

# PISA 2012

## Students and Money

### Financial literacy skills



PISA

9 July 2014  
Launch

29 000 of these students in 18 economies took the PISA test on **financial literacy**

- **Over half a million students...**

- representing 28 million 15-year-olds in 65 countries/economies

- **... took an internationally agreed 2-hour test...**

- Goes beyond testing whether students can reproduce what they were taught...

... to assess students' capacity to extrapolate from what they know and creatively apply their knowledge in novel situations

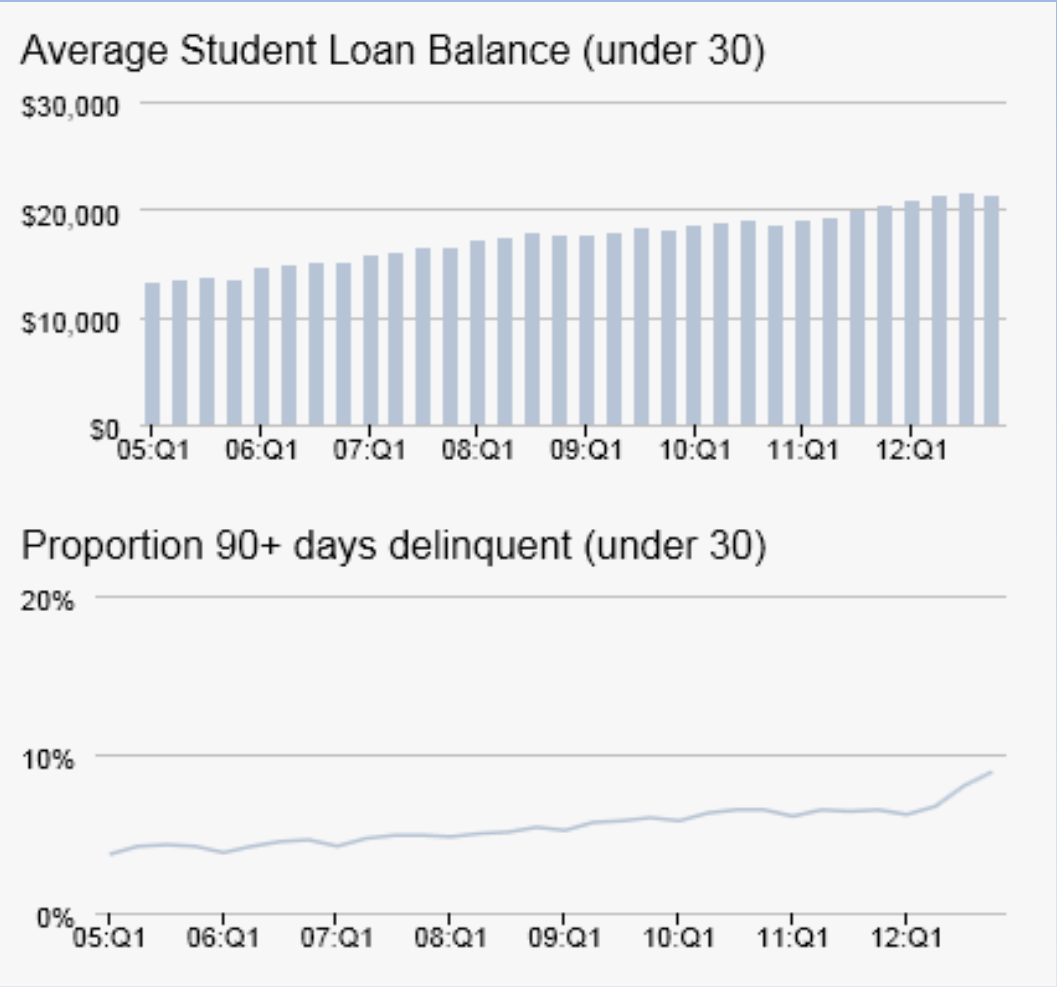
- Mathematics, reading, science, problem solving (financial literacy)

- **... and responded to questions on...**

...“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 enable participation in economic life”.

Big decisions at a young age: e.g. continuing education vs working

Shrinking welfare

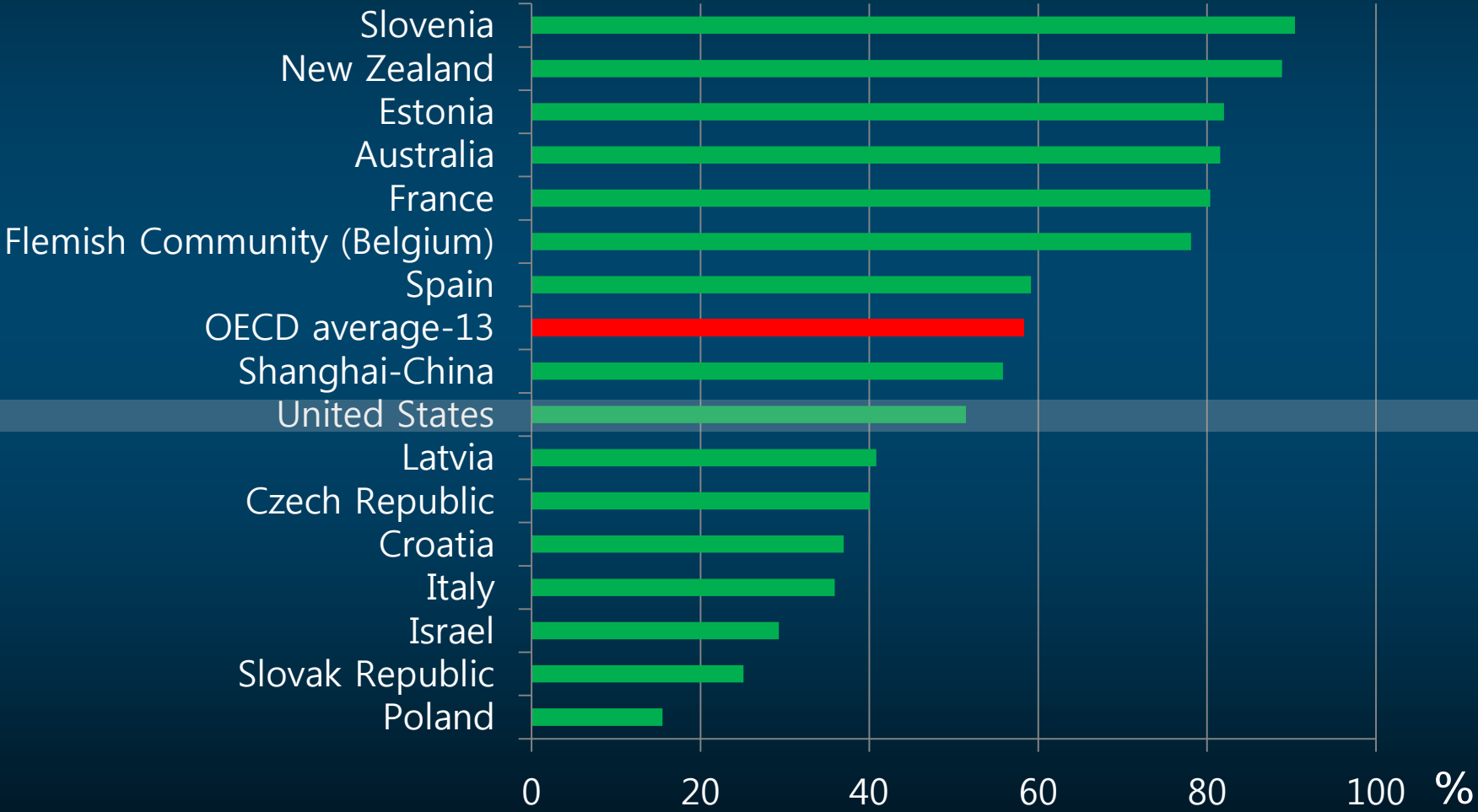


More students are enrolling into higher education.

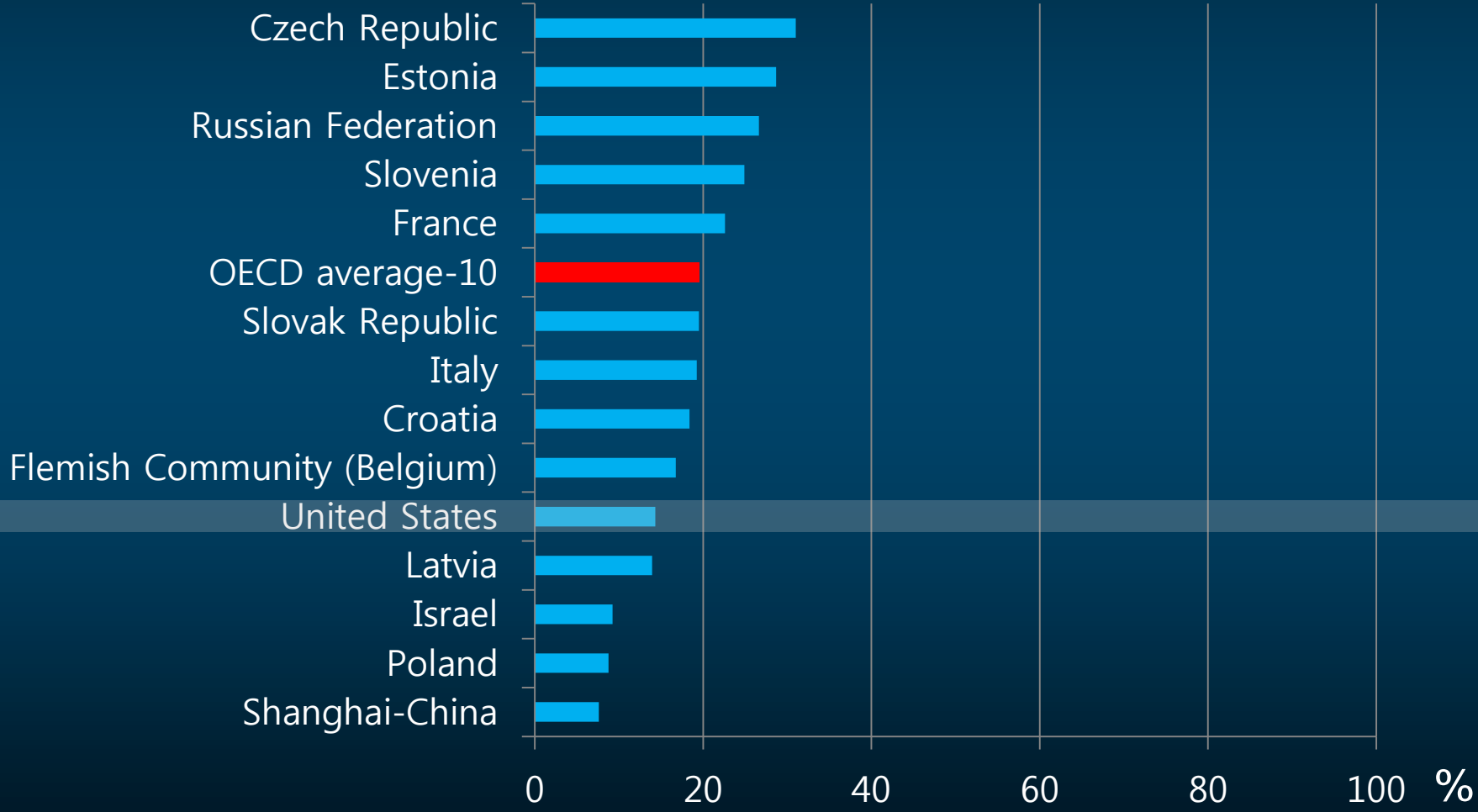
In the US young adults owed more in 2012 than before the financial crisis

And they were more likely to be falling into arrears (% of all loans- some of which are not yet in repayment phase)

## Percentage of students with a bank account



## Percentage of students with a prepaid debit card



# 8 PISA financial literacy assessment framework

## Content

- Money and transactions
- Planning and managing finances
- Risk and reward
- Financial landscape

## Processes

- Identifying financial information
- Analyse information in a financial context
- Evaluate financial issues
- Apply financial knowledge and understanding

## Contexts

- Education and work
- Home and family
- Individual
- Societal

Balance their priority and plan what to spend money on

- ...if they go to the cinema, will they still have enough money for the bus fare home? Or would it be better to buy pizza and invite friends home?

Remember that some of the purchases have ongoing costs

- ...a games console will need new games, a motorbike will need fuel and tyres and services and so on.

Being alert to possible fraud

- ...Some emails that look like they came from their bank might not be legitimate, they should know what to do if they are not sure

Knowing what risk is and what insurance is meant for

- ...If their phone gets stolen, they should ask their parents if it is covered by their household insurance

Make an informed decision about credit

- ...they should know that if they buy a computer on credit they will have to pay interest on the loan as well as paying the advertised price for the computer
- ...and they will realise that the less they repay of that loan each month, the more they will pay in interest

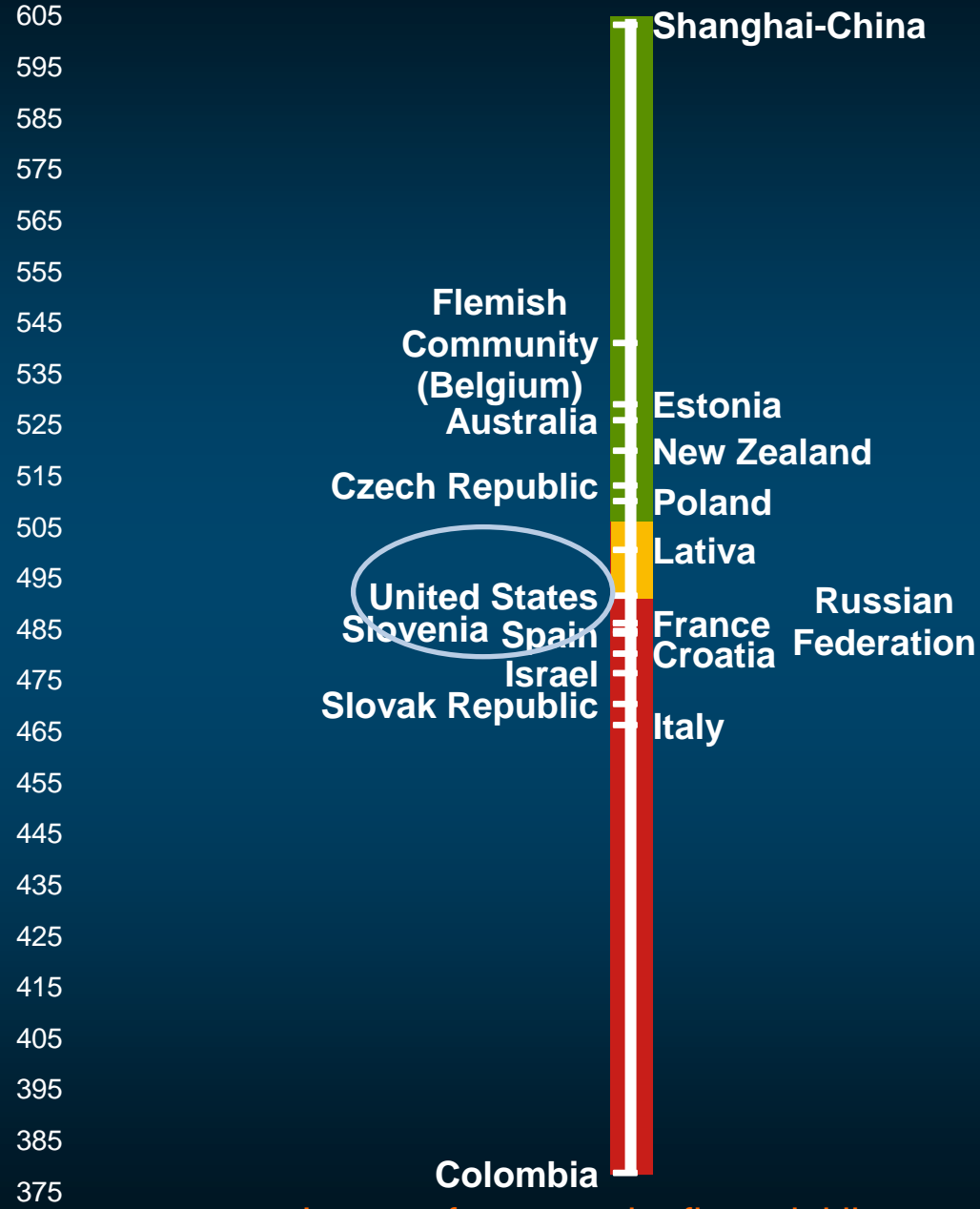
How well prepared are 15-year-olds  
to make financial decisions?



Mean score

Strong performance in financial literacy

Average performance of 15-year-olds in financial literacy  
Figure VI.2.2



Low performance in financial literacy

# Distribution of performance

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.

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.



# Distribution of performance

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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

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

Students can only 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.

18%

Level 1  
or below

2%

Baseline



**Breezy Clothing**

Sarah Johanson  
29 Worthill Rd  
Kensington  
Zedland 3122

Sara receives this invoice in the mail

Invoice  
Invoice Number: 2034  
Date issued: 28 February

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

**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.**

# Sample Question: INVOICE

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**Question 2: How much has Breezy Clothing charged for delivering the clothes?**

**Delivery charge in zeds:**

10 zeds

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

# Sample Question: INVOICE



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### Question 3:

Sara notices that Breezy Clothing made a mistake in the invoice. Sara ordered and received two T-shirts, not three. The postage fee is a fixed charged.

**What will be the total of the new invoice?**

**131 zeds**

Total Ex... is zeds  
Total In... is zeds

Total due: 153 zeds  
Date due: 31 March

## 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 for 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.

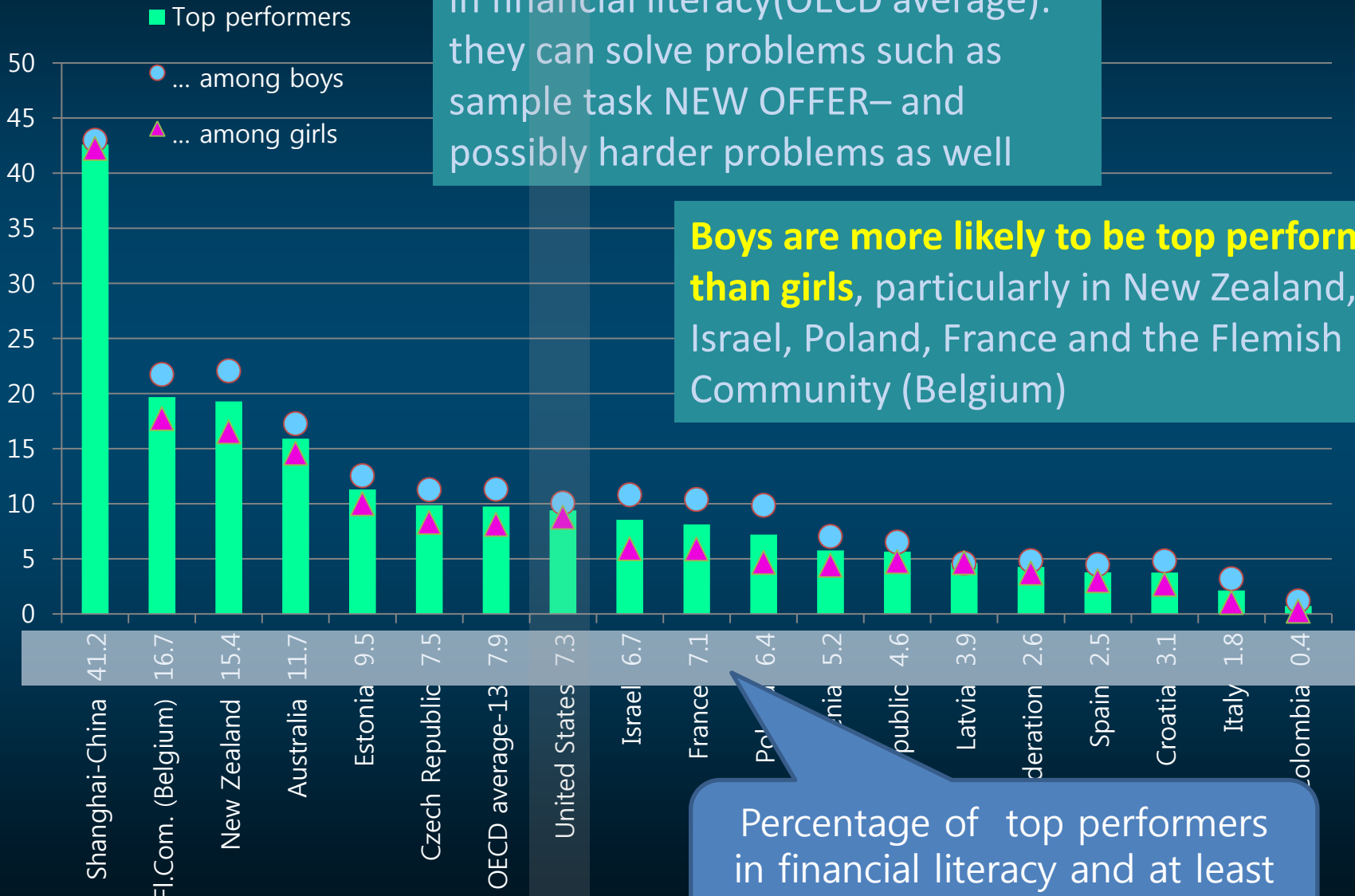
What are two other **financial** benefits for Mrs Jones if she takes the Zedbest loan?

1. She will be paying lower interests .....
2. She will have more money available .....

# Top performers in financial literacy, by gender

**9.7% of students are top performers** in financial literacy(OECD average): they can solve problems such as sample task NEW OFFER– and possibly harder problems as well

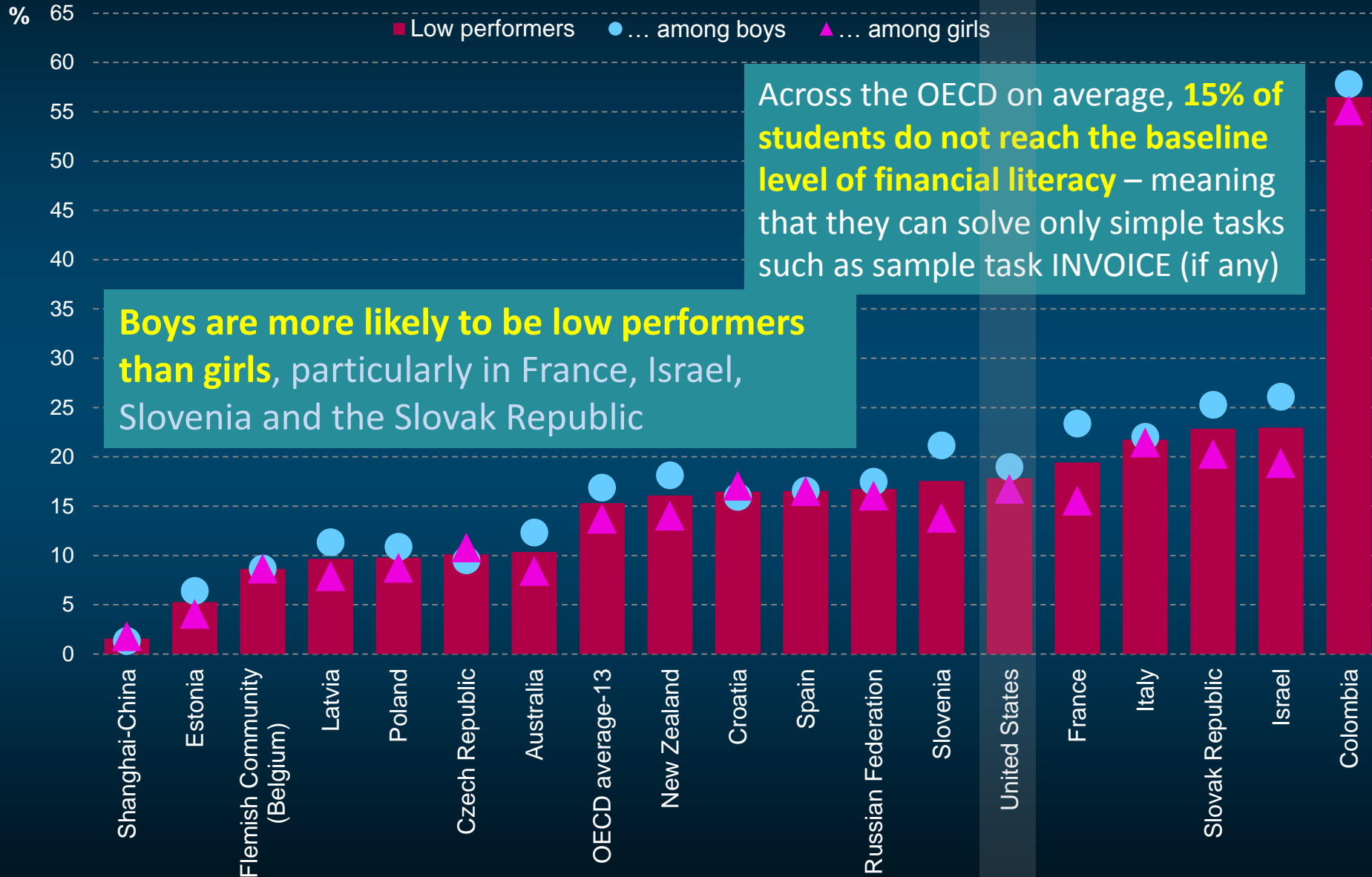
**Boys are more likely to be top performers than girls**, particularly in New Zealand, Israel, Poland, France and the Flemish Community (Belgium)



Percentage of top performers in financial literacy and at least in one other domain



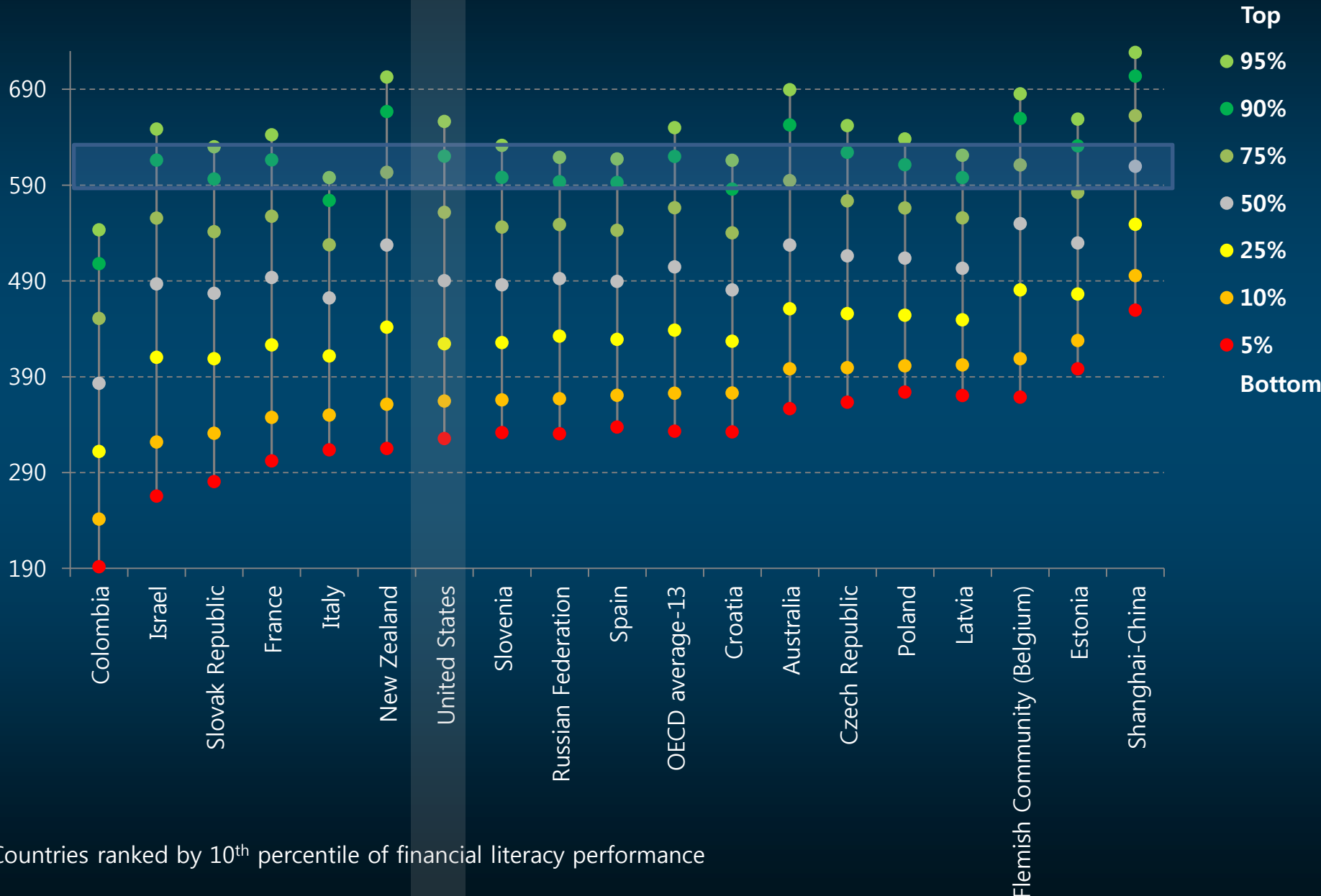
# Percentage of low-performing students in financial literacy



**Boys are more likely to be low performers than girls**, particularly in France, Israel, Slovenia and the Slovak Republic

Across the OECD on average, **15% of students do not reach the baseline level of financial literacy** – meaning that they can solve only simple tasks such as sample task INVOICE (if any)

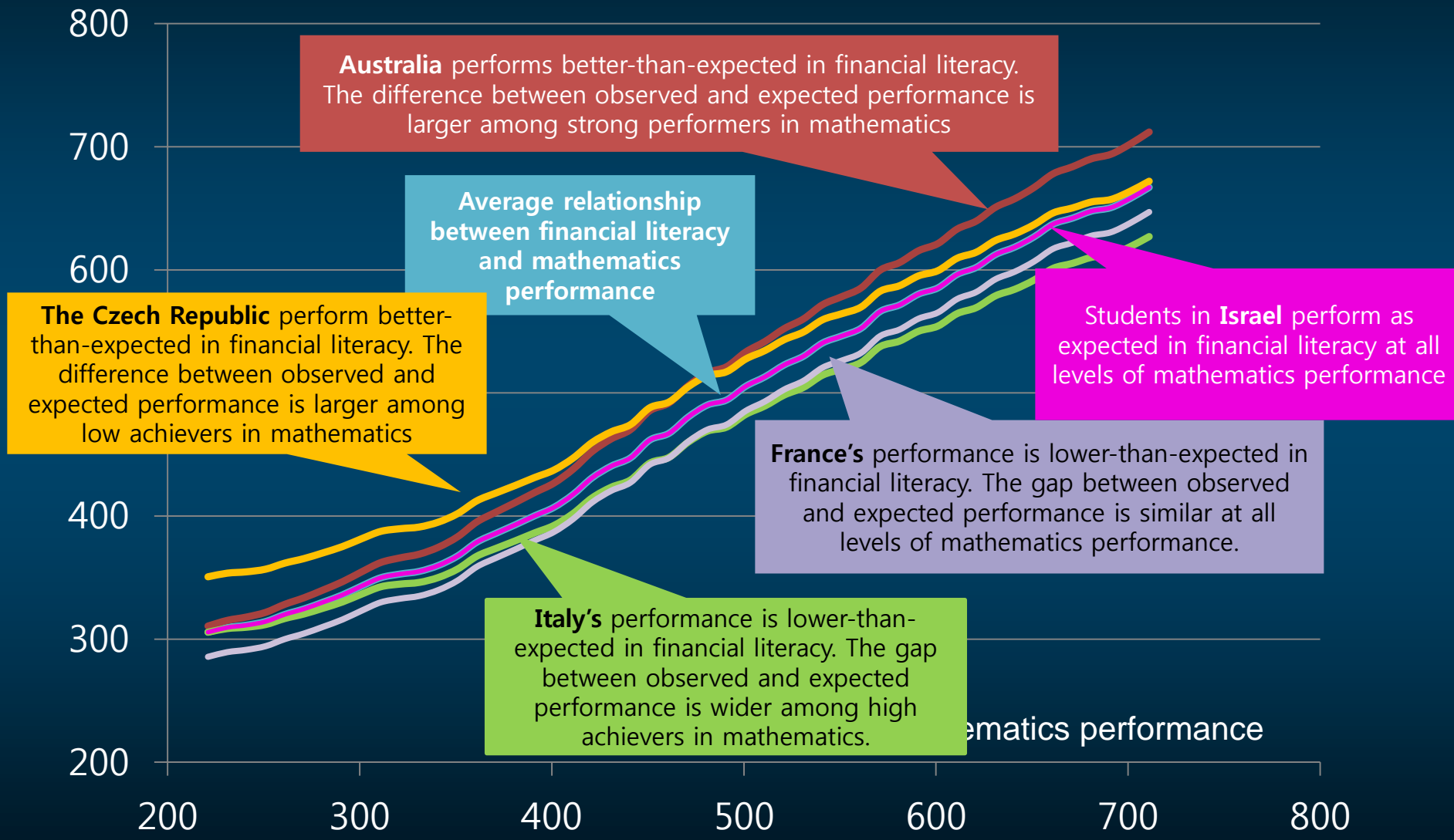
# Skill gaps within countries



How does financial literacy relate  
to other skills?

# Patterns of relative performance in financial literacy

## Financial literacy performance relative to mathematics performance



**Australia** performs better-than-expected in financial literacy. The difference between observed and expected performance is larger among strong performers in mathematics

Average relationship between financial literacy and mathematics performance

**The Czech Republic** perform better-than-expected in financial literacy. The difference between observed and expected performance is larger among low achievers in mathematics

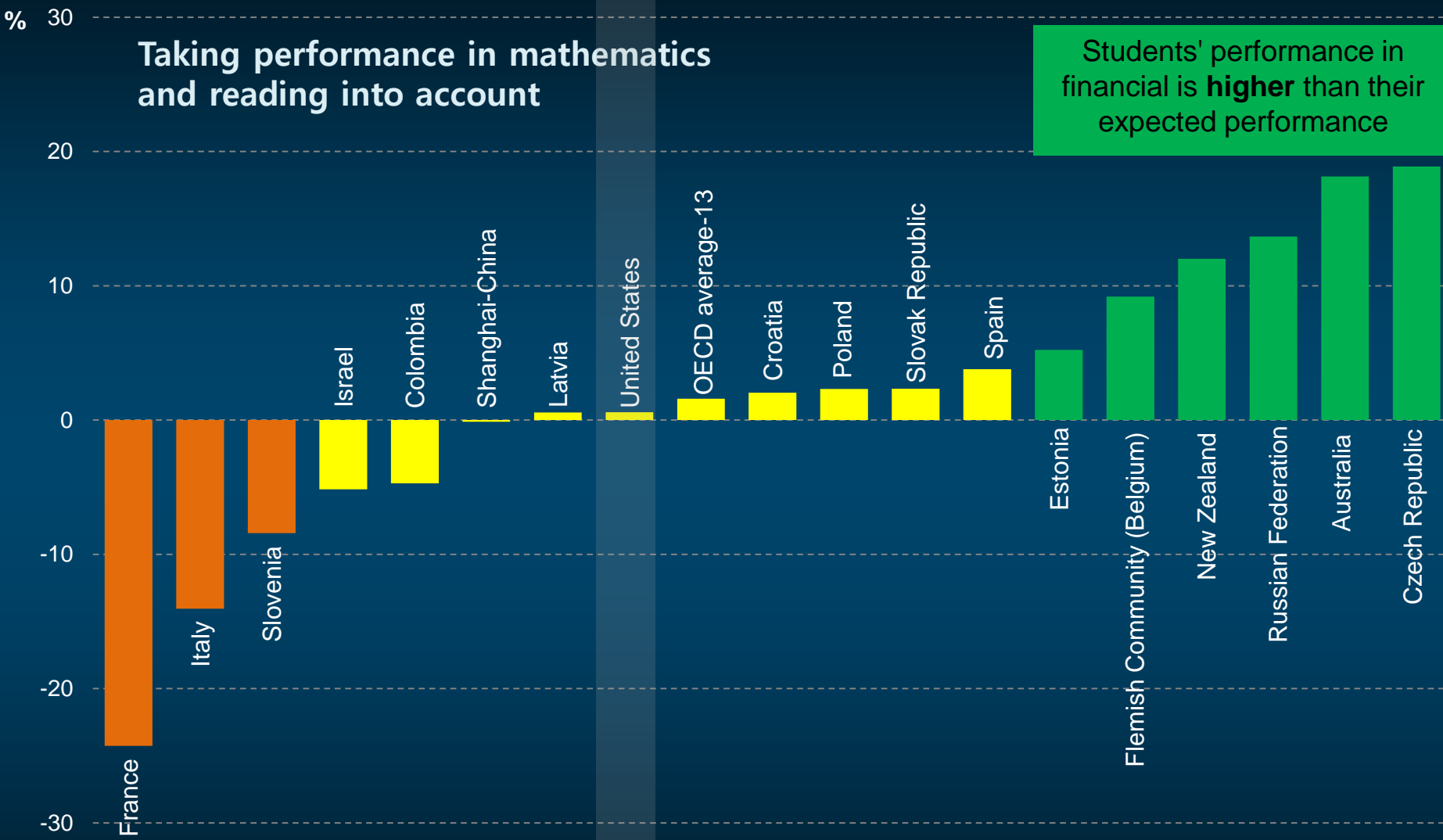
Students in **Israel** perform as expected in financial literacy at all levels of mathematics performance

**France's** performance is lower-than-expected in financial literacy. The gap between observed and expected performance is similar at all levels of mathematics performance.

**Italy's** performance is lower-than-expected in financial literacy. The gap between observed and expected performance is wider among high achievers in mathematics.

Mathematics performance

# Relative performance in financial literacy



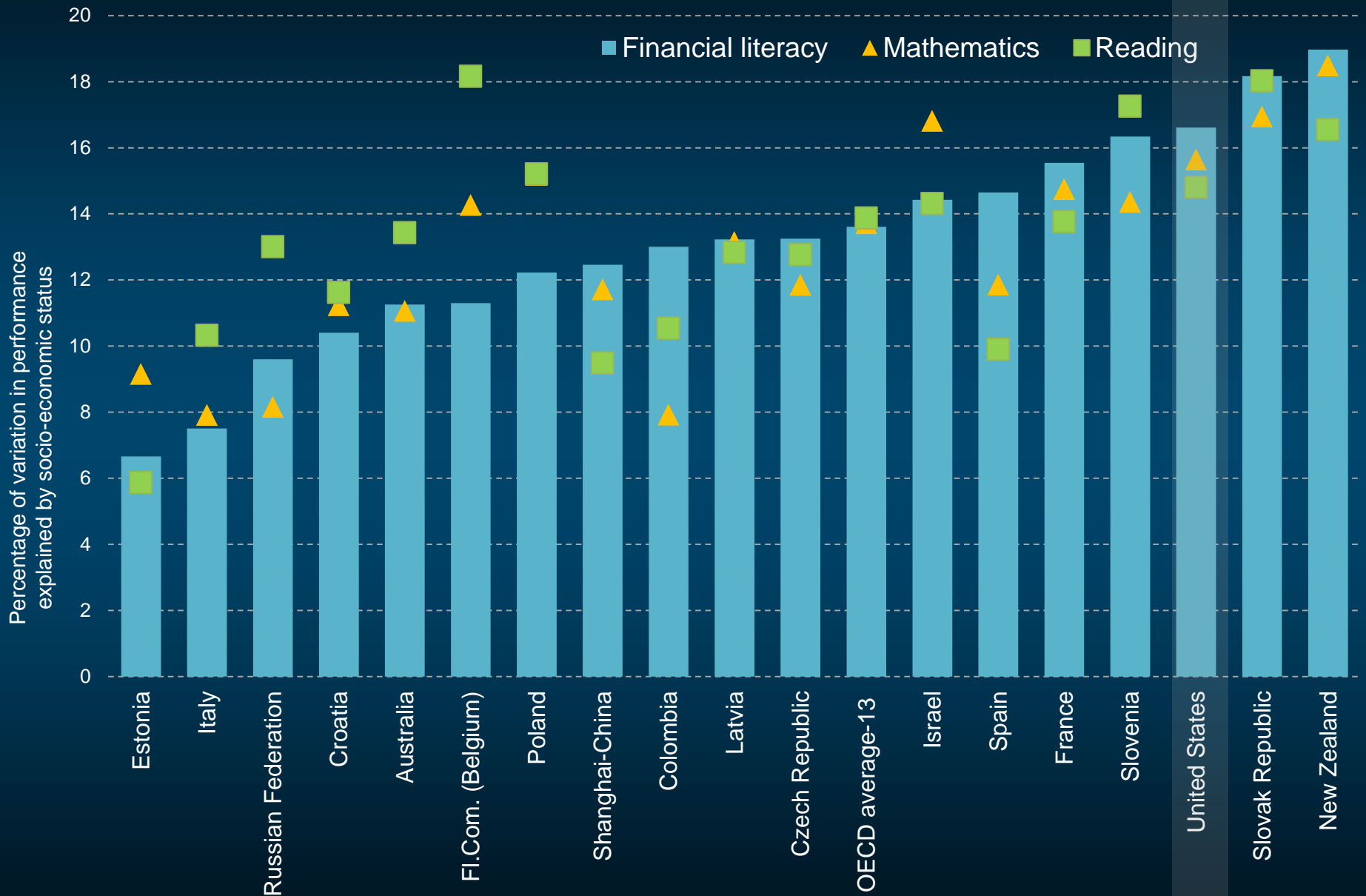
Taking performance in mathematics and reading into account

Students' performance in financial is **higher** than their expected performance

Students' performance in financial literacy is **lower** than their expected performance

How are learning opportunities distributed?

# Relationship between socio-economic status and performance in financial literacy, mathematics and reading



# What can be done to enhance financial literacy

Improving the quantity/quality of teaching of...

...financial literacy as a cross-curricular domain ?

...financial literacy education as a separate subject ?

...conceptual foundations of math ?

...applied math ?

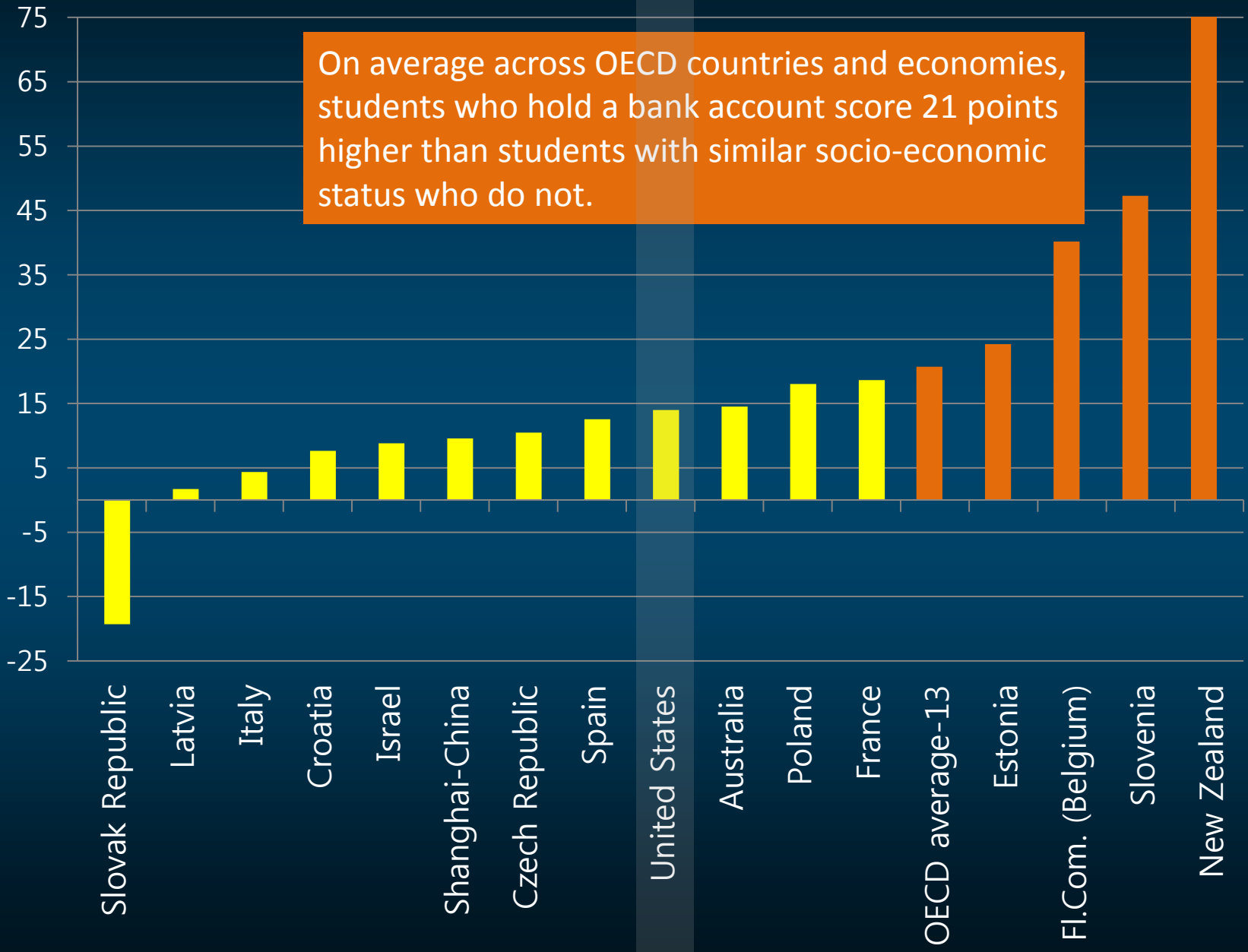
...other types of education?

...or is it all about out-of-school experiences?

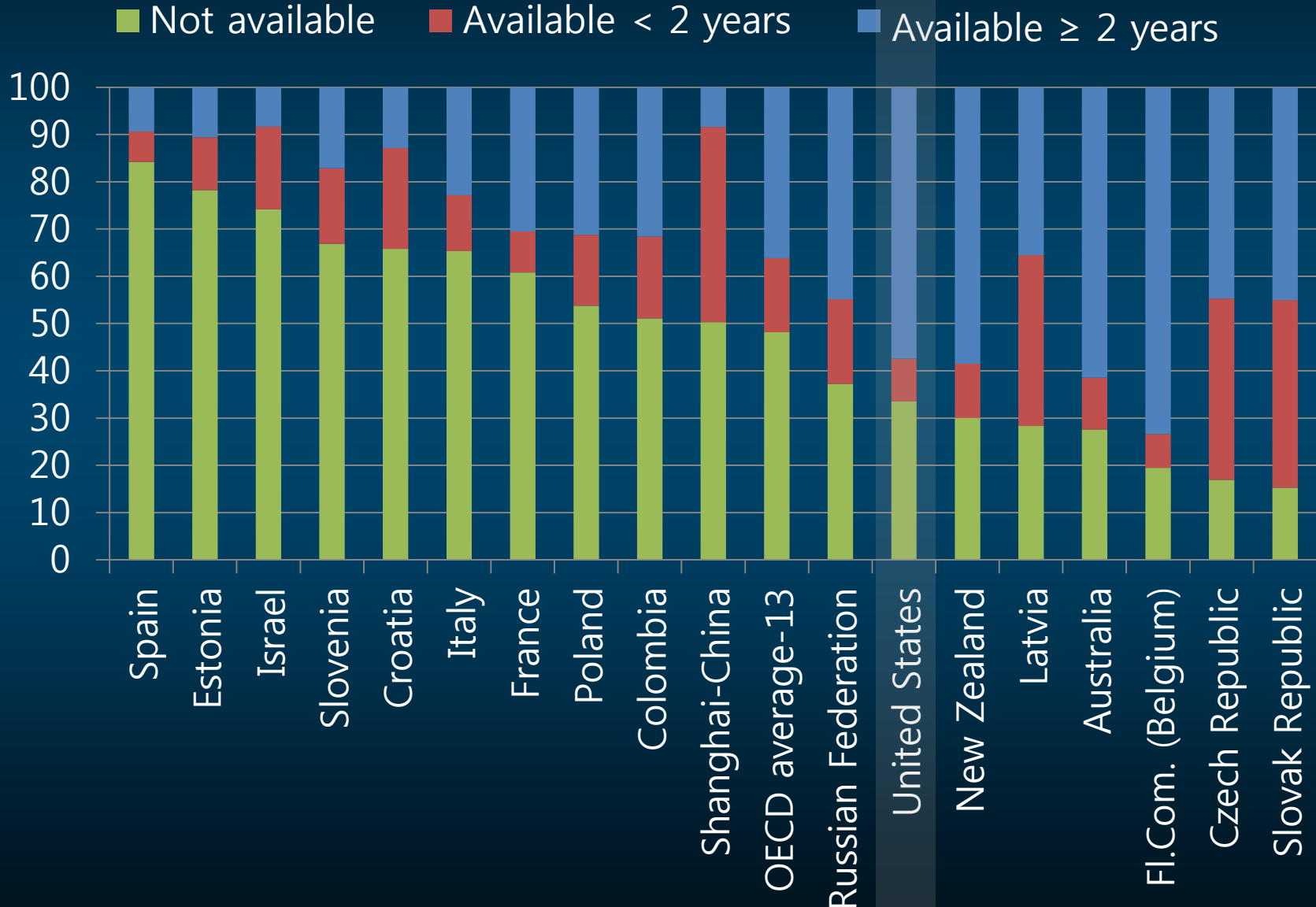


# Financial literacy by bank account holding (accounting for socio-demographic status)

Table VI.4.2

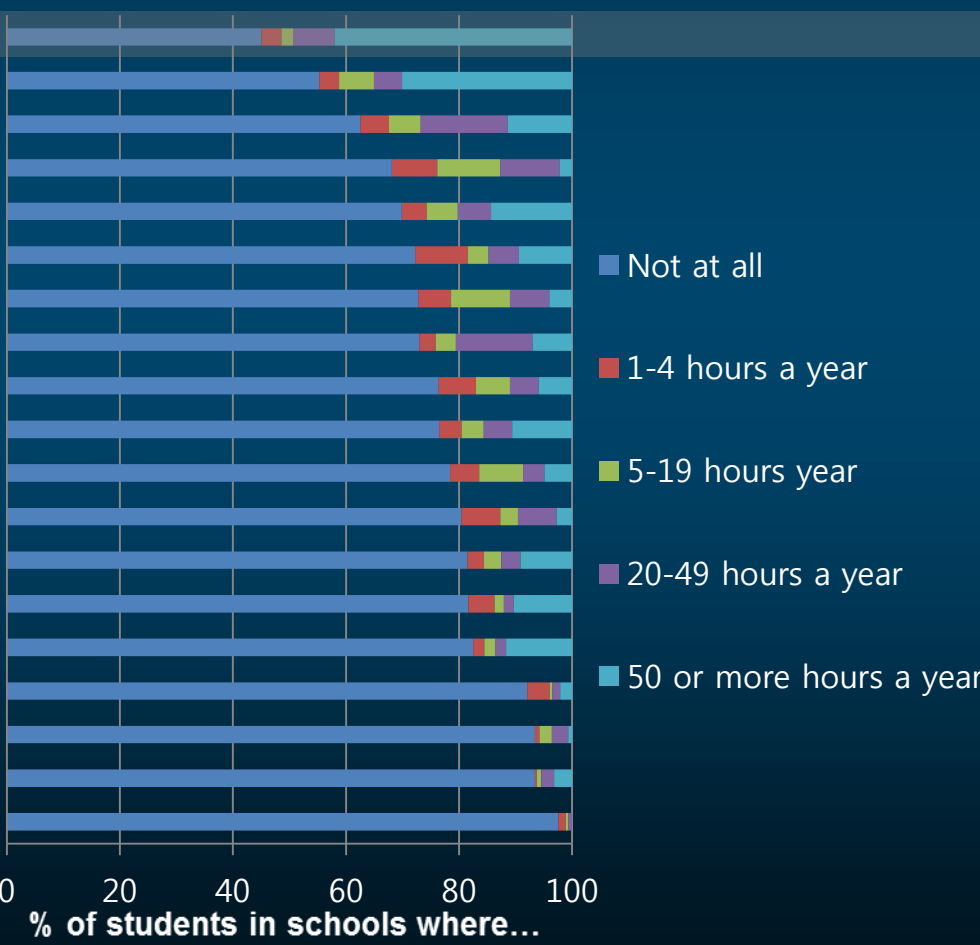


# Student exposure to financial education

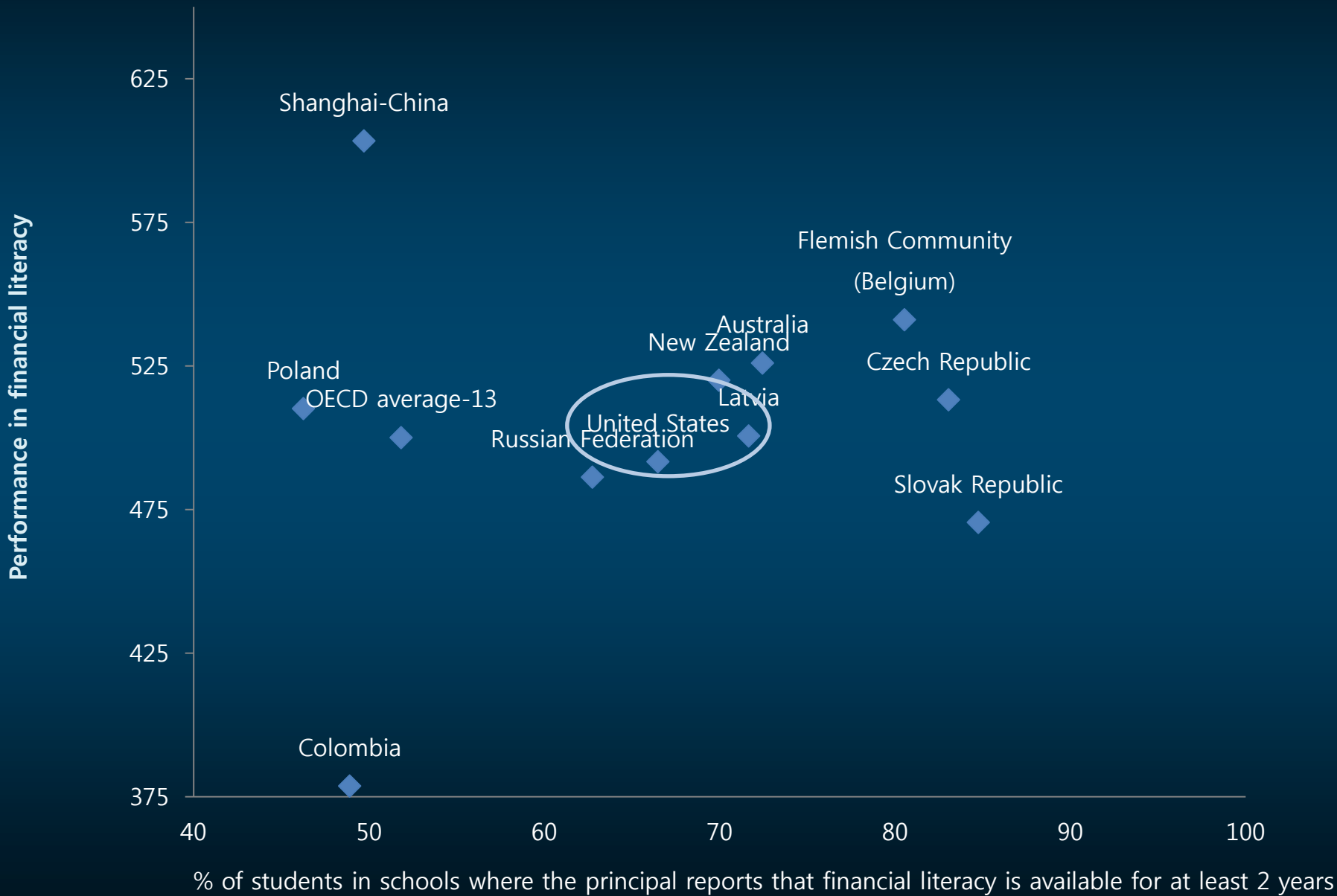


## Financial education taught as a cross-curricular subject

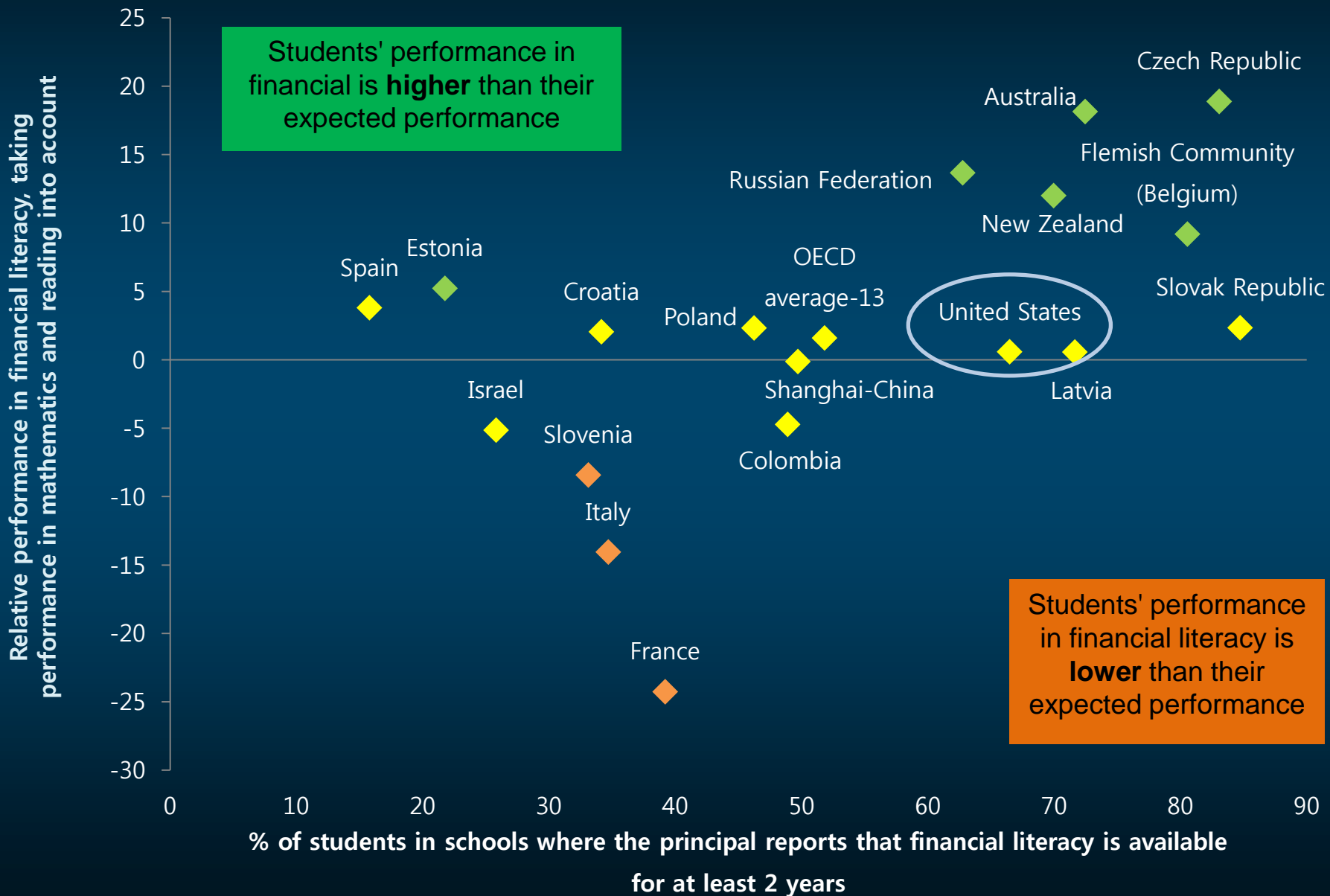
## Financial literacy taught as a separate subject



# Exposure and financial literacy



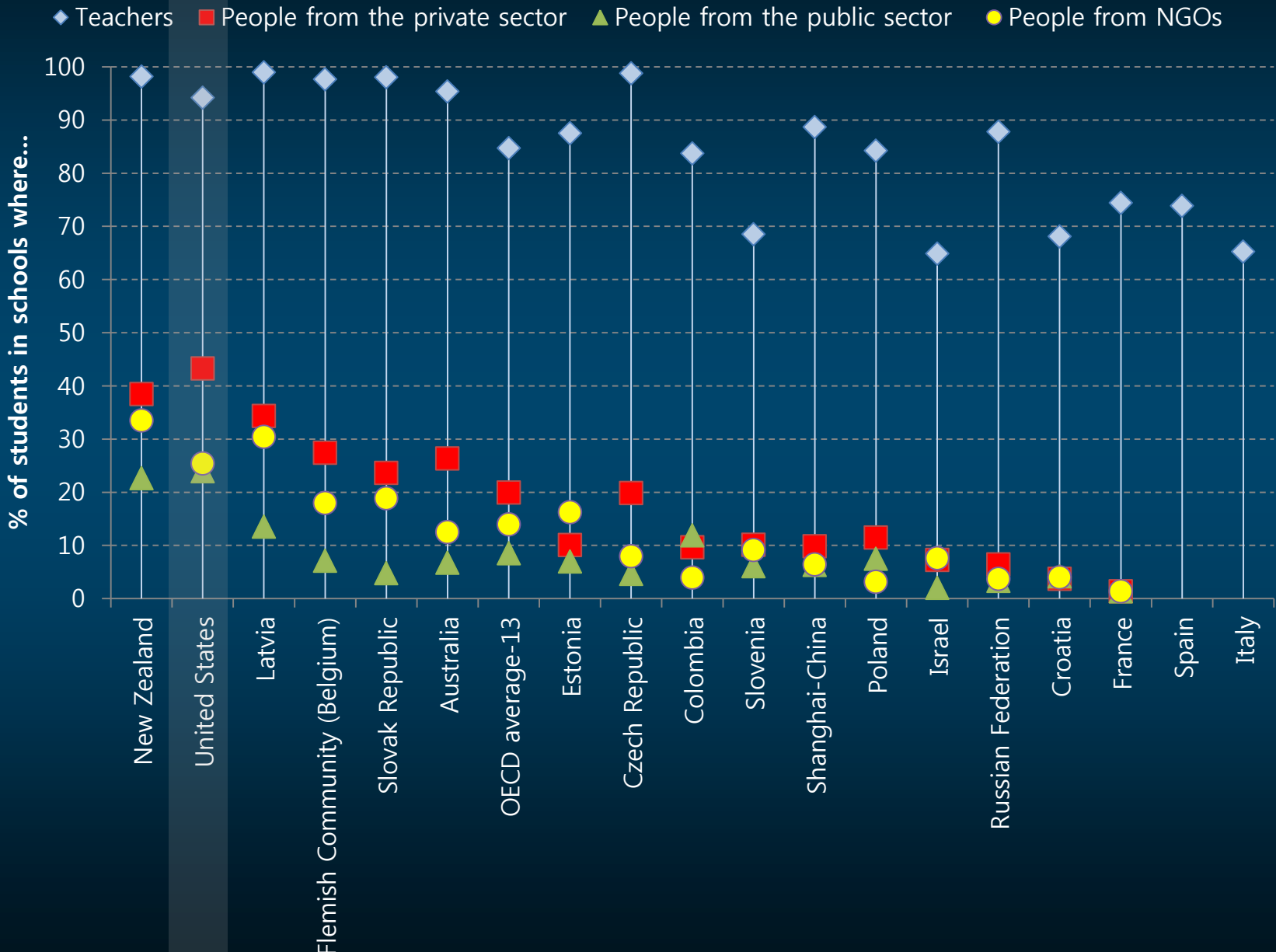
# Exposure and relative performance



Students' performance in financial is **higher** than their expected performance

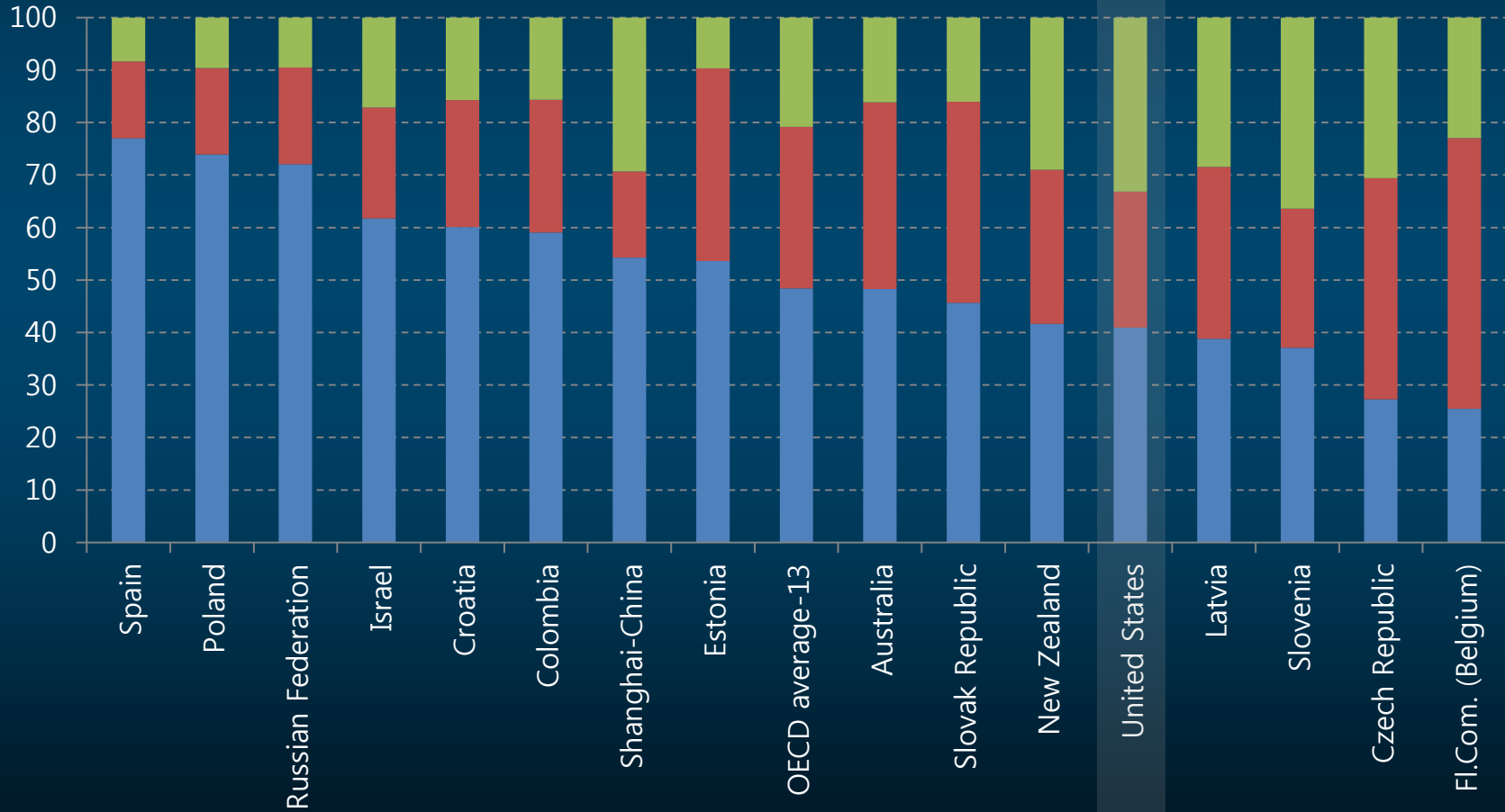
Students' performance in financial literacy is **lower** than their expected performance

# Providers of financial education in schools



# Teachers professional development

- 50% OR MORE OF TEACHERS attended professional development in financial education
- UP TO 50% OF TEACHERS attended professional development in financial education
- NO TEACHERS attended professional development in financial education



Find out more about PISA at [www.pisa.oecd.org](http://www.pisa.oecd.org)

- All national and international publications
- The complete micro-level database

Thank you !

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