

#### PROGRAMME FOR INTERNATIONAL STUDENT ASSESSMENT (PISA) RESULTS FROM PISA 2015 FINANCIAL LITERACY

# **NETHERLANDS**

The PISA 2015 assessment of financial literacy was the second of its kind. The results show the extent to which 15-year-old students have the financial knowledge and skills needed to make a successful transition from compulsory schooling into higher education, employment or entrepreneurship. For many 15-year-olds, finance is part of everyday life, as they are already consumers of financial services, such as bank accounts, and earn money from formal or informal small jobs. As they near the end of compulsory education, students will face complex and challenging financial choices, including whether to continue with formal education and, if so, how to finance such study.

Students in the Netherlands score above the average of the 10 OECD countries and economies that were assessed in financial literacy in 2015 [Figure IV.3.2].

**Some 19% of students in the Netherlands do not reach the baseline level of proficiency (Level 2) in financial literacy** (compared to 22% on average across the 10 participating OECD countries and economies) [Table IV.3.2]. At best, these students can identify common financial products and terms, recognise the difference between needs and wants, and make simple decisions on everyday spending in contexts that they are likely to have experienced personally. For instance, students performing below Level 2 in financial literacy can, at best, answer a question like INVOICE – Question 1 (available at <a href="http://www.oecd.org/pisa/test">http://www.oecd.org/pisa/test</a>), which asks them to recognise the purpose of an everyday financial document, such as an invoice.

**Some 17% of students in the Netherlands are top performers in financial literacy** [Table IV.3.2], meaning that they are proficient at Level 5 (compared to 12% on average across the 10 participating OECD countries and economies). These students can analyse complex financial products, solve nonroutine financial problems and show an understanding of the wider financial landscape. For instance, students performing at Level 5 are able to answer a question like BANK ERROR – Question 1 (available at <a href="http://www.oecd.org/pisa/test">http://www.oecd.org/pisa/test</a>), which asks them to identify and respond appropriately to a financial scam e-mail message.

Socio-economically disadvantaged students are more than twice as likely as advantaged students to perform below Level 2 in financial literacy, after accounting for student characteristics and performance in mathematics and reading [Table IV.4.25a]. Non-immigrant students in the Netherlands score 32 points higher in financial literacy than students of similar socio-economic status who are foreign-born or have foreign-born parents [Table IV.4.18].

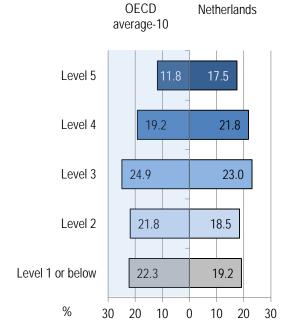
**In the Netherlands, 95% of 15-year-old students have a bank account** [Table IV.5.8], in line with the wide access to financial products and services in the population more generally (99% of 15-24 year-olds have an account at a formal financial institution) [Table IV.3.12]. Students in the Netherlands who hold a bank account score 72 points higher in financial literacy than students of similar socio-economic status who do not [Table IV.5.13].

**PISA defines financial literacy as** "...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".

For a full explanation, see the PISA 2015 Assessment and Analytical Framework.

#### Performance in financial literacy

#### Students at each level of proficiency in financial literacy



Source: OECD	PISA	2015	Datahase	Table IV 3.2

Mean performance in financial literacy							
	Mean	Range	Percentage of students				
	score	of ranks	Below Level 2	Level 5			
OECD avg-10	489		22.3	11.8			
B-S-J-G (China)	566	1 - 1	9.4	33.4			
Belgium (Flemish)	541	2 - 3	12.0	24.0			
Canadian provinces	533	2 - 3	12.7	21.8			
Russia	512	4 - 5	10.9	10.5			
Netherlands	509	4 - 6	19.2	17.5			
Australia	504	5 - 6	19.7	15.4			
United States	487	7 - 9	21.6	10.2			
Poland	485	7 - 9	20.1	8.0			
Italy	483	7 - 9	19.8	6.5			
Spain	469	10 - 10	24.7	5.6			
Lithuania	449	11 - 12	31.5	3.7			
Slovak Republic	445	11 - 12	34.7	6.3			
Chile	432	13 - 13	38.1	3.1			
Peru	403	14 - 14	48.2	1.2			
Brazil	393	15 - 15	53.3	2.6			

Source: OECD, PISA 2015 Database, Figure IV.3.3 and Table IV.3.2.

Notes: Partner countries and economies are marked in blue.

"Canadian provinces" refers to the seven provinces in Canada that participated in the PISA 2015 financial literacy assessment: British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario and Prince Edward Island. B-S-J-G (China) refers to the four PISA-participating China provinces and municipalities: Beijing, Shanghai, Jiangsu and Guangdong. Countries and economies are ranked in descending order of mean score.

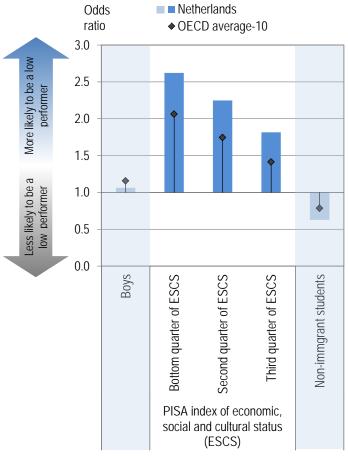
- Students in the Netherlands score above the average of the 10 OECD countries and economies that were assessed in financial literacy in 2015 [Figure IV.3.2]. With a mean score of 509 points, the Netherlands ranks between 4th and 6th among all 15 participating countries and economies [Figure IV.3.3].
- Average performance in the Netherlands in 2015 is not significantly different from the average performance in Australia and the Russian Federation [Figure IV.3.2].

# Student performance in financial literacy in comparison with performance in reading and mathematics

- In the Netherlands, financial literacy is strongly correlated with mathematics and reading performance. Around 71% of the financial literacy score reflects skills that can be measured in the mathematics and/or reading assessments (the OECD average is 62%), while 29% of the score reflects factors that are uniquely captured by the financial literacy assessment [Table IV.3.10a].
- Students in the Netherlands perform worse in financial literacy than students around the world who perform similarly in mathematics and reading [Table IV.3.11] This suggests that students could be helped in using the skills widely taught in school to attain higher levels of financial literacy.

#### How performance varies across student characteristics





*Notes*: After accounting for student characteristics and performance in mathematics and reading. Odds ratios that are statistically significant are marked in a darker tone. *Source*: OECD, PISA 2015 Database, Table IV.4.25a.

- In the Netherlands, boys and girls score at about the same level in financial literacy, on average [Table IV.4.5], but there are more boys than girls among low performers [Table IV.4.7].
- Some 10% of the variation in student performance in financial literacy in the Netherlands is associated with socioeconomic status (10% on average across OECD countries and economies) [Table IV.4.12].
- Socio-economically advantaged students (those in the highest 25% of socio-economic status) score 104 points higher in financial literacy than disadvantaged students (those in the lowest 25% of socio-economic status) (OECD average difference: 89 score points) [Table IV.4.11].
- Disadvantaged students are more than twice as likely as advantaged students to perform below Level 2 in financial literacy, after accounting for student characteristics and performance in mathematics and reading [Table IV.4.25a].
- The 25% most-advantaged students in the Netherlands perform similarly (566 score points) to students in the second quartile of socio-economic status in Beijing-Shanghai-Jiangsu-Guangdong (China) (552 score points) [Table IV.4.11].
- Some 11% of students who participated in the 2015 financial literacy assessment in the Netherlands are foreign-born or have foreign-born parents [Table IV.4.17]. Non-immigrant students in the Netherlands score 61 points higher in financial literacy than students who are foreign-born or have foreign-born parents, and 32 score points higher when considering students of similar socio-economic status [Table IV.4.18].

# Formal financial education

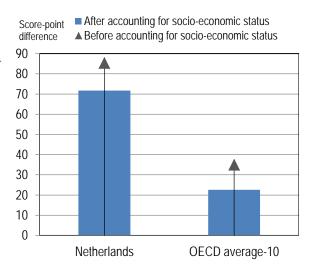
- In the Netherlands, basic financial education elements are included in primary education (calculations with money) and in secondary education (household economics).
- After 2000, an increasing number of organisations started providing additional financial education materials to schools.
- Since 2008, a co-ordinated effort has been made, within the national strategy for financial education, to collect tested teaching material through the MoneyWise website. Teachers and schools use this material on a voluntary basis.

### Students' experience with money and their financial literacy

#### **Basic financial products**

- In the Netherlands, 95% of 15-year-old students have a bank account [Table IV.5.8].
- The prevalence of holding a basic financial product is in line with the wide access to financial products and services in the population more generally (99.1% of 15-24 year-olds and 99.6% of 25-64 year-olds have an account at a formal financial institution) [Table IV.3.12].
- Students in the Netherlands who hold a bank account score 85 points higher in financial literacy than students who do not, and 72 points higher after accounting for socio-economic status [Table IV.5.13].
- In the Netherlands, students who work outside school hours (e.g. a holiday job, part-time work) and who receive gifts of money are more likely to hold a bank account than students who do not receive money from these sources [Table IV.5.11].

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



Note: All differences in this figure are statistically significant. Source: OECD, PISA 2015 Database, Figure IV.5.5.

#### Money sources

- Some 89% of students in the Netherlands receive gifts of money from friends or relatives, 74% receive pocket money, 53% earn money from working outside school hours (e.g. a holiday job or part-time work) and 47% earn money from occasional informal jobs, such as babysitting or gardening [Table IV.5.15].
- Across all participating countries and economies, only students performing at Level 4 or above can answer a question like **PAY SLIP** Question 1 (available at <a href="http://www.oecd.org/pisa/test">http://www.oecd.org/pisa/test</a>), which asks them to identify the net salary on a pay slip.
- Socio-economically advantaged students in the Netherlands are about twice as likely as disadvantaged students to earn money from occasional informal jobs (e.g. babysitting or gardening) and 55% less likely than disadvantaged students to earn money from working outside school hours (e.g. a holiday job, part-time work) [Tables IV.5.16c and IV.5.16e].

#### Discussing money matters with parents

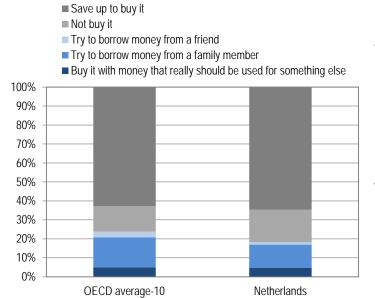
- More than eight in ten students in the Netherlands discuss money matters with their parents at least once a month [Table IV.5.1].
- In the Netherlands, discussing money matters with parents at least sometimes is associated with higher financial literacy than never discussing the subject, after accounting for students' socioeconomic status [Table IV.5.5].

# Legal framework for young people's access to financial products

- In the Netherlands, as in most countries that participated in the PISA 2015 financail literacy assessment, parents' consent is required for 15-year-olds to open and operate savings and current accounts, and to open and operate cash withdrawal/ATM cards, prepaid cards and debit cards.
- Access to credit cards is generally more restrictive than access to debit cards for people under 18.
  Credit cards are not issued to minors in the Netherlands.

## Students' financial literacy, behaviour and expectations

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?



Source: OECD, PISA 2015 Database, Figure IV.6.1.

- In the Netherlands, 65% of students reported that they would save if they want to buy something for which they do not have enough money (OECD average: 63%) [Table IV.6.1].
- Some 58% of students in the Netherlands reported that they save each week or month, 13% save only when they have money to spare, and 20% save only when they want to buy something. Few students (7%) reported that they do not save any money [Table IV.6.4].
- Top-performing students in the Netherlands are 82% more likely than low-performing students to expect to work in a high-skilled occupation when they are 30 years old, after accounting for student characteristics and performance in mathematics and reading [Figure IV.6.6].

# What results from the PISA 2015 financial literacy assessment imply for policy

From buying mobile phone credit to deciding how to spend pocket money, young people commonly take financial decisions. Fifteen-year-olds are starting to encounter situations where they need to set their spending priorities, be aware of ongoing costs, and be alert to potential scam. They will soon have to take decisions with long-term financial consequences.

The PISA 2015 financial literacy assessment highlights some general policy suggestions for all the countries and economies participating in PISA, including:

- Address the needs of low-performing students.
- Tackle socio-economic inequalities early on.
- Provide equal opportunities for learning to boys and girls.
- Help students make the most of available learning opportunities at school.
- Target parents at the same time as young people.
- Provide young people with safe opportunities to learn by experience outside of school.
- Evaluate the impact of initiatives in and outside of school.

#### What is PISA?

The Programme for International Student Assessment (PISA) is a triennial survey that assesses the readiness of 15-year-old students for life beyond compulsory education by collecting and analysing test and questionnaire data about students' knowledge, skills and the context in which they live and learn. It thus provides a comprehensive set of cross-country comparative data that policy makers and other stakeholders can use to make evidence-based decisions.

# Key features of the PISA 2015 assessment of financial literacy

The PISA 2015 assessment of financial literacy was the second of its kind. Fifteen countries and economies participated in the 2015 assessment, including 10 OECD countries and economies: Australia, the Flemish Community of Belgium, seven provinces in Canada (British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario and Prince Edward Island), Chile, Italy, the Netherlands, Poland, the Slovak Republic, Spain and the United States; and five partner countries and economies: Brazil, four provinces/municipalities in China (Beijing, Jiangsu, Guangdong), Lithuania, Peru and the Russian Federation. countries/economies participated in both the 2012 and 2015 assessments: Australia, the Flemish Community of Belgium, Italy, Poland, the Russian Federation, the Slovak Republic, Spain and the United States.

#### The assessment

- Financial literacy was assessed through a computer-based test. Students assessed in financial literacy also completed the assessments of mathematics, reading and science.
- Test questions were a mixture of multiple-choice questions and those requiring students to construct their own responses. The items were organised in groups based on a passage setting out a real-life situation. Sample items can be explored on line at <a href="http://www.oecd.org/pisa/test">http://www.oecd.org/pisa/test</a>.
- Students who sat the assessment of financial literacy also answered questions about their experience with money, as well as the PISA student questionnaire about themselves, their homes, and their school and learning experiences. School principals completed a questionnaire that covered the school system and the learning environment.

#### The students

- Among the students who participated in the core PISA 2015 assessment of science, reading and mathematics, a subsample of students was randomly selected to sit the financial literacy test. In general, about 11 students were chosen at random in each participating school to sit the financial literacy assessment; the financial literacy assessment was conducted in a separate session after the core assessment. This is different from the sample design adopted in 2012, when, in sampled schools, two separate student samples sat the financial literacy test and the core PISA assessment.
- Around 48 000 students were assessed in financial literacy in 2015, representing about 12 million 15-year-olds in the schools of the 15 participating countries and economies.
- In the Netherlands, 5 385 students completed the PISA 2015 assessment; of these, 1 365 students were assessed in financial literacy.

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Head of the Financial Affairs Division

#### Contacts:

Andreas Schleicher Director

Directorate for Education and Skills

Andreas.SCHLEICHER@oecd.org Telephone: +33 6 07 38 54 64 Telephone: +33 1 45 24 96 56

**Affairs** Flore-Anne.MESSY@oecd.org

Flore-Anne Messy

