*	38.4	(0.6)	50.9	(0.6)	40.8	(0.6)	17.3	(0.5)	43.7	(0.6)	84.4	(0.4)	31.3	(0.6)	65.6	(0.6)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	26.8	(2.2)	77.2	(1.5)	26.2	(2.0)	10.6	(1.3)	15.4	(1.6)	85.3	(1.5)	17.1	(1.6)	36.2	(2.1)
	Latvia	50.3	(2.7)	64.4	(3.0)	22.9	(2.6)	19.6	(2.4)	52.1	(2.8)	88.0	(2.0)	24.8	(2.4)	64.1	(2.6)
	Russian Federation	33.4	(2.0)	72.0	(2.3)	51.6	(2.5)	17.6	(1.4)	37.9	(2.4)	92.5	(1.4)	21.7	(1.7)	67.7	(2.2)
	Shanghai-China	47.3	(2.0)	75.4	(1.6)	15.6	(1.6)	5.7	(1.0)	7.4	(1.1)	83.1	(1.4)	20.6	(1.5)	22.5	(1.8)

* The OECD average-13 is computed on the countries and economies with available data.

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[Part 1/6]

Performance in financial literacy, mathematics and reading, by students' sources of money

Table VI.4.7 *Results based on students' self-reports*

		Score-point difference in financial literacy, before accounting for ESCS[1]													
		Students who receive money from an allowance or pocket money for regularly doing chores at home (Yes vs No)		Students who receive money from an allowance or pocket money, without having to do any chores (Yes vs No)		Students who receive money from working outside school hours (e.g. a holiday job, part-time work) (Yes vs No)		Students who receive money from working in a family business (Yes vs No)		Students who receive money from occasional informal jobs (e.g. baby-sitting or gardening) (Yes vs No)		Students who receive gifts of money from friends or relatives (Yes vs No)		Students who receive money from selling things (e.g. at local markets or on eBay) (Yes vs No)	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	**-14**	(6.4)	**-13**	(6.7)	-6	(6.4)	**-20**	(9.1)	8	(6.0)	**29**	(9.8)	**-26**	(6.8)
	Flemish Community (Belgium)	**-37**	(9.7)	6	(10.3)	-9	(8.6)	-8	(12.6)	20	(10.4)	**57**	(18.4)	-2	(7.8)
	Czech Republic	-17	(8.7)	13	(9.6)	-5	(9.2)	-28	(15.4)	-14	(8.3)	9	(14.9)	-7	(8.9)
	Estonia	**-32**	(11.9)	13	(9.0)	-12	(10.6)	7	(17.6)	-0	(9.2)	24	(13.4)	-16	(9.7)
	France	10	(8.7)	12	(10.8)	**-36**	(12.2)	-27	(15.7)	**33**	(10.0)	**42**	(14.4)	**21**	(9.1)
	Israel	**-80**	(14.6)	**-24**	(11.8)	-25	(14.6)	-11	(18.2)	23	(11.8)	**26**	(10.3)	-25	(17.6)
	Italy	**-16**	(4.3)	**-14**	(4.2)	**-28**	(5.8)	**-21**	(5.5)	4	(5.2)	**38**	(5.6)	-2	(5.3)
	New Zealand	-4	(10.1)	-24	(12.8)	-0	(11.7)	-6	(17.7)	22	(13.6)	23	(18.0)	19	(10.6)
	Poland	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovak Republic	**-39**	(10.2)	6	(9.3)	-11	(9.8)	-23	(12.4)	-5	(9.6)	**45**	(20.1)	-1	(10.0)
	Slovenia	**-29**	(10.3)	12	(8.2)	-17	(8.7)	-16	(12.8)	-9	(8.2)	18	(12.7)	-10	(8.9)
	Spain	-9	(10.2)	7	(7.7)	6	(13.7)	**-45**	(13.6)	-4	(13.0)	**49**	(12.8)	5	(9.1)
	United States	2	(8.9)	-12	(8.4)	5	(9.1)	**-34**	(13.5)	**17**	(8.3)	**58**	(17.9)	**-22**	(8.2)
	OECD average-13*	**-22**	(2.8)	-2	(2.7)	**-12**	(3.0)	**-19**	(4.1)	**8**	(2.8)	**35**	(4.2)	-5	(2.8)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	**-30**	(8.6)	6	(9.3)	**-31**	(10.0)	**-26**	(12.9)	-5	(9.6)	**40**	(13.4)	5	(9.0)
	Latvia	-12	(7.8)	**27**	(10.0)	**-31**	(13.3)	-9	(12.8)	4	(8.5)	-8	(12.9)	-14	(12.2)
	Russian Federation	**-19**	(7.5)	**40**	(10.0)	-16	(8.4)	**-30**	(11.4)	-6	(7.4)	13	(16.5)	12	(7.6)
	Shanghai-China	8	(7.4)	**28**	(7.9)	**-22**	(11.1)	**-48**	(16.0)	-8	(14.1)	**32**	(9.8)	**23**	(9.4)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status*.
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 2/6]

Performance in financial literacy, mathematics and reading, by students' sources of money

Table VI.4.7 *Results based on students' self-reports*

		Score-point difference in financial literacy, after accounting for ESCS[1]													
		Students who receive money from an allowance or pocket money for regularly doing chores at home (Yes vs No)		Students who receive money from an allowance or pocket money, without having to do any chores (Yes vs No)		Students who receive money from working outside school hours (e.g. a holiday job, part-time work) (Yes vs No)		Students who receive money from working in a family business (Yes vs No)		Students who receive money from occasional informal jobs (e.g. baby-sitting or gardening) (Yes vs No)		Students who receive gifts of money from friends or relatives (Yes vs No)		Students who receive money from selling things (e.g. at local markets or on eBay) (Yes vs No)	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	**-16**	(5.9)	**-13**	(6.1)	-11	(6.2)	-13	(8.4)	4	(5.7)	16	(8.6)	**-27**	(6.7)
	Flemish Community (Belgium)	**-31**	(9.5)	3	(9.9)	-9	(8.5)	-11	(11.7)	13	(10.4)	**51**	(17.7)	-3	(7.6)
	Czech Republic	**-20**	(8.4)	8	(8.8)	-2	(8.8)	-26	(13.9)	-16	(8.2)	1	(13.2)	-8	(8.8)
	Estonia	**-32**	(11.7)	12	(9.0)	-8	(10.8)	-3	(18.5)	4	(9.0)	19	(12.4)	-14	(10.2)
	France	**4**	(7.7)	6	(9.9)	**-32**	(10.9)	-29	(15.0)	**24**	(9.3)	**28**	(14.1)	**20**	(8.4)
	Israel	**-76**	(14.0)	**-25**	(10.3)	-21	(12.5)	-15	(16.0)	9	(10.4)	17	(10.1)	-33	(18.3)
	Italy	**-15**	(4.2)	**-14**	(4.0)	**-25**	(5.7)	**-19**	(5.5)	3	(4.9)	**34**	(5.4)	-4	(5.3)
	New Zealand	-10	(9.4)	**-27**	(11.7)	3	(10.8)	-12	(16.0)	12	(11.9)	18	(17.8)	11	(10.7)
	Poland	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovak Republic	**-32**	(9.1)	5	(8.8)	-13	(9.5)	**-30**	(11.3)	-6	(8.9)	**40**	(17.8)	-1	(9.8)
	Slovenia	**-31**	(8.3)	2	(8.0)	-12	(7.8)	-21	(11.2)	-6	(7.5)	24	(12.6)	-12	(7.5)
	Spain	-9	(9.6)	-2	(6.9)	4	(12.7)	**-32**	(12.8)	-9	(12.7)	**39**	(12.1)	-1	(9.1)
	United States	0	(7.5)	-13	(7.4)	-1	(8.7)	**-27**	(12.2)	6	(8.1)	26	(16.2)	**-20**	(7.2)
	OECD average-13*	**-22**	(2.6)	**-5**	(2.5)	**-11**	(2.8)	**-20**	(3.8)	3	(2.7)	**26**	(3.9)	**-8**	(2.8)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	**-28**	(7.8)	3	(9.1)	**-23**	(9.3)	**-29**	(12.6)	-3	(9.2)	**33**	(13.7)	-5	(9.0)
	Latvia	-12	(7.2)	18	(9.9)	**-27**	(12.7)	-13	(12.9)	8	(8.3)	-6	(13.1)	-16	(11.9)
	Russian Federation	**-17**	(7.4)	**33**	(9.6)	-11	(7.0)	**-33**	(10.3)	-8	(7.1)	10	(16.9)	6	(8.0)
	Shanghai-China	2	(7.2)	**23**	(7.6)	-20	(11.0)	**-50**	(15.3)	-10	(13.9)	**30**	(9.5)	15	(8.8)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status*.
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 3/6]

Performance in financial literacy, mathematics and reading, by students' sources of money

Table VI.4.7 *Results based on students' self-reports*

		Score-point difference in financial literacy, after accounting for ESCS[1] and performance in mathematics and reading													
		Students who receive money from an allowance or pocket money for regularly doing chores at home (Yes vs No)		Students who receive money from an allowance or pocket money, without having to do any chores (Yes vs No)		Students who receive money from working outside school hours (e.g. a holiday job, part-time work) (Yes vs No)		Students who receive money from working in a family business (Yes vs No)		Students who receive money from occasional informal jobs (e.g. baby-sitting or gardening) (Yes vs No)		Students who receive gifts of money from friends or relatives (Yes vs No)		Students who receive money from selling things (e.g. at local markets or on eBay) (Yes vs No)	
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	-0	(3.1)	-3	(3.3)	5	(3.3)	-3	(4.4)	3	(2.6)	-2	(4.1)	-4	(3.2)
	Flemish Community (Belgium)	-2	(5.2)	-0	(5.3)	5	(4.4)	-2	(6.8)	-5	(4.9)	9	(8.5)	6	(4.8)
	Czech Republic	-4	(4.1)	5	(5.1)	1	(5.4)	-5	(6.6)	-3	(4.1)	-1	(8.4)	-2	(5.8)
	Estonia	-11	(6.3)	10	(5.8)	-2	(5.6)	4	(8.5)	4	(4.6)	6	(8.8)	-5	(5.3)
	France	-3	(4.7)	4	(5.5)	-8	(6.0)	9	(6.4)	2	(6.0)	5	(7.3)	-3	(4.9)
	Israel	-15	(10.0)	0	(6.2)	0	(6.9)	11	(8.0)	1	(6.1)	-7	(7.1)	-12	(10.3)
	Italy	-3	(3.2)	-2	(3.0)	-5	(3.5)	**-7**	(3.5)	2	(3.5)	**11**	(3.3)	1	(3.5)
	New Zealand	5	(5.0)	-8	(6.6)	6	(5.5)	-1	(6.9)	4	(5.9)	-6	(8.5)	**14**	(5.8)
	Poland	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovak Republic	-6	(4.3)	6	(4.8)	3	(4.6)	-7	(5.7)	3	(4.4)	5	(6.9)	3	(4.2)
	Slovenia	-2	(4.1)	4	(3.6)	-0	(3.9)	-4	(4.6)	-5	(3.8)	5	(5.7)	1	(4.1)
	Spain	-13	(6.9)	-7	(4.6)	4	(7.7)	-14	(7.6)	3	(7.8)	12	(8.0)	-2	(6.3)
	United States	-2	(4.1)	-6	(4.2)	-4	(5.5)	-3	(7.0)	3	(4.5)	-2	(9.1)	-2	(4.1)
	OECD average-13*	**-5**	(1.6)	0	(1.4)	0	(1.5)	-2	(1.9)	1	(1.5)	3	(2.1)	-0	(1.6)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	-1	(3.7)	3	(4.5)	-3	(5.1)	-9	(5.6)	-0	(5.1)	-2	(6.0)	-1	(4.9)
	Latvia	-6	(5.7)	12	(7.3)	-8	(7.3)	5	(8.2)	9	(6.1)	-7	(7.1)	-4	(7.4)
	Russian Federation	-5	(7.2)	10	(6.7)	-4	(7.1)	-9	(7.3)	-1	(6.3)	7	(10.5)	-2	(6.3)
	Shanghai-China	-4	(3.2)	2	(3.7)	1	(5.2)	-6	(8.2)	-2	(7.5)	7	(4.9)	4	(4.5)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status*.
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 4/6]

Performance in financial literacy, mathematics and reading, by students' sources of money

Table VI.4.7 *Results based on students' self-reports*

		Effect size: Difference in financial literacy performance related to receiving money from a given source divided by the variation in scores within each country/economy (standard deviation), after accounting for ESCS[1]													
		Students who receive money from an allowance or pocket money for regularly doing chores at home (Yes vs No)		Students who receive money from an allowance or pocket money, without having to do any chores (Yes vs No)		Students who receive money from working outside school hours (e.g. a holiday job, part-time work) (Yes vs No)		Students who receive money from working in a family business (Yes vs No)		Students who receive money from occasional informal jobs (e.g. baby-sitting or gardening) (Yes vs No)		Students who receive gifts of money from friends or relatives (Yes vs No)		Students who receive money from selling things (e.g. at local markets or on eBay) (Yes vs No)	
		Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.
OECD	Australia	**-0.16**	(0.06)	**-0.13**	(0.06)	-0.11	(0.06)	-0.13	(0.08)	0.04	(0.06)	0.16	(0.09)	**-0.27**	(0.07)
	Flemish Community (Belgium)	**-0.32**	(0.10)	0.04	(0.10)	-0.09	(0.09)	-0.12	(0.12)	0.13	(0.11)	**0.53**	(0.18)	-0.03	(0.08)
	Czech Republic	**-0.22**	(0.10)	0.09	(0.10)	-0.02	(0.10)	-0.30	(0.16)	-0.18	(0.09)	0.01	(0.15)	-0.09	(0.10)
	Estonia	**-0.41**	(0.15)	0.15	(0.11)	-0.10	(0.14)	-0.03	(0.23)	0.05	(0.11)	0.24	(0.16)	-0.18	(0.13)
	France	0.04	(0.08)	0.05	(0.10)	**-0.32**	(0.11)	-0.28	(0.15)	**0.23**	(0.09)	**0.27**	(0.14)	**0.20**	(0.08)
	Israel	**-0.67**	(0.12)	**-0.22**	(0.09)	-0.19	(0.11)	-0.13	(0.14)	0.08	(0.09)	0.15	(0.09)	-0.29	(0.16)
	Italy	**-0.17**	(0.05)	**-0.16**	(0.04)	**-0.28**	(0.07)	**-0.22**	(0.06)	0.04	(0.06)	**0.39**	(0.06)	-0.04	(0.06)
	New Zealand	-0.08	(0.08)	**-0.23**	(0.10)	0.03	(0.09)	-0.10	(0.14)	0.10	(0.10)	0.16	(0.15)	0.09	(0.09)
	Poland	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovak Republic	**-0.31**	(0.09)	0.05	(0.08)	-0.13	(0.09)	**-0.29**	(0.11)	-0.06	(0.08)	**0.38**	(0.16)	-0.01	(0.09)
	Slovenia	**-0.34**	(0.09)	0.02	(0.09)	-0.13	(0.09)	-0.23	(0.13)	-0.07	(0.09)	0.27	(0.14)	-0.13	(0.08)
	Spain	-0.11	(0.11)	-0.02	(0.08)	0.05	(0.15)	**-0.38**	(0.15)	-0.10	(0.15)	**0.47**	(0.15)	-0.02	(0.11)
	United States	0.00	(0.08)	-0.13	(0.08)	-0.01	(0.09)	**-0.28**	(0.12)	0.06	(0.08)	0.26	(0.17)	**-0.20**	(0.07)
	OECD average-13*	-0.23	(0.03)	-0.04	(0.03)	**-0.11**	(0.03)	**-0.21**	(0.04)	0.03	(0.03)	**0.27**	(0.04)	**-0.08**	(0.03)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	**-0.33**	(0.09)	0.03	(0.11)	**-0.27**	(0.11)	**-0.34**	(0.15)	-0.04	(0.11)	**0.39**	(0.16)	-0.06	(0.11)
	Latvia	-0.15	(0.09)	0.24	(0.13)	**-0.34**	(0.16)	-0.16	(0.17)	0.11	(0.11)	-0.08	(0.17)	-0.21	(0.15)
	Russian Federation	**-0.20**	(0.08)	**0.38**	(0.11)	-0.13	(0.08)	**-0.37**	(0.12)	-0.09	(0.08)	0.12	(0.19)	0.07	(0.09)
	Shanghai-China	0.03	(0.09)	**0.28**	(0.09)	-0.24	(0.13)	**-0.60**	(0.18)	-0.12	(0.17)	**0.36**	(0.11)	0.18	(0.11)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status*.
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 5/6]

Performance in financial literacy, mathematics and reading, by students' sources of money

Table VI.4.7 *Results based on students' self-reports*

		Effect size: difference in mathematics performance related to receiving money from a given source divided by the variation in scores within each country/economy (standard deviation), after accounting for ESCS[1]													
		Students who receive money from an allowance or pocket money for regularly doing chores at home (Yes vs No)		Students who receive money from an allowance or pocket money, without having to do any chores (Yes vs No)		Students who receive money from working outside school hours (e.g. a holiday job, part-time work) (Yes vs No)		Students who receive money from working in a family business (Yes vs No)		Students who receive money from occasional informal jobs (e.g. baby-sitting or gardening) (Yes vs No)		Students who receive gifts of money from friends or relatives (Yes vs No)		Students who receive money from selling things (e.g. at local markets or on eBay) (Yes vs No)	
		Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.
OECD	Australia	**-0.16**	(0.05)	**-0.14**	(0.06)	**-0.20**	(0.06)	-0.04	(0.07)	-0.01	(0.06)	0.12	(0.08)	**-0.20**	(0.06)
	Flemish Community (Belgium)	**-0.34**	(0.10)	-0.00	(0.11)	-0.16	(0.09)	-0.08	(0.13)	0.19	(0.10)	**0.44**	(0.16)	-0.05	(0.09)
	Czech Republic	-0.15	(0.10)	0.07	(0.11)	-0.03	(0.10)	-0.25	(0.17)	-0.17	(0.11)	-0.06	(0.17)	-0.07	(0.11)
	Estonia	-0.21	(0.15)	0.04	(0.11)	-0.03	(0.13)	-0.09	(0.21)	0.03	(0.10)	0.18	(0.20)	-0.09	(0.11)
	France	0.13	(0.08)	-0.00	(0.08)	**-0.24**	(0.10)	**-0.42**	(0.15)	**0.24**	(0.08)	0.19	(0.14)	**0.28**	(0.09)
	Israel	**-0.63**	(0.11)	**-0.30**	(0.09)	-0.17	(0.12)	-0.24	(0.16)	0.00	(0.08)	**0.24**	(0.08)	-0.19	(0.18)
	Italy	**-0.17**	(0.06)	-0.08	(0.05)	**-0.21**	(0.07)	**-0.17**	(0.06)	-0.03	(0.07)	**0.28**	(0.06)	0.03	(0.06)
	New Zealand	-0.16	(0.08)	**-0.25**	(0.10)	0.03	(0.10)	0.02	(0.15)	0.04	(0.10)	0.24	(0.14)	0.04	(0.09)
	Poland	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovak Republic	**-0.25**	(0.09)	0.00	(0.08)	-0.12	(0.09)	**-0.27**	(0.11)	-0.15	(0.08)	0.30	(0.16)	0.05	(0.10)
	Slovenia	**-0.26**	(0.09)	-0.01	(0.09)	-0.11	(0.09)	-0.18	(0.14)	0.02	(0.09)	**0.33**	(0.13)	-0.12	(0.08)
	Spain	0.05	(0.11)	0.07	(0.09)	0.02	(0.13)	-0.25	(0.14)	-0.21	(0.13)	**0.40**	(0.15)	0.08	(0.09)
	United States	0.02	(0.09)	-0.11	(0.08)	0.13	(0.09)	-0.23	(0.13)	-0.01	(0.08)	0.23	(0.14)	**-0.18**	(0.08)
	OECD average-13*	**-0.17**	(0.03)	**-0.06**	(0.03)	**-0.09**	(0.03)	**-0.18**	(0.04)	-0.00	(0.03)	**0.24**	(0.04)	-0.03	(0.03)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	**-0.28**	(0.10)	-0.02	(0.11)	-0.21	(0.11)	**-0.34**	(0.15)	-0.03	(0.12)	**0.32**	(0.14)	0.10	(0.12)
	Latvia	-0.11	(0.11)	0.11	(0.11)	-0.15	(0.16)	-0.25	(0.16)	-0.04	(0.11)	-0.03	(0.18)	-0.10	(0.13)
	Russian Federation	-0.16	(0.08)	**0.34**	(0.12)	-0.13	(0.08)	**-0.36**	(0.14)	-0.06	(0.09)	-0.04	(0.25)	**0.17**	(0.08)
	Shanghai-China	0.09	(0.09)	**0.27**	(0.10)	-0.25	(0.15)	**-0.55**	(0.21)	-0.13	(0.15)	**0.25**	(0.11)	0.14	(0.11)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status.*
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 6/6]

Performance in financial literacy, mathematics and reading, by students' sources of money

Table VI.4.7 *Results based on students' self-reports*

		Effect size: difference in reading performance related to receiving money from a given source divided by the variation in scores within each country/economy (standard deviation), after accounting for ESCS[1]													
		Students who receive money from an allowance or pocket money for regularly doing chores at home (Yes vs No)		Students who receive money from an allowance or pocket money, without having to do any chores (Yes vs No)		Students who receive money from working outside school hours (e.g. a holiday job, part-time work) (Yes vs No)		Students who receive money from working in a family business (Yes vs No)		Students who receive money from occasional informal jobs (e.g. baby-sitting or gardening) (Yes vs No)		Students who receive gifts of money from friends or relatives (Yes vs No)		Students who receive money from selling things (e.g. at local markets or on eBay) (Yes vs No)	
		Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.	Effect size	S.E.
OECD	Australia	**-0.17**	(0.05)	-0.06	(0.06)	**-0.15**	(0.06)	**-0.18**	(0.07)	0.04	(0.06)	**0.25**	(0.08)	**-0.27**	(0.07)
	Flemish Community (Belgium)	**-0.33**	(0.10)	0.11	(0.10)	-0.14	(0.09)	-0.15	(0.13)	**0.22**	(0.10)	**0.51**	(0.19)	-0.17	(0.09)
	Czech Republic	**-0.29**	(0.10)	-0.00	(0.11)	-0.06	(0.11)	-0.34	(0.18)	-0.17	(0.12)	0.17	(0.13)	-0.10	(0.11)
	Estonia	**-0.41**	(0.16)	0.01	(0.12)	-0.15	(0.13)	-0.10	(0.20)	-0.05	(0.11)	0.18	(0.18)	-0.17	(0.12)
	France	-0.01	(0.09)	0.05	(0.09)	**-0.30**	(0.10)	**-0.41**	(0.17)	**0.24**	(0.09)	**0.35**	(0.14)	**0.22**	(0.09)
	Israel	**-0.64**	(0.12)	**-0.21**	(0.09)	**-0.29**	(0.13)	**-0.32**	(0.15)	**0.20**	(0.10)	**0.27**	(0.08)	-0.27	(0.16)
	Italy	**-0.17**	(0.05)	**-0.25**	(0.05)	**-0.33**	(0.06)	**-0.16**	(0.06)	0.08	(0.05)	**0.35**	(0.06)	**-0.17**	(0.06)
	New Zealand	-0.11	(0.08)	-0.12	(0.09)	-0.06	(0.10)	-0.19	(0.15)	0.10	(0.09)	0.22	(0.14)	-0.09	(0.09)
	Poland	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovak Republic	**-0.28**	(0.08)	-0.03	(0.08)	**-0.20**	(0.09)	-0.18	(0.11)	-0.04	(0.08)	**0.38**	(0.15)	-0.13	(0.10)
	Slovenia	**-0.42**	(0.08)	-0.05	(0.08)	**-0.15**	(0.07)	**-0.22**	(0.10)	-0.06	(0.09)	0.12	(0.14)	**-0.17**	(0.08)
	Spain	0.08	(0.11)	0.12	(0.10)	-0.07	(0.14)	**-0.40**	(0.15)	-0.10	(0.14)	**0.50**	(0.14)	-0.18	(0.10)
	United States	0.03	(0.09)	-0.06	(0.08)	-0.06	(0.11)	**-0.31**	(0.12)	0.08	(0.09)	**0.37**	(0.16)	**-0.20**	(0.08)
	OECD average-13*	**-0.23**	(0.03)	-0.04	(0.03)	**-0.16**	(0.03)	**-0.25**	(0.04)	0.05	(0.03)	**0.31**	(0.04)	**-0.14**	(0.03)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	**-0.41**	(0.10)	0.03	(0.10)	**-0.29**	(0.09)	-0.14	(0.14)	-0.05	(0.13)	**0.57**	(0.14)	-0.21	(0.11)
	Latvia	-0.06	(0.10)	0.09	(0.10)	**-0.41**	(0.17)	**-0.28**	(0.14)	0.02	(0.11)	0.04	(0.17)	**-0.29**	(0.13)
	Russian Federation	**-0.24**	(0.08)	**0.33**	(0.12)	-0.08	(0.07)	**-0.34**	(0.12)	**-0.18**	(0.08)	0.19	(0.16)	0.03	(0.08)
	Shanghai-China	0.07	(0.09)	**0.26**	(0.09)	-0.28	(0.15)	**-0.60**	(0.23)	-0.06	(0.17)	**0.37**	(0.11)	0.12	(0.10)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status.*
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 1/3]

Students' sources of money, by gender

Table VI.4.8 *Results based on students' self-reports*

		Percentage of students who receive money from an allowance or pocket money for regularly doing chores at home						Percentage of students who receive money from an allowance or pocket money, without having to do any chores					
		Boys		Girls		Difference (B-G)		Boys		Girls		Difference (B-G)	
		%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	46.8	(2.2)	41.8	(2.0)	4.9	(3.0)	29.7	(2.2)	33.1	(2.1)	-3.3	(3.0)
	Flemish Community (Belgium)	43.0	(2.6)	32.4	(3.1)	**10.5**	(4.3)	84.2	(2.2)	83.3	(2.3)	0.9	(3.2)
	Czech Republic	52.7	(3.7)	40.5	(3.8)	**12.2**	(5.3)	55.2	(4.4)	62.4	(3.2)	-7.2	(6.0)
	Estonia	22.9	(3.3)	15.3	(2.7)	7.6	(4.5)	64.9	(3.0)	69.8	(3.2)	-4.9	(4.3)
	France	56.9	(3.0)	44.9	(2.8)	**12.0**	(4.3)	57.5	(3.4)	63.8	(2.9)	-6.3	(4.7)
	Israel	21.7	(2.7)	19.9	(2.8)	1.7	(3.6)	58.1	(3.5)	72.2	(2.9)	**-14.1**	(4.4)
	Italy	38.5	(1.7)	41.4	(1.7)	-2.9	(2.6)	37.4	(1.7)	30.0	(1.8)	**7.4**	(2.4)
	New Zealand	55.6	(3.3)	59.7	(3.0)	-4.2	(4.5)	n	n	n	n	n	n
	Poland	43.5	(3.2)	27.3	(2.9)	**16.2**	(4.2)	51.3	(3.2)	61.6	(3.0)	**-10.3**	(4.0)
	Slovak Republic	43.5	(3.7)	40.7	(3.3)	2.8	(5.3)	49.9	(3.9)	50.4	(2.9)	-0.5	(5.1)
	Slovenia	44.5	(3.4)	25.9	(2.7)	**18.6**	(4.2)	44.6	(2.7)	42.1	(2.9)	2.6	(4.3)
	Spain	32.0	(3.2)	27.4	(3.8)	4.6	(5.0)	33.6	(3.6)	41.2	(3.9)	-7.7	(5.4)
	United States	41.2	(3.6)	38.4	(2.9)	2.8	(4.0)	27.6	(2.7)	46.4	(3.2)	**-18.8**	(4.0)
	OECD average-13*	41.7	(0.9)	35.1	(0.8)	**6.7**	(1.2)	49.5	(0.9)	54.7	(0.8)	**-5.2**	(1.3)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	31.5	(3.1)	22.2	(2.8)	**9.3**	(4.0)	72.2	(2.5)	82.0	(2.3)	**-9.8**	(3.8)
	Latvia	55.7	(4.3)	44.3	(3.7)	11.4	(6.0)	61.5	(4.0)	67.6	(4.1)	-6.0	(5.3)
	Russian Federation	36.9	(2.8)	29.8	(2.7)	7.1	(3.8)	72.0	(3.0)	72.0	(2.8)	-0.0	(3.7)
	Shanghai-China	43.0	(3.0)	51.0	(2.7)	-8.0	(4.1)	71.9	(2.7)	78.3	(2.1)	-6.5	(3.5)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 2/3]

Students' sources of money, by gender

Table VI.4.8 *Results based on students' self-reports*

		Percentage of students who receive money from working outside school hours (e.g. a holiday job, part-time work)						Percentage of students who receive money from working in a family business					
		Boys		Girls		Difference (B-G)		Boys		Girls		Difference (B-G)	
		%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	48.5	(2.3)	54.7	(1.8)	**-6.2**	(2.7)	18.4	(1.7)	12.5	(1.3)	**6.0**	(2.2)
	Flemish Community (Belgium)	45.4	(3.2)	46.2	(3.3)	-0.8	(4.6)	15.5	(2.3)	12.4	(2.1)	3.1	(2.9)
	Czech Republic	56.4	(3.4)	46.2	(3.5)	**10.3**	(5.0)	17.6	(2.8)	14.8	(2.7)	2.8	(4.2)
	Estonia	49.0	(3.4)	34.2	(3.1)	**14.8**	(5.0)	10.8	(1.9)	7.8	(1.6)	3.0	(2.3)
	France	37.7	(2.8)	26.4	(2.6)	**11.4**	(3.8)	20.7	(2.3)	10.6	(1.9)	**10.1**	(2.7)
	Israel	50.3	(4.1)	40.6	(3.3)	9.8	(5.5)	20.0	(3.4)	14.6	(2.4)	5.4	(4.2)
	Italy	35.2	(1.7)	24.0	(1.5)	**11.2**	(2.2)	25.7	(1.5)	17.4	(1.2)	**8.3**	(1.9)
	New Zealand	45.7	(3.4)	37.1	(3.1)	8.6	(5.0)	27.6	(3.4)	14.4	(2.0)	**13.3**	(3.8)
	Poland	n	n	n	n	n	n	n	n	n	n	n	n
	Slovak Republic	61.5	(4.1)	34.0	(2.9)	**27.5**	(5.4)	27.2	(3.1)	14.1	(2.3)	**13.0**	(3.6)
	Slovenia	58.2	(3.0)	41.3	(3.3)	**16.9**	(4.5)	31.7	(3.2)	15.9	(2.6)	**15.9**	(4.1)
	Spain	n	n	n	n	n	n	24.5	(3.3)	10.9	(2.4)	**13.7**	(4.0)
	United States	42.0	(3.3)	24.6	(2.8)	**17.4**	(4.5)	21.7	(2.9)	9.5	(1.7)	**12.3**	(3.7)
	OECD average-13*	48.2	(1.0)	37.2	(0.9)	**11.0**	(1.4)	21.8	(0.8)	12.9	(0.6)	**8.9**	(1.0)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	30.6	(3.4)	21.9	(2.4)	**8.7**	(4.3)	12.4	(2.2)	8.9	(1.8)	3.4	(3.1)
	Latvia	33.6	(3.8)	11.0	(2.4)	**22.6**	(3.9)	24.3	(3.6)	14.3	(2.8)	**10.0**	(4.2)
	Russian Federation	59.5	(3.2)	43.6	(3.1)	**15.8**	(3.9)	22.6	(2.3)	12.4	(1.8)	**10.1**	(3.0)
	Shanghai-China	18.4	(2.4)	13.2	(1.8)	5.2	(2.8)	8.6	(1.8)	3.2	(1.1)	**5.4**	(2.2)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 3/3]

Students' sources of money, by gender

Table VI.4.8 *Results based on students' self-reports*

		Percentage of students who receive money from occasional informal jobs (e.g. baby-sitting or gardening)						Percentage of students who receive money from gifts of money from friends or relatives						Percentage of students who receive money from selling things (e.g. at local markets or on eBay)					
		Boys		Girls		Difference (B-G)		Boys		Girls		Difference (B-G)		Boys		Girls		Difference (B-G)	
		%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	40.1	(2.2)	50.6	(2.3)	**-10.5**	(3.1)	86.8	(1.5)	90.9	(1.1)	**-4.1**	(1.8)	31.1	(1.8)	22.8	(1.5)	**8.3**	(2.5)
	Flemish Community (Belgium)	49.0	(2.9)	58.8	(3.4)	**-9.8**	(4.2)	92.1	(1.9)	94.8	(1.4)	-2.7	(2.3)	36.3	(2.8)	21.4	(2.5)	**14.9**	(4.1)
	Czech Republic	43.4	(4.0)	39.8	(3.4)	3.6	(5.2)	86.5	(2.5)	91.5	(1.6)	-5.1	(3.2)	33.4	(3.4)	22.2	(2.6)	**11.3**	(4.6)
	Estonia	49.3	(3.4)	42.7	(3.1)	6.7	(4.5)	92.5	(1.9)	90.7	(2.0)	1.9	(2.7)	32.5	(3.5)	26.2	(2.7)	6.3	(4.0)
	France	49.4	(3.1)	57.9	(3.4)	-8.5	(4.7)	80.5	(2.4)	89.7	(1.6)	**-9.1**	(3.0)	64.4	(3.0)	59.6	(3.0)	4.8	(4.1)
	Israel	35.2	(3.3)	55.7	(3.4)	**-20.6**	(4.7)	56.2	(3.2)	68.6	(3.0)	**-12.5**	(4.3)	19.9	(2.4)	6.8	(1.8)	**13.1**	(3.0)
	Italy	27.1	(1.4)	30.8	(1.7)	-3.7	(2.0)	70.9	(1.8)	78.4	(1.2)	**-7.5**	(2.2)	32.5	(1.5)	14.6	(1.1)	**17.8**	(1.8)
	New Zealand	54.7	(3.4)	61.4	(3.0)	-6.7	(4.8)	n	n	n	n	n	n	49.0	(3.5)	34.4	(2.8)	**14.6**	(4.6)
	Poland	n	n	n	n	n	n	78.3	(2.8)	85.7	(2.3)	**-7.3**	(3.6)	n	n	n	n	n	n
	Slovak Republic	n	n	n	n	n	n	77.4	(3.3)	87.5	(2.7)	**-10.1**	(3.9)	45.1	(3.2)	18.0	(2.6)	**27.1**	(4.3)
	Slovenia	36.4	(3.0)	34.5	(3.4)	1.9	(4.3)	87.1	(1.9)	88.8	(2.1)	-1.7	(2.6)	41.5	(3.1)	12.8	(2.1)	**28.7**	(3.5)
	Spain	25.7	(2.7)	25.7	(2.9)	-0.0	(4.2)	82.8	(2.5)	84.1	(2.5)	-1.3	(3.3)	35.0	(3.5)	17.0	(2.8)	**18.0**	(4.6)
	United States	52.8	(3.4)	60.0	(2.8)	-7.2	(4.6)	86.8	(2.2)	93.2	(1.6)	**-6.4**	(2.0)	46.8	(3.2)	27.9	(2.6)	**18.8**	(4.2)
	OECD average-13*	42.1	(0.9)	47.1	(0.9)	**-5.0**	(1.3)	81.5	(0.7)	87.0	(0.6)	**-5.5**	(0.9)	39.0	(0.9)	23.6	(0.7)	**15.3**	(1.1)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	16.1	(2.3)	14.8	(2.2)	1.3	(3.1)	83.1	(2.3)	87.5	(2.1)	-4.4	(3.3)	26.2	(2.7)	8.1	(1.6)	**18.1**	(3.1)
	Latvia	47.7	(4.2)	57.0	(3.5)	-9.3	(5.3)	83.3	(3.7)	93.1	(2.2)	**-9.7**	(4.7)	37.1	(4.0)	11.0	(2.3)	**26.0**	(4.5)
	Russian Federation	43.1	(3.5)	32.5	(3.5)	**10.6**	(5.3)	91.9	(1.6)	93.1	(2.1)	-1.2	(2.5)	29.0	(3.1)	14.3	(2.2)	**14.8**	(4.0)
	Shanghai-China	7.3	(1.5)	7.6	(1.6)	-0.3	(2.4)	79.3	(2.3)	86.3	(2.0)	**-7.0**	(3.2)	25.0	(2.3)	16.8	(2.1)	**8.2**	(3.3)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* The OECD average-13 is computed on the countries and economies with available data.
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[Part 1/3]

Students' sources of money, by socio-economic status

Table VI.4.9 *Results based on students' self-reports*

		Percentage of students who receive money from an allowance or pocket money for regularly doing chores at home						Percentage of students who receive money from an allowance or pocket money, without having to do any chores					
		Top quartile of ESCS[1]		Bottom quartile of ESCS		Difference (top quartile - bottom quartile)		Top quartile of ESCS		Bottom quartile of ESCS		Difference (top quartile - bottom quartile)	
		%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	43.5	(3.1)	42.5	(2.8)	1.0	(4.3)	33.2	(3.3)	32.7	(2.8)	0.5	(3.9)
	Flemish Community (Belgium)	36.8	(4.2)	39.8	(4.8)	-3.1	(6.5)	88.3	(2.6)	84.5	(3.1)	3.7	(4.1)
	Czech Republic	41.1	(4.3)	40.5	(5.6)	0.7	(7.5)	67.9	(4.7)	54.4	(5.0)	**13.5**	(6.0)
	Estonia	18.1	(3.5)	18.5	(3.9)	-0.4	(5.0)	69.7	(3.8)	64.2	(5.4)	5.5	(7.0)
	France	55.7	(4.6)	45.6	(4.5)	10.1	(6.7)	73.0	(4.1)	57.3	(4.4)	**15.7**	(6.2)
	Israel	18.8	(3.5)	23.3	(4.7)	-4.6	(5.5)	62.5	(4.5)	67.8	(5.3)	-5.3	(7.0)
	Italy	35.6	(2.4)	46.2	(2.7)	**-10.6**	(3.5)	33.5	(2.3)	33.9	(2.8)	-0.4	(3.9)
	New Zealand	n	n	n	n	n	n	n	n	n	n	n	n
	Poland	n	n	n	n	n	n	n	n	n	n	n	n
	Slovak Republic	35.4	(4.5)	49.3	(4.8)	**-13.9**	(6.4)	n	n	n	n	n	n
	Slovenia	41.7	(3.9)	37.0	(5.0)	4.7	(6.9)	56.9	(4.1)	30.5	(4.1)	**26.4**	(6.0)
	Spain	24.4	(3.9)	28.3	(4.6)	-3.9	(5.7)	48.0	(5.3)	29.7	(4.0)	**18.4**	(6.1)
	United States	45.6	(4.6)	33.8	(4.7)	11.9	(6.5)	38.3	(4.2)	35.7	(4.2)	2.6	(5.4)
	OECD average-13*	36.1	(1.2)	36.8	(1.3)	-0.7	(1.8)	57.1	(1.3)	49.1	(1.3)	**8.1**	(1.8)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	24.8	(4.0)	23.2	(3.8)	1.6	(5.5)	78.8	(3.3)	75.1	(3.9)	3.7	(5.5)
	Latvia	52.6	(5.1)	60.2	(6.1)	-7.6	(8.1)	75.2	(4.1)	50.1	(6.5)	**25.1**	(6.9)
	Russian Federation	31.9	(3.6)	34.1	(5.0)	-2.2	(6.3)	78.7	(3.9)	65.8	(4.9)	**12.9**	(6.2)
	Shanghai-China	52.0	(3.7)	39.6	(4.2)	**12.4**	(5.8)	79.4	(2.8)	70.1	(3.5)	**9.3**	(4.4)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status*.
* The OECD average-13 is computed on the countries and economies with available data.
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[Part 2/3]

Students' sources of money, by socio-economic status

Table VI.4.9 *Results based on students' self-reports*

		Percentage of students who receive money from working outside school hours (e.g. a holiday job, part-time work)						Percentage of students who receive money from working in a family business					
		Top quartile of ESCS[1]		Bottom quartile of ESCS		Difference (top quartile - bottom quartile)		Top quartile of ESCS		Bottom quartile of ESCS		Difference (top quartile - bottom quartile)	
		%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	54.0	(2.7)	48.3	(3.3)	5.7	(4.1)	10.9	(1.9)	16.5	(2.2)	-5.6	(3.2)
	Flemish Community (Belgium)	39.7	(4.9)	45.5	(4.0)	-5.8	(6.5)	7.8	(2.5)	8.4	(3.2)	-0.6	(4.0)
	Czech Republic	46.5	(5.3)	51.7	(5.3)	-5.2	(8.0)	13.0	(3.6)	16.7	(4.0)	-3.7	(6.1)
	Estonia	26.9	(3.6)	46.6	(3.9)	**-19.8**	(5.4)	11.5	(2.9)	4.8	(2.0)	6.7	(3.5)
	France	26.8	(3.9)	32.2	(4.6)	-5.4	(6.2)	13.9	(2.8)	16.6	(3.4)	-2.7	(4.7)
	Israel	44.7	(5.6)	47.5	(6.3)	-2.8	(9.1)	21.4	(3.6)	18.7	(4.9)	2.7	(5.8)
	Italy	21.0	(2.2)	35.9	(2.4)	**-14.9**	(3.2)	n	n	n	n	n	n
	New Zealand	n	n	n	n	n	n	n	n	n	n	n	n
	Poland	n	n	n	n	n	n	n	n	n	n	n	n
	Slovak Republic	n	n	n	n	n	n	n	n	n	n	n	n
	Slovenia	44.8	(4.4)	53.9	(5.2)	-9.1	(6.7)	27.3	(4.1)	21.2	(4.7)	6.1	(6.7)
	Spain	19.4	(3.8)	24.7	(4.5)	-5.3	(6.1)	7.6	(3.0)	23.4	(4.3)	**-15.8**	(5.3)
	United States	34.7	(5.1)	29.2	(4.2)	5.5	(6.3)	11.4	(3.6)	12.3	(3.2)	-0.9	(5.0)
	OECD average-13*	35.8	(1.4)	41.5	(1.4)	**-5.7**	(2.0)	13.9	(1.1)	15.4	(1.2)	-1.5	(1.7)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	21.9	(3.5)	32.8	(4.6)	-10.9	(5.8)	9.1	(2.2)	10.4	(2.9)	-1.2	(3.7)
	Latvia	n	n	n	n	n	n	n	n	n	n	n	n
	Russian Federation	44.2	(5.5)	53.2	(5.2)	-9.0	(7.5)	22.9	(5.0)	21.3	(3.8)	1.6	(6.8)
	Shanghai-China	13.1	(3.3)	16.6	(2.8)	-3.5	(4.3)	5.7	(1.9)	4.2	(1.6)	1.5	(2.5)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status.*
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[Part 3/3]

Students' sources of money, by socio-economic status

Table VI.4.9 *Results based on students' self-reports*

		Percentage of students who receive money from occasional informal jobs (e.g. baby-sitting or gardening)						Percentage of students who receive money from gifts of money from friends or relatives						Percentage of students who receive money from selling things (e.g. at local markets or on eBay)					
		Top quartile of ESCS[1]		Bottom quartile of ESCS		Difference (top quartile - bottom quartile)		Top quartile of ESCS		Bottom quartile of ESCS		Difference (top quartile - bottom quartile)		Top quartile of ESCS		Bottom quartile of ESCS		Difference (top quartile - bottom quartile)	
		%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	52.4	(2.7)	42.4	(3.6)	**10.0**	(4.5)	93.4	(1.4)	81.6	(2.4)	**11.8**	(2.6)	27.3	(2.7)	24.8	(2.4)	2.5	(3.7)
	Flemish Community (Belgium)	61.3	(3.2)	48.8	(5.0)	**12.4**	(5.7)	97.2	(1.4)	92.4	(2.4)	4.8	(2.6)	29.1	(3.7)	29.3	(4.2)	-0.2	(5.7)
	Czech Republic	45.0	(4.5)	36.0	(5.3)	9.0	(6.7)	92.7	(2.8)	86.7	(4.1)	6.0	(5.8)	28.4	(3.6)	26.9	(5.4)	1.5	(6.7)
	Estonia	41.0	(4.6)	54.3	(4.9)	**-13.3**	(6.6)	91.7	(2.7)	86.8	(3.7)	4.8	(4.5)	29.0	(4.2)	30.8	(5.1)	-1.8	(6.8)
	France	64.1	(4.4)	44.9	(4.6)	**19.2**	(6.6)	92.3	(2.3)	77.2	(3.6)	**15.1**	(4.0)	61.8	(4.2)	57.1	(4.5)	4.7	(6.0)
	Israel	46.7	(4.6)	32.8	(4.5)	**13.9**	(6.7)	69.0	(3.7)	49.4	(5.6)	**19.7**	(6.1)	18.6	(3.1)	10.0	(3.1)	**8.6**	(4.1)
	Italy	n	n	n	n	n	n	80.6	(1.9)	65.2	(2.4)	**15.4**	(2.9)	n	n	n	n	n	n
	New Zealand	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Poland	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovak Republic	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovenia	29.2	(4.3)	35.8	(5.0)	-6.7	(6.3)	85.6	(3.0)	88.1	(2.8)	-2.5	(4.2)	25.6	(3.8)	24.6	(3.8)	1.0	(5.4)
	Spain	25.2	(4.1)	22.0	(3.8)	3.2	(5.6)	89.9	(2.8)	75.4	(4.0)	**14.5**	(5.0)	25.6	(4.5)	22.4	(3.7)	3.2	(5.3)
	United States	67.2	(4.2)	45.3	(4.5)	**21.9**	(6.6)	96.0	(1.9)	79.0	(4.6)	**17.0**	(4.9)	38.5	(4.7)	38.3	(4.2)	0.2	(6.4)
	OECD average-13*	48.0	(1.4)	40.3	(1.5)	**7.7**	(2.1)	88.9	(0.8)	78.2	(1.2)	**10.7**	(1.4)	31.5	(1.3)	29.3	(1.4)	2.2	(1.9)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	15.7	(3.0)	19.9	(3.7)	-4.3	(4.6)	90.6	(2.7)	83.0	(3.9)	7.6	(5.0)	20.7	(3.7)	10.5	(2.5)	**10.2**	(4.4)
	Latvia	48.8	(4.8)	60.6	(6.3)	-11.8	(8.3)	87.6	(3.9)	87.8	(4.3)	-0.2	(5.2)	n	n	n	n	n	n
	Russian Federation	38.7	(5.2)	36.1	(5.2)	2.6	(6.7)	93.8	(1.8)	93.3	(2.8)	0.5	(2.8)	27.6	(4.9)	18.4	(3.7)	9.2	(5.2)
	Shanghai-China	8.4	(2.5)	9.1	(2.6)	-0.7	(3.5)	82.6	(2.5)	78.1	(3.0)	4.4	(3.9)	25.1	(3.1)	13.0	(2.9)	**12.1**	(4.4)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status.*
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 1/2]

Students' attitudes and performance in financial literacy

Table VI.4.10 *Results based on students' self-reports*

		Score-point difference associated with students' attitudes											
		Perseverance ("When confronted with a problem, I give up easily"): Students who answered "Very much/Mostly/Somewhat like me" minus students who reported that the statement describes someone "Not much/Not at all like me"											
		Financial literacy								Mathematics		Reading	
		Before accounting for mathematics and reading score		After accounting for mathematics score		After accounting for reading score		After accounting for mathematics and reading score					
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	**-51**	(5.3)	-4	(2.7)	**-14**	(2.4)	**-5**	(2.1)	**-47**	(4.8)	**-39**	(5.4)
	Flemish Community (Belgium)	**-21**	(8.4)	0	(3.7)	-4	(4.2)	0	(3.2)	**-23**	(8.5)	**-17**	(6.6)
	Czech Republic	**-37**	(8.9)	-5	(3.9)	-5	(4.3)	-3	(3.4)	**-38**	(9.5)	**-30**	(8.2)
	Estonia	**-16**	(6.9)	-4	(4.5)	-7	(4.4)	-4	(4.0)	**-17**	(7.9)	-14	(8.6)
	France	**-60**	(6.6)	**12**	(3.5)	-2	(4.0)	**10**	(3.3)	**-76**	(6.3)	**-60**	(7.7)
	Israel	**-43**	(11.2)	0	(6.6)	-4	(7.4)	0	(6.4)	**-47**	(10.3)	**-43**	(10.3)
	Italy	**-37**	(3.7)	**-8**	(2.2)	**-15**	(2.2)	**-9**	(1.9)	**-39**	(4.2)	**-28**	(4.3)
	New Zealand	**-78**	(10.6)	-10	(5.5)	-10	(5.7)	**-4**	(4.6)	**-66**	(8.0)	**-69**	(8.9)
	Poland	**-31**	(7.5)	1	(4.3)	-6	(4.1)	1	(3.8)	**-37**	(8.7)	**-29**	(8.7)
	Slovak Republic	**-39**	(7.5)	2	(3.9)	0	(4.1)	4	(3.6)	**-43**	(8.2)	**-40**	(8.3)
	Slovenia	**-44**	(8.3)	**-13**	(4.0)	**-16**	(3.1)	**-12**	(2.9)	**-34**	(7.7)	**-25**	(8.6)
	Spain	**-42**	(6.4)	-5	(3.9)	**-14**	(4.9)	-5	(4.0)	**-41**	(6.8)	**-43**	(7.3)
	United States	**-78**	(8.3)	**-13**	(4.6)	**-13**	(4.4)	-7	(3.8)	**-64**	(6.7)	**-68**	(8.1)
	OECD average-13	**-44**	(2.2)	**-4**	(1.2)	**-9**	(1.2)	**-3**	(1.0)	**-44**	(2.1)	**-39**	(2.2)
Partners	Colombia	**-57**	(9.6)	**-23**	(8.2)	-16	(8.2)	**-17**	(8.1)	**-36**	(7.7)	**-46**	(9.4)
	Croatia	**-24**	(7.3)	**-8**	(3.4)	-5	(4.1)	-5	(3.0)	**-16**	(7.3)	**-25**	(7.8)
	Latvia	**-25**	(6.9)	-8	(5.5)	**-11**	(5.2)	-7	(4.5)	**-25**	(8.9)	-18	(10.0)
	Russian Federation	**-26**	(7.7)	-4	(6.4)	-8	(6.1)	-4	(6.1)	**-27**	(8.5)	**-20**	(9.4)
	Shanghai-China	**-21**	(6.8)	-3	(2.8)	-5	(3.3)	-3	(2.6)	**-23**	(8.3)	-11	(6.5)

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

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[Part 2/2]

Students' attitudes and performance in financial literacy

Table VI.4.10 *Results based on students' self-reports*

		Score-point difference associated with students' attitudes											
		Openness to problem solving ("I like to solve complex problems"): Students who answered "Very much/Mostly/Somewhat like me" minus students who reported that the statement describes someone "Not much/Not at all like me"											
		Financial literacy								Mathematics		Reading	
		Before accounting for mathematics and reading score		After accounting for mathematics score		After accounting for reading score		After accounting for mathematics and reading score					
		Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
OECD	Australia	**39**	(5.4)	1	(2.4)	**11**	(2.5)	2	(2.0)	**43**	(4.5)	**25**	(4.5)
	Flemish Community (Belgium)	**24**	(6.5)	3	(3.2)	**10**	(3.8)	4	(3.0)	**27**	(7.5)	**13**	(6.1)
	Czech Republic	12	(8.1)	-5	(3.4)	**13**	(4.6)	0	(3.2)	**27**	(10.5)	6	(8.4)
	Estonia	**40**	(7.6)	5	(3.4)	**10**	(3.3)	4	(3.2)	**49**	(8.2)	**34**	(7.5)
	France	**43**	(7.8)	5	(4.5)	**21**	(4.9)	**9**	(4.4)	**52**	(7.2)	**31**	(7.7)
	Israel	**20**	(9.4)	-2	(4.4)	**12**	(5.1)	0	(4.4)	**30**	(9.6)	18	(11.6)
	Italy	**28**	(3.4)	**10**	(2.6)	**14**	(2.3)	**10**	(2.2)	**28**	(5.2)	**17**	(3.7)
	New Zealand	**44**	(9.3)	4	(4.0)	**10**	(4.5)	3	(3.5)	**41**	(7.6)	**35**	(8.6)
	Poland	12	(7.5)	5	(2.7)	5	(3.1)	4	(2.5)	**19**	(7.5)	14	(8.3)
	Slovak Republic	**29**	(8.3)	6	(3.4)	**12**	(3.9)	**7**	(3.1)	**30**	(9.5)	**19**	(8.4)
	Slovenia	**41**	(9.2)	5	(3.8)	**11**	(3.6)	5	(3.0)	**43**	(7.2)	**29**	(9.4)
	Spain	**32**	(7.7)	5	(4.0)	**15**	(5.2)	5	(4.0)	**40**	(8.0)	17	(9.4)
	United States	**41**	(8.1)	5	(3.3)	**9**	(3.9)	4	(3.3)	**34**	(7.3)	**25**	(7.1)
	OECD average-13	**31**	(2.1)	**4**	(1.0)	**12**	(1.1)	**4**	(0.9)	**36**	(2.2)	**22**	(2.2)
Partners	Colombia	-1	(10.0)	12	(6.7)	**18**	(6.9)	**13**	(6.7)	**24**	(8.5)	18	(10.8)
	Croatia	**28**	(6.5)	4	(2.7)	**8**	(2.8)	3	(2.4)	**33**	(6.5)	**19**	(7.1)
	Latvia	**31**	(7.3)	5	(5.0)	**8**	(4.1)	5	(4.1)	**30**	(9.5)	**25**	(8.1)
	Russian Federation	**36**	(8.2)	**12**	(3.6)	**14**	(3.9)	**11**	(3.2)	**33**	(6.4)	**27**	(7.7)
	Shanghai-China	**26**	(6.2)	2	(2.5)	**14**	(3.2)	**5**	(2.4)	**36**	(7.8)	**15**	(5.9)

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

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[Part 1/1]

Students' spending behaviour

Results based on students' self-reports to the question "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?"

Table VI.4.11

		Percentage of students who would do the following if they did not have enough money to buy something they really wanted									
		Buy it with money that really should be used for something else		Try to borrow money from a family member		Try to borrow money from a friend		Save up to buy it		Not buy it	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	6.2	(1.3)	15.4	(1.8)	4.2	(1.0)	59.3	(2.5)	14.9	(1.8)
	Czech Republic	4.4	(1.0)	15.7	(2.0)	1.3	(0.5)	67.2	(2.6)	11.4	(1.7)
	Estonia	n	n	n	n	n	n	n	n	n	n
	France	n	n	n	n	n	n	n	n	n	n
	Israel	4.2	(1.0)	22.1	(2.2)	0.8	(0.4)	60.7	(2.5)	12.1	(1.4)
	Italy	4.5	(0.6)	23.6	(1.2)	1.6	(0.3)	60.1	(1.5)	10.2	(0.8)
	New Zealand	n	n	n	n	n	n	n	n	n	n
	Poland	9.5	(1.5)	13.4	(1.7)	1.3	(0.5)	64.0	(2.6)	11.8	(1.3)
	Slovak Republic	n	n	n	n	n	n	n	n	n	n
	Slovenia	4.3	(0.9)	22.8	(2.4)	2.2	(0.9)	57.1	(2.9)	13.5	(2.6)
	Spain	5.0	(1.1)	14.2	(1.6)	2.3	(0.7)	71.1	(2.4)	7.5	(1.4)
	United States	n	n	n	n	n	n	n	n	n	n
	OECD average-13*	5.5	(0.4)	18.2	(0.7)	2.0	(0.3)	62.8	(0.9)	11.6	(0.6)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n
	Croatia	3.8	(0.9)	12.4	(1.3)	1.1	(0.4)	74.9	(2.0)	7.7	(1.4)
	Latvia	n	n	n	n	n	n	n	n	n	n
	Russian Federation	n	n	n	n	n	n	n	n	n	n
	Shanghai-China	7.3	(1.1)	10.1	(1.3)	3.0	(0.6)	70.1	(2.1)	9.4	(1.2)

* The OECD average-13 is computed on the countries and economies with available data.

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[Part 1/2]

Performance in financial literacy, by students' spending behaviour, before and after accounting for socio-economic status

Results based on students' self-reports to the question "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?"

Table VI.4.12

		Financial literacy by what students would do if they did not have enough money to buy something they really wanted									
		Buy it with money that really should be used for something else		Try to borrow money from a family member		Try to borrow money from a friend		Save up to buy it		Not buy it	
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	Australia	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	c	c	534	(13.2)	c	c	552	(6.2)	564	(11.3)
	Czech Republic	c	c	513	(13.9)	c	c	520	(5.7)	534	(12.2)
	Estonia	n	n	n	n	n	n	n	n	n	n
	France	n	n	n	n	n	n	n	n	n	n
	Israel	c	c	486	(9.7)	c	c	496	(7.5)	494	(13.3)
	Italy	436	(12.3)	480	(4.6)	405	(18.3)	480	(3.2)	464	(5.8)
	New Zealand	n	n	n	n	n	n	n	n	n	n
	Poland	473	(18.5)	532	(11.9)	c	c	511	(5.6)	508	(11.4)
	Slovak Republic	n	n	n	n	n	n	n	n	n	n
	Slovenia	443	(16.1)	512	(11.0)	c	c	492	(7.5)	470	(25.6)
	Spain	c	c	493	(11.8)	c	c	493	(4.9)	466	(19.5)
	United States	n	n	n	n	n	n	n	n	n	n
	OECD average-13*	451	(9.1)	507	(4.3)	405	(18.3)	506	(2.3)	500	(5.8)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n
	Croatia	c	c	485	(10.7)	c	c	486	(4.8)	473	(17.2)
	Latvia	n	n	n	n	n	n	n	n	n	n
	Russian Federation	n	n	n	n	n	n	n	n	n	n
	Shanghai-China	637	(13.5)	631	(12.6)	c	c	599	(4.8)	604	(10.8)

Note: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* were available.

* The OECD average-13 is computed on the countries and economies with available data.

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[Part 2/2]

Performance in financial literacy, by students' spending behaviour, before and after accounting for socio-economic status

Results based on students' self-reports to the question "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?"

Table VI.4.12

		Financial literacy by what students would do if they did not have enough money to buy something they really wanted, after accounting for socio-economic status									
		Buy it with money that really should be used for something else		Try to borrow money from a family member		Try to borrow money from a friend		Save up to buy it		Not buy it	
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	Australia	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	c	c	526	(13.2)	c	c	546	(6.0)	561	(10.3)
	Czech Republic	c	c	514	(14.1)	c	c	521	(5.6)	528	(11.7)
	Estonia	n	n	n	n	n	n	n	n	n	n
	France	n	n	n	n	n	n	n	n	n	n
	Israel	c	c	477	(10.4)	c	c	484	(6.8)	482	(12.6)
	Italy	436	(12.3)	480	(4.7)	412	(17.4)	480	(3.0)	468	(5.8)
	New Zealand	n	n	n	n	n	n	n	n	n	n
	Poland	473	(18.4)	529	(9.3)	c	c	519	(5.7)	524	(9.9)
	Slovak Republic	n	n	n	n	n	n	n	n	n	n
	Slovenia	440	(14.9)	495	(7.7)	c	c	492	(7.2)	493	(14.7)
	Spain	c	c	494	(11.6)	c	c	499	(4.5)	477	(19.6)
	United States	n	n	n	n	n	n	n	n	n	n
	OECD average-13*	450	(8.9)	502	(4.0)	412	(17.4)	506	(2.2)	505	(4.8)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n
	Croatia	c	c	489	(10.9)	c	c	499	(4.8)	477	(18.8)
	Latvia	n	n	n	n	n	n	n	n	n	n
	Russian Federation	n	n	n	n	n	n	n	n	n	n
	Shanghai-China	636	(12.3)	630	(12.0)	c	c	613	(4.7)	615	(10.9)

Note: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* were available.
* The OECD average-13 is computed on the countries and economies with available data.
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[Part 1/3]

Performance in financial literacy, by students' spending behaviour

Results based on students' self-reports to the question "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?"

Table VI.4.13

		Financial literacy score-point difference with respect to "Buy it with money that really should be used for something else" - BEFORE accounting for ESCS[1] and attitudes							
		Try to borrow money from a family member		Try to borrow money from a friend		Save up to buy it		Not buy it	
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	Australia	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	c	c	c	c	c	c	c	c
	Czech Republic	c	c	c	c	c	c	c	c
	Estonia	n	n	n	n	n	n	n	n
	France	n	n	n	n	n	n	n	n
	Israel	c	c	c	c	c	c	c	c
	Italy	**48**	(18.3)	-44	(25.0)	**45**	(16.7)	36	(18.3)
	New Zealand	n	n	n	n	n	n	n	n
	Poland	39	(27.8)	c	c	11	(24.2)	13	(26.1)
	Slovak Republic	n	n	n	n	n	n	n	n
	Slovenia	**73**	(20.9)	c	c	**48**	(22.7)	24	(36.0)
	Spain	c	c	c	c	c	c	c	c
	United States	n	n	n	n	n	n	n	n
	OECD average-13*	**53**	(13.1)	-44	(25.0)	**35**	(12.4)	24	(16.0)
Partners	Colombia	n	n	n	n	n	n	n	n
	Croatia	c	c	c	c	c	c	c	c
	Latvia	n	n	n	n	n	n	n	n
	Russian Federation	n	n	n	n	n	n	n	n
	Shanghai-China	-12	(20.7)	c	c	**-39**	(14.7)	-25	(21.1)

1. ESCS refers to the *PISA index of economic, social and cultural status*.
* The OECD average-13 is computed on the countries and economies with available data.
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[Part 2/3]

Performance in financial literacy, by students' spending behaviour

Results based on students' self-reports to the question "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?"

Table VI.4.13

		Financial literacy score-point difference with respect to "Buy it with money that really should be used for something else" - AFTER accounting for ESCS[1]							
		Try to borrow money from a family member		Try to borrow money from a friend		Save up to buy it		Not buy it	
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	Australia	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	c	c	c	c	c	c	c	c
	Czech Republic	c	c	c	c	c	c	c	c
	Estonia	n	n	n	n	n	n	n	n
	France	n	n	n	n	n	n	n	n
	Israel	c	c	c	c	c	c	c	c
	Italy	**49**	(18.8)	-34	(25.2)	**45**	(17.3)	**39**	(18.5)
	New Zealand	n	n	n	n	n	n	n	n
	Poland	39	(28.3)	c	c	21	(25.0)	32	(26.6)
	Slovak Republic	n	n	n	n	n	n	n	n
	Slovenia	**63**	(21.1)	c	c	**57**	(21.0)	46	(26.8)
	Spain	c	c	c	c	c	c	c	c
	United States	n	n	n	n	n	n	n	n
	OECD average-13*	**50**	(13.3)	-34	(25.2)	**41**	(12.3)	**39**	(14.0)
Partners	Colombia	n	n	n	n	n	n	n	n
	Croatia	c	c	c	c	c	c	c	c
	Latvia	n	n	n	n	n	n	n	n
	Russian Federation	n	n	n	n	n	n	n	n
	Shanghai-China	-13	(19.4)	c	c	**-27**	(13.3)	-13	(21.1)

1. ESCS refers to the *PISA index of economic, social and cultural status*.
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 3/3]

Performance in financial literacy, by students' spending behaviour

Results based on students' self-reports to the question "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?"

Table VI.4.13

		Financial literacy score-point difference with respect to "Buy it with money that really should be used for something else" - AFTER accounting for ESCS[1] and attitudes							
		Try to borrow money from a family member		Try to borrow money from a friend		Save up to buy it		Not buy it	
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	Australia	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	c	c	c	c	c	c	c	c
	Czech Republic	c	c	c	c	c	c	c	c
	Estonia	n	n	n	n	n	n	n	n
	France	n	n	n	n	n	n	n	n
	Israel	c	c	c	c	c	c	c	c
	Italy	**54**	(19.2)	-27	(26.3)	**46**	(17.7)	**40**	(19.0)
	New Zealand	n	n	n	n	n	n	n	n
	Poland	44	(26.8)	c	c	20	(24.2)	29	(25.0)
	Slovak Republic	n	n	n	n	n	n	n	n
	Slovenia	**57**	(21.6)	c	c	**49**	(21.9)	50	(26.5)
	Spain	c	c	c	c	c	c	c	c
	United States	n	n	n	n	n	n	n	n
	OECD average-13*	**51**	(13.1)	-27	(26.3)	**38**	(12.4)	**39**	(13.7)
Partners	Colombia	n	n	n	n	n	n	n	n
	Croatia	c	c	c	c	c	c	c	c
	Latvia	n	n	n	n	n	n	n	n
	Russian Federation	n	n	n	n	n	n	n	n
	Shanghai-China	-15	(19.8)	c	c	**-33**	(14.2)	-10	(20.0)

1. ESCS refers to the *PISA index of economic, social and cultural status*.
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 1/2]

Students' spending behaviour, by gender

Results based on students' self-reports to the question "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?"

Table VI.4.14

		Buy it with money that really should be used for something else						Try to borrow money from a family member						Try to borrow money from a friend					
		Boys		Girls		Difference (B-G)		Boys		Girls		Difference (B-G)		Boys		Girls		Difference (B-G)	
		%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Czech Republic	3.1	(1.1)	6.2	(2.0)	-3.1	(2.4)	13.9	(2.6)	17.8	(2.8)	-3.9	(3.7)	2.0	(0.9)	0.4	(0.4)	1.6	(0.9)
	Estonia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	France	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Israel	5.2	(1.7)	3.3	(1.2)	1.9	(2.1)	19.4	(3.4)	24.9	(3.1)	-5.5	(4.8)	1.6	(0.8)	0.0	c	**1.6**	(0.8)
	Italy	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	New Zealand	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Poland	8.5	(2.0)	10.5	(2.0)	-2.0	(2.8)	13.2	(2.3)	13.5	(2.2)	-0.4	(3.0)	1.6	(0.8)	1.0	(0.7)	0.6	(1.0)
	Slovak Republic	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovenia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Spain	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	United States	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	OECD average-13*	5.6	(0.9)	6.6	(1.0)	-1.1	(1.4)	15.5	(1.6)	18.8	(1.6)	-3.2	(2.3)	1.7	(0.5)	0.5	(0.3)	**1.3**	(0.5)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	4.2	(1.2)	3.4	(1.2)	0.8	(1.6)	13.5	(2.2)	11.4	(1.9)	2.0	(3.2)	1.7	(0.8)	0.4	(0.4)	1.3	(0.9)
	Latvia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Russian Federation	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Shanghai-China	9.4	(1.5)	5.1	(1.5)	**4.3**	(2.2)	11.1	(1.9)	9.0	(1.6)	2.1	(2.4)	5.6	(1.1)	0.4	(0.4)	**5.2**	(1.2)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 2/2]

Students' spending behaviour, by gender

Results based on students' self-reports to the question "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?"

Table VI.4.14

		Save up to buy it						Not buy it					
		Boys		Girls		Difference (B-G)		Boys		Girls		Difference (B-G)	
		%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	n	n	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	n	n	n	n	n	n	n	n	n	n	n	n
	Czech Republic	68.8	(3.6)	65.2	(3.7)	3.7	(5.0)	12.2	(2.3)	10.4	(2.3)	1.8	(3.3)
	Estonia	n	n	n	n	n	n	n	n	n	n	n	n
	France	n	n	n	n	n	n	n	n	n	n	n	n
	Israel	62.6	(3.9)	58.7	(3.3)	3.8	(5.2)	11.2	(2.1)	13.1	(2.1)	-1.9	(3.0)
	Italy	n	n	n	n	n	n	n	n	n	n	n	n
	New Zealand	n	n	n	n	n	n	n	n	n	n	n	n
	Poland	65.3	(3.6)	62.8	(3.3)	2.6	(4.6)	11.4	(1.9)	12.2	(1.7)	-0.8	(2.5)
	Slovak Republic	n	n	n	n	n	n	n	n	n	n	n	n
	Slovenia	n	n	n	n	n	n	n	n	n	n	n	n
	Spain	n	n	n	n	n	n	n	n	n	n	n	n
	United States	n	n	n	n	n	n	n	n	n	n	n	n
	OECD average-13*	65.6	(2.1)	62.2	(2.0)	3.4	(2.9)	11.6	(1.2)	11.9	(1.2)	-0.3	(1.7)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	73.3	(3.0)	76.6	(2.7)	-3.3	(4.0)	7.3	(1.8)	8.1	(2.1)	-0.8	(2.8)
	Latvia	n	n	n	n	n	n	n	n	n	n	n	n
	Russian Federation	n	n	n	n	n	n	n	n	n	n	n	n
	Shanghai-China	65.6	(2.8)	75.0	(2.7)	**-9.4**	(3.4)	8.3	(1.4)	10.5	(1.8)	-2.2	(2.2)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 1/2]

Students' spending behaviour, by socio-economic status

Table VI.4.15 *Results based on students' self-reports to the question "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?"*

		Buy it with money that really should be used for something else						Try to borrow money from a family member						Try to borrow money from a friend					
		Top quartile of ESCS[1]		Bottom quartile of ESCS		Difference (Top - bottom quartiles)		Top quartile of ESCS		Bottom quartile of ESCS		Difference (Top - bottom quartiles)		Top quartile of ESCS		Bottom quartile of ESCS		Difference (Top - bottom quartiles)	
		%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Czech Republic	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Estonia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	France	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Israel	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Italy	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	New Zealand	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Poland	13.1	(3.4)	3.7	(2.1)	**9.4**	(4.0)	17.2	(3.9)	11.2	(2.8)	6.0	(4.8)	1.6	(1.4)	0.9	(0.9)	0.7	(1.7)
	Slovak Republic	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovenia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Spain	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	United States	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	OECD average-13*	13.1	(3.4)	3.7	(2.1)	**9.4**	(4.0)	17.2	(3.9)	11.2	(2.8)	6.0	(4.8)	1.6	(1.4)	0.9	(0.9)	0.7	(1.7)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Latvia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Russian Federation	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Shanghai-China	15.4	(3.5)	6.5	(2.2)	**9.0**	(4.3)	14.7	(3.0)	3.8	(1.5)	**10.9**	(3.2)	0.8	(0.6)	3.2	(1.5)	-2.4	(1.6)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status*.
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 2/2]

Students' spending behaviour, by socio-economic status

Table VI.4.15 *Results based on students' self-reports to the question "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?"*

		Save up to buy it						Not buy it					
		Top quartile of ESCS		Bottom quartile of ESCS		Difference (Top - bottom quartiles)		Top quartile of ESCS		Bottom quartile of ESCS		Difference (Top - bottom quartiles)	
		%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	n	n	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	n	n	n	n	n	n	n	n	n	n	n	n
	Czech Republic	n	n	n	n	n	n	n	n	n	n	n	n
	Estonia	n	n	n	n	n	n	n	n	n	n	n	n
	France	n	n	n	n	n	n	n	n	n	n	n	n
	Israel	n	n	n	n	n	n	n	n	n	n	n	n
	Italy	n	n	n	n	n	n	n	n	n	n	n	n
	New Zealand	n	n	n	n	n	n	n	n	n	n	n	n
	Poland	55.9	(4.9)	63.0	(4.2)	-7.1	(5.9)	12.1	(3.2)	21.2	(3.0)	**-9.1**	(4.4)
	Slovak Republic	n	n	n	n	n	n	n	n	n	n	n	n
	Slovenia	n	n	n	n	n	n	n	n	n	n	n	n
	Spain	n	n	n	n	n	n	n	n	n	n	n	n
	United States	n	n	n	n	n	n	n	n	n	n	n	n
	OECD average-13*	55.9	(4.9)	63.0	(4.2)	-7.1	(5.9)	12.1	(3.2)	21.2	(3.0)	**-9.1**	(4.4)
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	n	n	n	n	n	n	n	n	n	n	n	n
	Latvia	n	n	n	n	n	n	n	n	n	n	n	n
	Russian Federation	n	n	n	n	n	n	n	n	n	n	n	n
	Shanghai-China	62.7	(4.6)	76.5	(3.1)	**-13.8**	(5.4)	6.4	(2.4)	10.1	(2.7)	-3.7	(3.8)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status*.
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 1/1]

Students' saving behaviour

Table VI.4.16 *Results based on students' self-reports*

		Percentage of students											
		I save the same amount of money each week or month		I save some money each week or month, but the amount varies		I save money only when I have some to spare		I save money only when I want to buy something		I do not save any money		I have no money so I do not save	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
OECD	Australia	n	n	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	n	n	n	n	n	n	n	n	n	n	n	n
	Czech Republic	n	n	n	n	n	n	n	n	n	n	n	n
	Estonia	n	n	n	n	n	n	n	n	n	n	n	n
	France	n	n	n	n	n	n	n	n	n	n	n	n
	Israel	n	n	n	n	n	n	n	n	n	n	n	n
	Italy	n	n	n	n	n	n	n	n	n	n	n	n
	New Zealand	n	n	n	n	n	n	n	n	n	n	n	n
	Poland	n	n	n	n	n	n	n	n	n	n	n	n
	Slovak Republic	n	n	n	n	n	n	n	n	n	n	n	n
	Slovenia	n	n	n	n	n	n	n	n	n	n	n	n
	Spain	n	n	n	n	n	n	n	n	n	n	n	n
	United States	n	n	n	n	n	n	n	n	n	n	n	n
	OECD average-13*	n	n	n	n	n	n	n	n	n	n	n	n
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	n	n	n	n	n	n	n	n	n	n	n	n
	Latvia	n	n	n	n	n	n	n	n	n	n	n	n
	Russian Federation	n	n	n	n	n	n	n	n	n	n	n	n
	Shanghai-China	18.5	(1.6)	37.9	(2.0)	17.3	(1.8)	15.5	(1.5)	7.7	(1.0)	3.0	(0.7)

* The OECD average-13 is computed on the countries and economies with available data.

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[Part 1/2]

Performance in financial literacy, by students' saving behaviour, before and after accounting for socio-economic status

Table VI.4.17 *Results based on students' self-reports*

		Financial literacy, by saving behaviour											
		I save the same amount of money each week or month		I save some money each week or month, but the amount varies		I save money only when I have some to spare		I save money only when I want to buy something		I do not save any money		I have no money so I do not save	
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	Australia	n	n	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	n	n	n	n	n	n	n	n	n	n	n	n
	Czech Republic	n	n	n	n	n	n	n	n	n	n	n	n
	Estonia	n	n	n	n	n	n	n	n	n	n	n	n
	France	n	n	n	n	n	n	n	n	n	n	n	n
	Israel	n	n	n	n	n	n	n	n	n	n	n	n
	Italy	n	n	n	n	n	n	n	n	n	n	n	n
	New Zealand	n	n	n	n	n	n	n	n	n	n	n	n
	Poland	n	n	n	n	n	n	n	n	n	n	n	n
	Slovak Republic	n	n	n	n	n	n	n	n	n	n	n	n
	Slovenia	n	n	n	n	n	n	n	n	n	n	n	n
	Spain	n	n	n	n	n	n	n	n	n	n	n	n
	United States	n	n	n	n	n	n	n	n	n	n	n	n
	OECD average-13*	n	n	n	n	n	n	n	n	n	n	n	n
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	n	n	n	n	n	n	n	n	n	n	n	n
	Latvia	n	n	n	n	n	n	n	n	n	n	n	n
	Russian Federation	n	n	n	n	n	n	n	n	n	n	n	n
	Shanghai-China	609	(7.4)	617	(5.6)	616	(7.5)	577	(9.8)	584	(17.5)	c	c

Note: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* were available.

* The OECD average-13 is computed on the countries and economies with available data.

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[Part 2/2]

Performance in financial literacy, by students' saving behaviour, before and after accounting for socio-economic status

Table VI.4.17 *Results based on students' self-reports*

		Financial literacy, by saving behaviour, after accounting for socio-economic status											
		I save the same amount of money each week or month		I save some money each week or month, but the amount varies		I save money only when I have some to spare		I save money only when I want to buy something		I do not save any money		I have no money so I do not save	
		Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.	Mean score	S.E.
OECD	Australia	n	n	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	n	n	n	n	n	n	n	n	n	n	n	n
	Czech Republic	n	n	n	n	n	n	n	n	n	n	n	n
	Estonia	n	n	n	n	n	n	n	n	n	n	n	n
	France	n	n	n	n	n	n	n	n	n	n	n	n
	Israel	n	n	n	n	n	n	n	n	n	n	n	n
	Italy	n	n	n	n	n	n	n	n	n	n	n	n
	New Zealand	n	n	n	n	n	n	n	n	n	n	n	n
	Poland	n	n	n	n	n	n	n	n	n	n	n	n
	Slovak Republic	n	n	n	n	n	n	n	n	n	n	n	n
	Slovenia	n	n	n	n	n	n	n	n	n	n	n	n
	Spain	n	n	n	n	n	n	n	n	n	n	n	n
	United States	n	n	n	n	n	n	n	n	n	n	n	n
	OECD average-13*	n	n	n	n	n	n	n	n	n	n	n	n
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	n	n	n	n	n	n	n	n	n	n	n	n
	Latvia	n	n	n	n	n	n	n	n	n	n	n	n
	Russian Federation	n	n	n	n	n	n	n	n	n	n	n	n
	Shanghai-China	613	(7.4)	623	(6.2)	631	(7.0)	595	(12.5)	601	(13.9)	c	c

Note: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* were available.
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 1/1]

Performance in financial literacy, by students' saving behaviour, before and after accounting for socio-economic status and attitudes

Table VI.4.18 *Results based on students' self-reports*

	Score-point difference in financial literacy, by saving behaviour, in Shanghai-China											
	I save the same amount of money each week or month		I save some money each week or month, but the amount varies		I save money only when I have some to spare		I save money only when I want to buy something		I do not save any money		I have no money so I do not save	
	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.
	Score-point difference in financial literacy between each saving category and category "I do not save any money"											
Before accounting for socio-economic status	25	(18.8)	33	(18.6)	33	(19.0)	-7	(19.9)	Comparison cat.		31	(27.0)
After accounting for socio-economic status	19	(16.6)	29	(16.5)	**33**	(16.5)	1	(18.0)	Comparison cat.		30	(26.5)
	Score-point difference in financial literacy between each saving category and category "I save money only when I want to buy something"											
Before accounting for socio-economic status	**32**	(12.5)	**40**	(10.9)	**40**	(12.2)	Comparison cat.		7	(19.9)	38	(23.8)
After accounting for socio-economic status	18	(12.2)	**28**	(10.0)	**32**	(11.2)	Comparison cat.		-1	(18.0)	28	(24.0)

Note: This table was calculated considering only students for whom data on the *PISA index of economic, social and cultural status* were available. Values that are statistically significant are indicated in bold (see Annex A3).

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[Part 1/2]

Table VI.4.19 Students' saving behaviour, by gender
Results based on students' self-reports

		I save the same amount of money each week or month						I save some money each week or month, but the amount varies						I save money only when I have some to spare					
		Boys		Girls		Difference (B-G)		Boys		Girls		Difference (B-G)		Boys		Girls		Difference (B-G)	
		%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Czech Republic	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Estonia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	France	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Israel	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Italy	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	New Zealand	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Poland	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovak Republic	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovenia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Spain	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	United States	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	OECD average-13*	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Latvia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Russian Federation	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Shanghai-China	19.0	(2.6)	18.2	(2.1)	0.9	(3.3)	36.2	(2.4)	39.3	(2.8)	-3.0	(3.3)	14.9	(2.1)	19.3	(2.8)	-4.3	(3.4)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* The OECD average-13 is computed on the countries and economies with available data.
StatLink http://dx.doi.org/10.1787/888933095020

[Part 2/2]

Table VI.4.19 Students' saving behaviour, by gender
Results based on students' self-reports

		I save money only when I want to buy something						I do not save any money						I have no money so I do not save					
		Boys		Girls		Difference (B-G)		Boys		Girls		Difference (B-G)		Boys		Girls		Difference (B-G)	
		%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Czech Republic	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Estonia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	France	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Israel	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Italy	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	New Zealand	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Poland	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovak Republic	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovenia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Spain	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	United States	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	OECD average-13*	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Latvia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Russian Federation	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Shanghai-China	15.9	(2.3)	15.2	(1.9)	0.7	(3.0)	10.5	(1.7)	5.5	(1.2)	**5.0**	(2.2)	3.4	(1.0)	2.6	(0.9)	0.8	(1.3)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
* The OECD average-13 is computed on the countries and economies with available data.
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[Part 1/2]

Students' saving behaviour, by socio-economic status

Table VI.4.20 *Results based on students' self-reports*

		I save the same amount of money each week or month						I save some money each week or month, but the amount varies						I save money only when I have some to spare					
		Top quartile of ESCS[1]		Bottom quartile of ESCS		Difference (top - bottom quartiles)		Top quartile of ESCS		Bottom quartile of ESCS		Difference (top - bottom quartiles)		Top quartile of ESCS		Bottom quartile of ESCS		Difference (top - bottom quartiles)	
		%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Czech Republic	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Estonia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	France	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Israel	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Italy	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	New Zealand	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Poland	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovak Republic	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovenia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Spain	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	United States	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	OECD average-13*	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Latvia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Russian Federation	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Shanghai-China	22.0	(3.2)	15.2	(3.0)	6.9	(4.5)	43.1	(4.3)	32.5	(3.6)	**10.6**	(5.2)	15.2	(2.6)	18.9	(3.3)	-3.6	(3.8)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status*.
* The OECD average-13 is computed on the countries and economies with available data.

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[Part 2/2]

Students' saving behaviour, by socio-economic status

Table VI.4.20 *Results based on students' self-reports*

		I save money only when I want to buy something						I do not save any money						I have no money so I do not save					
		Top quartile of ESCS[1]		Bottom quartile of ESCS		Difference (top - bottom quartiles)		Top quartile of ESCS		Bottom quartile of ESCS		Difference (top - bottom quartiles)		Top quartile of ESCS		Bottom quartile of ESCS		Difference (top - bottom quartiles)	
		%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.	%	S.E.	%	S.E.	% dif.	S.E.
OECD	Australia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Flemish Community (Belgium)	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Czech Republic	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Estonia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	France	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Israel	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Italy	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	New Zealand	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Poland	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovak Republic	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Slovenia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Spain	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	United States	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	OECD average-13*	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Partners	Colombia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Croatia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Latvia	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Russian Federation	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
	Shanghai-China	8.5	(2.3)	24.1	(3.2)	**-15.5**	(3.9)	8.0	(2.0)	6.9	(1.8)	1.1	(3.0)	3.1	(1.5)	2.5	(1.3)	0.6	(2.1)

Note: Values that are statistically significant are indicated in bold (see Annex A3).
1. ESCS refers to the *PISA index of economic, social and cultural status*.
* The OECD average-13 is computed on the countries and economies with available data.

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Annex C

THE DEVELOPMENT AND IMPLEMENTATION OF PISA – A COLLABORATIVE EFFORT

PISA is a collaborative effort, bringing together experts from the participating countries, steered jointly by their governments on the basis of shared, policy-driven interests.

A PISA Governing Board, on which each country is represented, determines the policy priorities for PISA, in the context of OECD objectives, and oversees adherence to these priorities during the implementation of the programme. This includes setting priorities for the development of indicators, for establishing the assessment instruments, and for reporting the results.

Experts from participating countries also serve on working groups that are charged with linking policy objectives with the best internationally available technical expertise. By participating in these expert groups, countries ensure that the instruments are internationally valid and take into account the cultural and educational contexts in OECD member and partner countries and economies, that the assessment materials have strong measurement properties, and that the instruments place emphasise authenticity and educational validity.

Through National Project Managers, participating countries and economies implement PISA at the national level subject to the agreed administration procedures. National Project Managers play a vital role in ensuring that the implementation of the survey is of high quality, and verify and evaluate the survey results, analyses, reports and publications.

The design and implementation of the surveys, within the framework established by the PISA Governing Board, is the responsibility of external contractors. For PISA 2012, the development and implementation of the cognitive assessment and questionnaires, and of the international options, was carried out by a consortium led by the Australian Council for Educational Research (ACER). Other partners in this Consortium include cApStAn Linguistic Quality Control in Belgium, the Centre de Recherche Public Henri Tudor (CRP-HT) in Luxembourg, the Department of Teacher Education and School Research (ILS) at the University of Oslo in Norway, the Deutsches Institut für Internationale Pädagogische Forschung (DIPF) in Germany, the Educational Testing Service (ETS) in the United States, the Leibniz Institute for Science and Mathematics Education (IPN) in Germany, the National Institute for Educational Policy Research in Japan (NIER), the Unité d'analyse des systèmes et des pratiques d'enseignement (aSPe) at the University of Liège in Belgium, and WESTAT in the United States, as well as individual consultants from several countries. ACER also collaborated with Achieve, Inc. in the United States to develop the mathematics framework for PISA 2012.

The OECD Secretariat has overall managerial responsibility for the programme, monitors its implementation daily, acts as the secretariat for the PISA Governing Board, builds consensus among countries and serves as the interlocutor between the PISA Governing Board and the international Consortium charged with implementing the activities. The OECD Secretariat also produces the indicators and analyses and prepares the international reports and publications in co-operation with the PISA Consortium and in close consultation with member and partner countries and economies both at the policy level (PISA Governing Board) and at the level of implementation (National Project Managers).

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PISA 2012 Results: Students and Money

FINANCIAL LITERACY SKILLS FOR THE 21ST CENTURY

VOLUME VI

The OECD Programme for International Student Assessment (PISA) examines not just what students know in mathematics, reading and science, but what they can do with what they know. This is one of six volumes that present the results of the 2012 PISA survey, the fifth round of the triennial assessment.

Volume I, *What Students Know and Can Do: Student Performance in Mathematics, Reading and Science,* summarises the performance of students in PISA 2012.

Volume II, *Excellence through Equity: Giving Every Student the Chance to Succeed*, defines and measures equity in education and analyses how equity in education has evolved across countries between PISA 2003 and PISA 2012.

Volume III, *Ready to Learn: Students' Engagement, Drive and Self-Beliefs*, explores students' engagement with and at school, their drive and motivation to succeed, and the beliefs they hold about themselves as mathematics learners.

Volume IV, *What Makes Schools Successful? Resources, Policies and Practices*, examines how student performance is associated with various characteristics of individual schools and school systems.

Volume V, *Creative Problem Solving: Students' Skills in Tackling Real-Life Problems*, presents student performance in the PISA 2012 assessment of problem solving, which measures students' capacity to respond to non-routine situations.

Volume VI, *Students and Money: Financial Literacy Skills for the 21st Century*, examines students' experience with and knowledge about money.

Contents of this volume

Chapter 1. The assessment of financial literacy in PISA 2012

Chapter 2. Student performance in financial literacy

Chapter 3. Relationship between financial literacy and student background

Chapter 4. Students' experience, attitudes and behaviour, and their performance in financial literacy

Chapter 5. Selected policy and practical implications of the financial literacy assessment

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