

Education challenges

*Seminar on strengthening
the European knowledge base*

10 October 2017



Key challenges

The old bureaucratic system

The modern enabling system

Student inclusion

Some students learn at high levels (sorting)

All students need to learn at high levels

Curriculum, instruction and assessment

Routine cognitive skills

Complex ways of thinking, complex ways of doing, collective capacity

Teacher quality

Standardisation and compliance

High-level professional knowledge workers

Work organisation

'Tayloristic', hierarchical

Flat, collegial

Accountability

Primarily to authorities

Primarily to peers and stakeholders

The 'pace of progress' challenge

Trends in science performance (PISA)

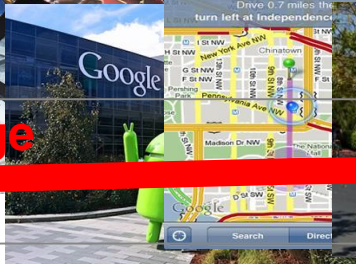
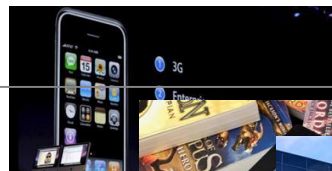
570
550
530
510
490

Student performance

OECD average



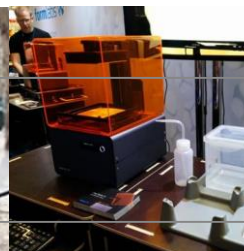
2006



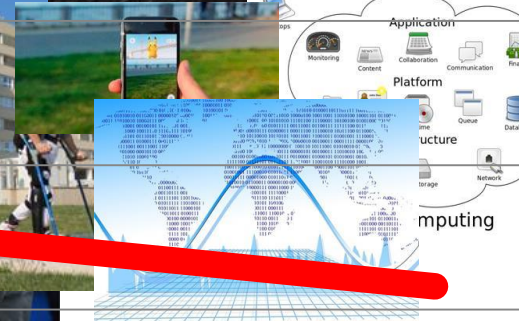
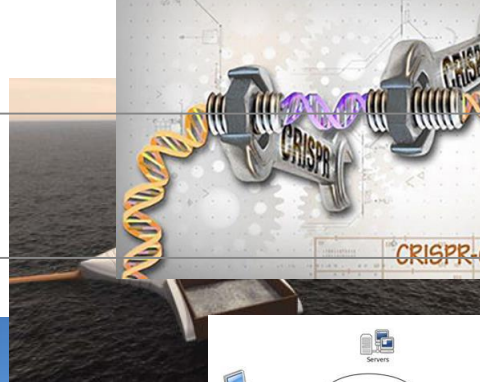
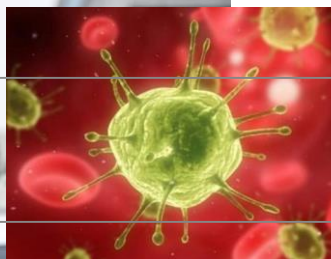
2009



2012



2015



Trends in science performance (PISA)

570

550

530

510

490

470

450



OECD average

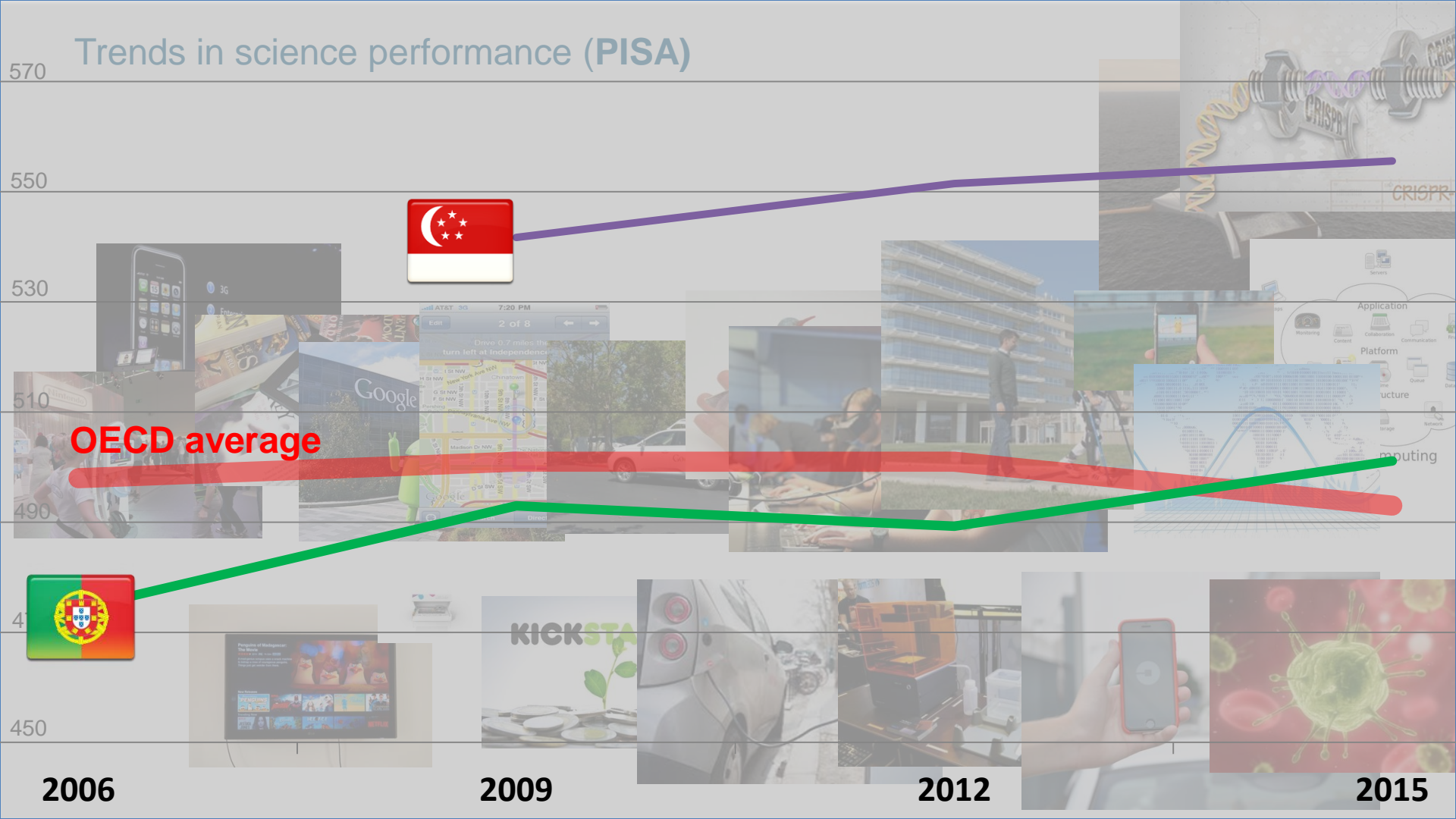


2006

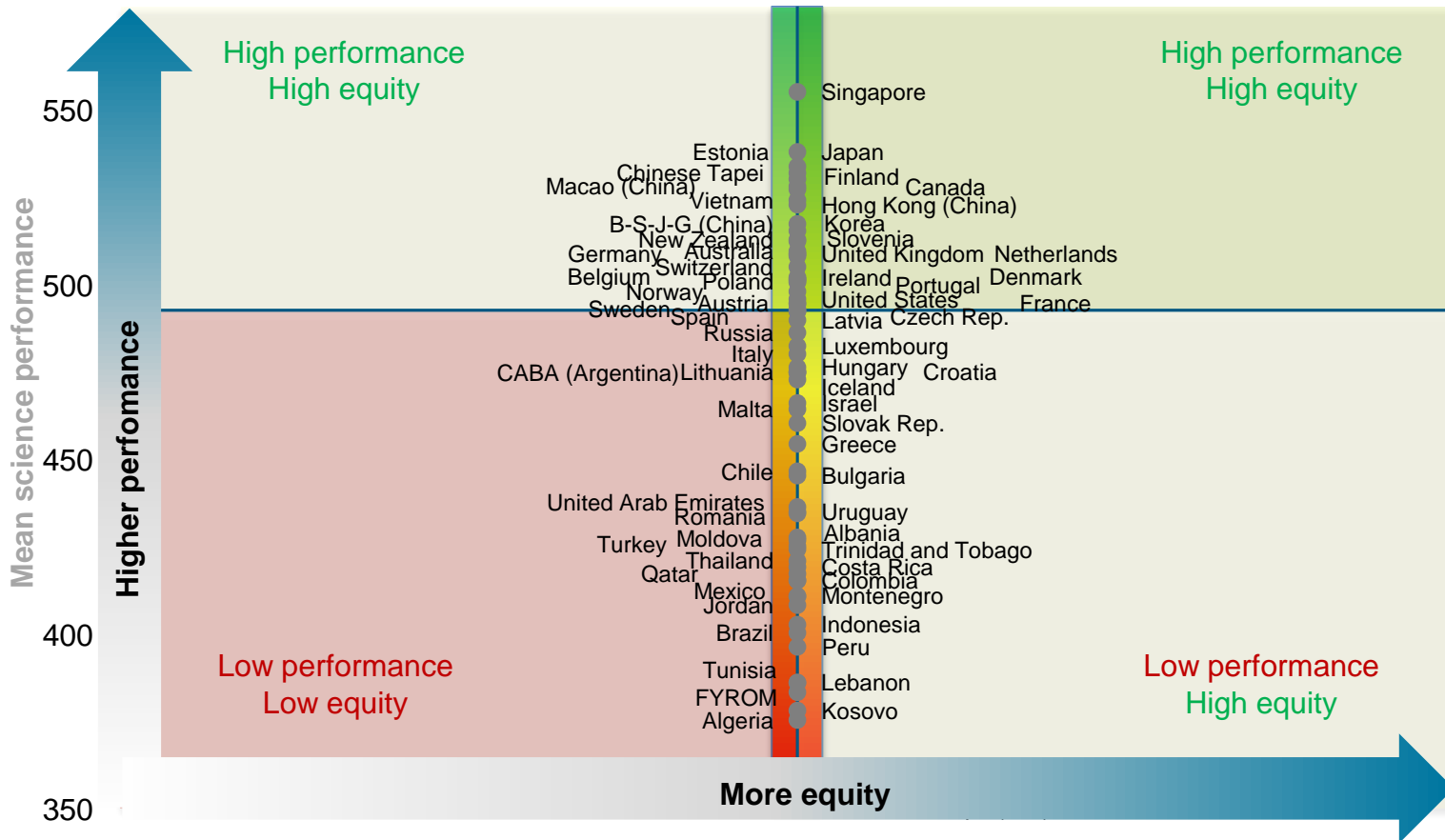
2009

2012

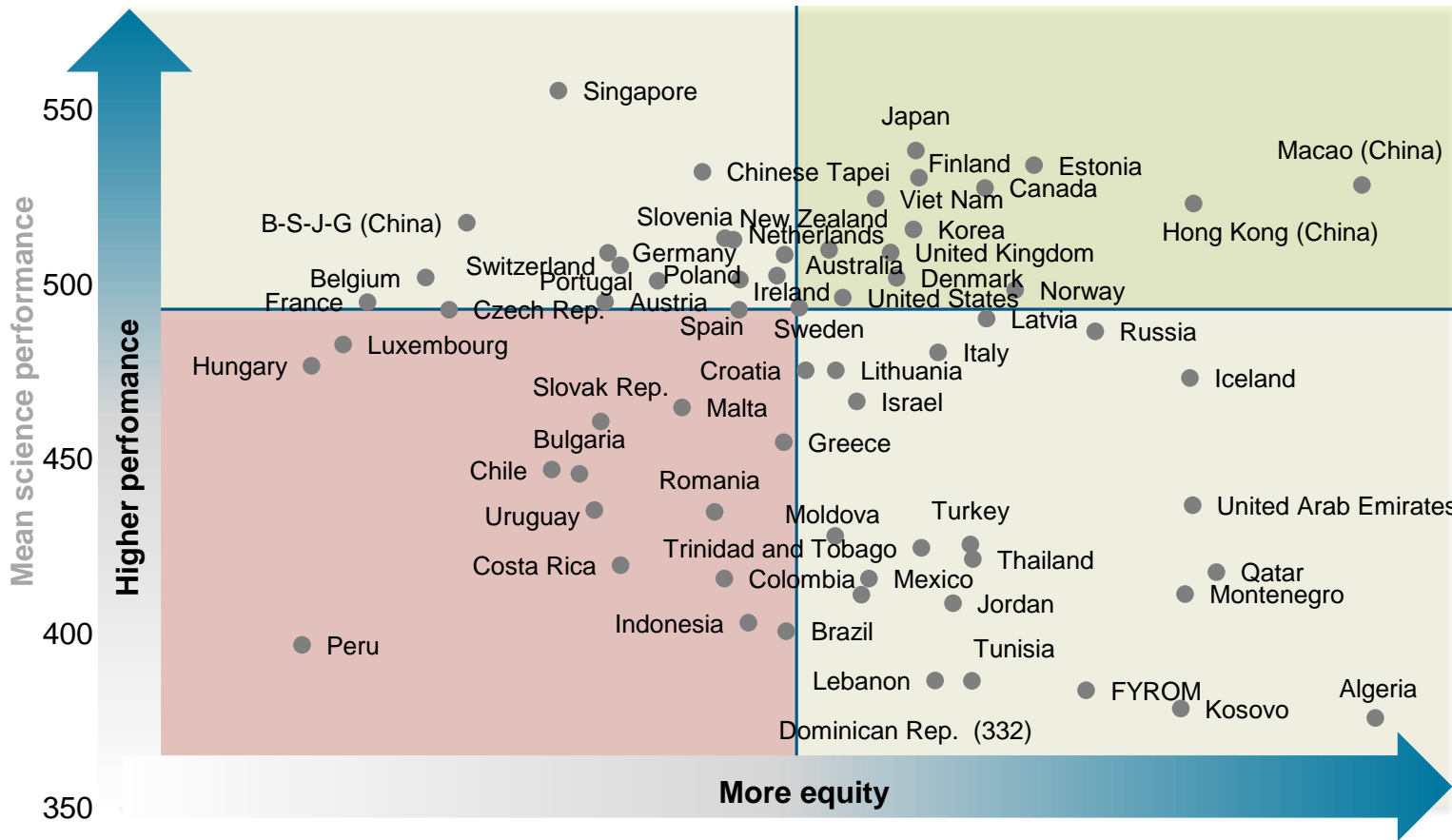
2015



Science performance in PISA (2015)

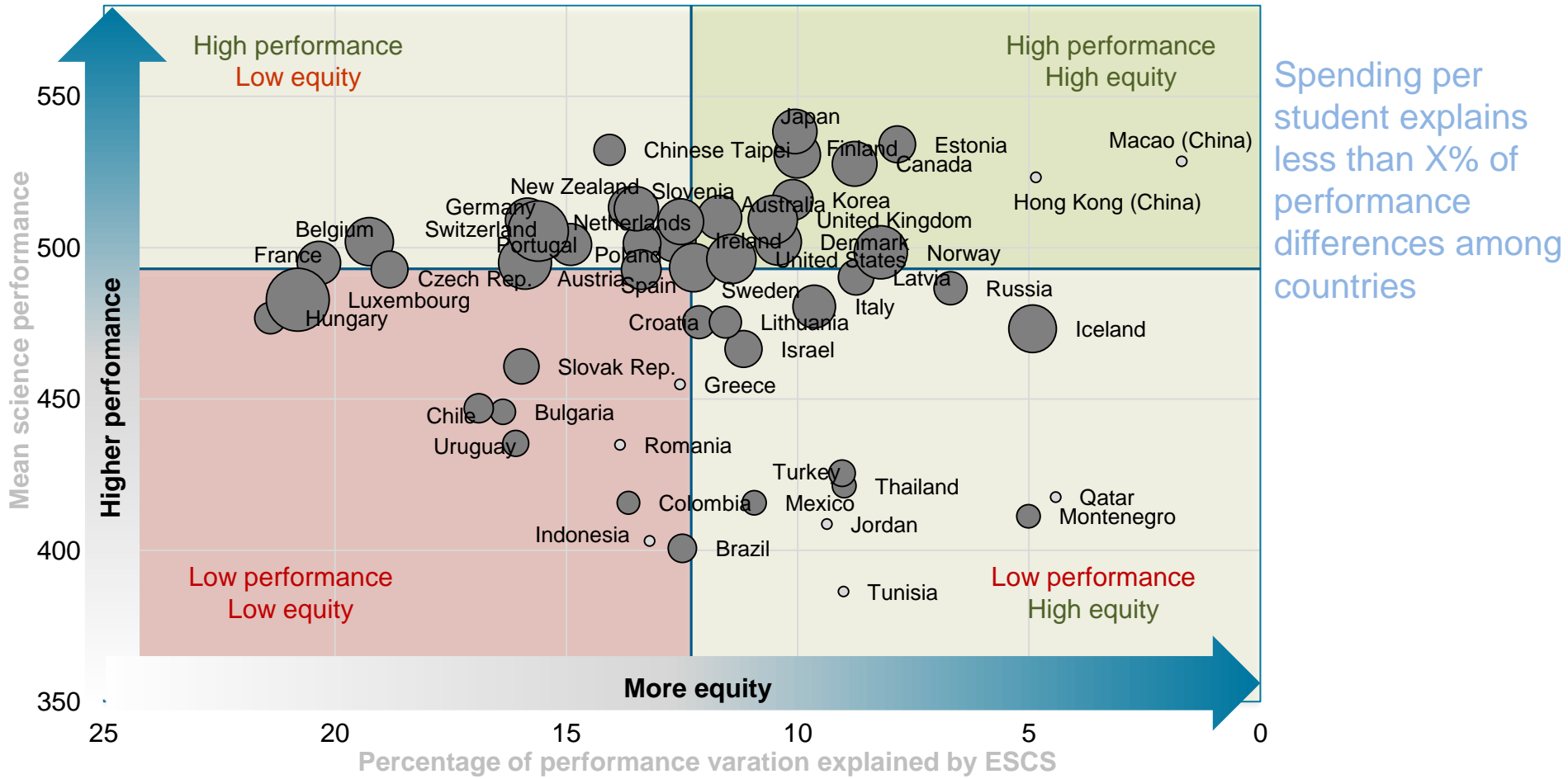


Science performance and equity in PISA (2015)



Some countries combine excellence with equity

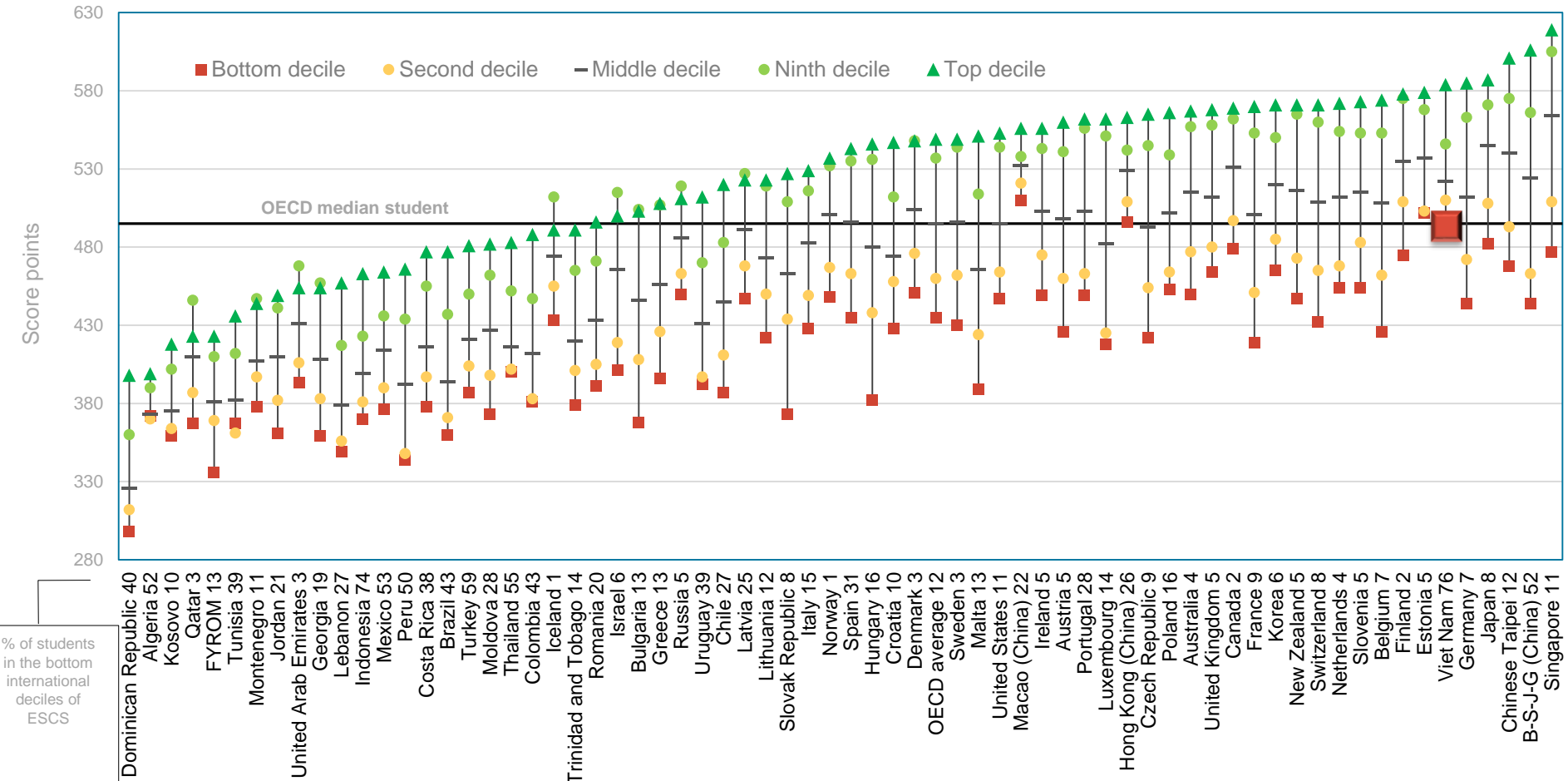
Science performance (2015) and spending per student (between ages 6 and 15)



Poverty is not destiny - Science performance

by international deciles of the PISA index of economic, social and cultural status (ESCS)

Figure I.6.7



% of students in the bottom international deciles of ESCS

The 'efficiency' challenge

And public expenditure at these levels has increased by 4% since 2010, although enrolments have declined

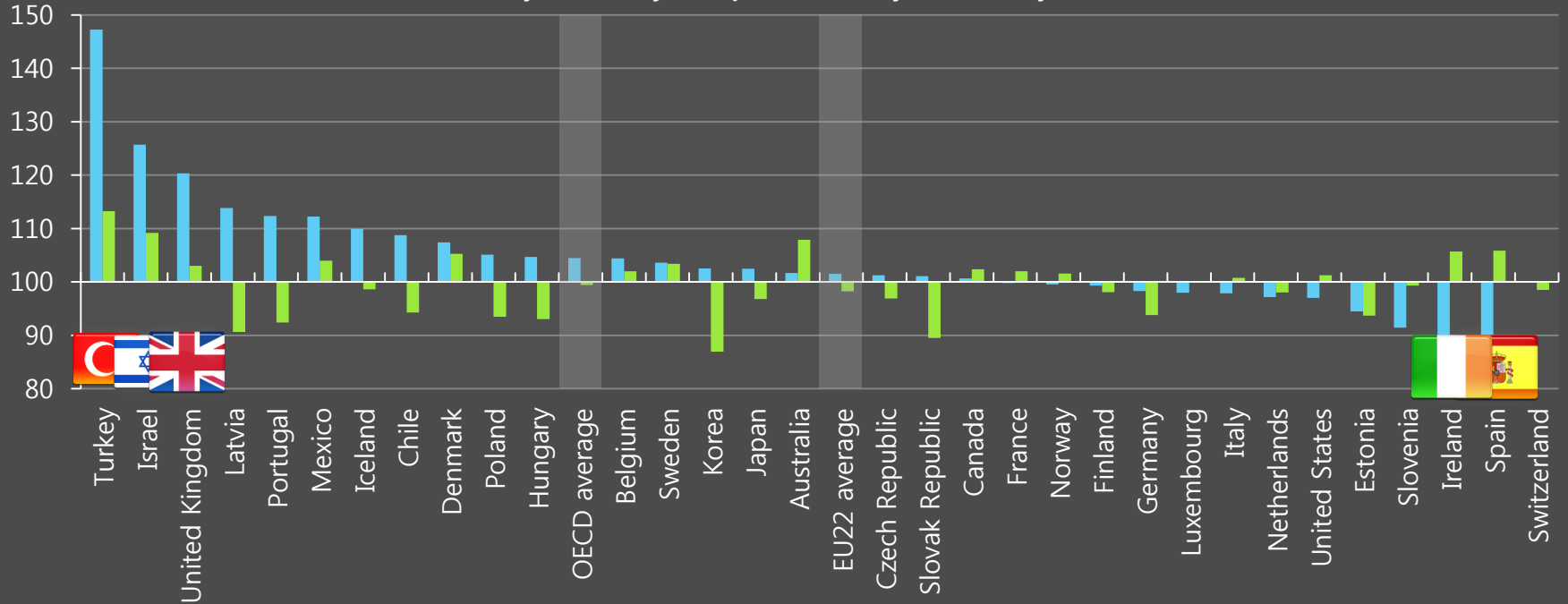
Table B1.3

Index of change in expenditure per student by educational institutions for all services (current prices) and number of students (2010 to 2014)

■ Change in expenditure ■ Change in the number of students

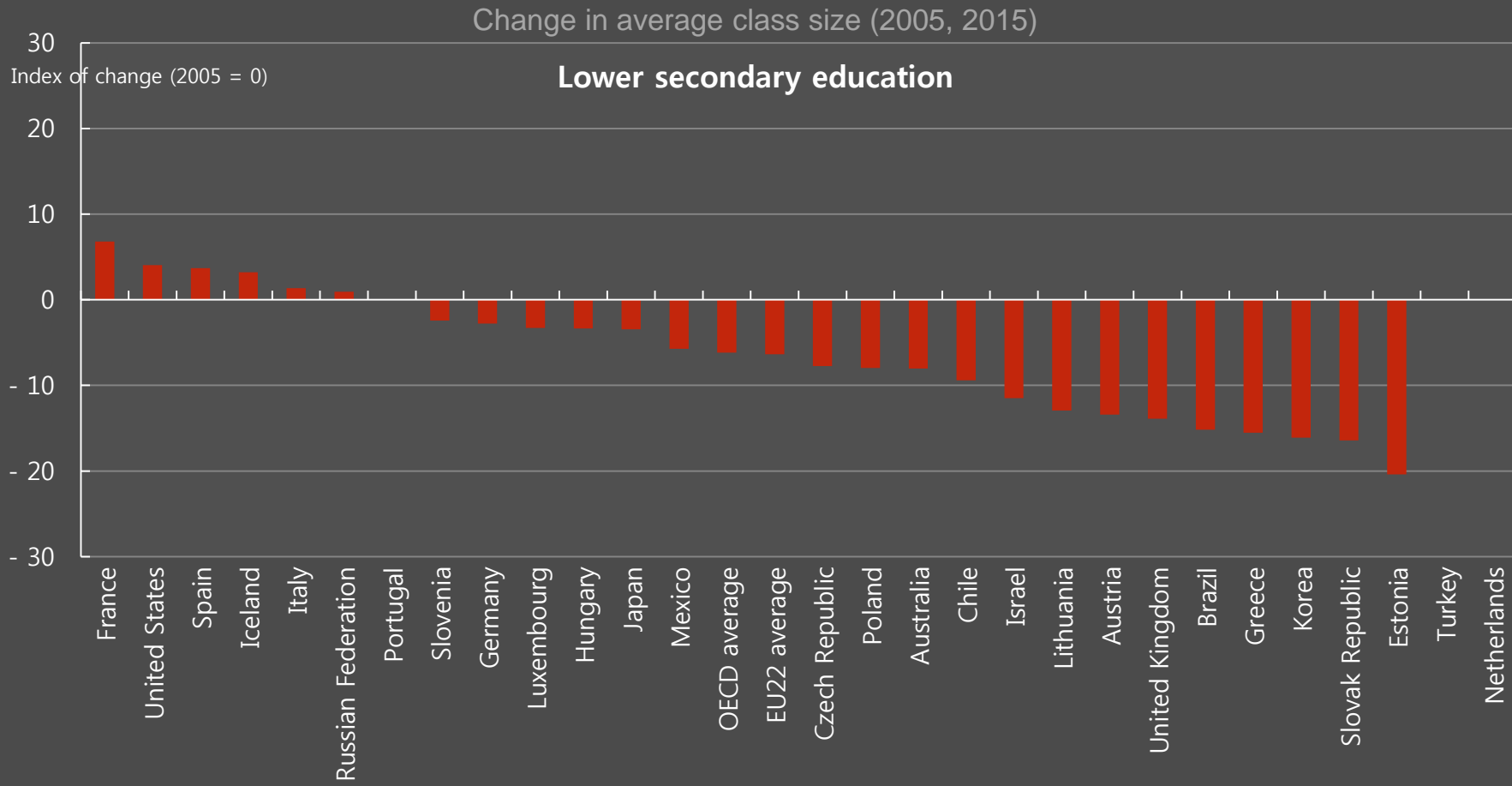
GDP deflator 2010 = 100

Primary, secondary, and post-secondary non-tertiary



Class sizes have been decreasing in most countries

Figure D2.2



Teacher salaries and class size are the largest drivers of teacher salary cost per student

Figure B7.3

Contribution of various factors to salary cost of teachers per student in public institutions, lower secondary education (2015)

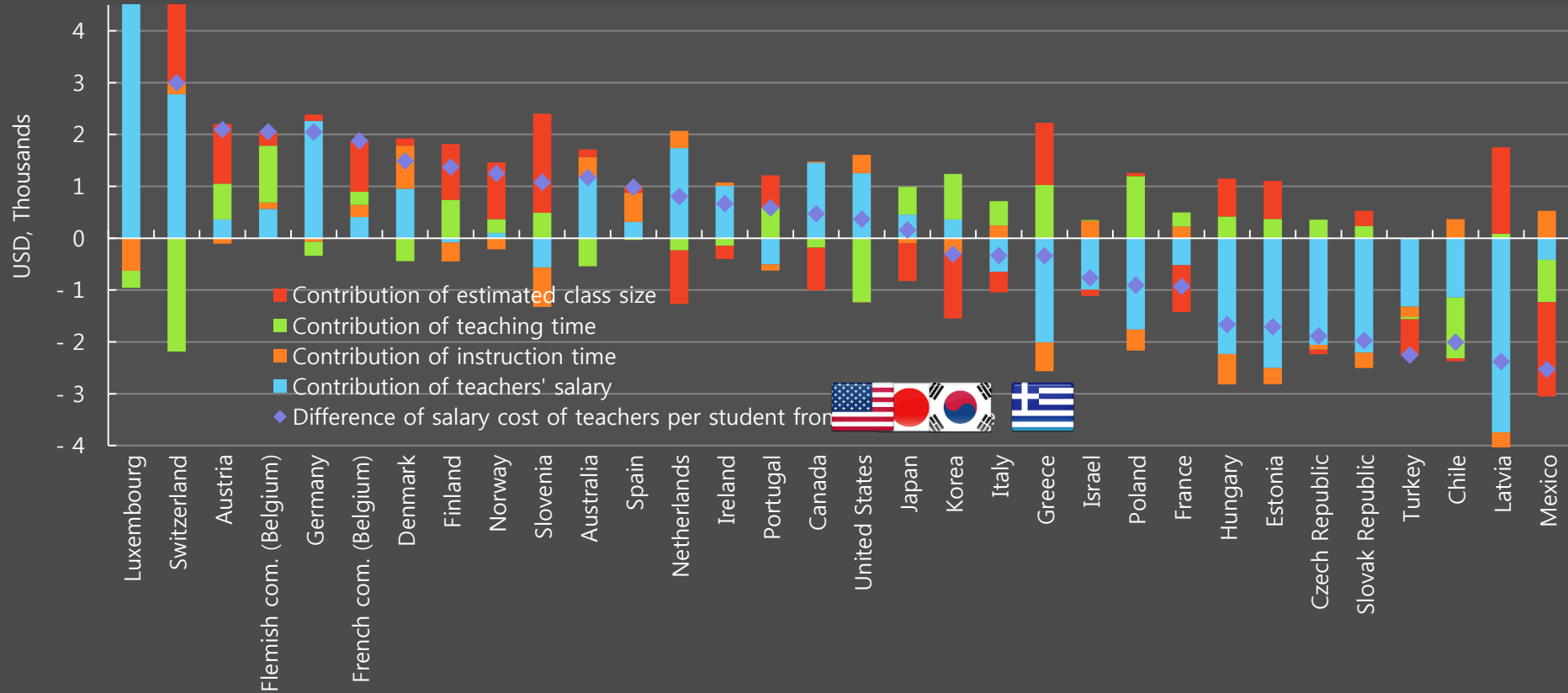
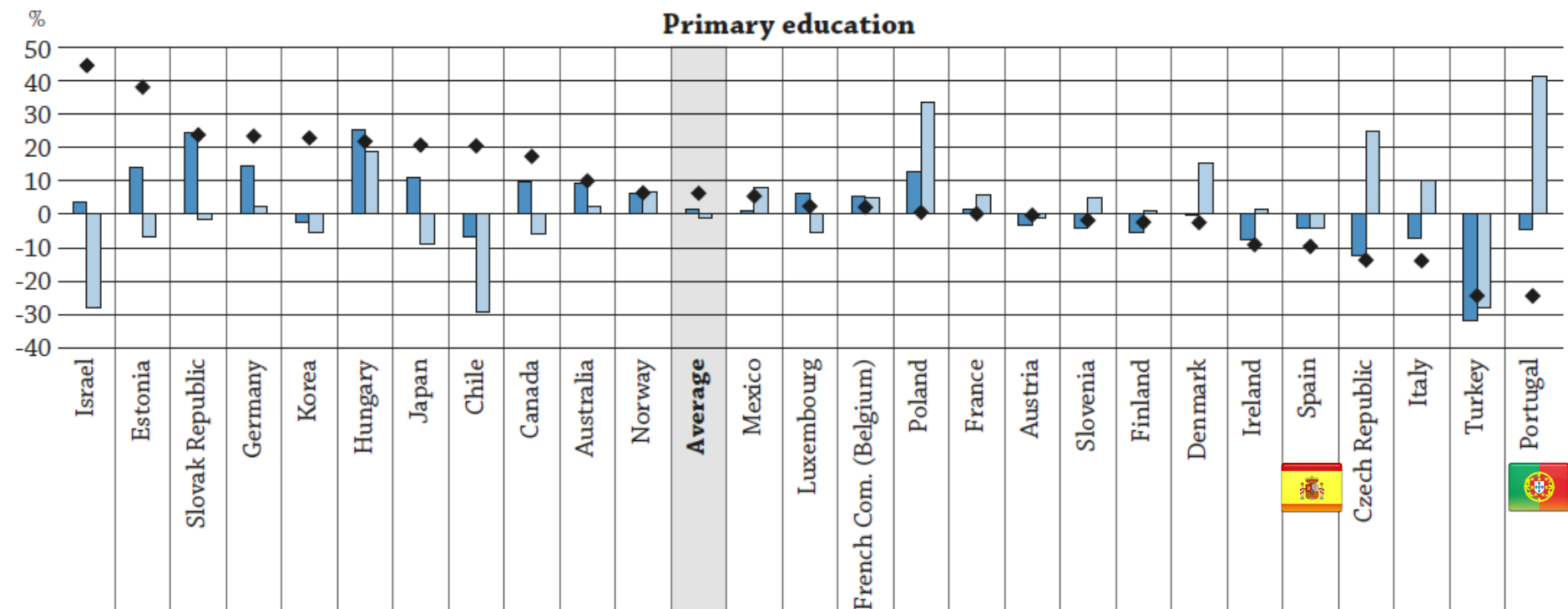


Figure B7.2. Change in the salary cost of teachers per student, teachers' salaries and estimated class size in primary and lower secondary education (2010 and 2015)

Percentage change between 2010 and 2015, public institutions

■ Change in teachers' salary ■ Change in estimated class size ◆ Change in teachers' salary cost per student

Primary education

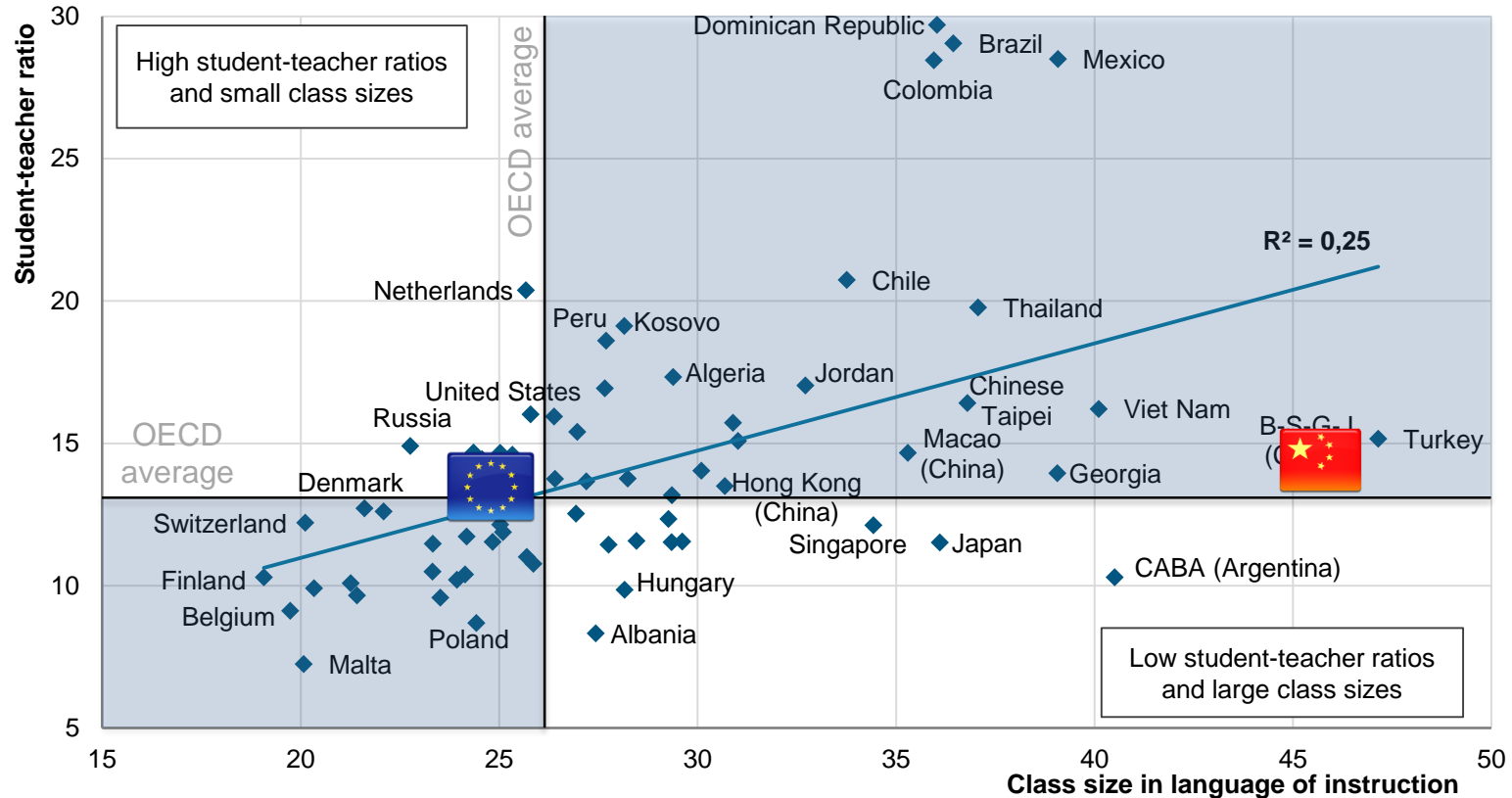


Lower secondary education

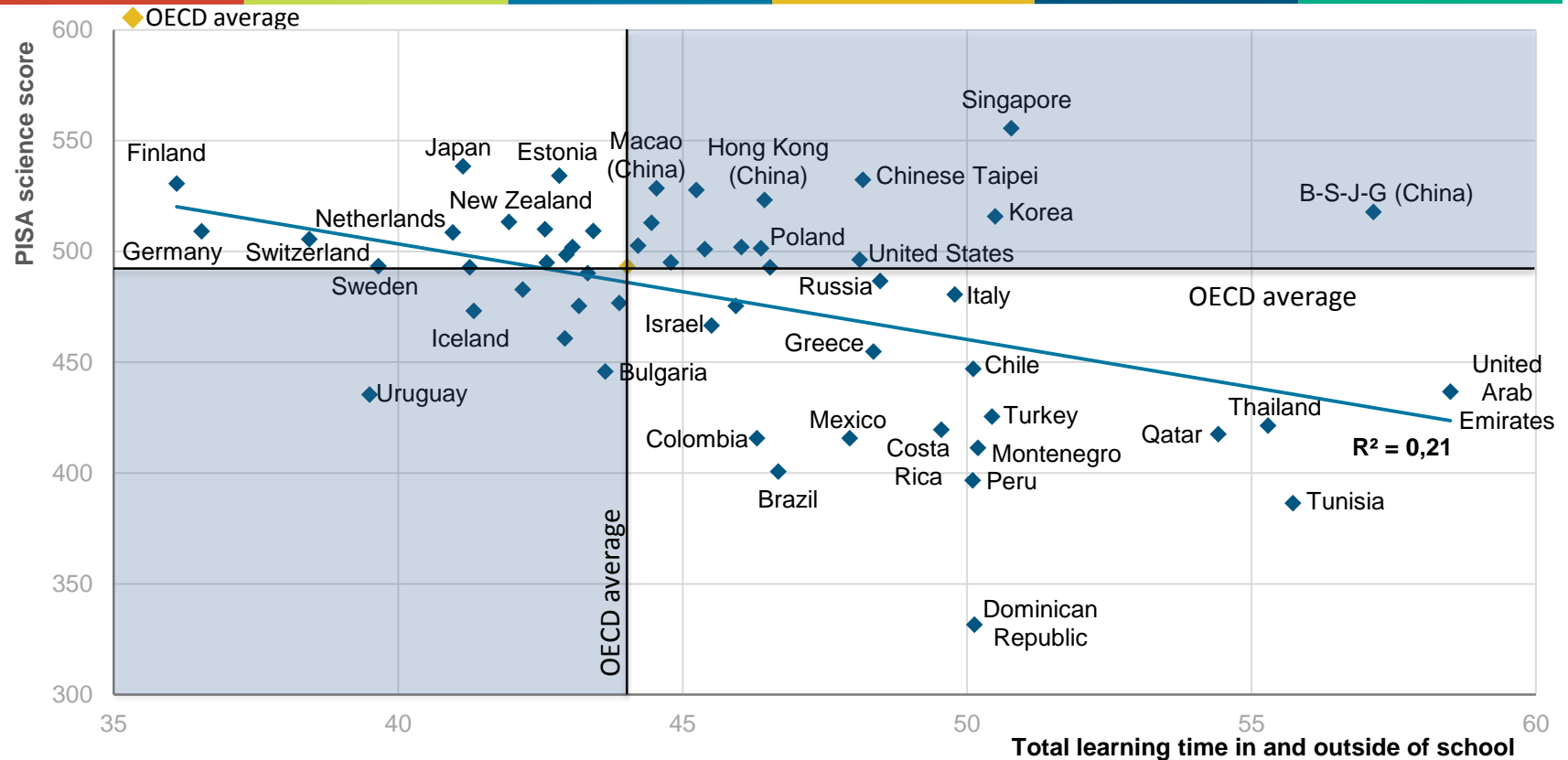
%

80

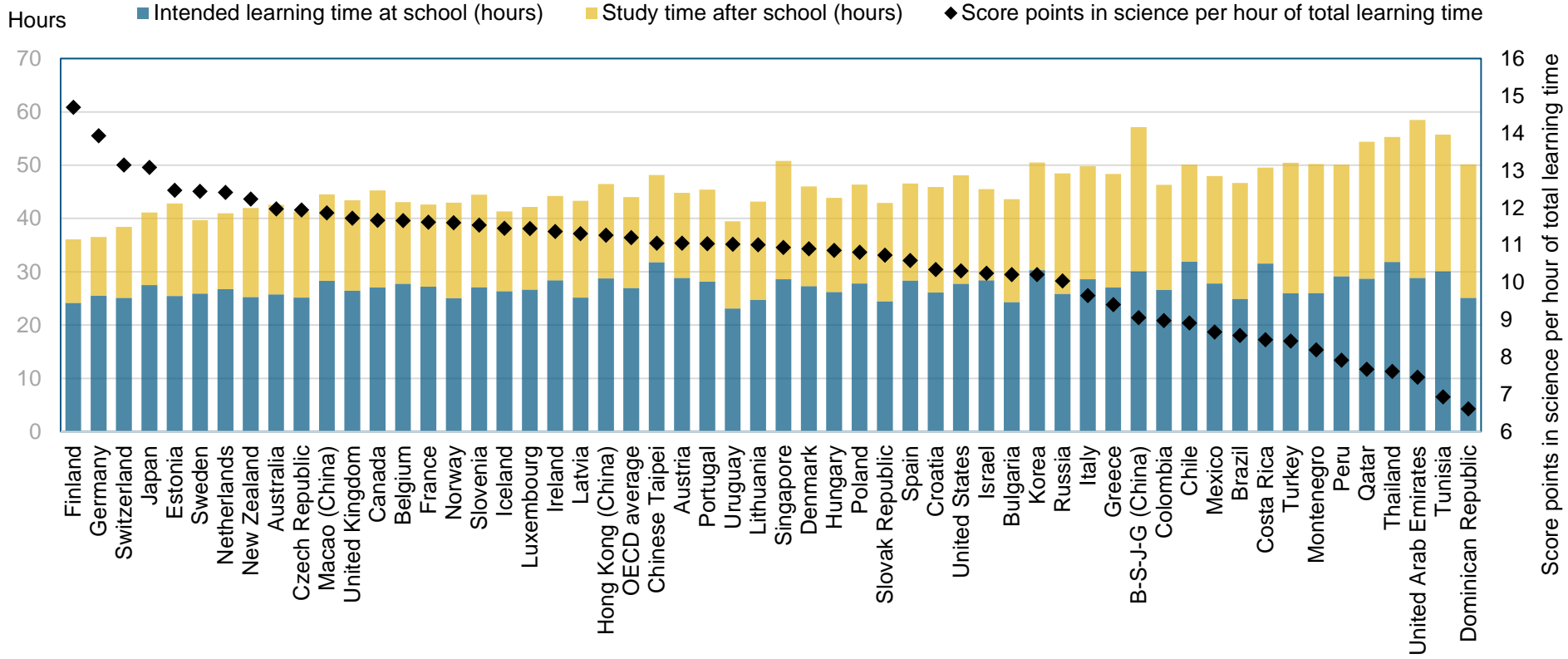
Student-teacher ratios and class size



Learning time and science performance

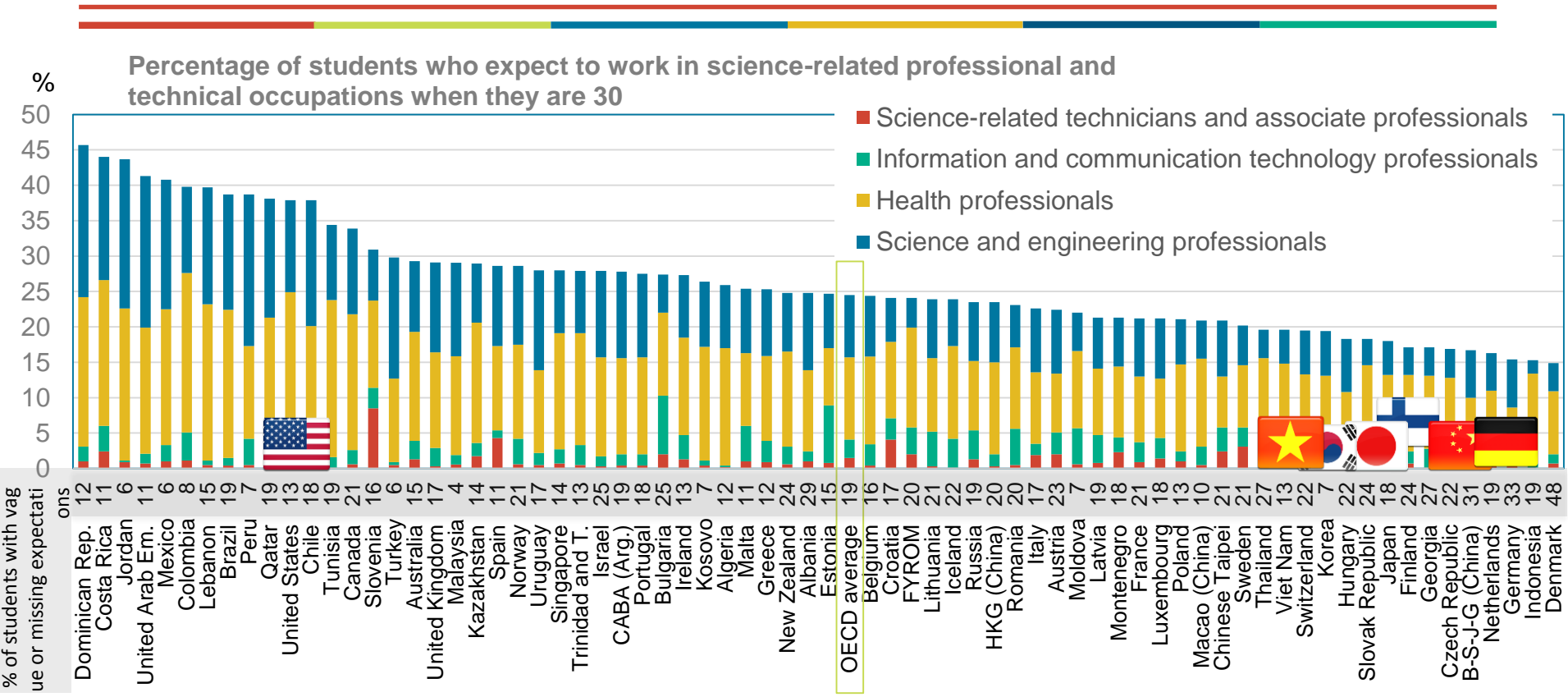


Learning time and science performance

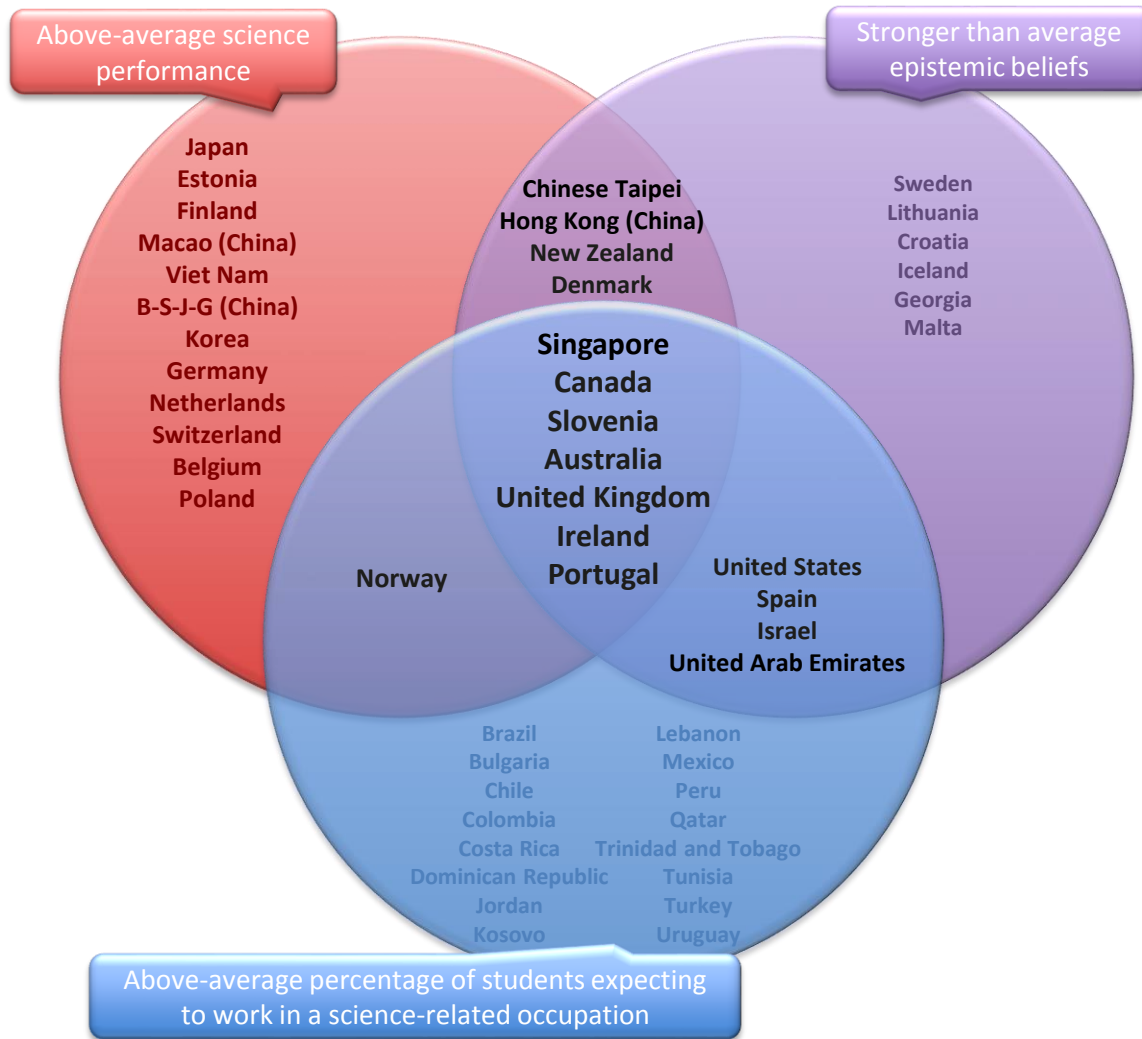


The 'relevance challenge'

Students expecting a career in science

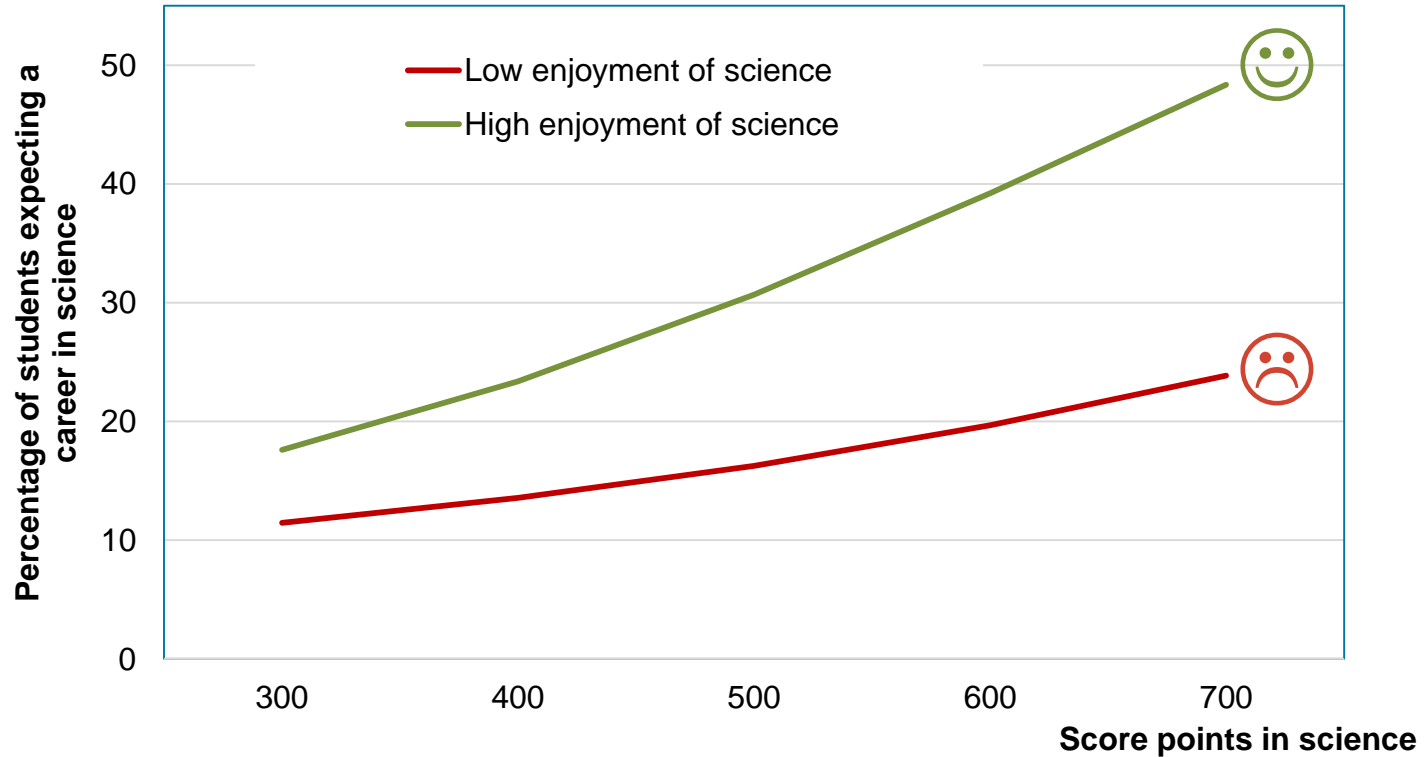


Multiple outcomes



Students expecting a career in science

by performance and enjoyment of learning



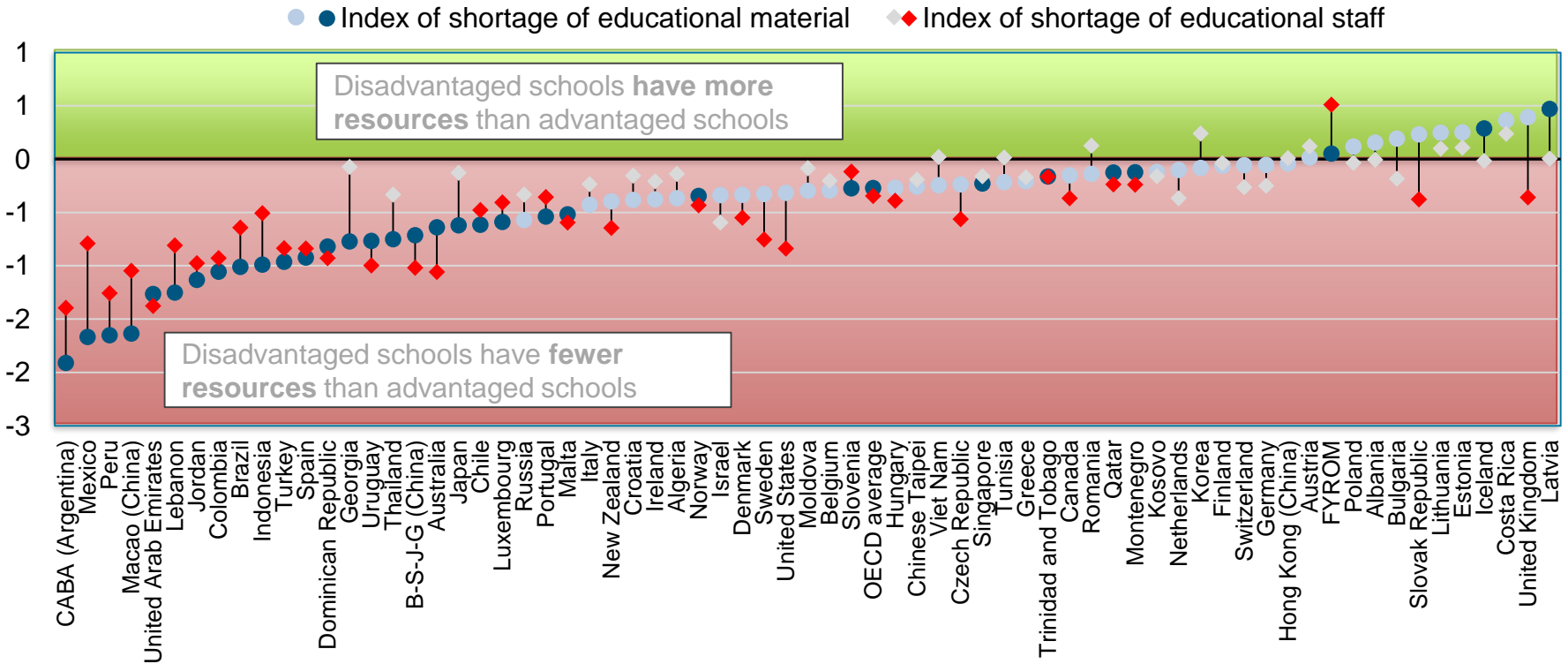
The 'equity' challenge

Figure I.6.14

Differences in educational resources

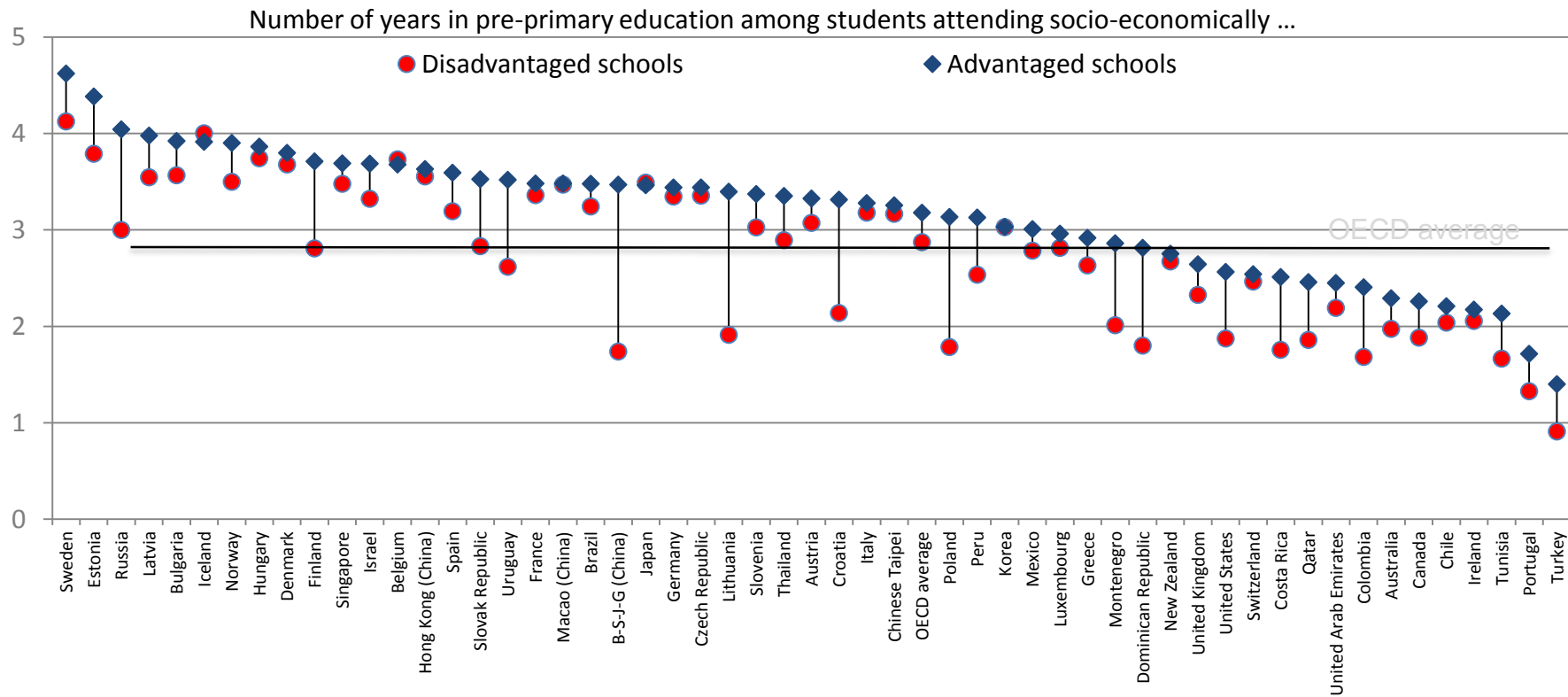
between advantaged and disadvantaged schools

Mean index difference between advantaged and disadvantaged schools



Attendance at pre-primary school

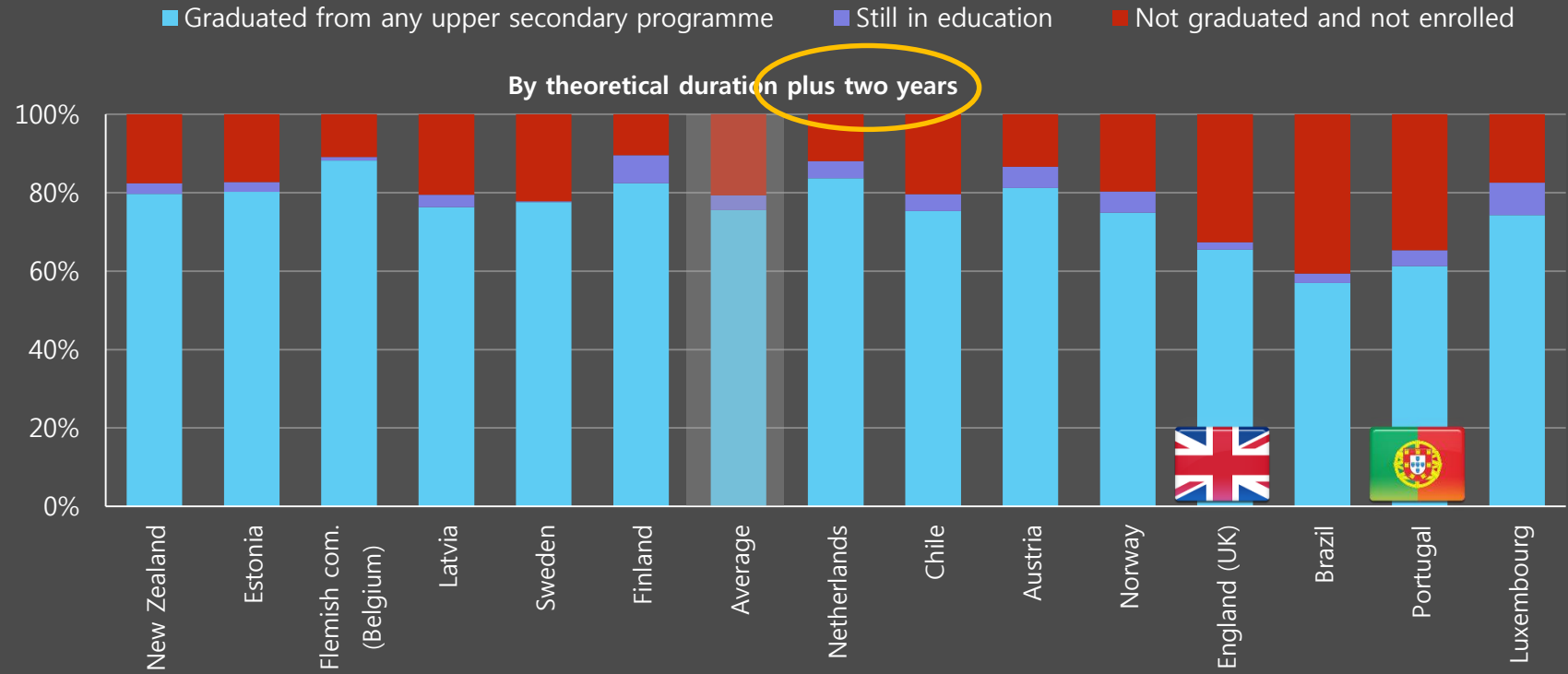
by schools' socio-economic profile



Completion of upper secondary level is still a challenge for some

Figure A9.2

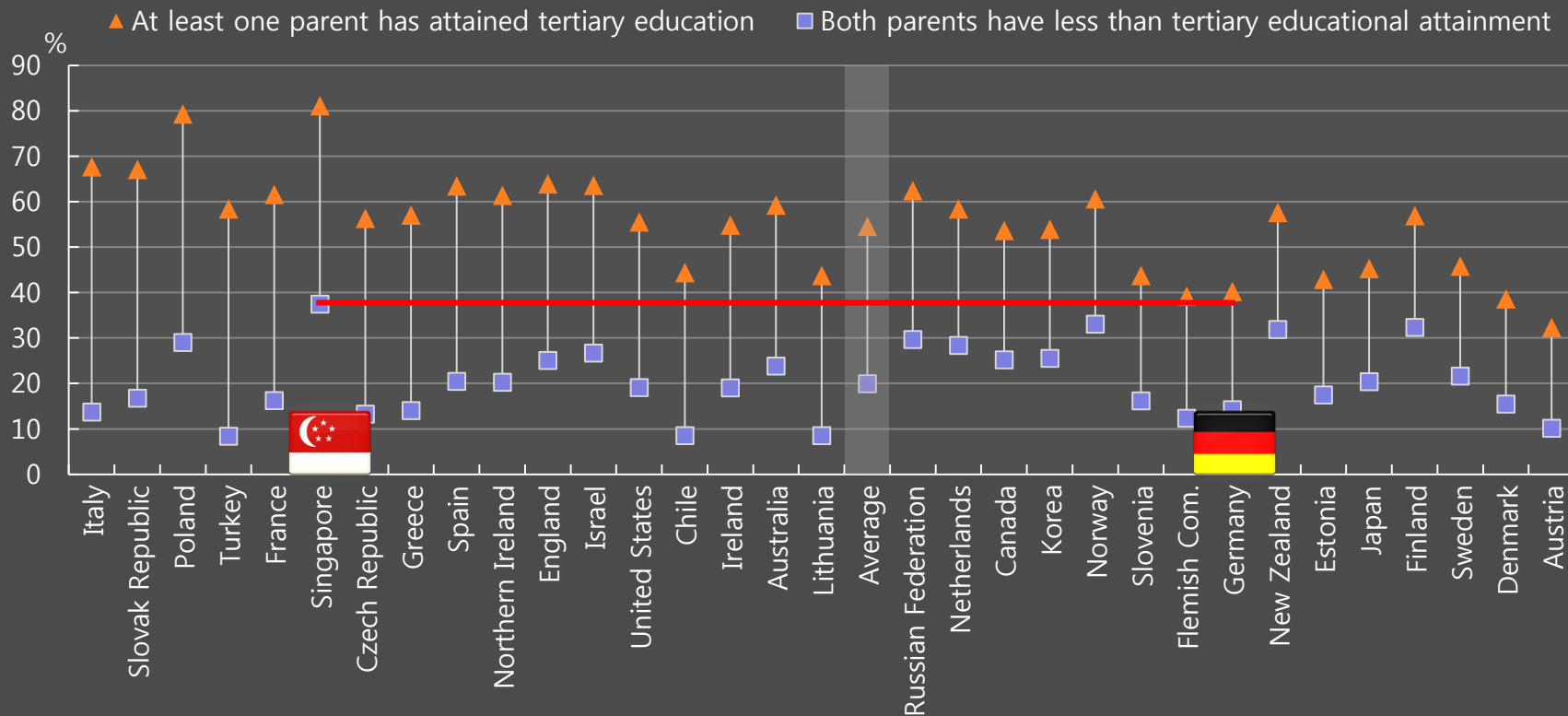
Outcomes for students who entered upper secondary education, by duration (2015)



Adults with tertiary-educated parents are twice more likely to reach that level themselves than those without

Figure A4.3

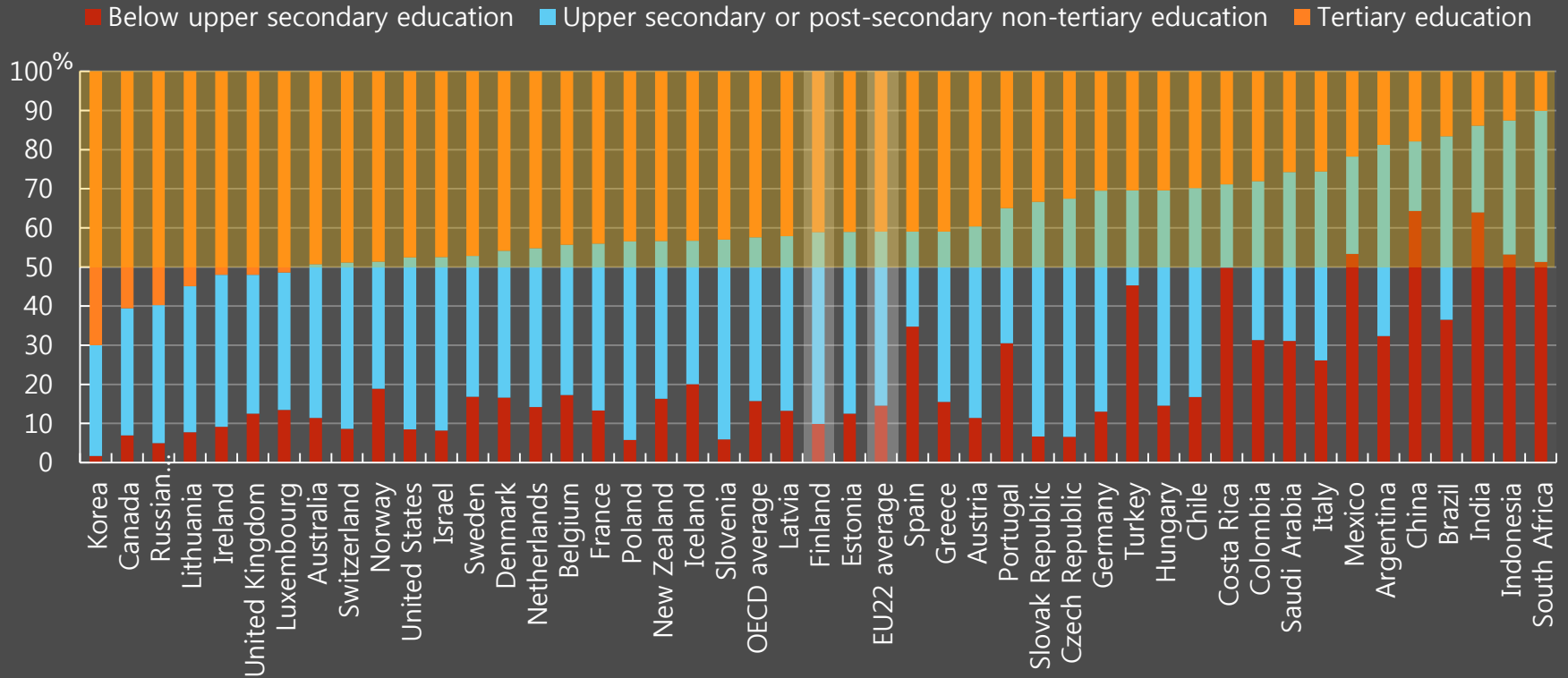
Share of 30-44 year-olds who completed tertiary-type A or an advanced research programme, by parents' educational attainment (2012 or 2015)



Tertiary education is becoming the norm

Figure A1.2

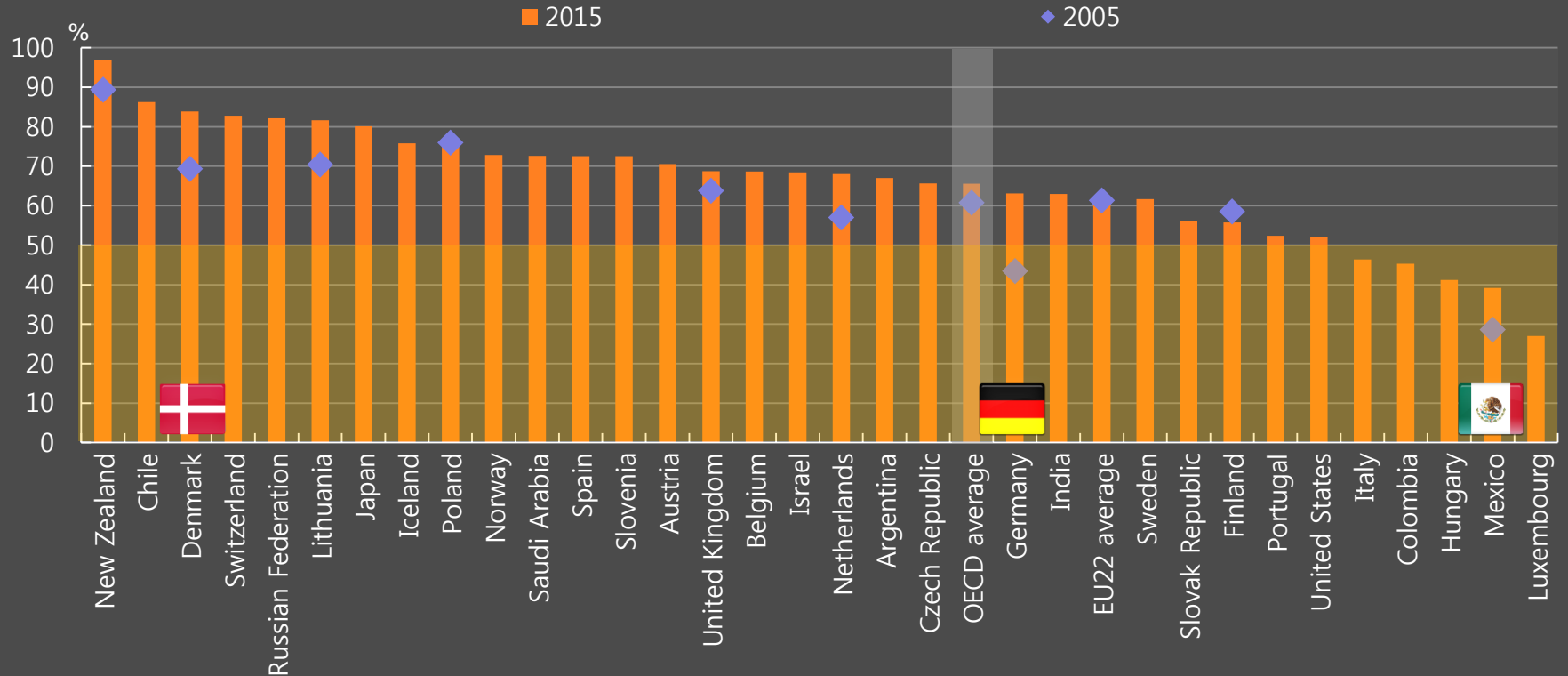
Educational attainment of 25-34 year-olds (2016)



65% of adults are expected to enter tertiary education for the first time in 2015

Figure C3.3

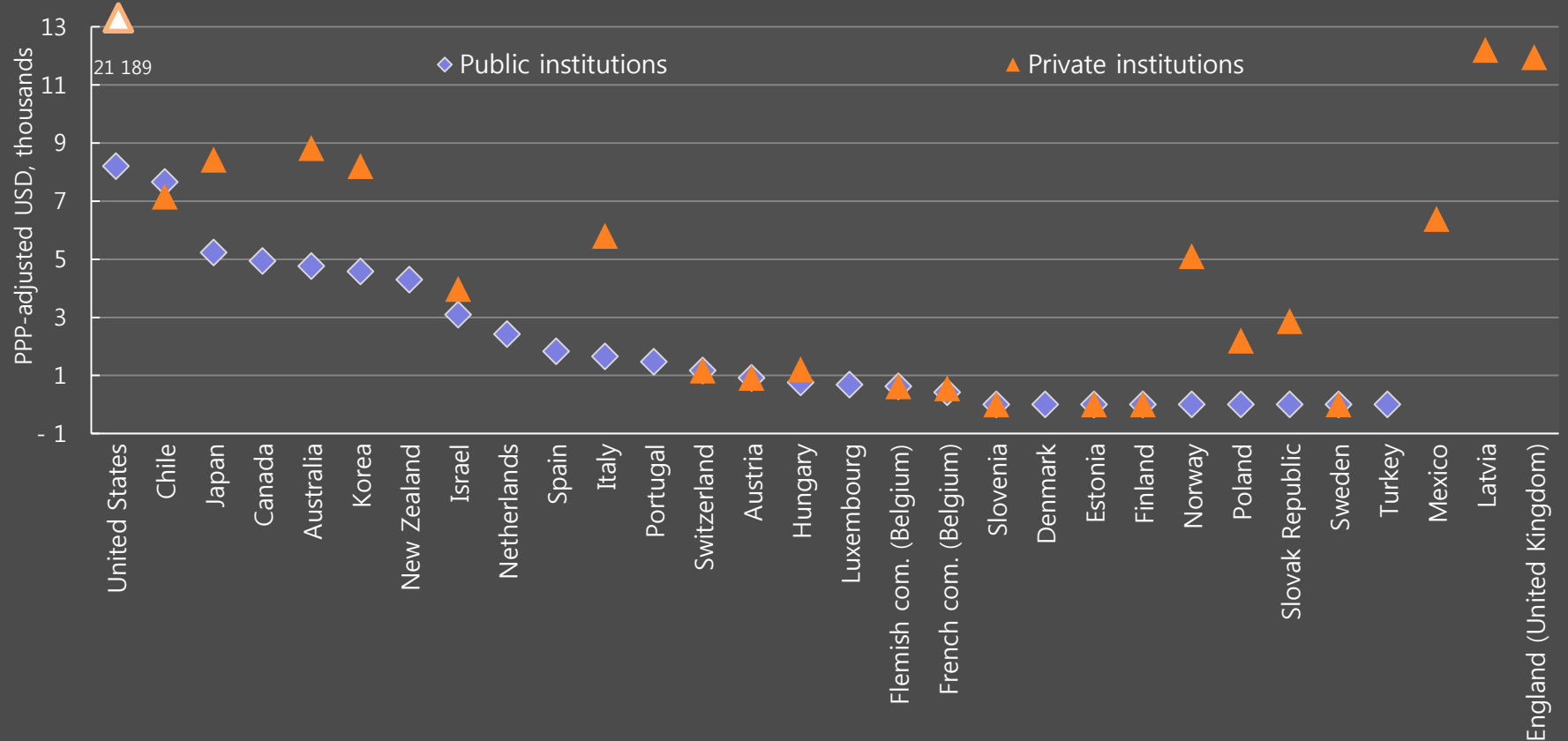
First-time tertiary entry rates (2005, 2015)



High tuition fees are characteristic of tertiary education in many countries

Figure B5.1

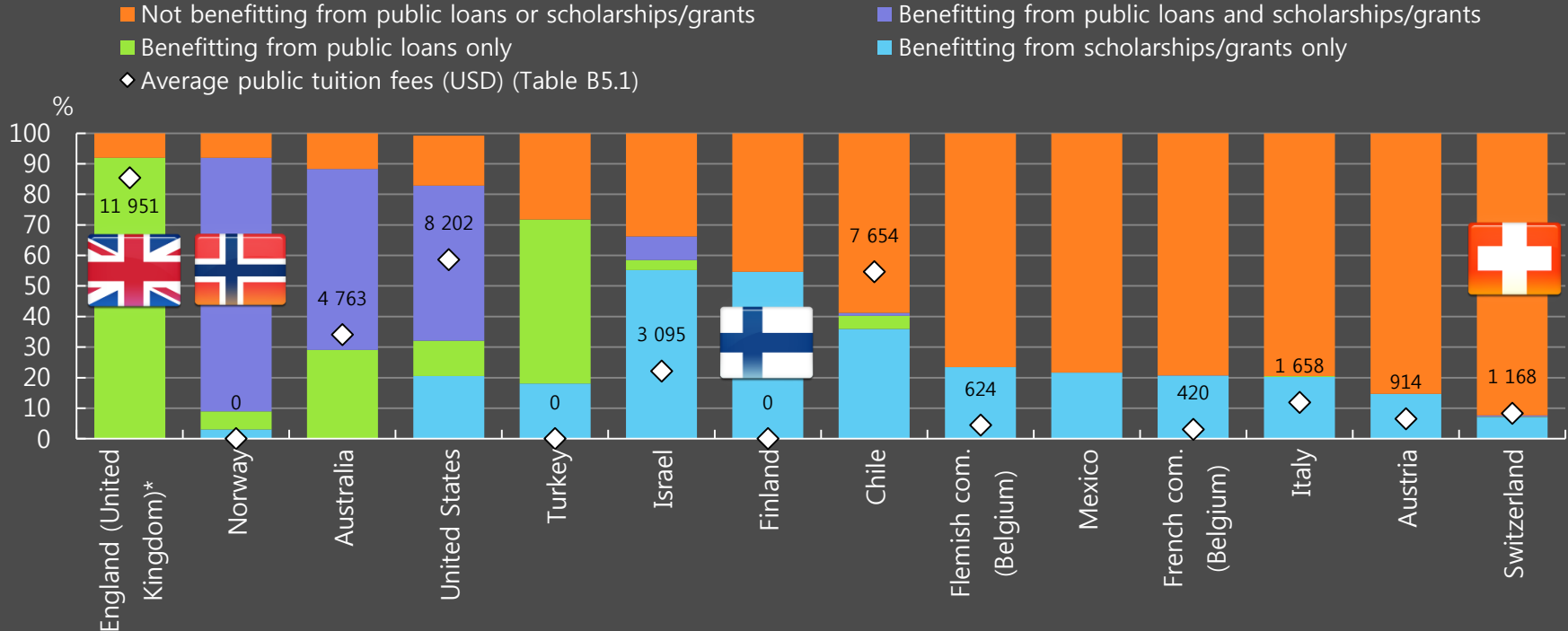
Tuition fees charged by public and private institutions at bachelor's or equivalent level (2015/16)



Flexible funding mechanisms help students

Figure B5.3

Distribution of financial support to students at bachelor's or equivalent level (2015/16)

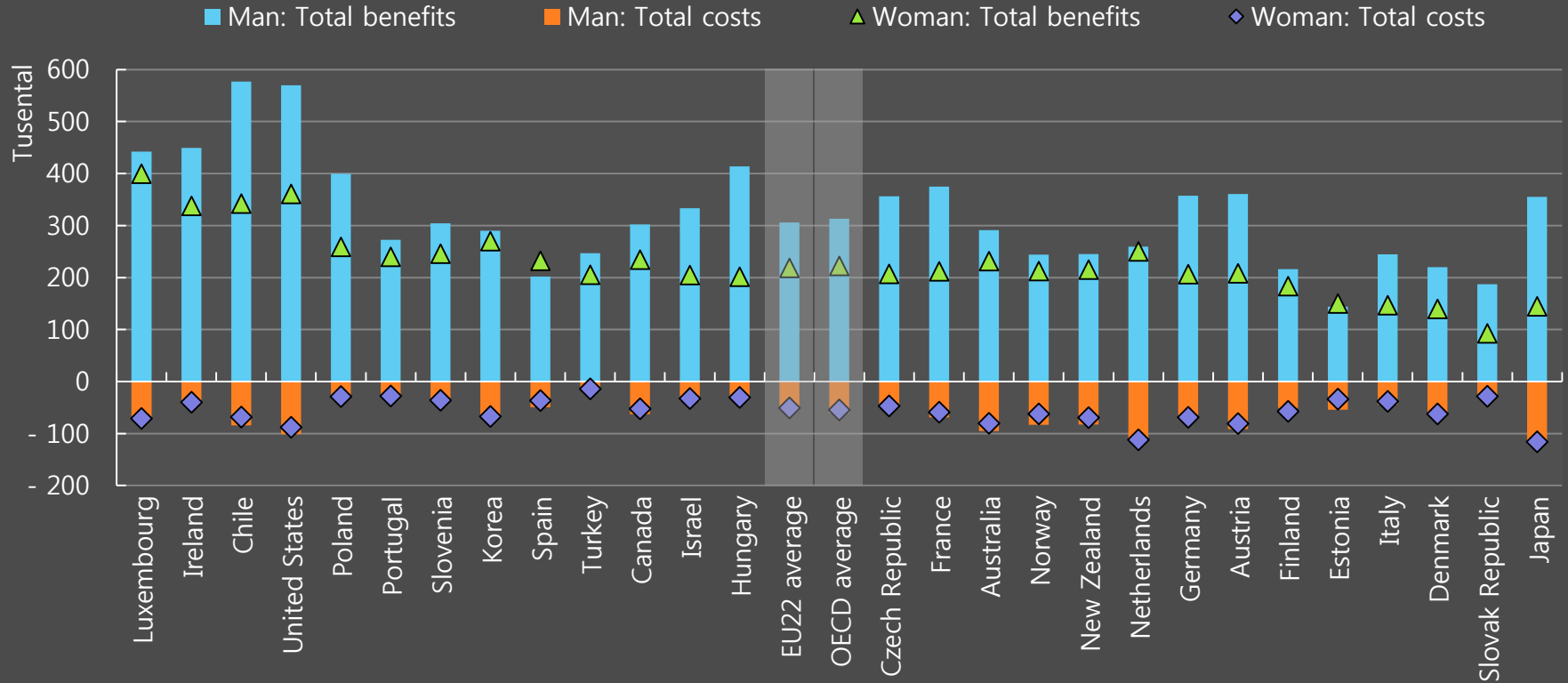


*All tertiary institutions are government-dependent private institutions in England (United Kingdom).

The returns are still worth it for individuals

Figure A7.2

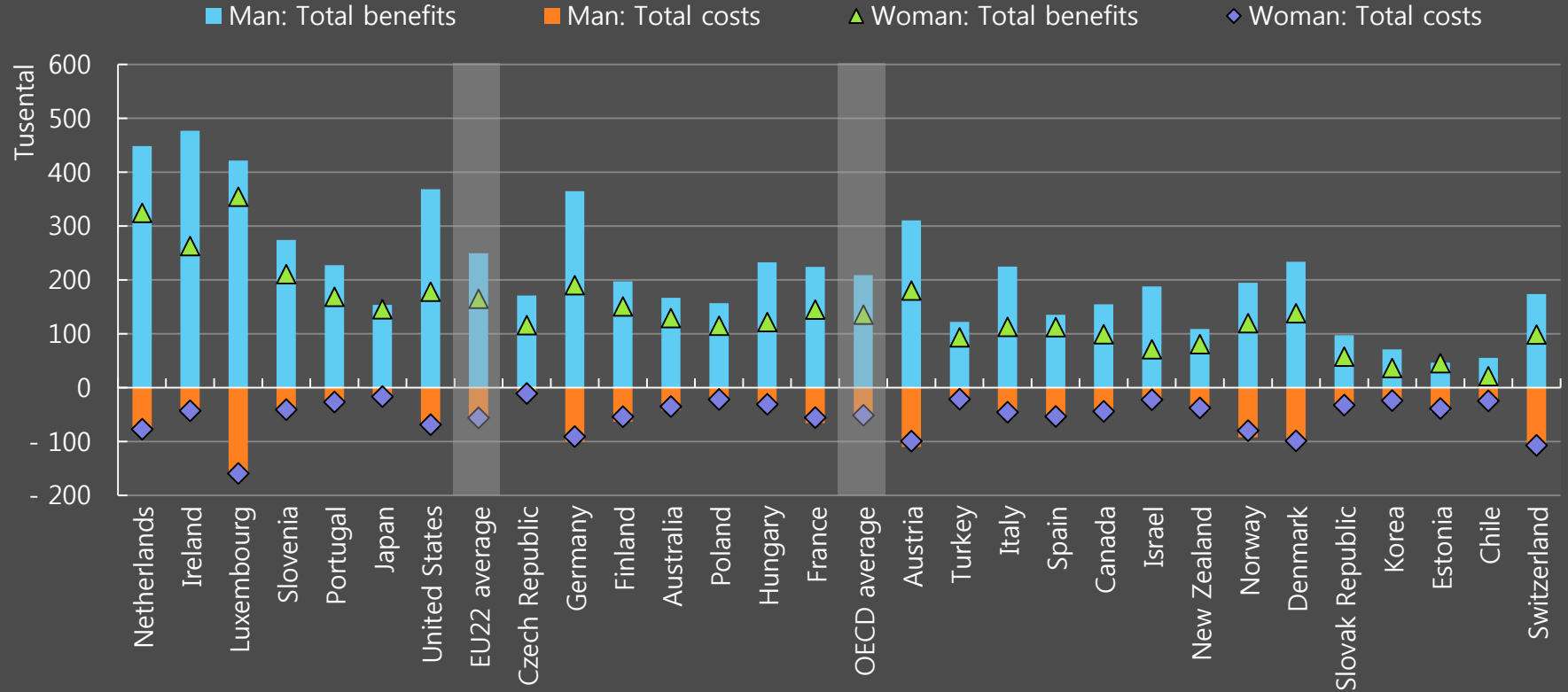
Private costs and benefits of education for a man or a woman attaining tertiary education (2013)



...and also for taxpayers

Figure A7.3

Private costs and benefits of education for a man or a woman attaining tertiary education (2013)

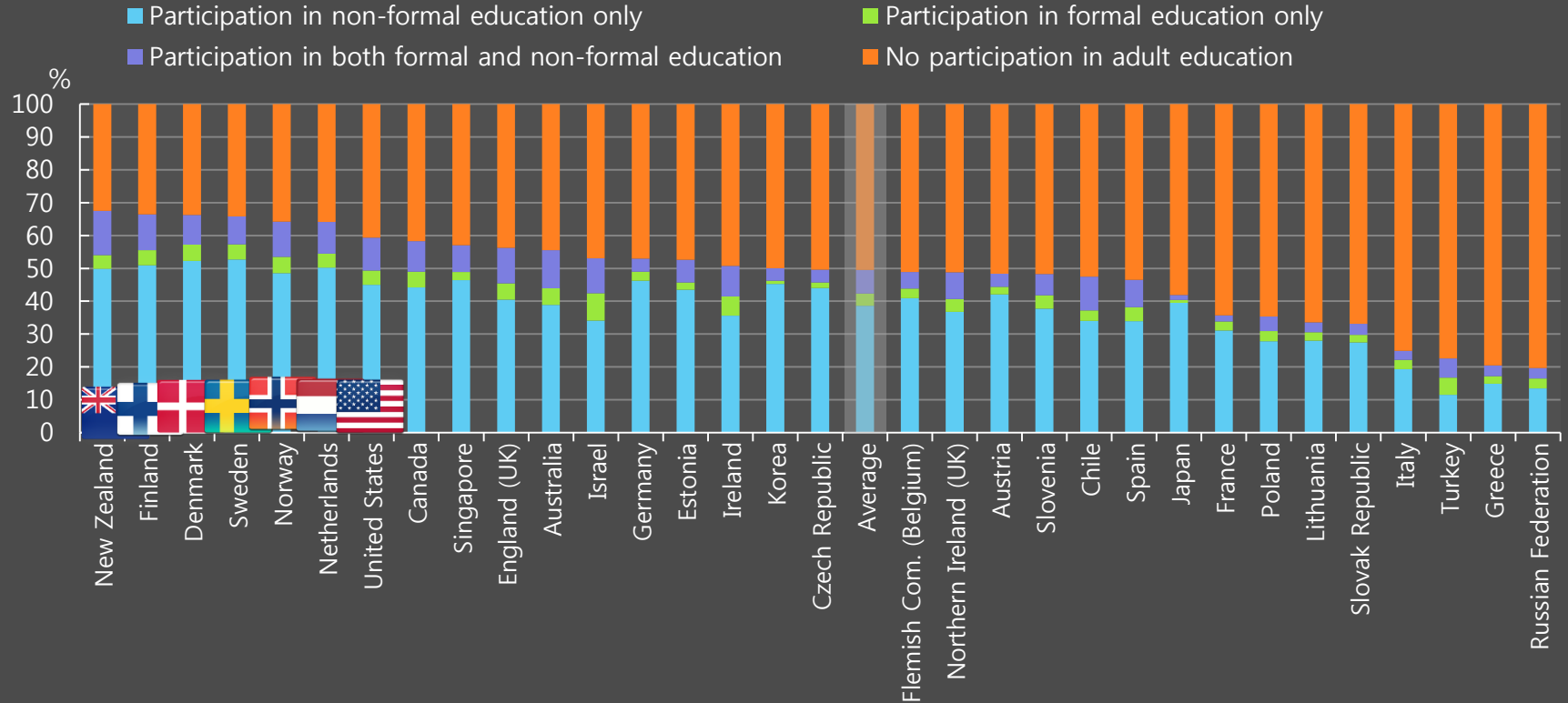


The 'lifelong learning' challenge

About half of the adult population participates in continuous education

Figure C6.1

Adults' participation in formal and/or non-formal education, by type (2012 or 2015)



Thank you

Find out more about our work at www.oecd.org/edu

- All publications
- The complete micro-level database

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