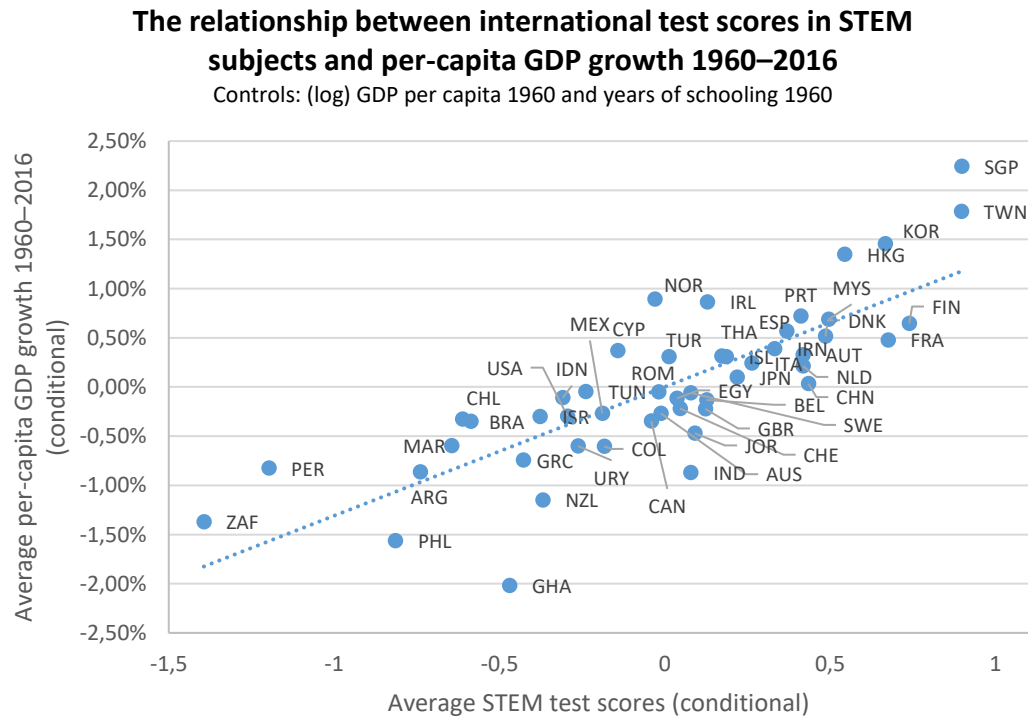


Not good enough
– Swedish test scores in STEM subjects

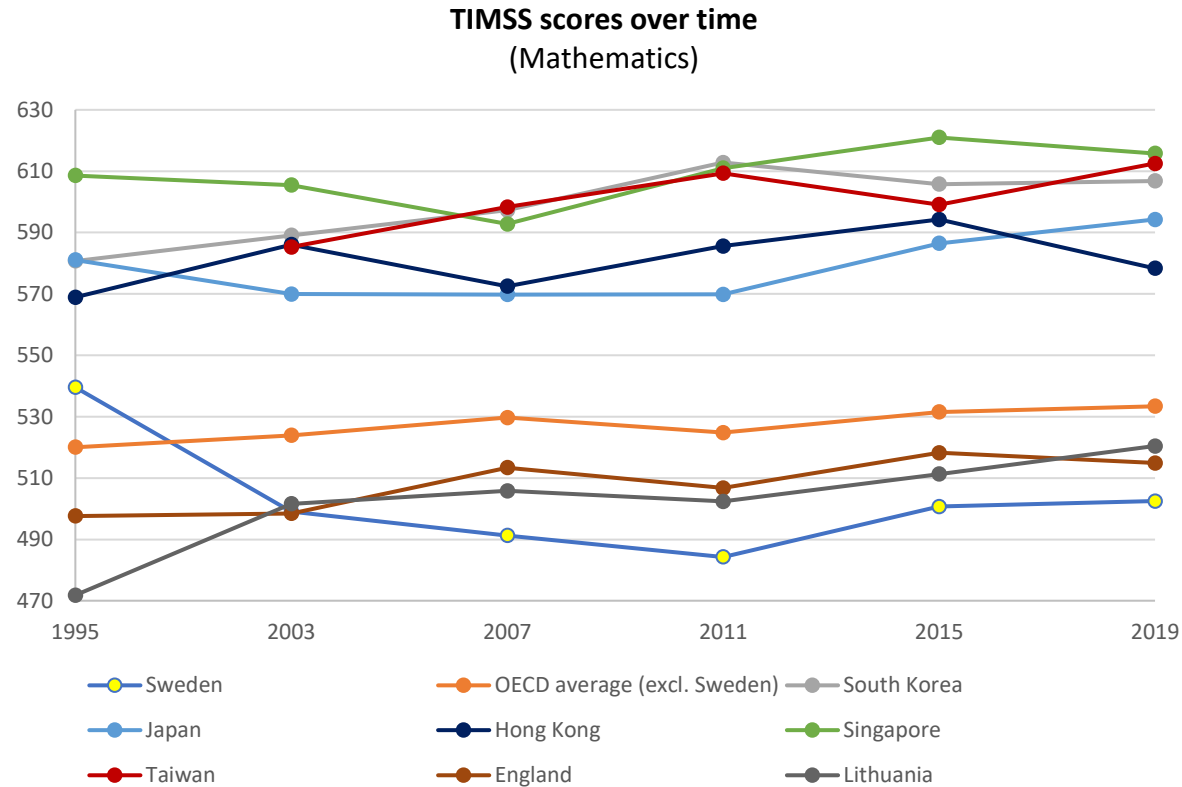
Data from TIMSS and PISA,
compiled by Gabriel Heller Sahlgren

Background

- Higher STEM test scores = higher economic growth.

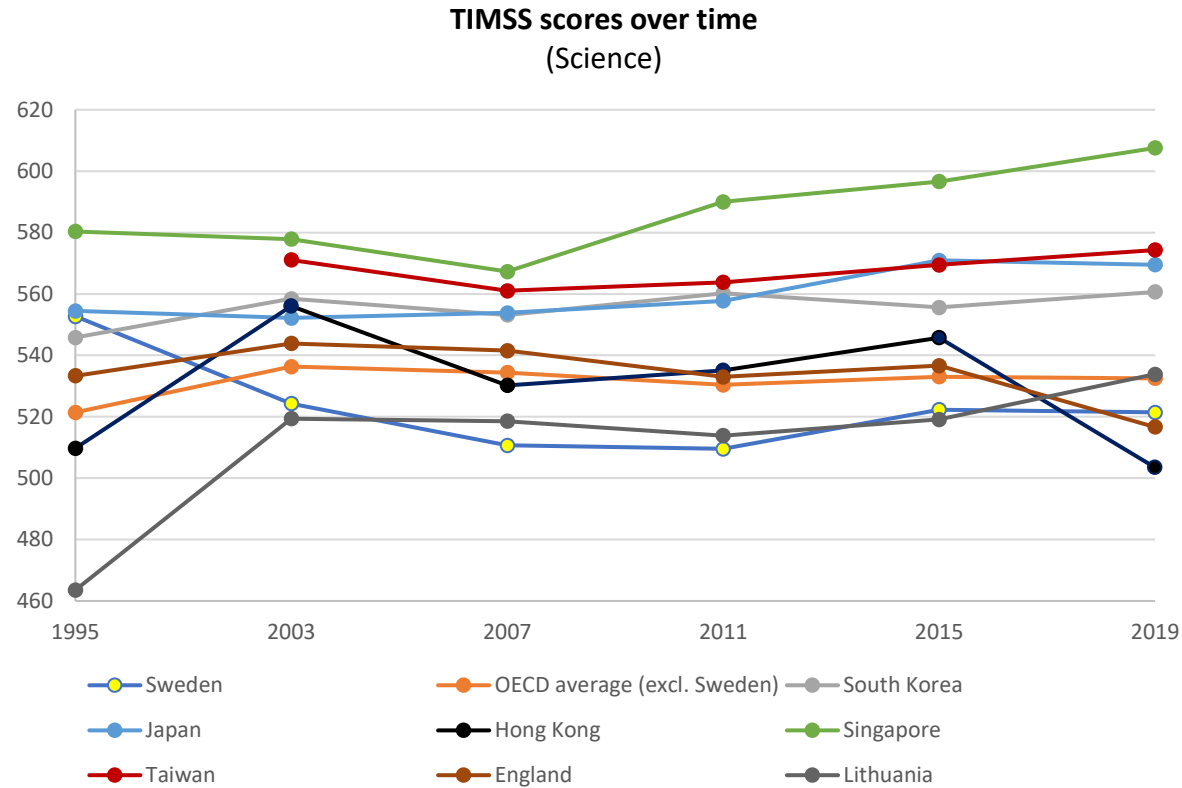


TIMSS – pupils in year 8



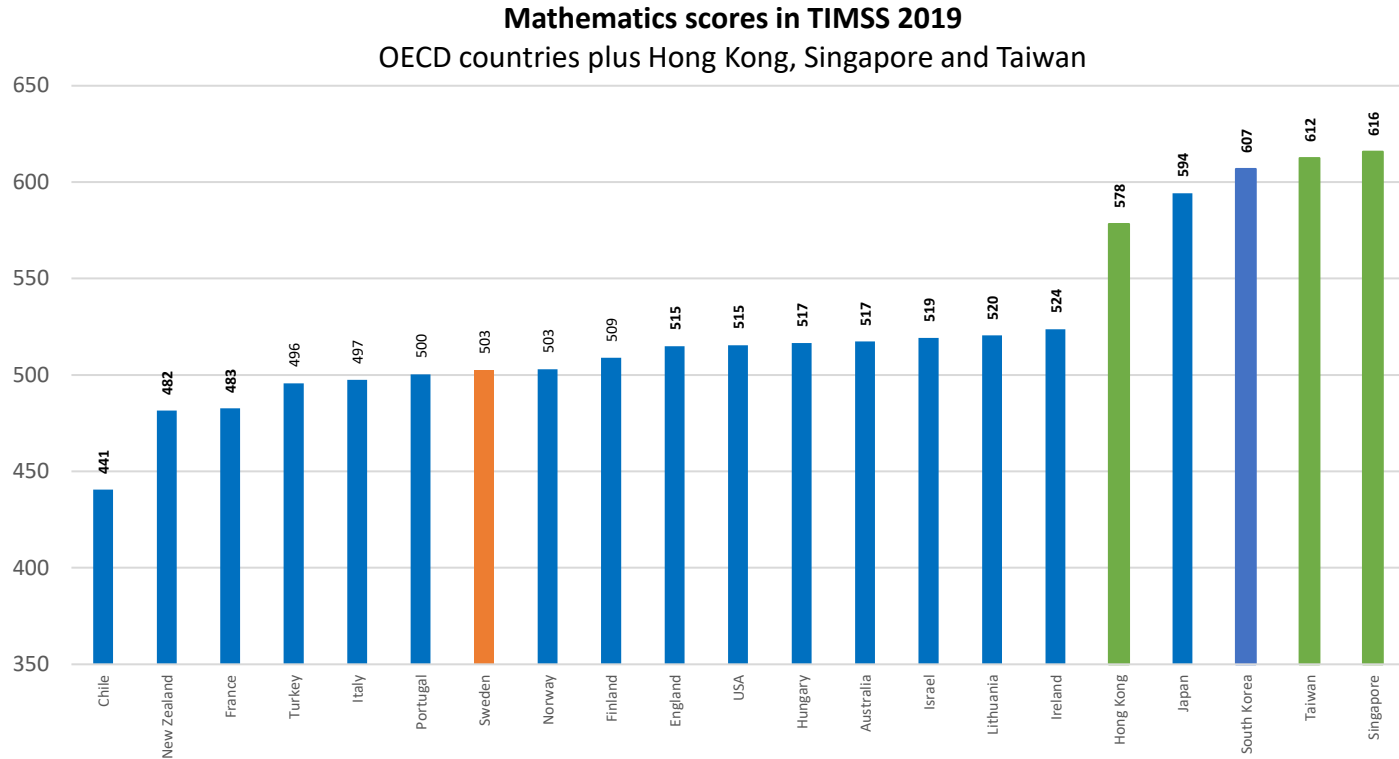
The OECD average is calculated from the performance of students in member countries, excluding Sweden, that have participated in all TIMSS rounds since 1995 (apart from 1999). These include Australia, England, Hungary, Japan, Lithuania, New Zealand, South Korea, and USA.

TIMSS – pupils in year 8



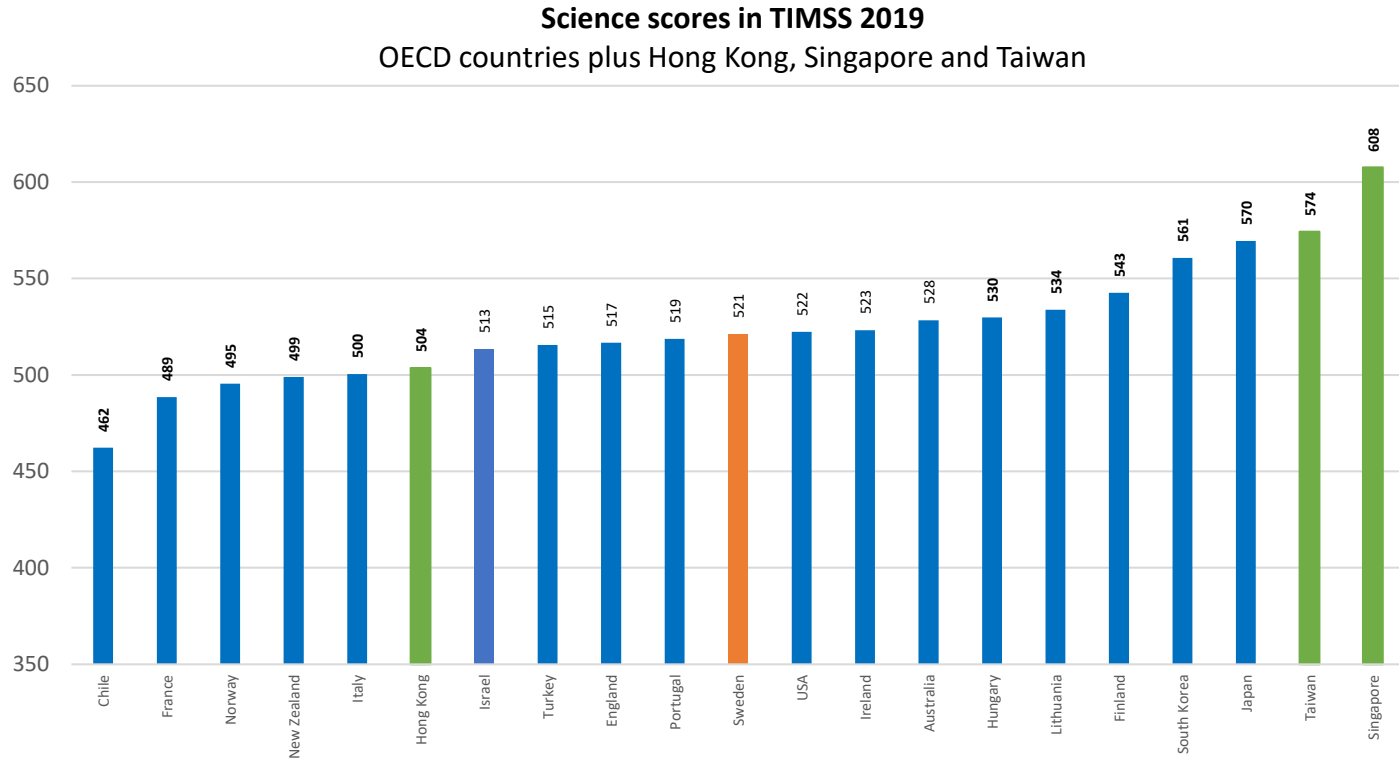
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TIMSS – pupils in year 8



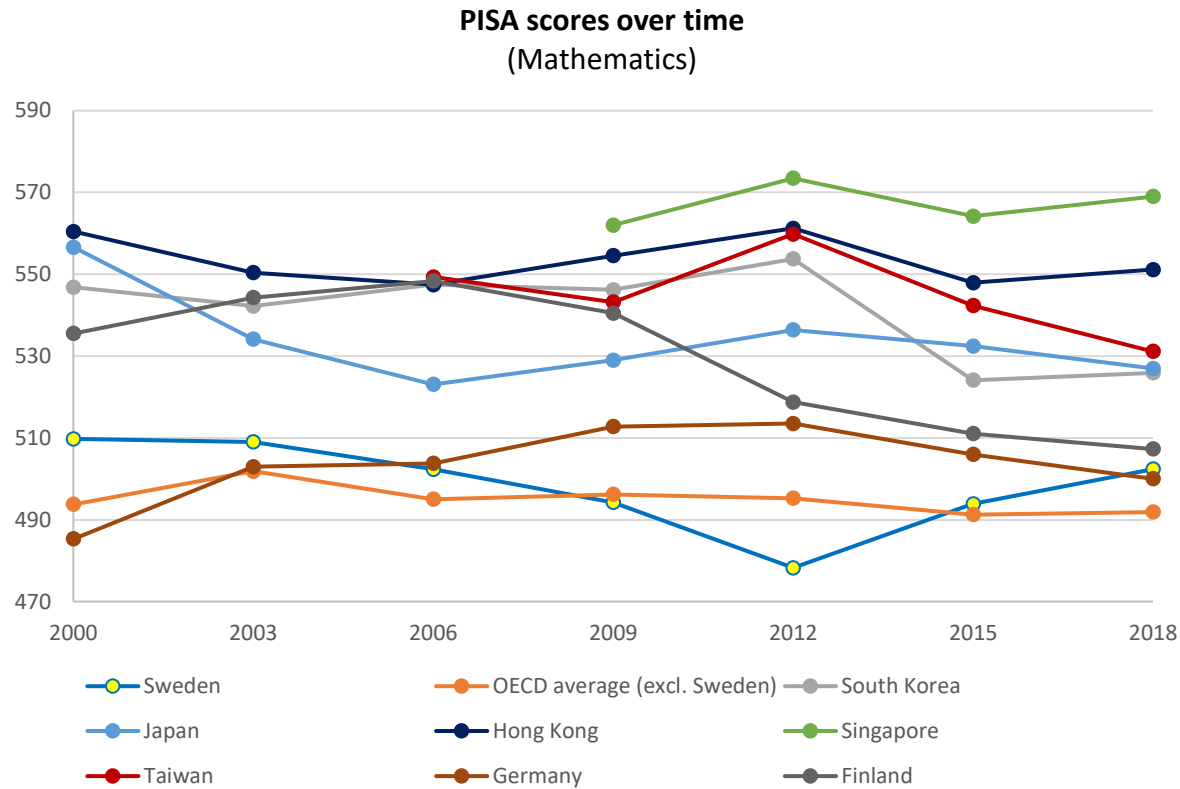
Bold = statistically significant difference compared with Sweden's score

TIMSS – pupils in year 8



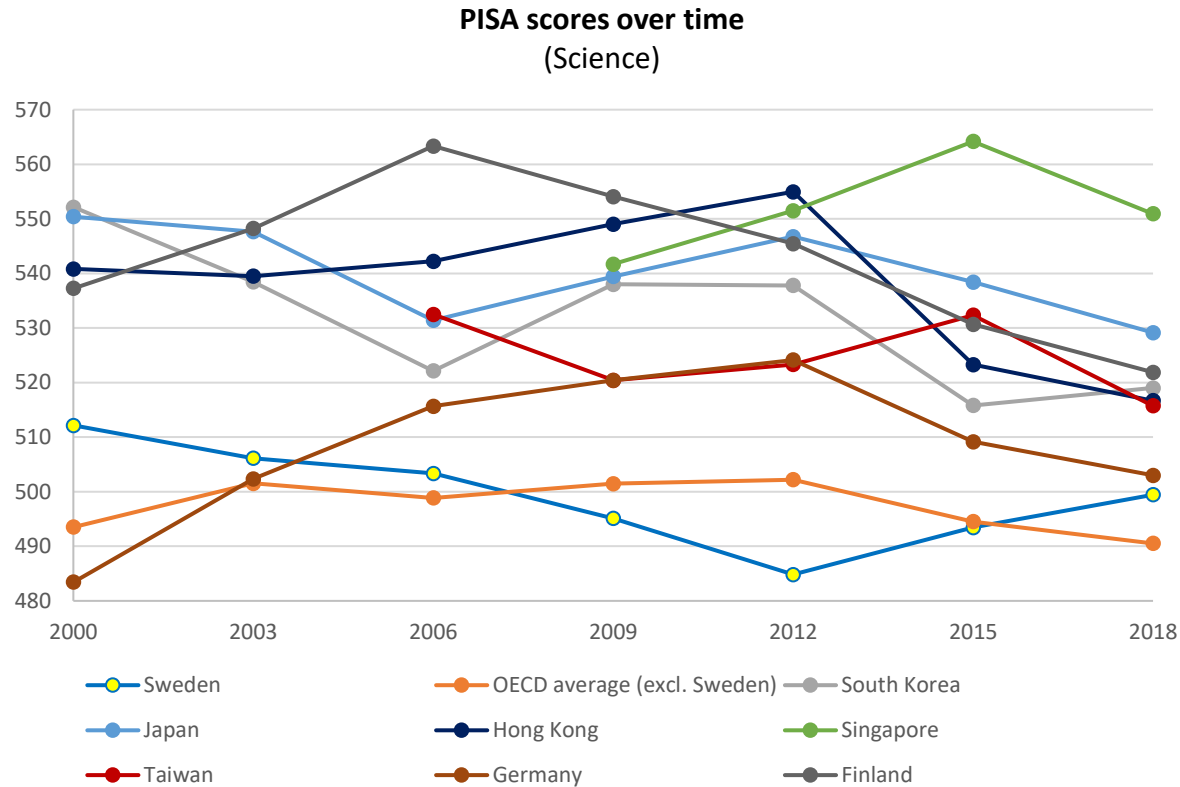
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PISA – 15-year olds



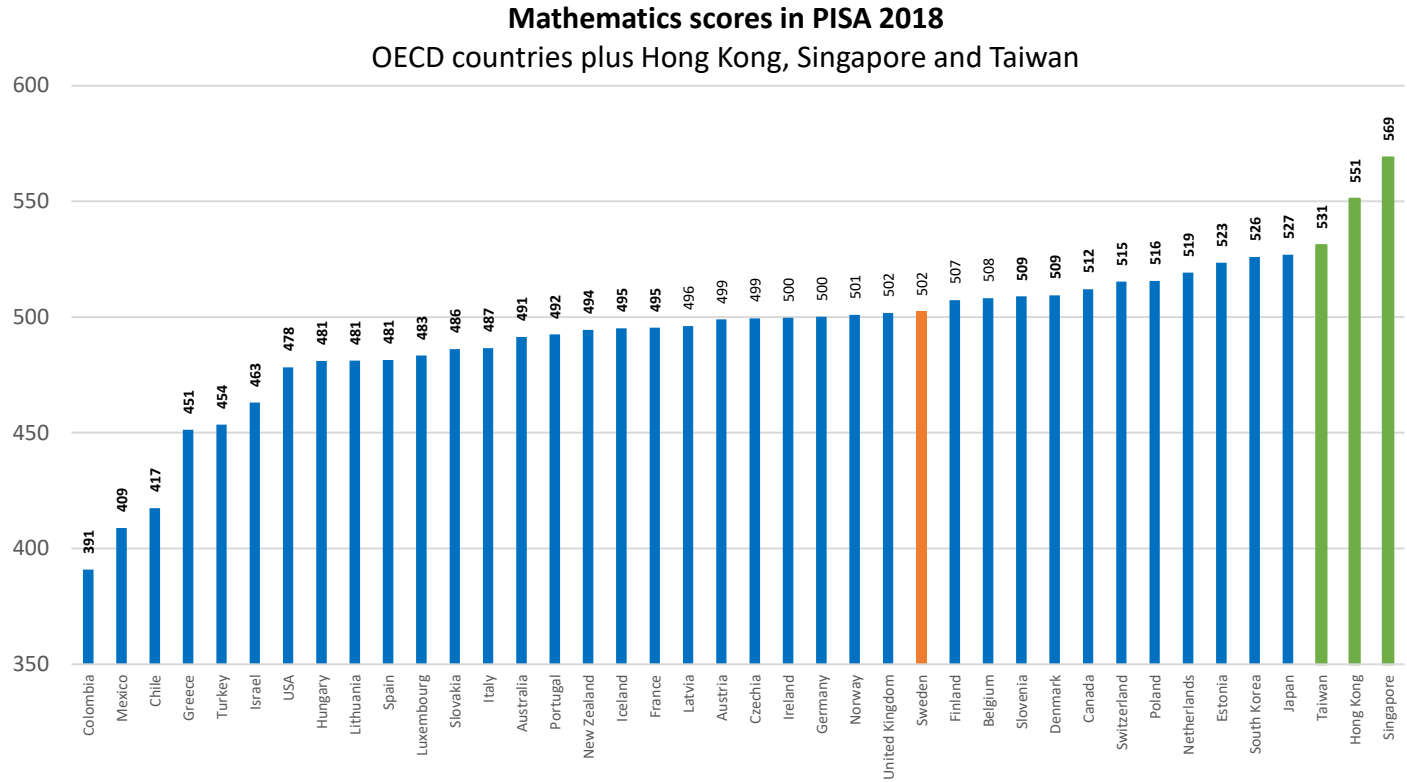
The OECD average is calculated from the performance of students in member countries, excluding Sweden, that have participated in all PISA rounds since 2000. These include all OECD countries apart from Colombia, Costa Rica, Estonia, Lithuania, Slovakia, Slovenia and Turkey.

PISA – 15-year olds



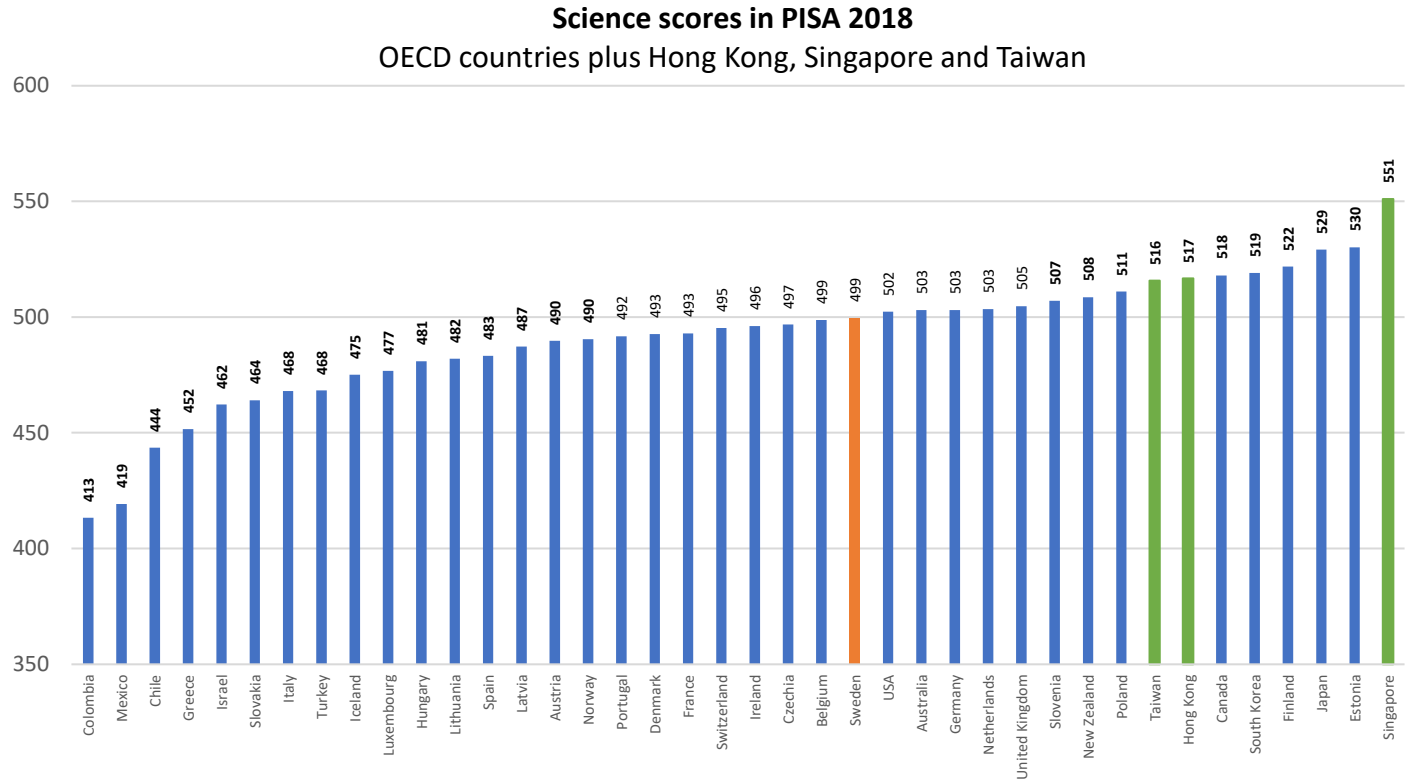
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PISA – 15-year olds



Bold = statistically significant difference compared with Sweden's score

PISA – 15-year olds



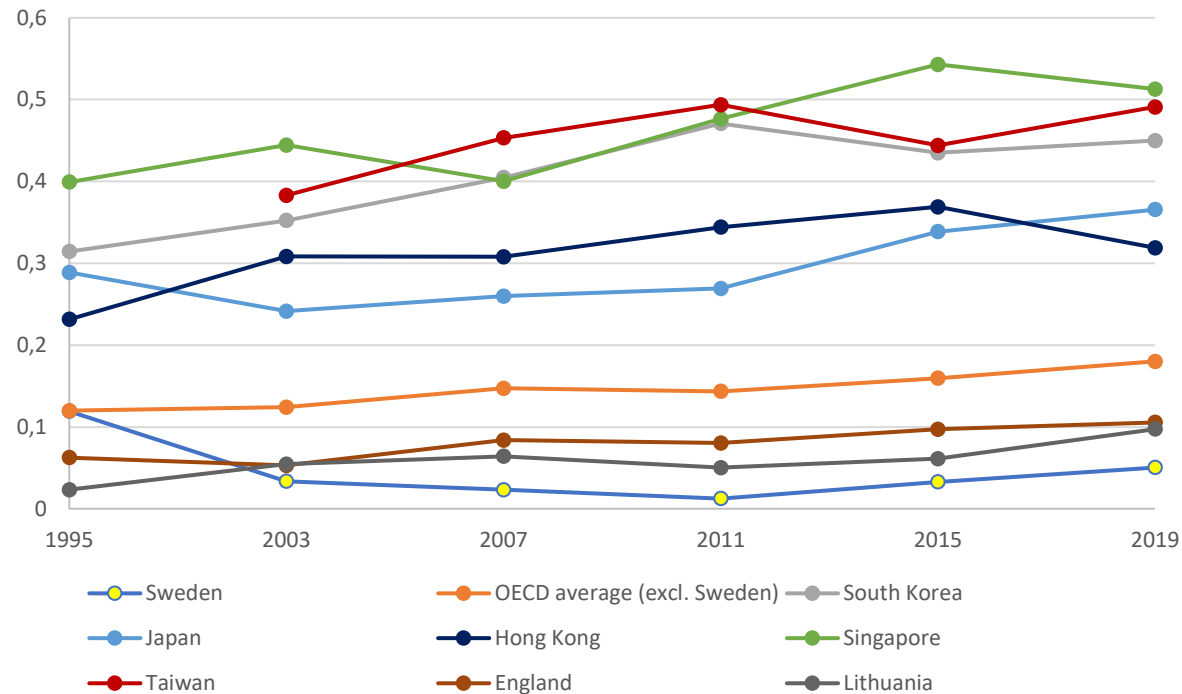
Bold = statistically significant difference compared with Sweden's score

Conclusions

- Swedish pupils do not perform sufficiently well in STEM subjects.
 - Far behind the best pupils in the world, especially in TIMSS mathematics.
 - TIMSS scores are a better measure of STEM performance than PISA scores.
 - This is true despite the improvements since around 2010.
 - Native Swedish pupils perform better (see [Heller-Sahlgren 2022](#)).
 - But our economic future depends on the performance of all pupils, regardless of background!
 - The low scores are a threat to growth – and may have already contributed to Sweden’s current underperformance in this respect.
- ⇒ Important to develop a STEM strategy to improve performance.

Appendix

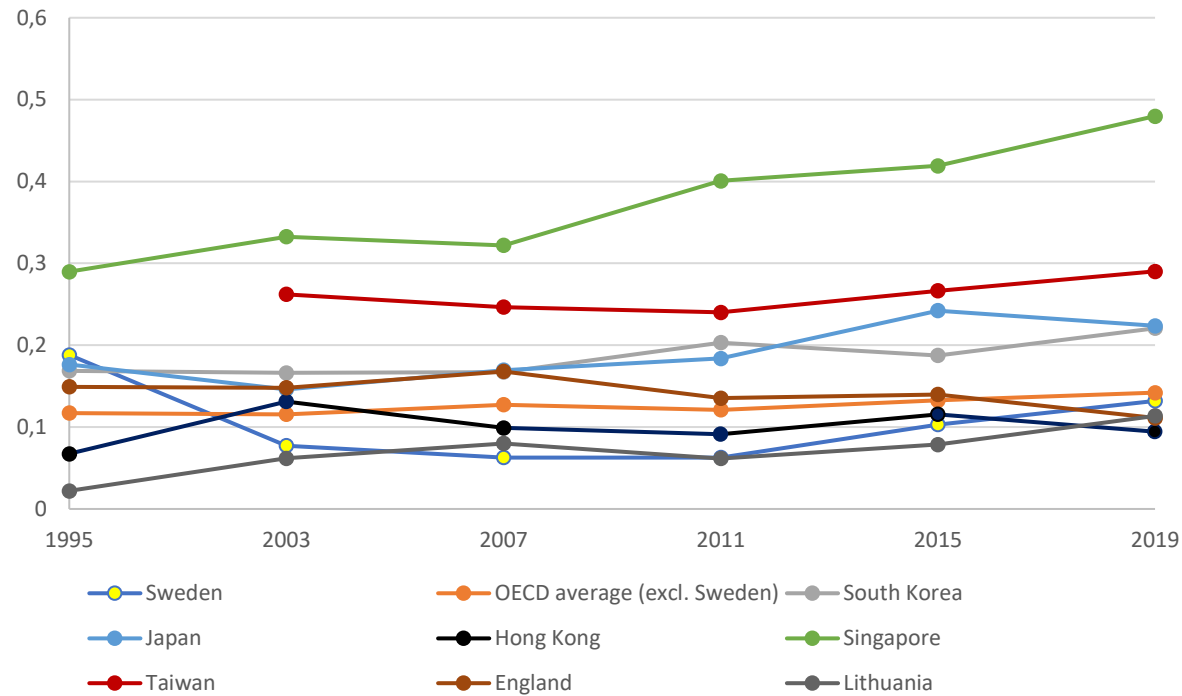
The share of high-performing pupils in TIMSS over time
(Mathematics)



The OECD average is calculated from the performance of students in member countries, excluding Sweden, that have participated in all TIMSS rounds since 1995 (apart from 1999). These include Australia, England, Hungary, Japan, Lithuania, New Zealand, South Korea, and USA.

Appendix

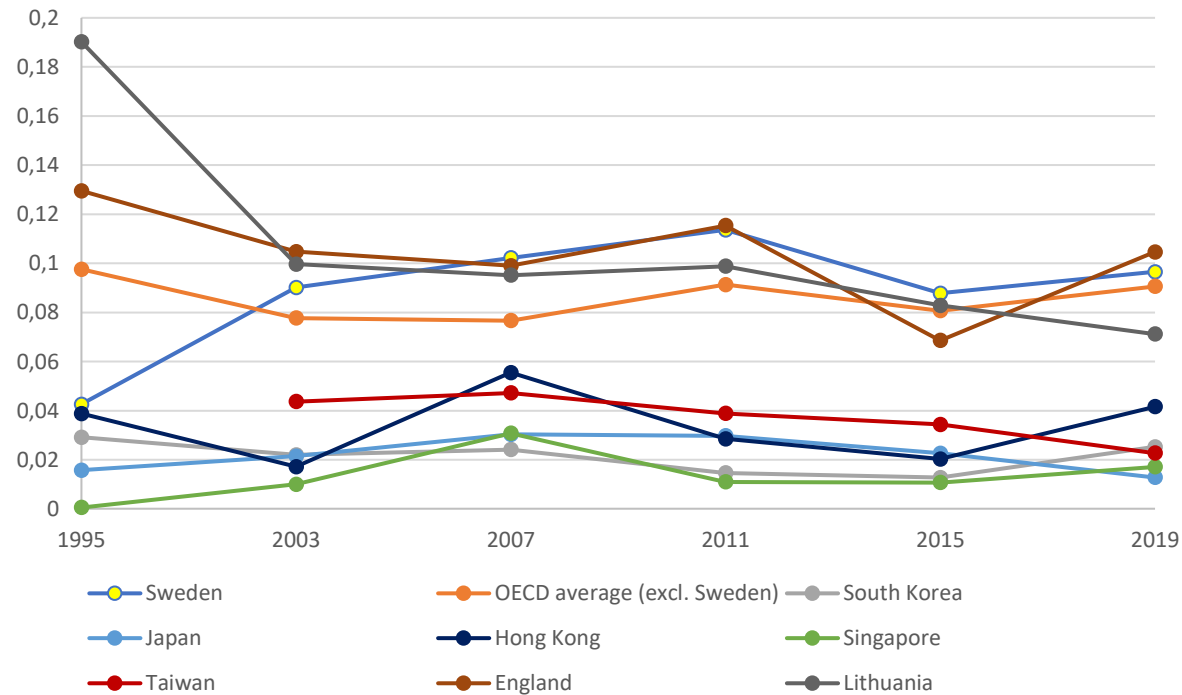
The share of high-performing pupils in TIMSS over time
(Science)



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Appendix

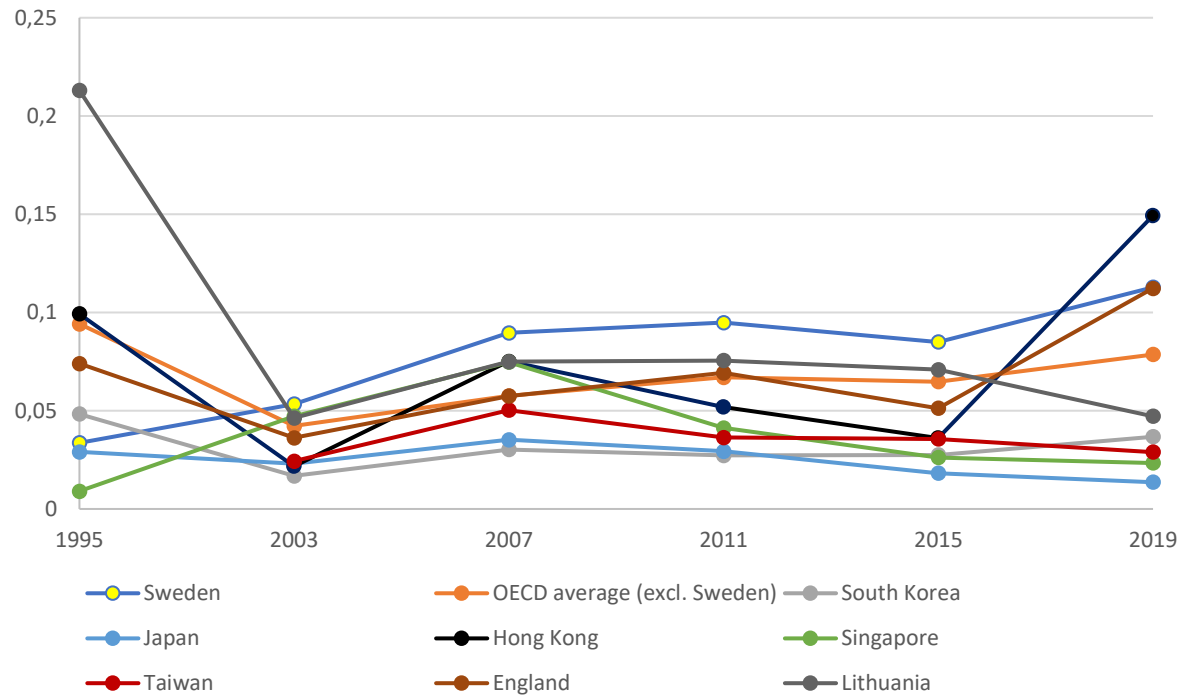
The share of low-performing pupils in TIMSS over time
(Mathematics)



The OECD average is calculated from the performance of students in member countries, excluding Sweden, that have participated in all TIMSS rounds since 1995 (apart from 1999). These include Australia, England, Hungary, Japan, Lithuania, New Zealand, South Korea, and USA.

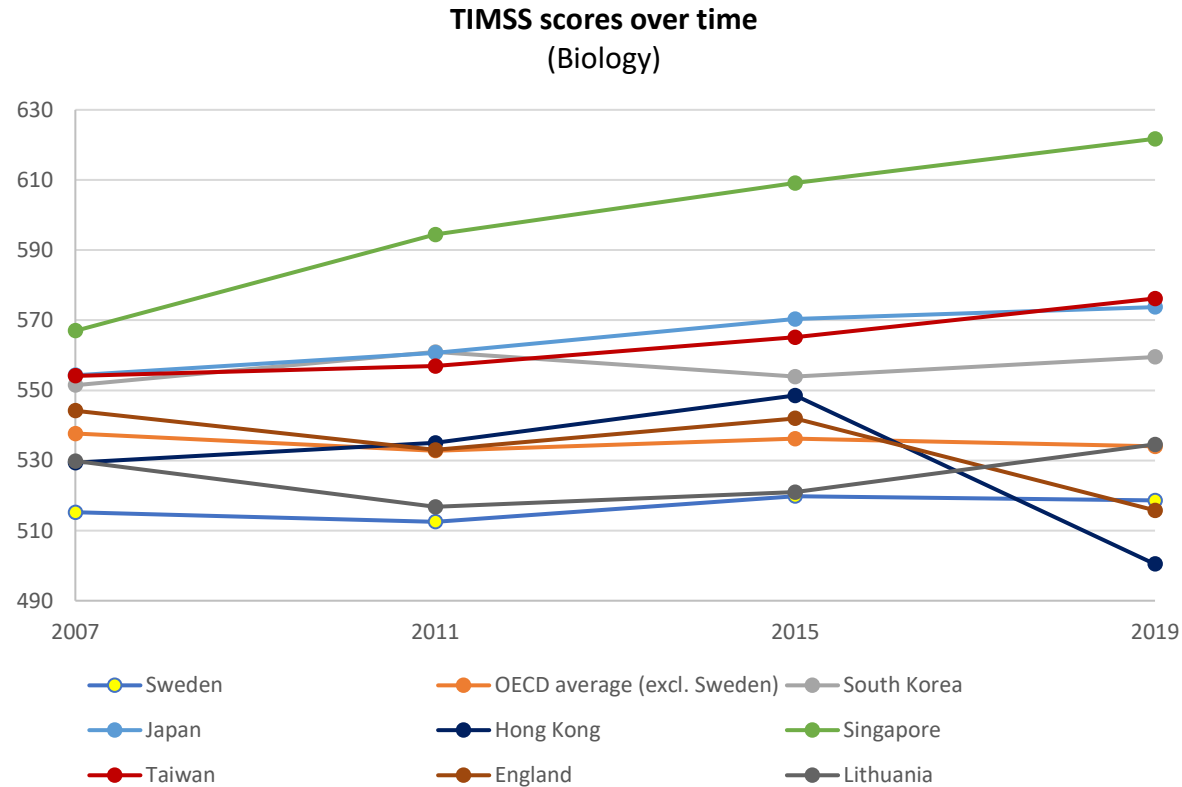
Appendix

The share of low-performing pupils in TIMSS over time
(Science)



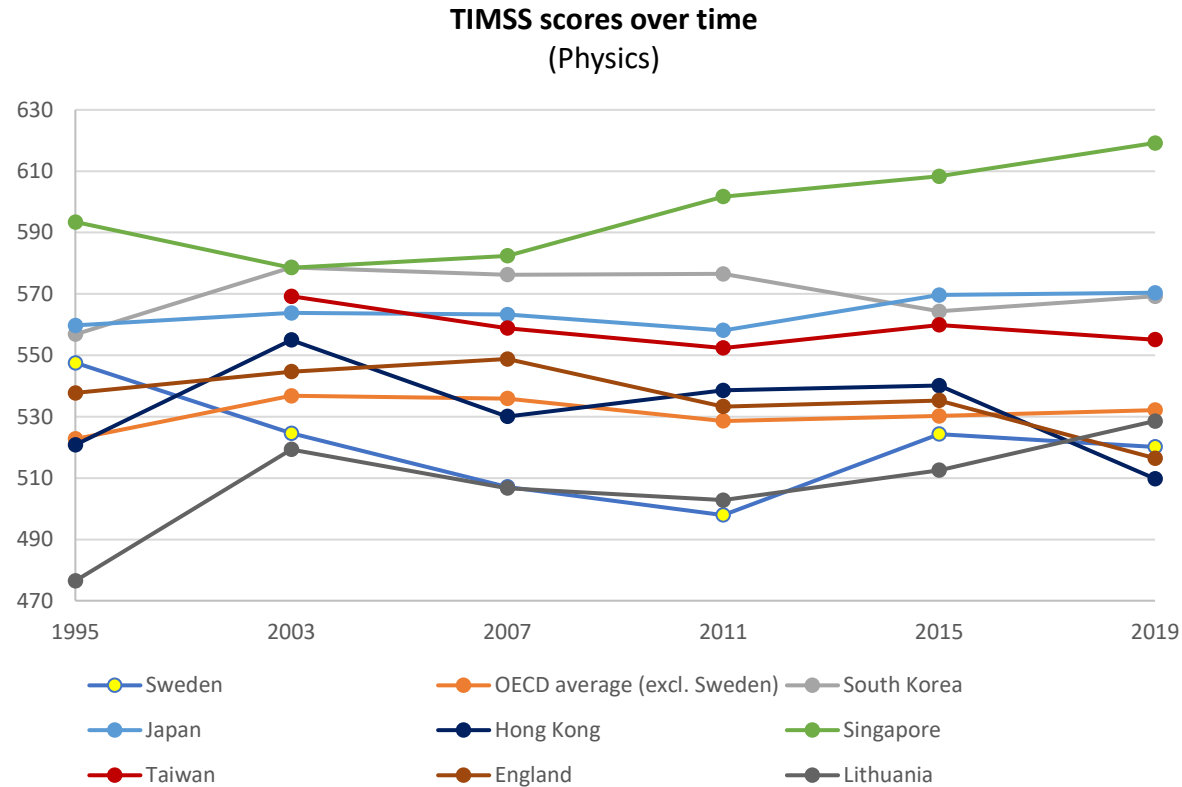
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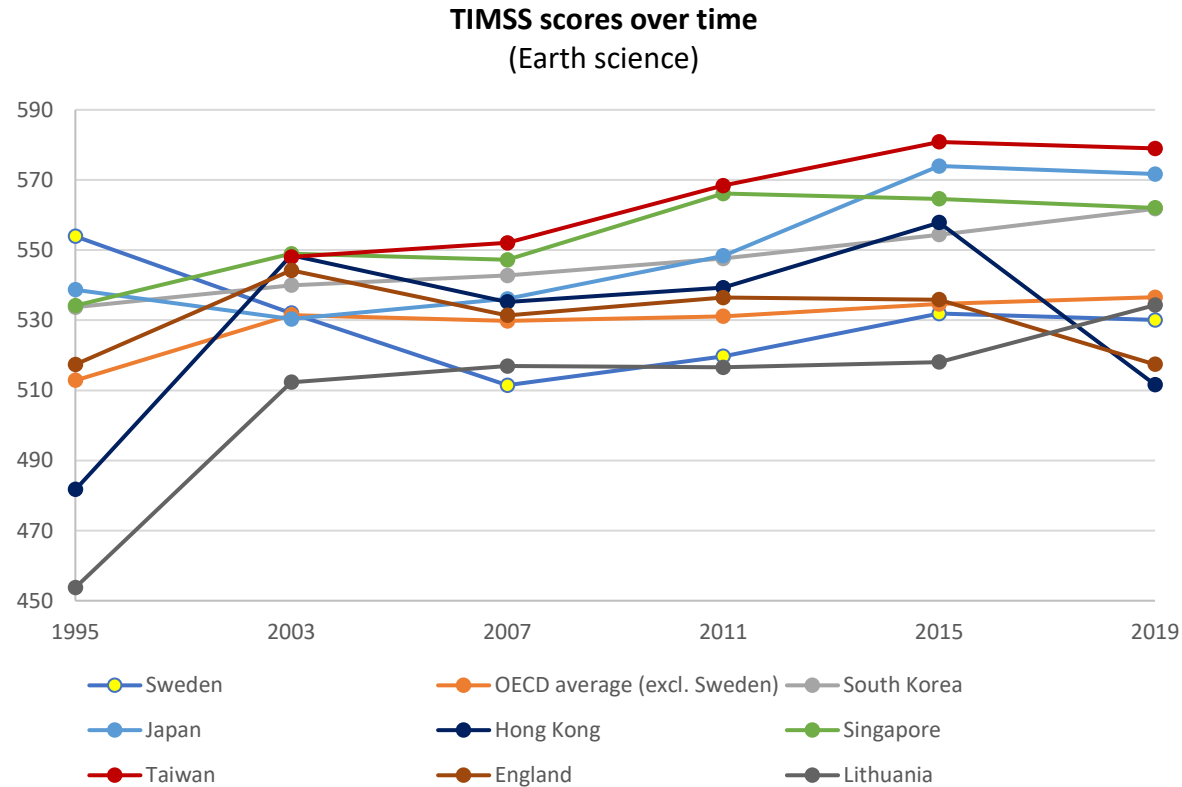
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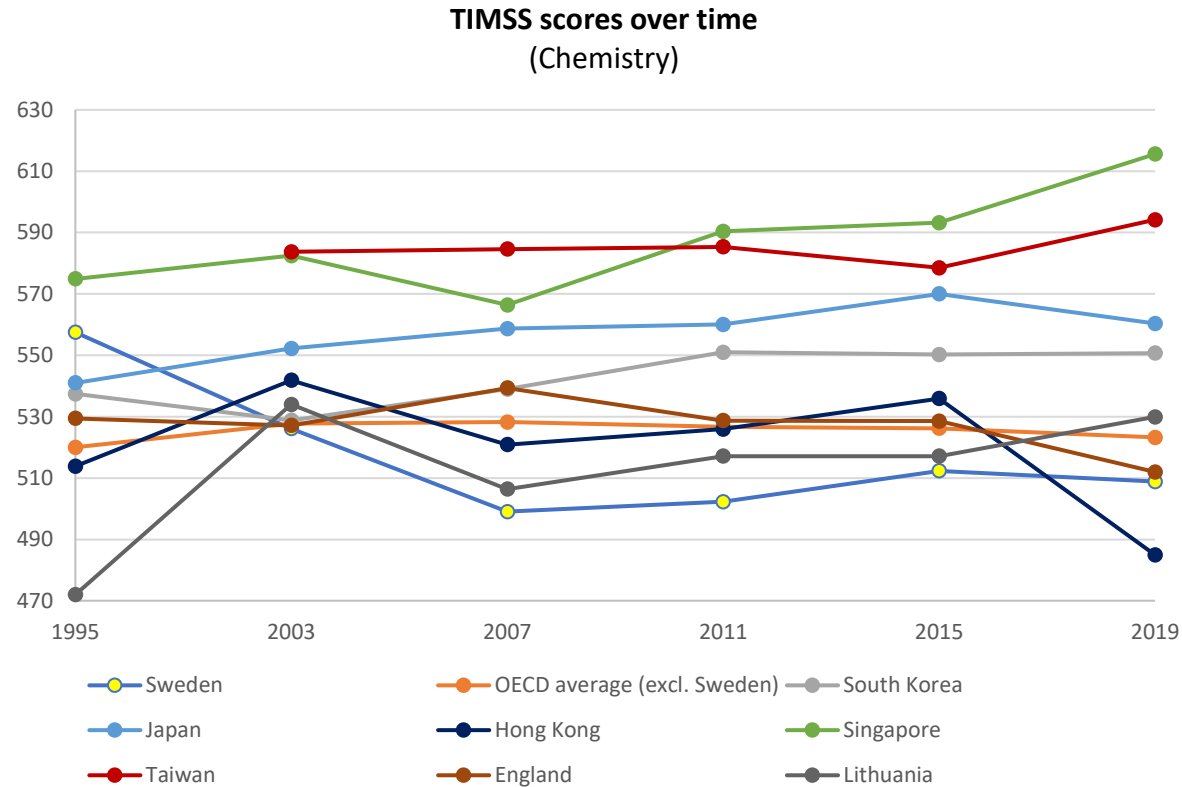
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