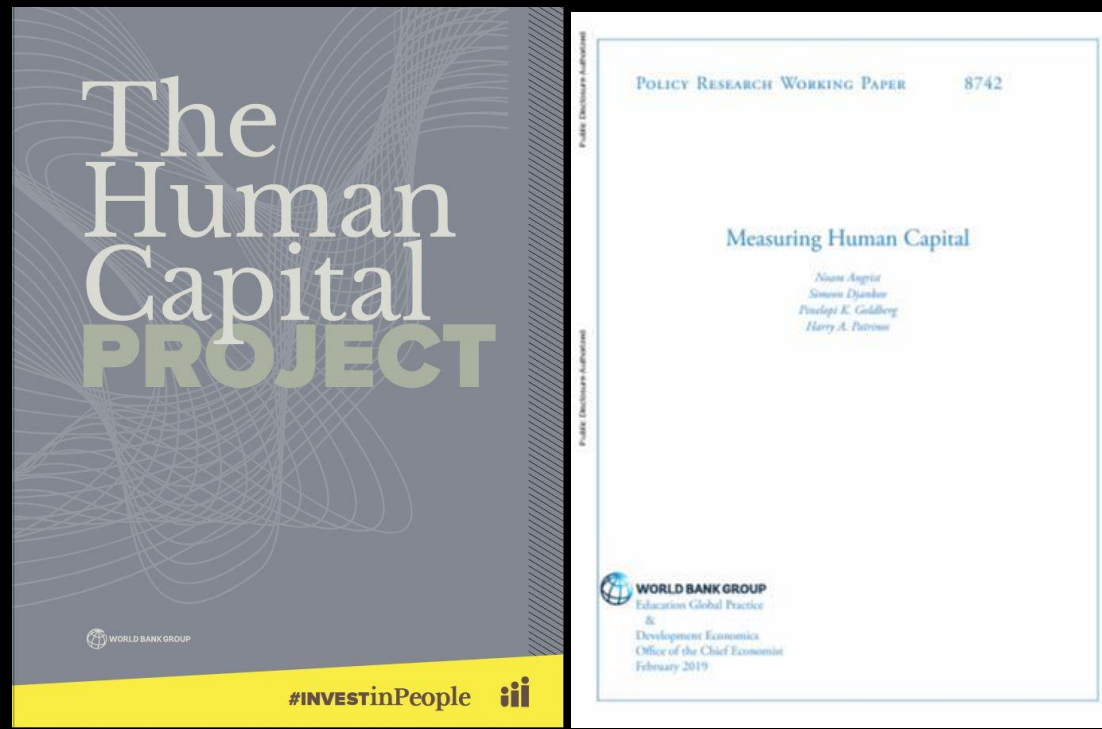


Global Challenges and Policy Responses

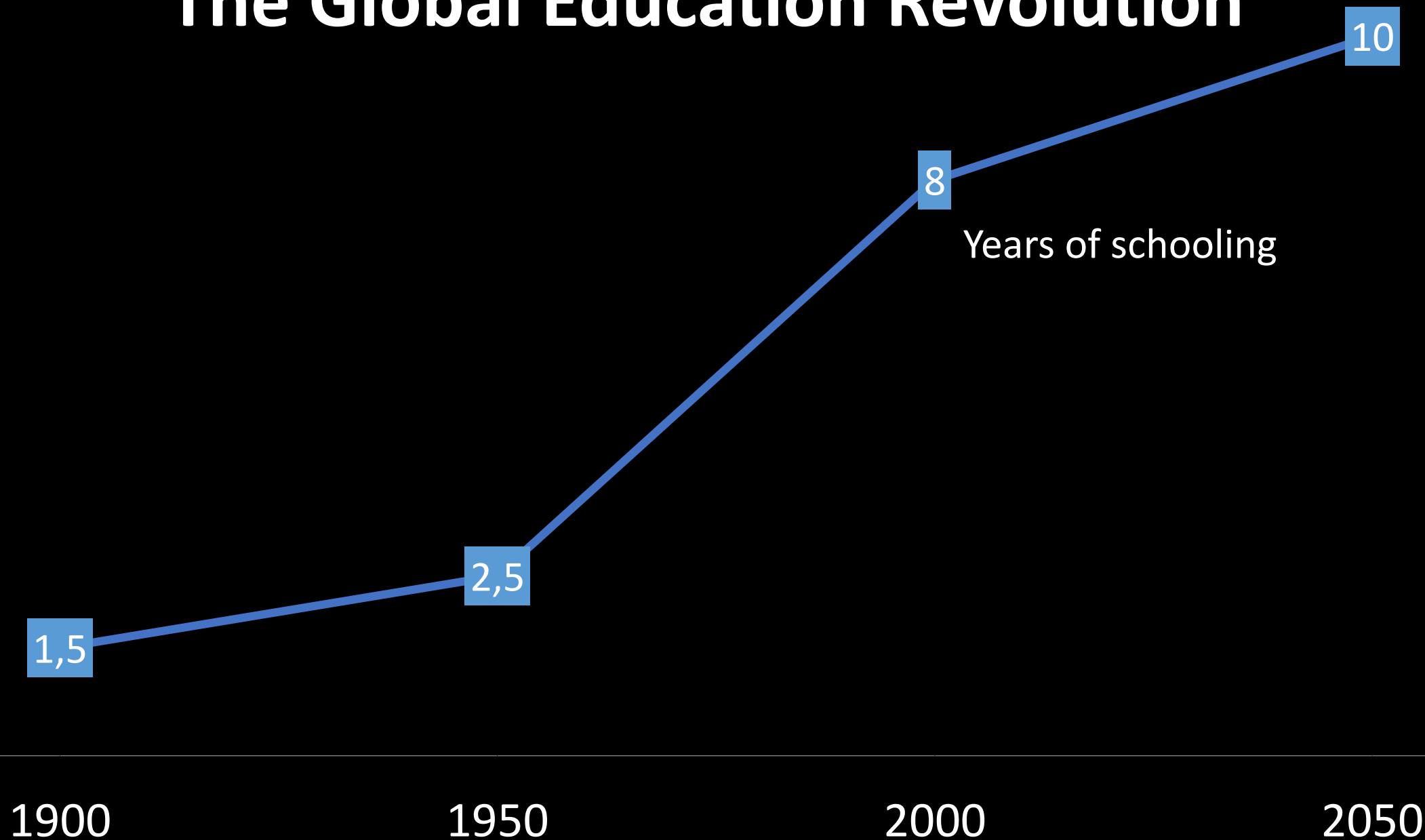
Harry Anthony Patrinos @hpatrinos
World Bank

The Education System and the Economy: Building Human Capital in Greece
Wednesday, 9 October 2019
Cotsen Hall, Gennadius Library, Athens

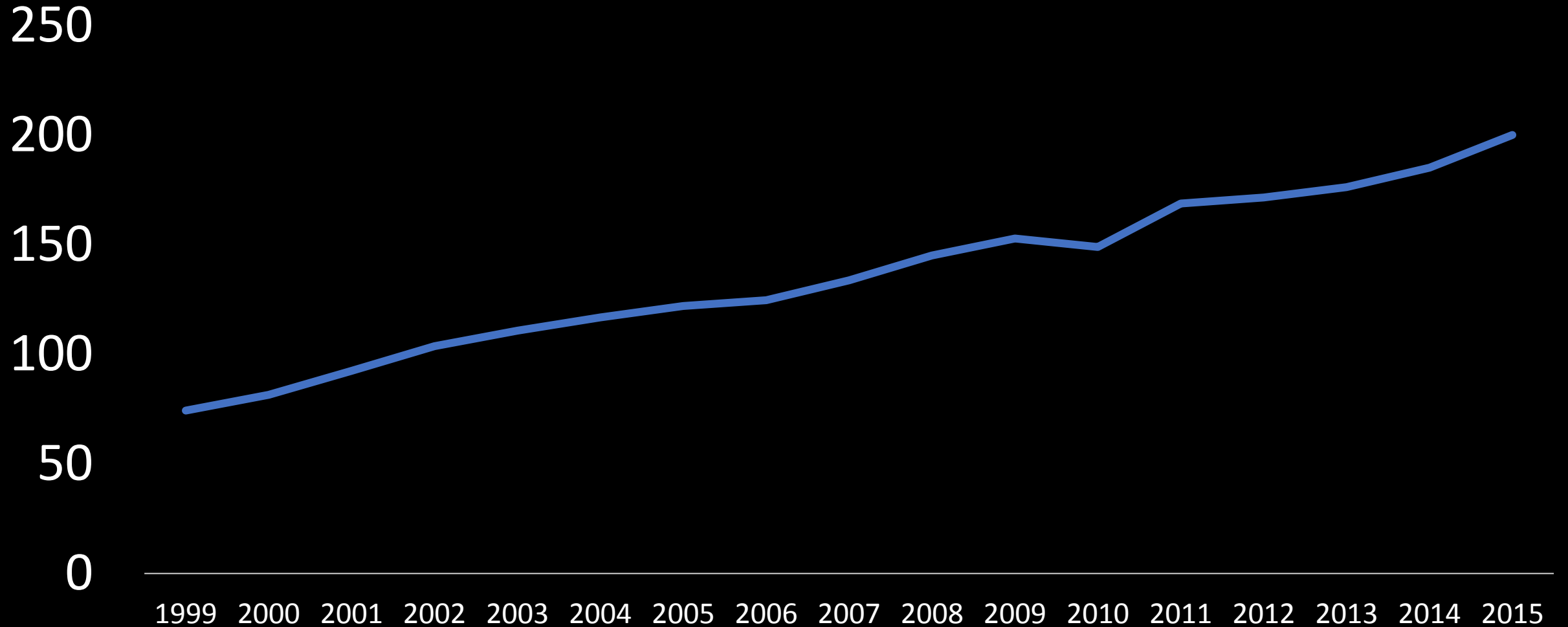
Global Challenges and Policy Responses



The Global Education Revolution



Global Enrollment in Tertiary Education is Increasing (millions of students)



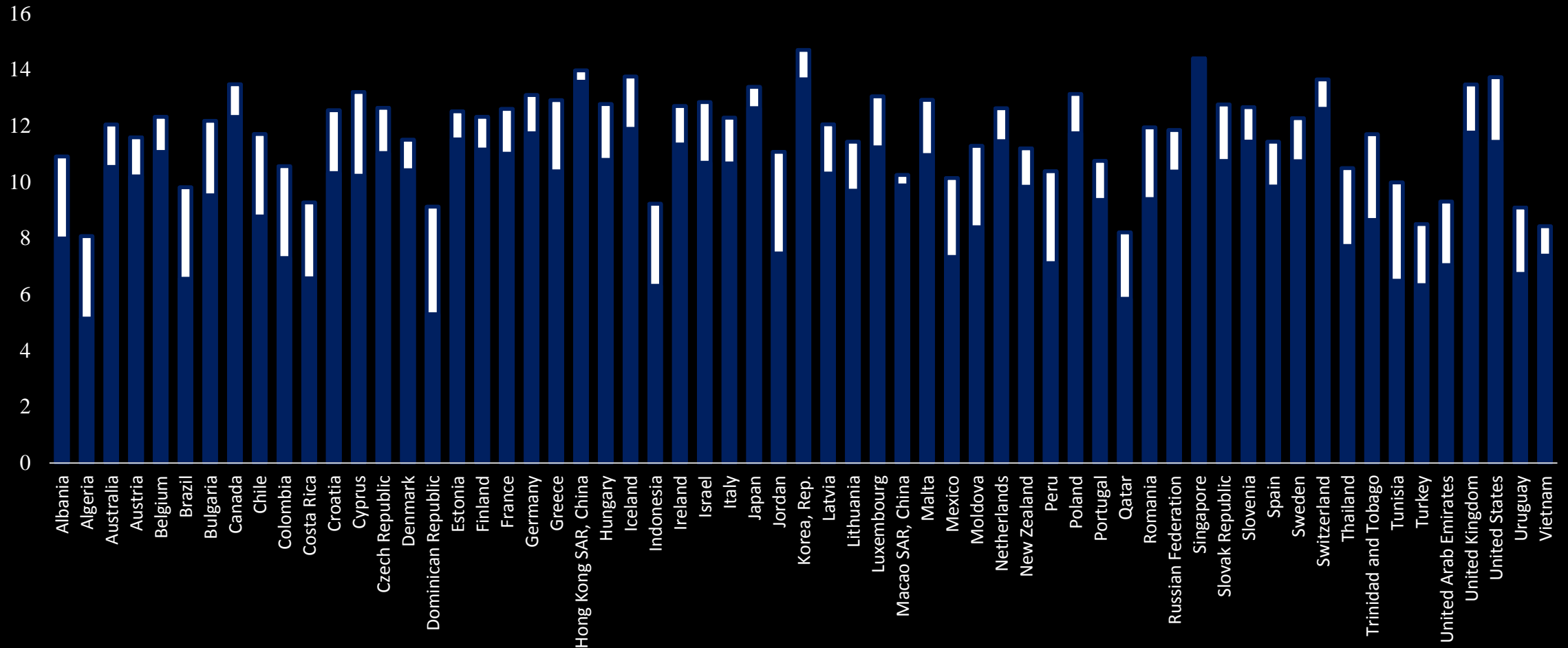
Tertiary Enrollment Rates in Europe

2016(or latest available)



Years of Schooling are not the same as Learning

Average years of schooling of 25-29 year olds, unadjusted and adjusted for learning



A graduation cap with a red tassel is positioned on a pile of US dollar bills. The cap is black with a square top and a red tassel hanging from the side. The bills are scattered around it, with some showing the number '100' and the word 'DOLLAR'. The word 'Returns' is written in white, bold, sans-serif font across the center of the image.

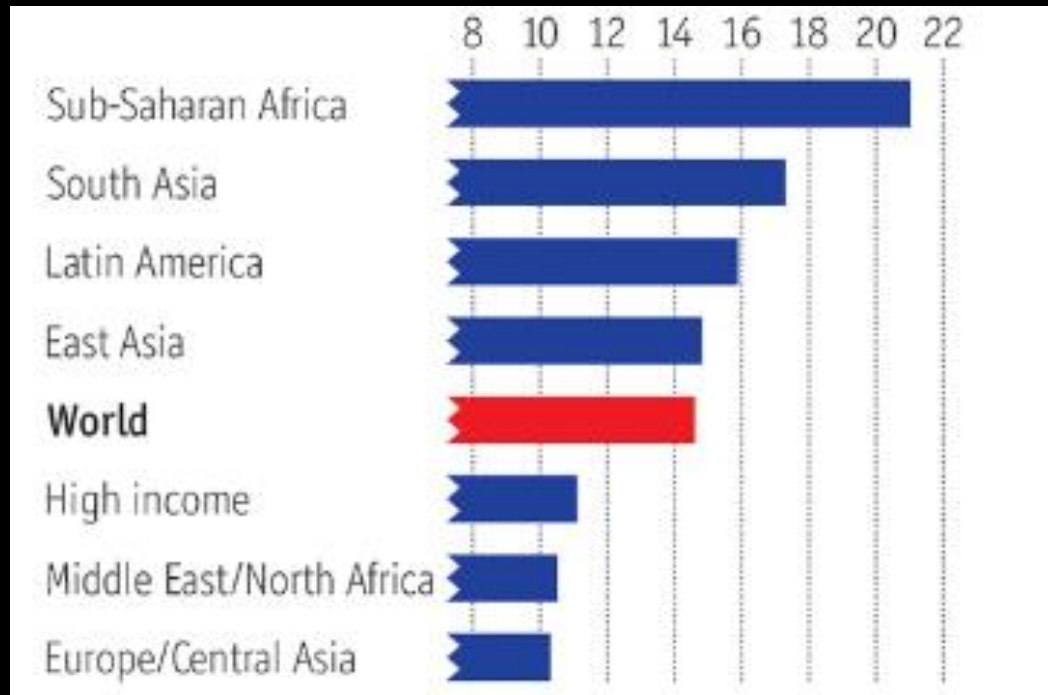
Returns

Every year of schooling raises earnings by 10%

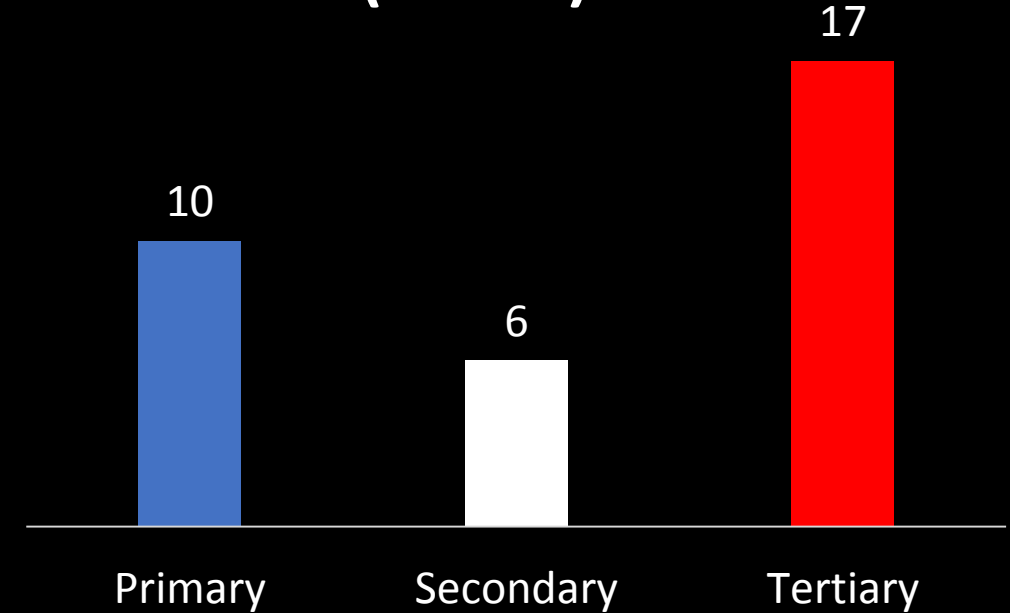


Private Rates of Return to Education

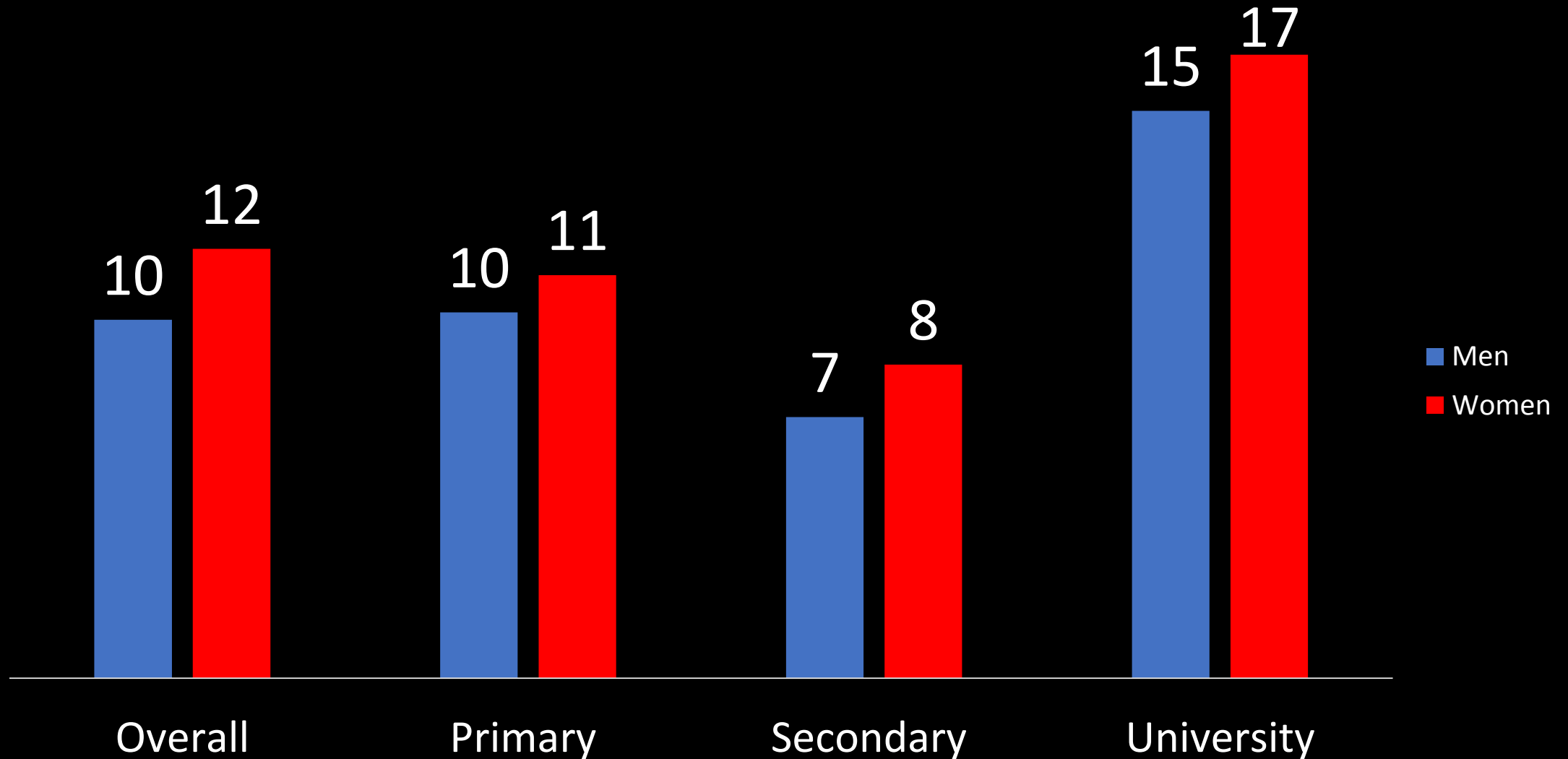
Rising Returns 1970-2013



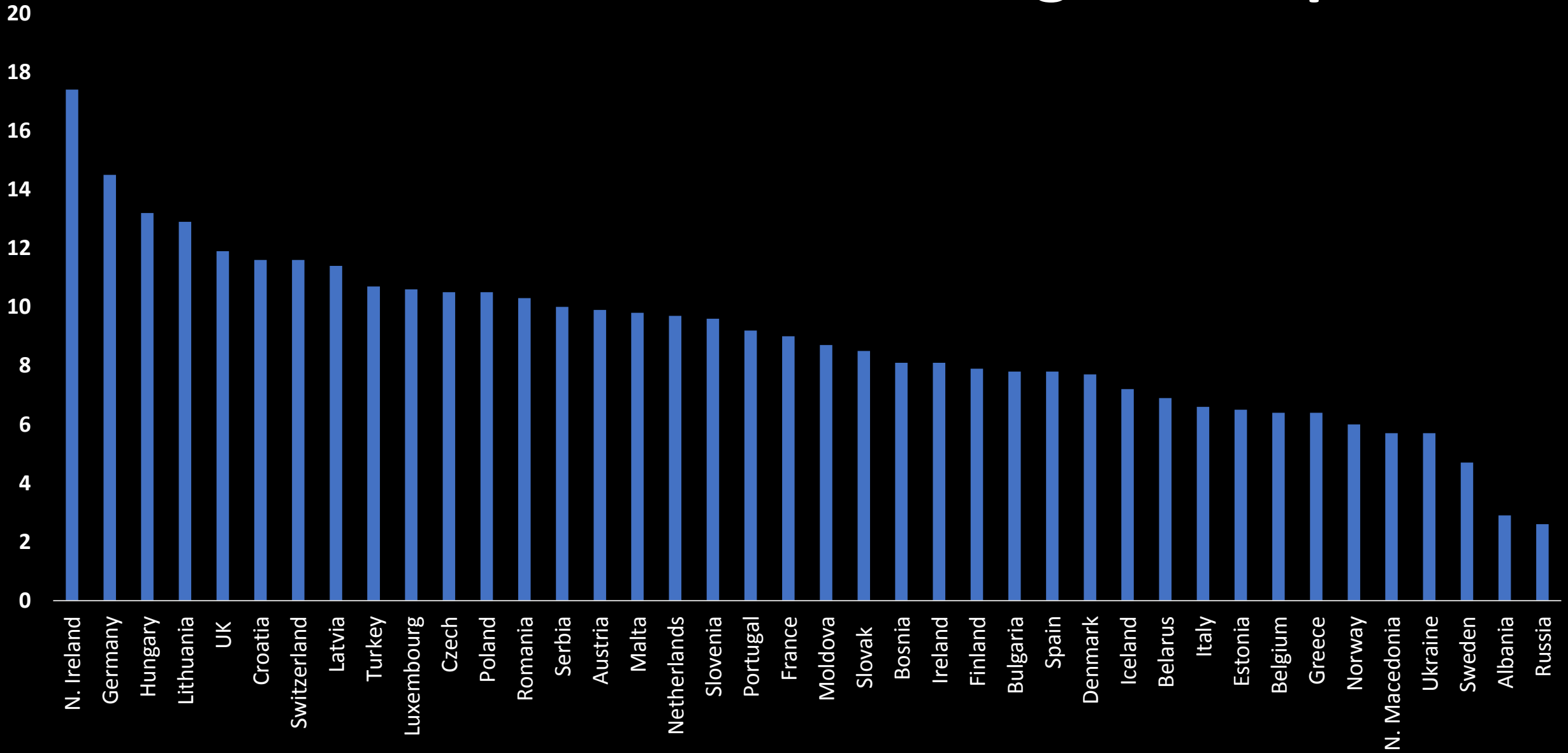
Returns to Schooling by Level (Latest)



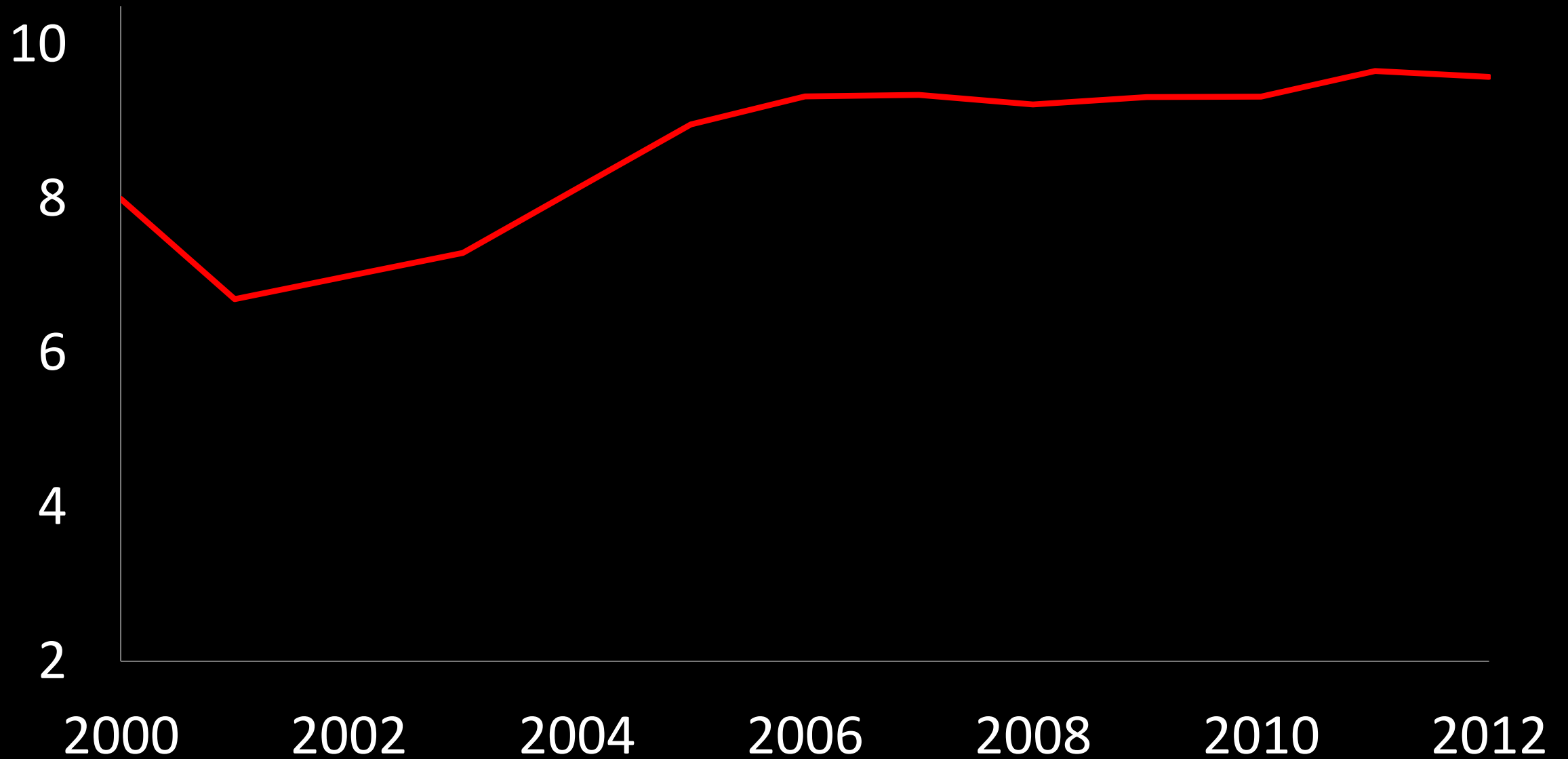
Returns Higher for Women – Global



Private Returns to Schooling in Europe



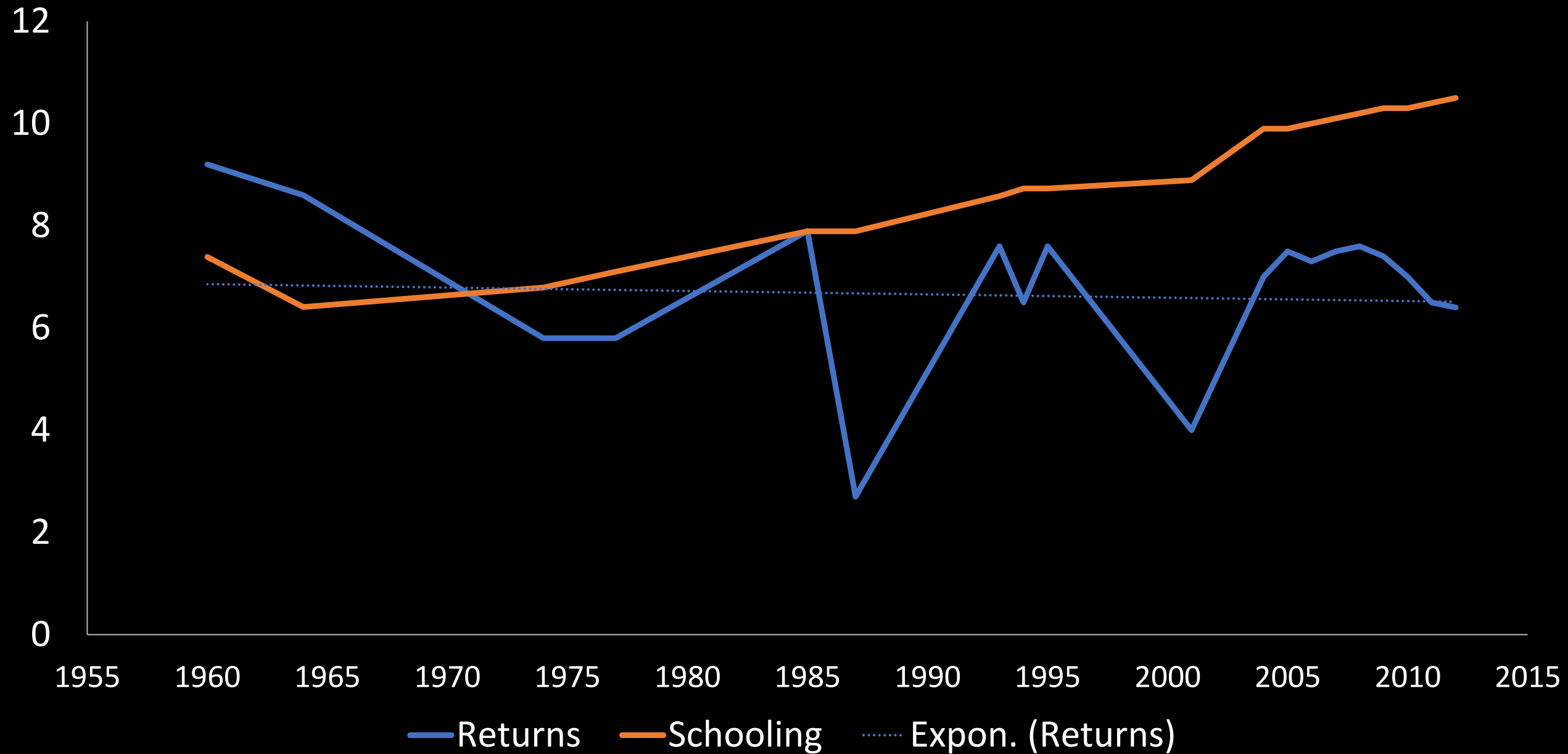
Returns to Schooling in Europe



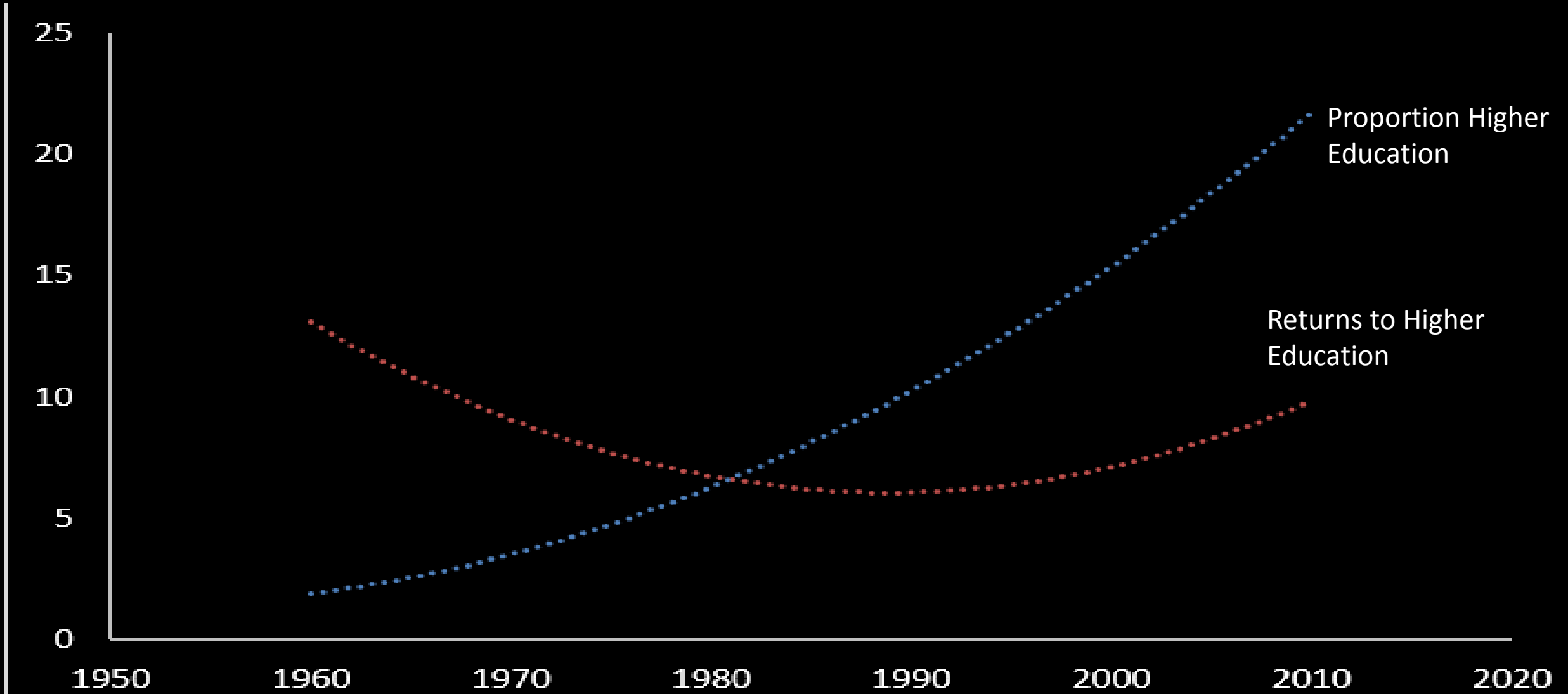
Private Returns to Schooling & Growth in Europe



Greece



Returns to Higher Education & Proportion of Population with Higher Education



Returns to Other Investments



Treasury Bill
1.4



Bank deposit rates
4.7



Housing
3.8



Treasury Bond
5.3



10

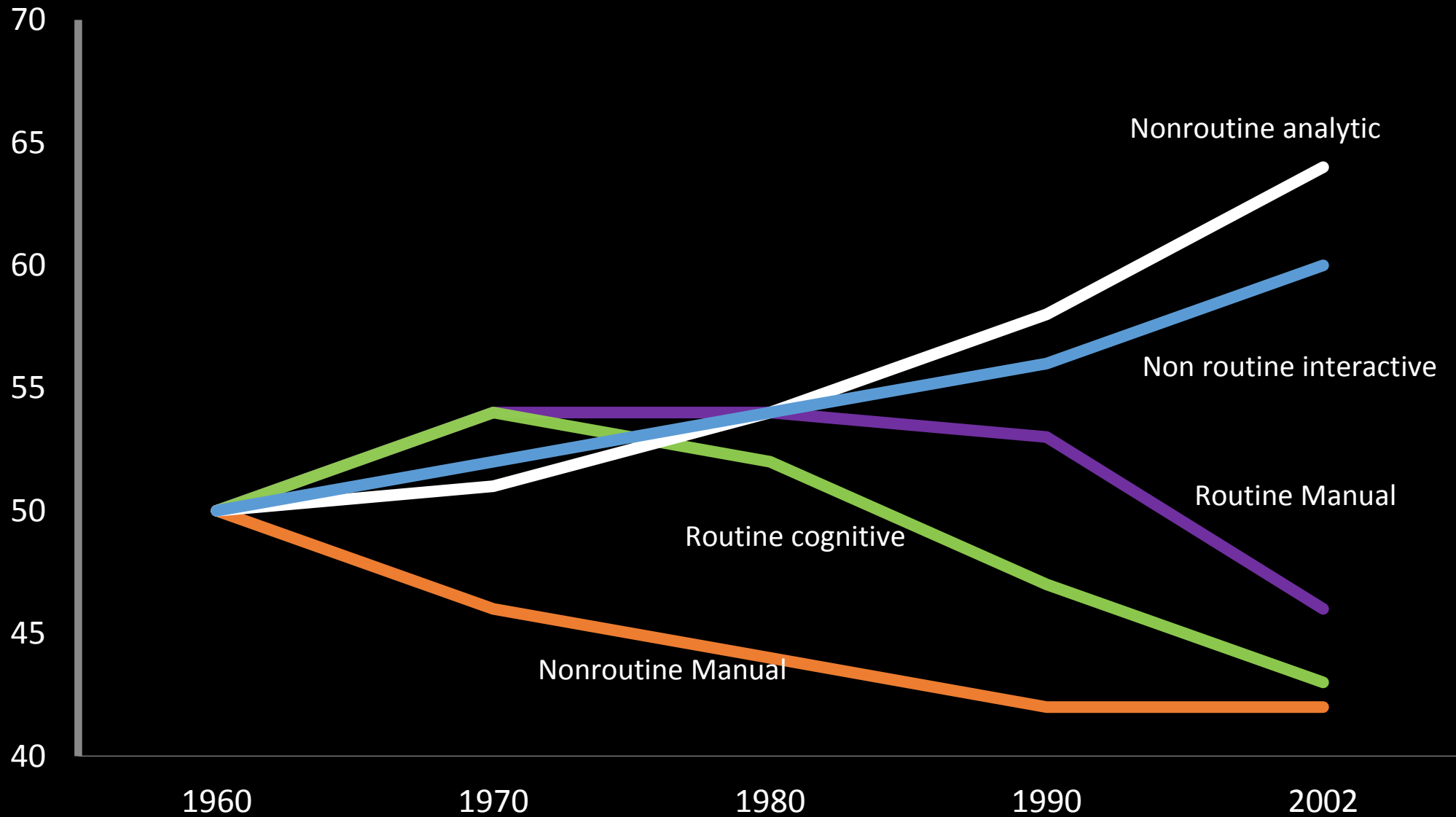


Physical assets
7.4



Enter Technology

Type of Skills Demanded Changing



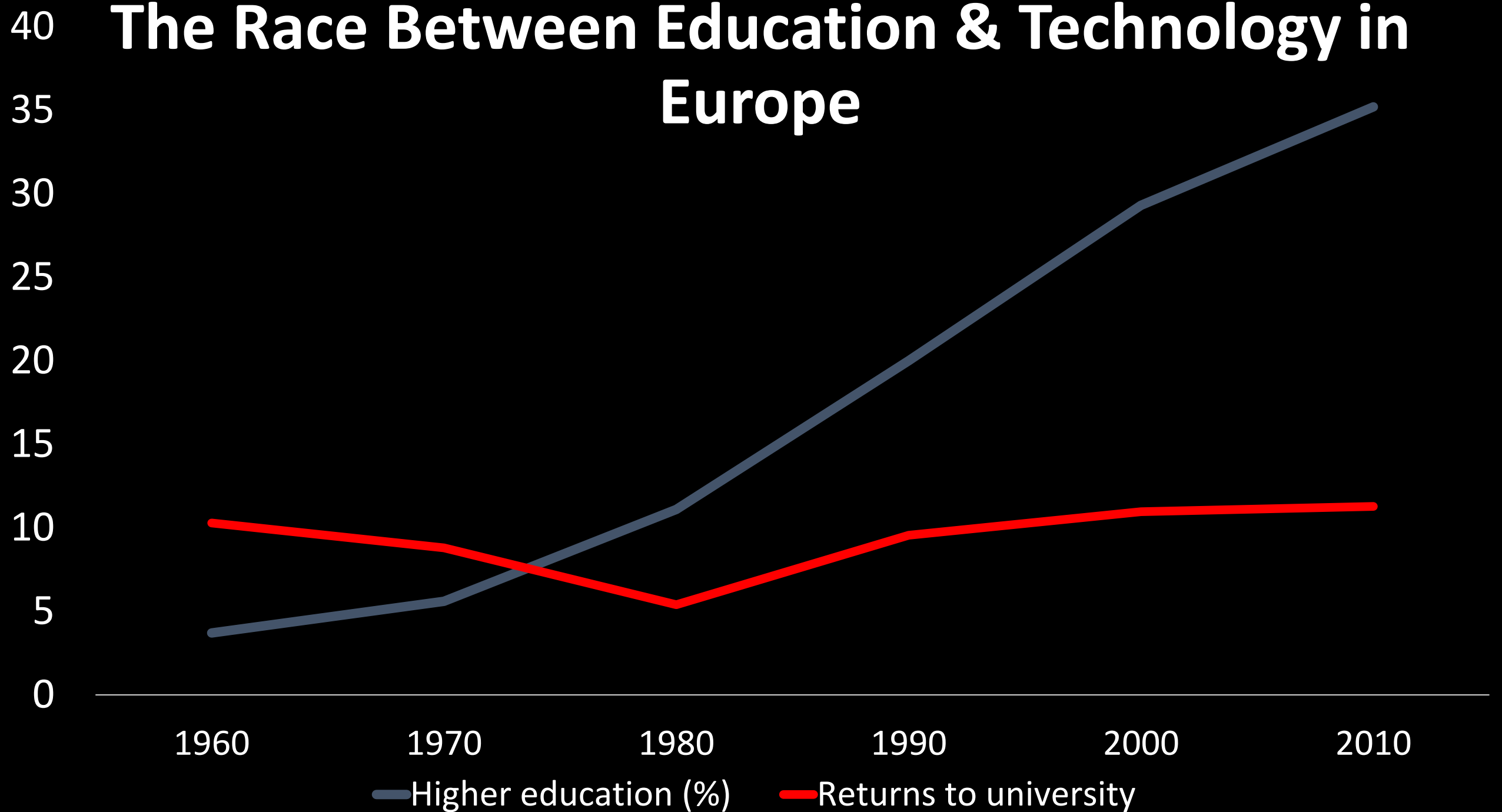
A dense industrial scene featuring numerous yellow robotic arms, likely Hyundai, working on a car chassis. The background is filled with complex machinery, pipes, and cables, creating a sense of a highly automated manufacturing environment. The text "Automation is Coming" is overlaid in the center in a large, white, sans-serif font.

Automation is Coming

A close-up, low-angle shot of a Terminator robot's head and upper torso. The robot is made of dark, metallic, and somewhat translucent material, revealing internal mechanical components. Its eyes are two small, glowing red dots. The background is a dark, out-of-focus landscape with some trees and a bright light source on the right side, possibly the sun or moon. The overall tone is ominous and futuristic.

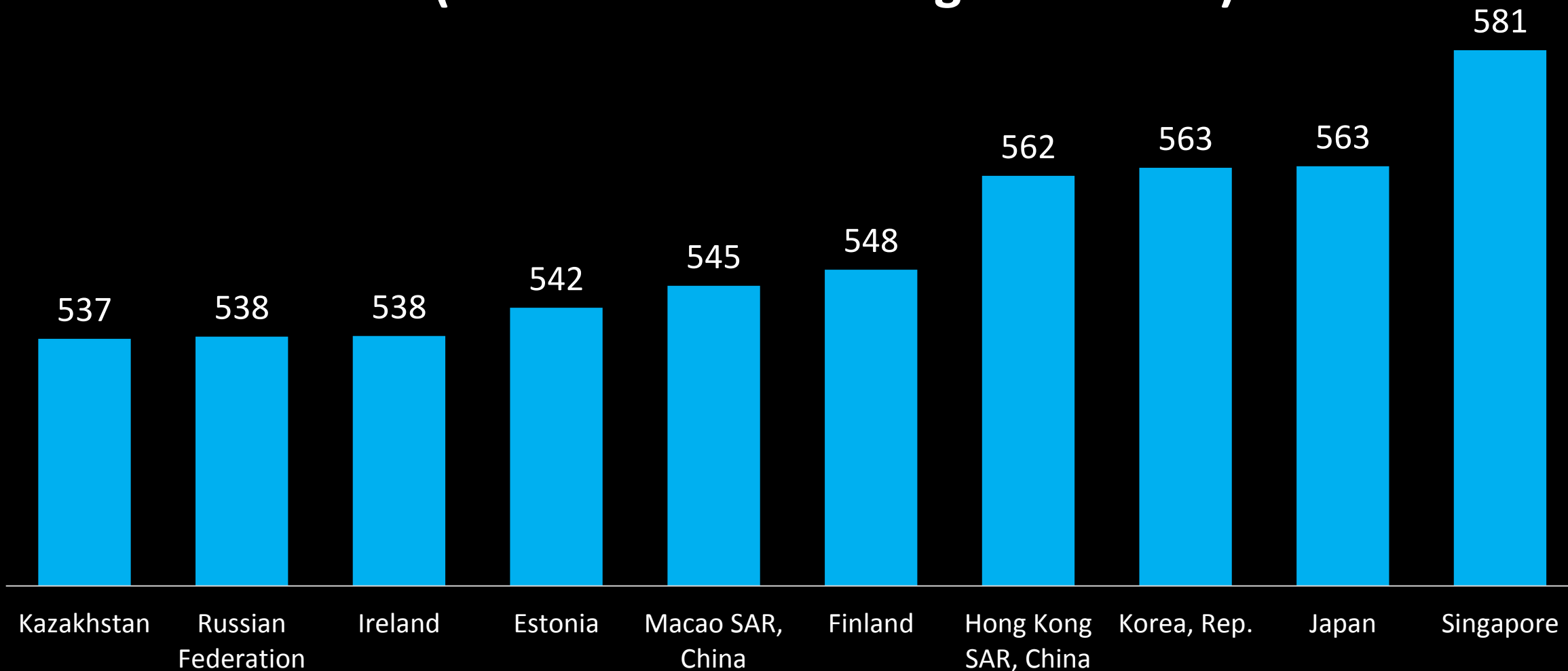
Robots are Coming

The Race Between Education & Technology in Europe

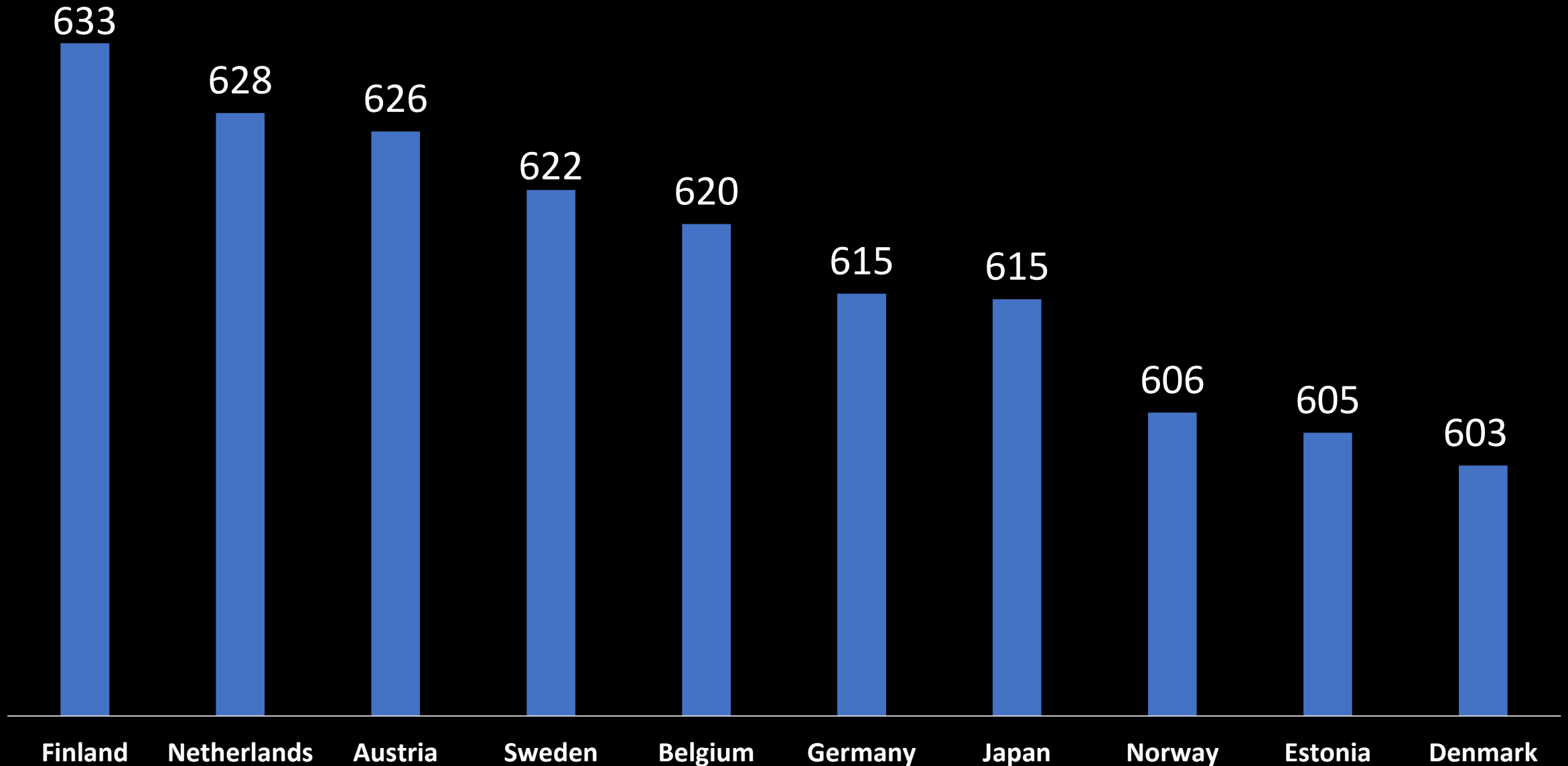


Top Performers Learning Outcomes

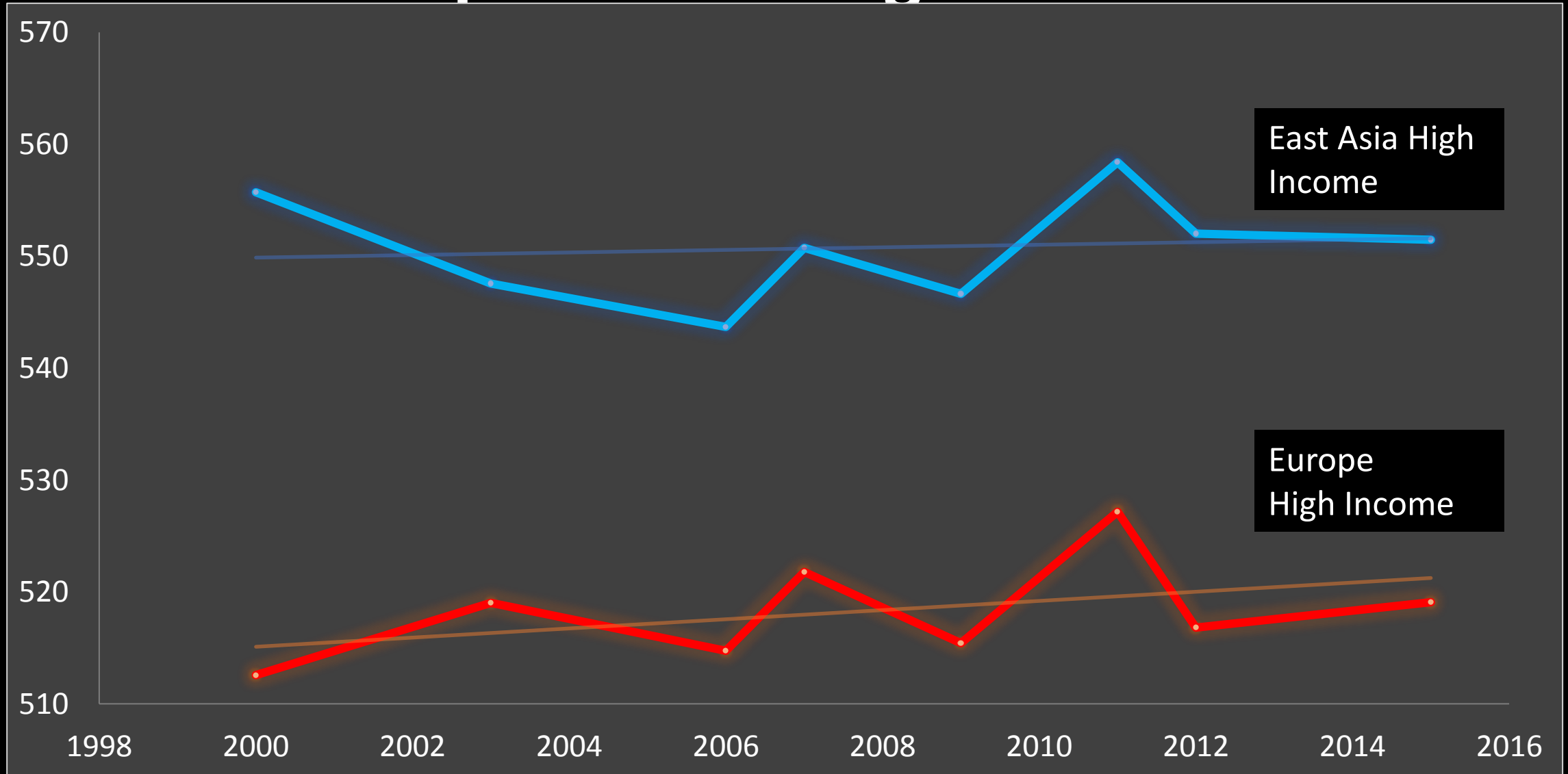
HLO (Harmonized Learning Outcomes)



Top 10 PIAAC (among those of university age)



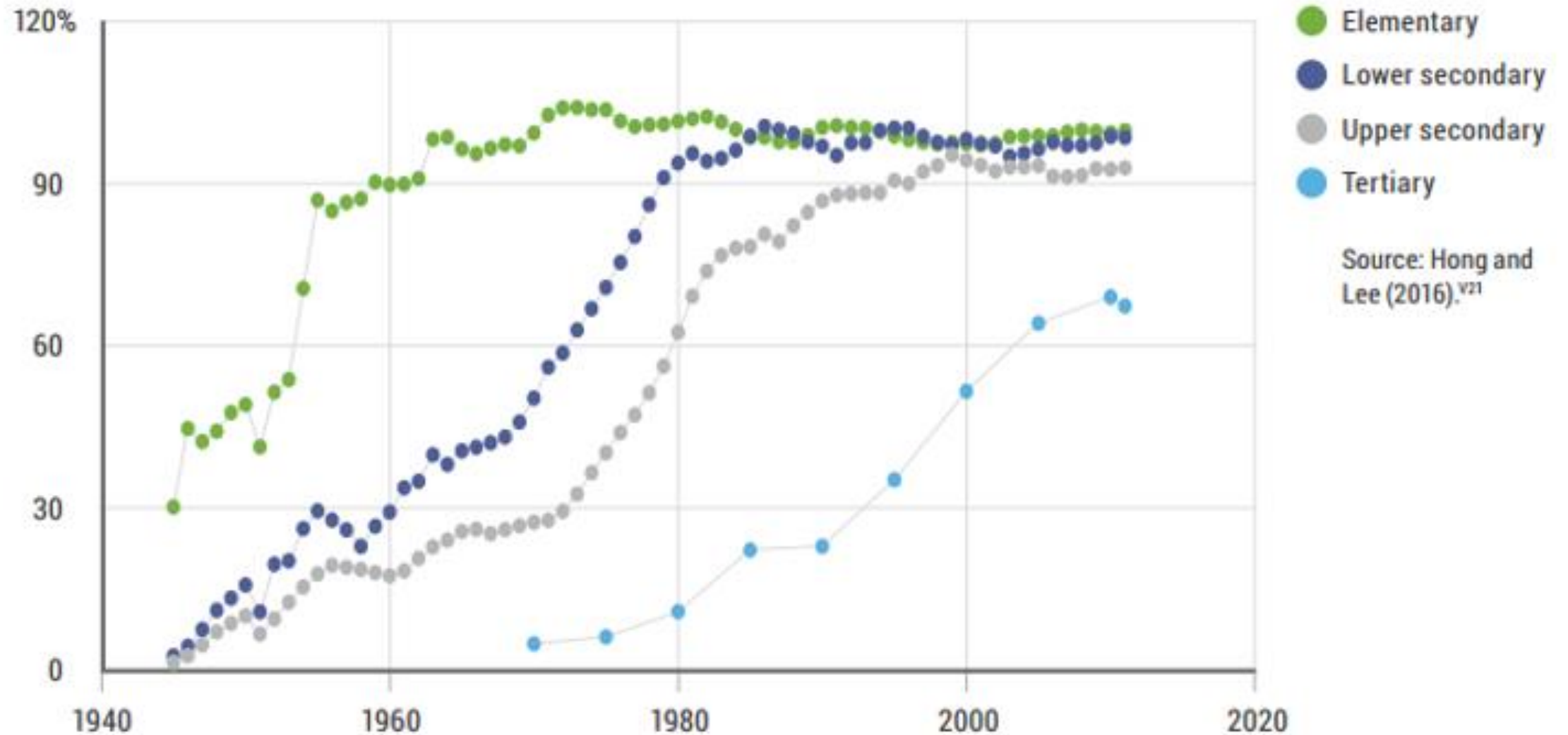
High-income East Asia performs above High-income Europe in Learning Outcomes



What can we do?

Get the Basics Right

Percentage enrollment





Invest in Relevant Skills

Problem-solving

Learning

Communication

Personal

Social



Today

Under 20% of
jobs require
programming or
technology
design

Over 80% of jobs
require service
orientation and
persuasion skills.

Build Education 4.0



1st

Schoolhouse,
teacher,
students



2nd

Collaboration,
technology,
facilitator



3rd

Connected,
personalized,
open access

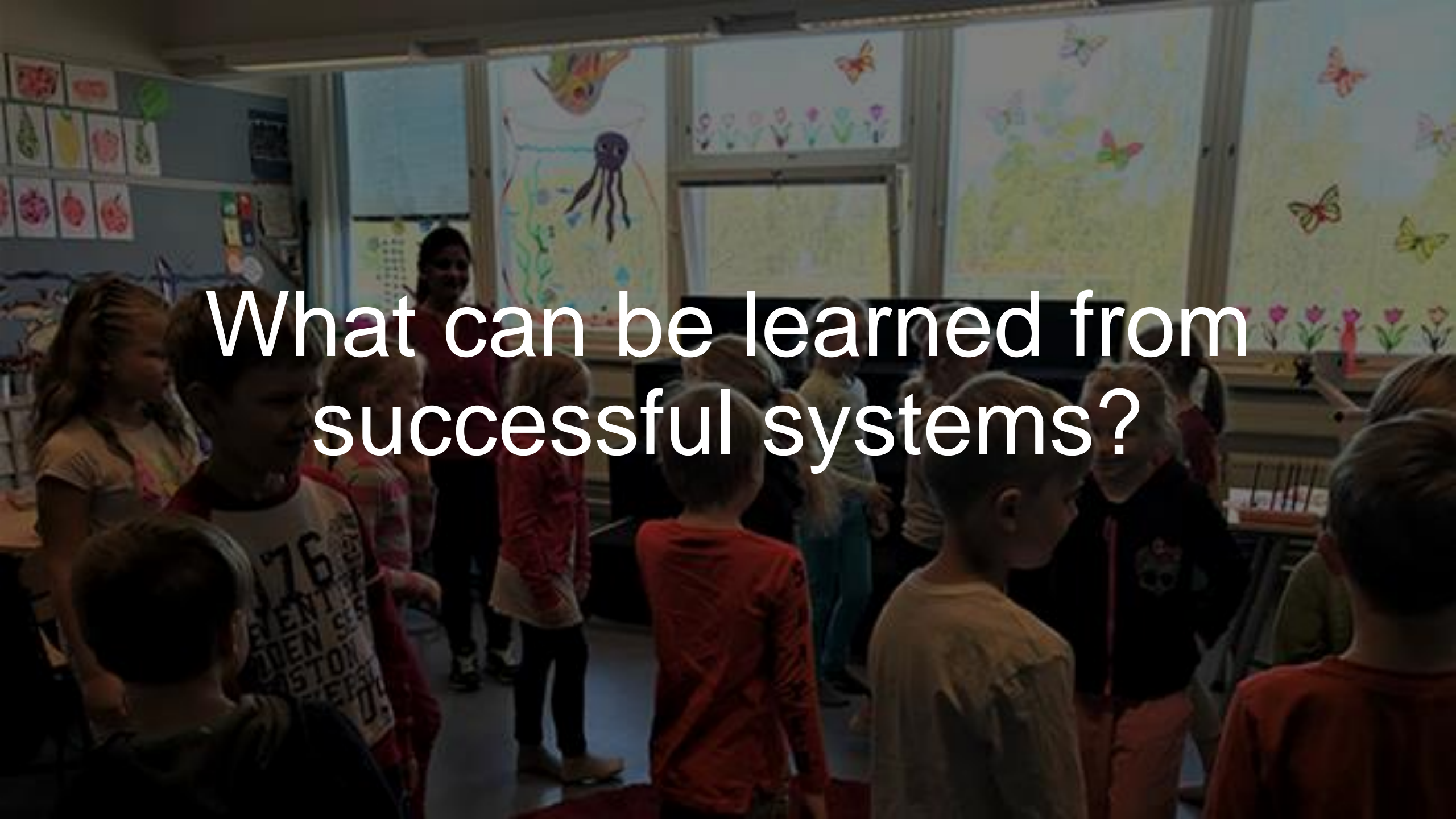


4th

Lifelong
learning
driven by
autonomy &
purpose



Finance University

A photograph of a classroom filled with young children. A teacher, a woman in a red shirt, stands in the background near a large window. The window is decorated with colorful drawings of butterflies and flowers. The children are standing and looking towards the teacher. The text "What can be learned from successful systems?" is overlaid in white on the image.

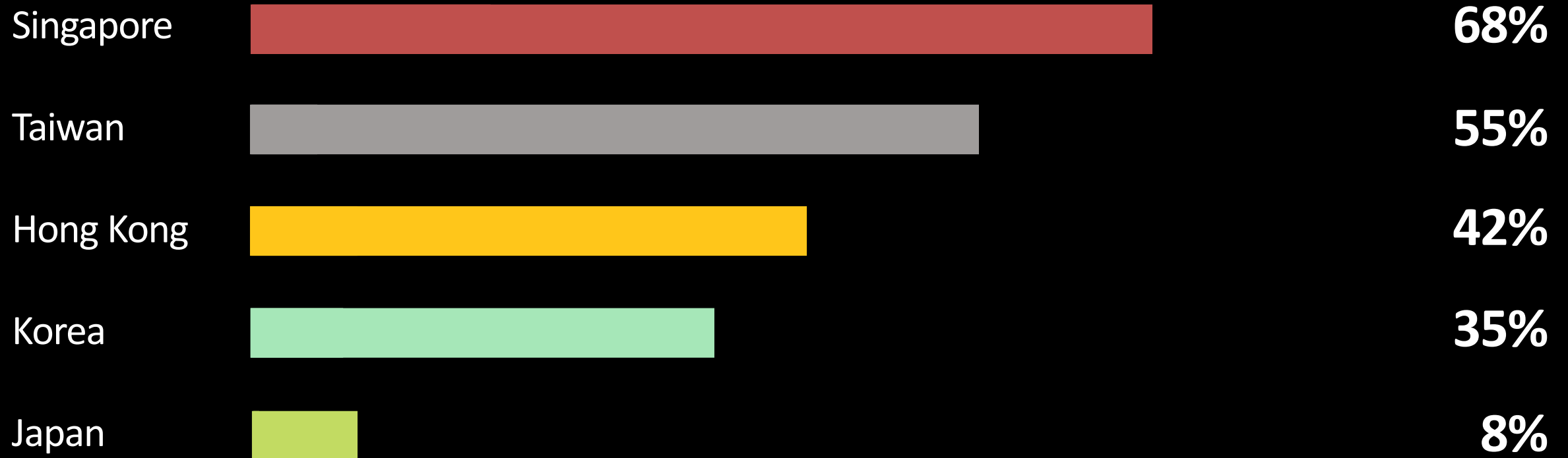
What can be learned from
successful systems?

5 Key Policy Domains



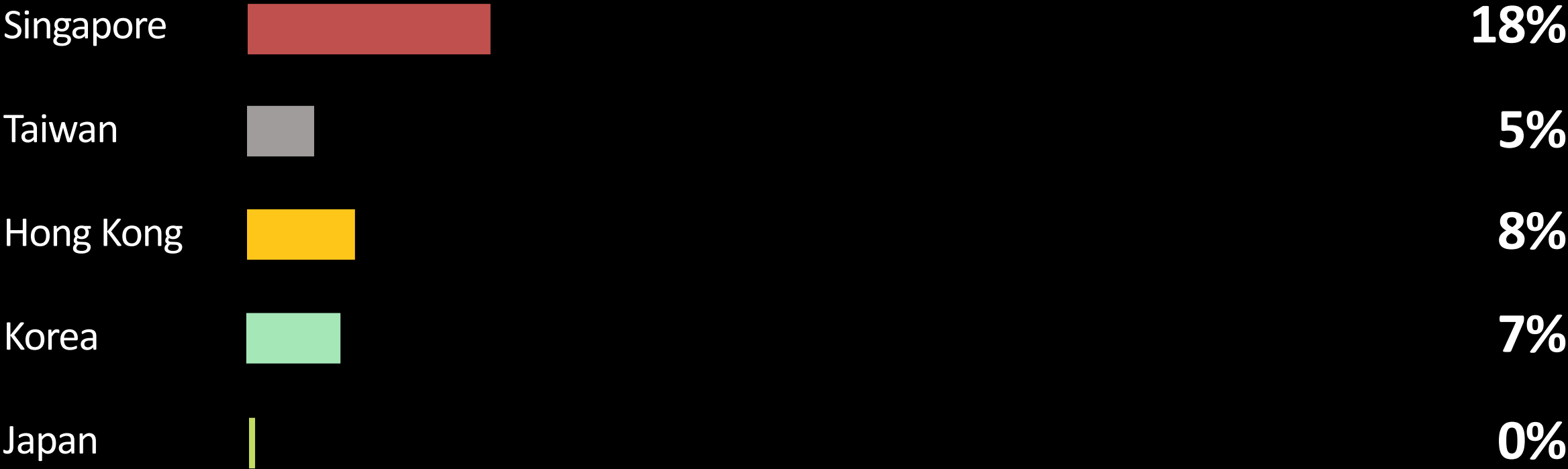
Top Performing systems had an unshakeable commitment to developing skills for prosperity

Percent of population with no schooling in 1950



Top Performing systems had an unshakeable commitment to developing skills for prosperity

Percent of population with no schooling in 2010

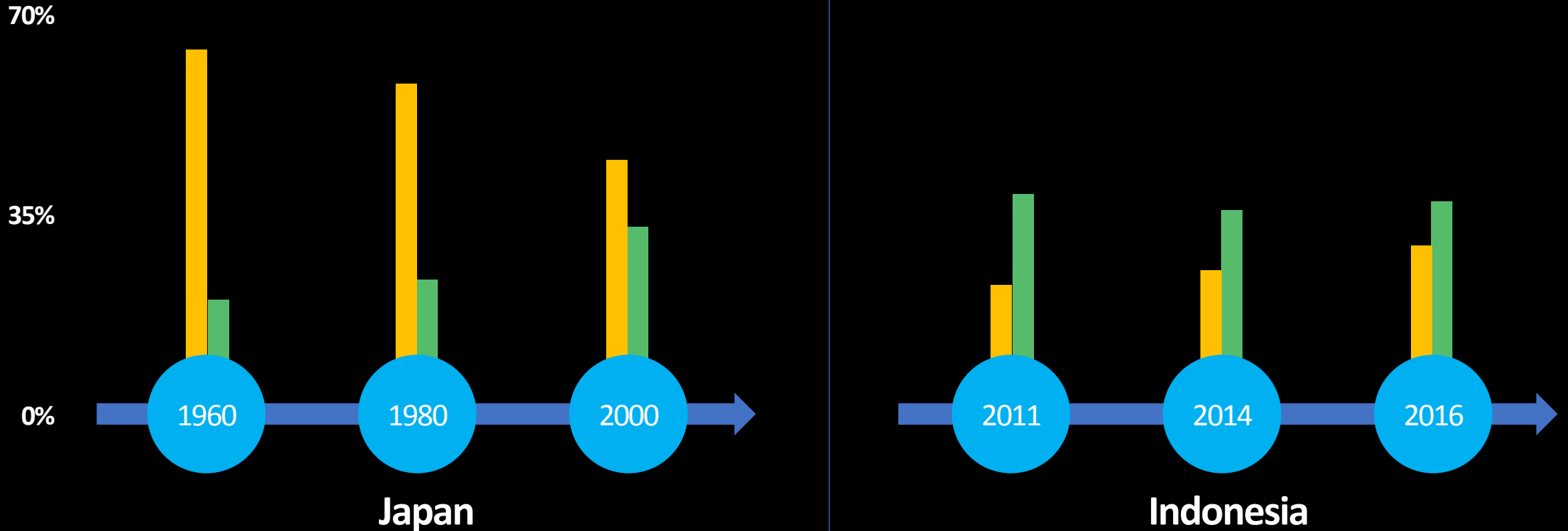


Below-Average Systems Struggle to Focus Spending on Basic Education

Percent of government education spending

● Elementary

● Tertiary



Successful systems recruit and develop the best to become teachers



In **Japan**, only 14% of applicants to education programs are accepted; only about 30–40% of graduates are hired annually



In **Singapore**, the government recruits the top one-third of university graduates to become teachers



In **Korea**, only 1 in 20 passes the exams for employment to become a teacher



In **Taiwan, China** typically only the top third of applications are accepted into education programs which are highly competitive

A group of four young adults, two women and two men, are standing in a row and smiling at the camera. They are all holding spiral-bound notebooks. The woman on the far left is wearing a pink long-sleeved shirt and blue jeans, holding a green notebook. The man next to her is wearing a black polo shirt and blue jeans, holding a blue notebook. The woman next to him is wearing a white long-sleeved shirt and blue jeans, holding a green notebook. The man on the far right is wearing a black and white striped button-down shirt and blue jeans, holding a blue notebook. The background is a plain, light-colored wall. The text 'The Impact of the 1999 Education Reform in Poland' is overlaid in the center of the image in a large, white, sans-serif font.

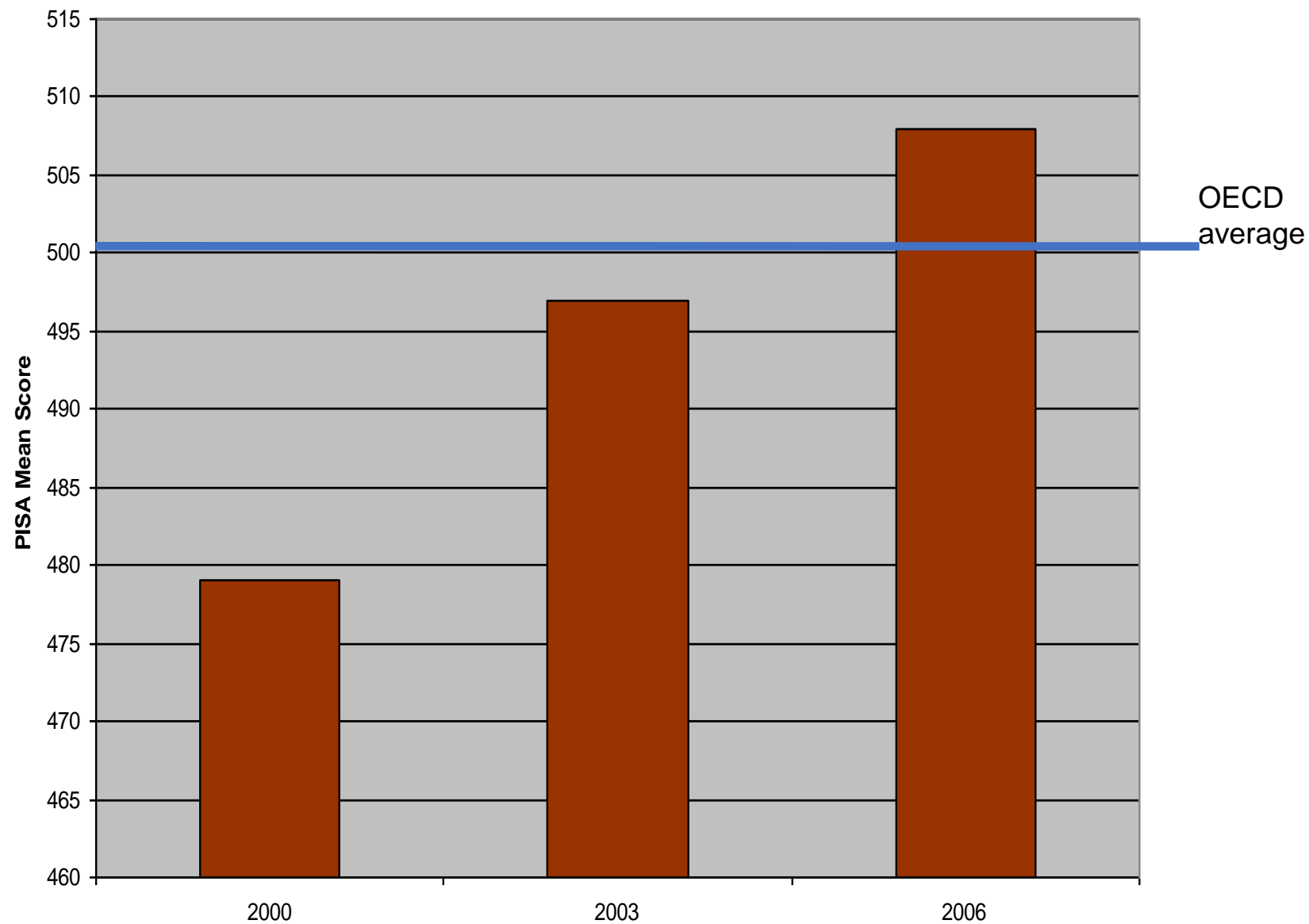
The Impact of the 1999 Education Reform in Poland

Poland: Change in Structure of System

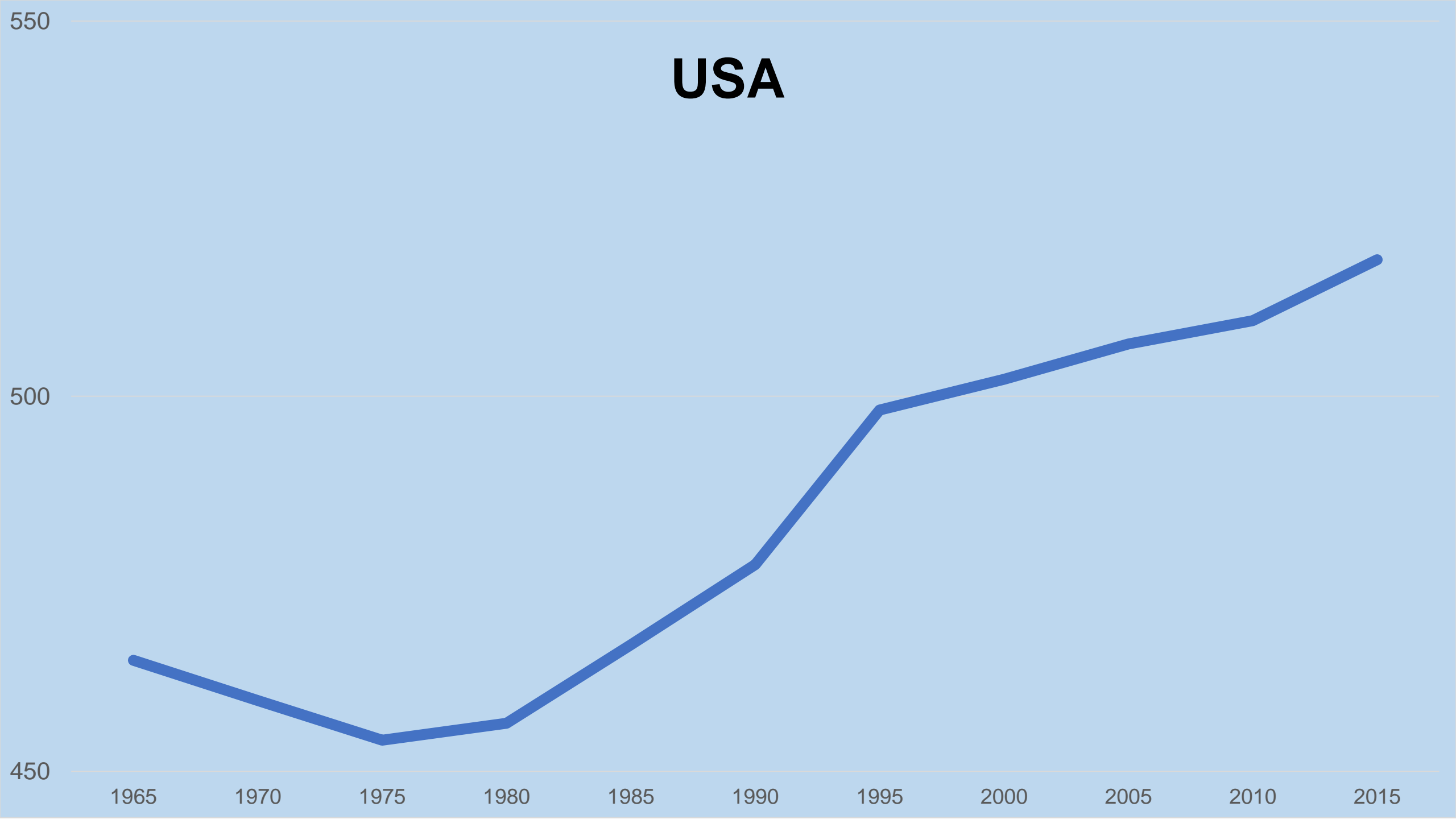
- New structure of school system
- Changes in administration & supervision
- Curricular reform
- Independent assessment & examination
- School finance
- Qualification requirements for teachers



Impressive Gains

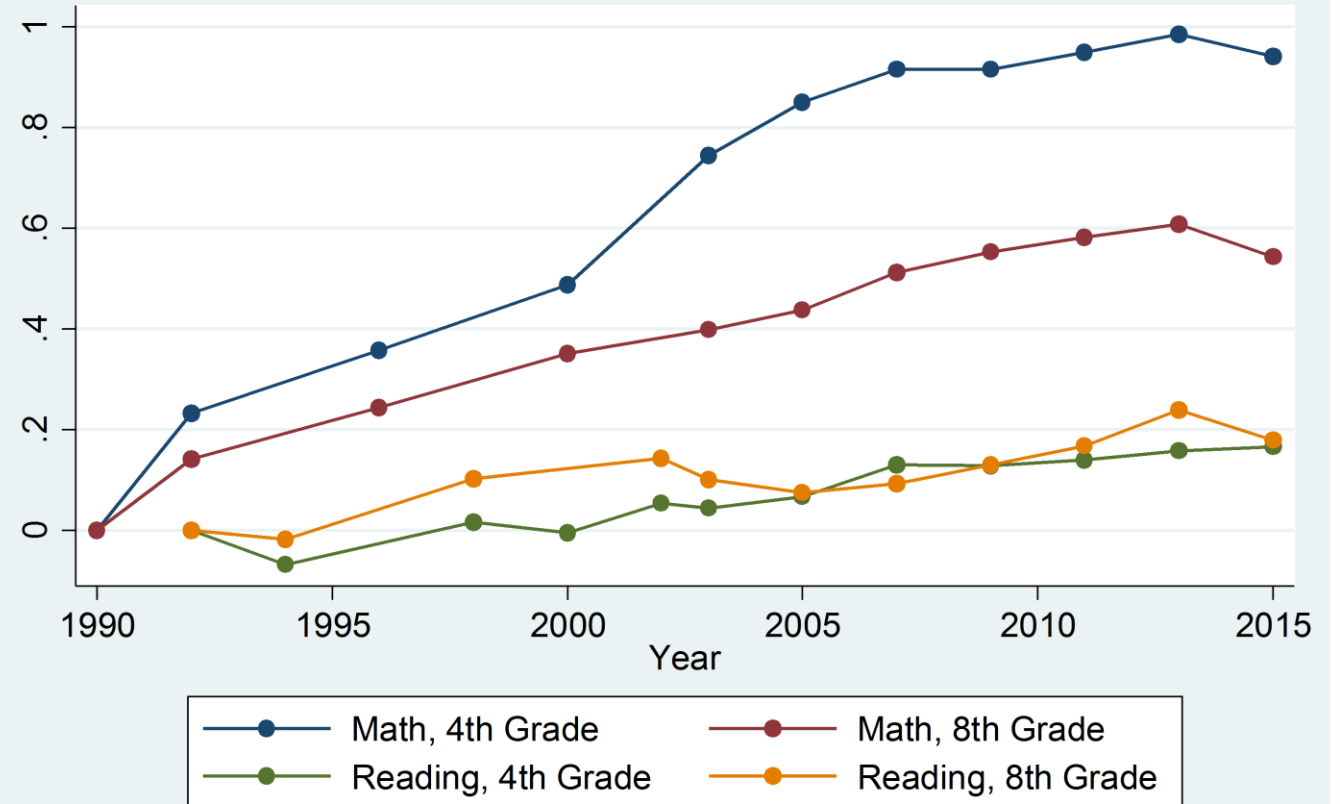


USA



USA: A Nation at Risk

Figure 1. Trend in Main NAEP Scores Since 1990

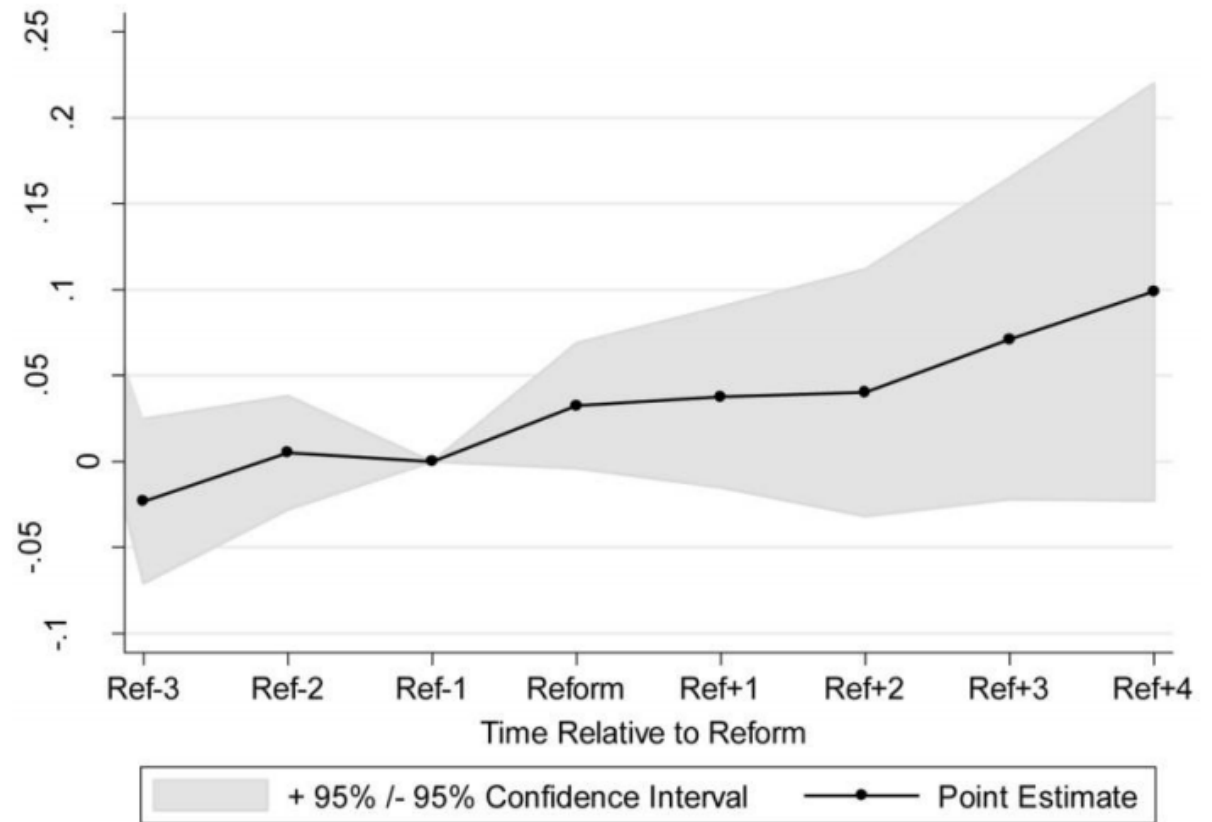


Note: Reported relative to 1990 and 1992 in student-level standard deviation units.

Finland



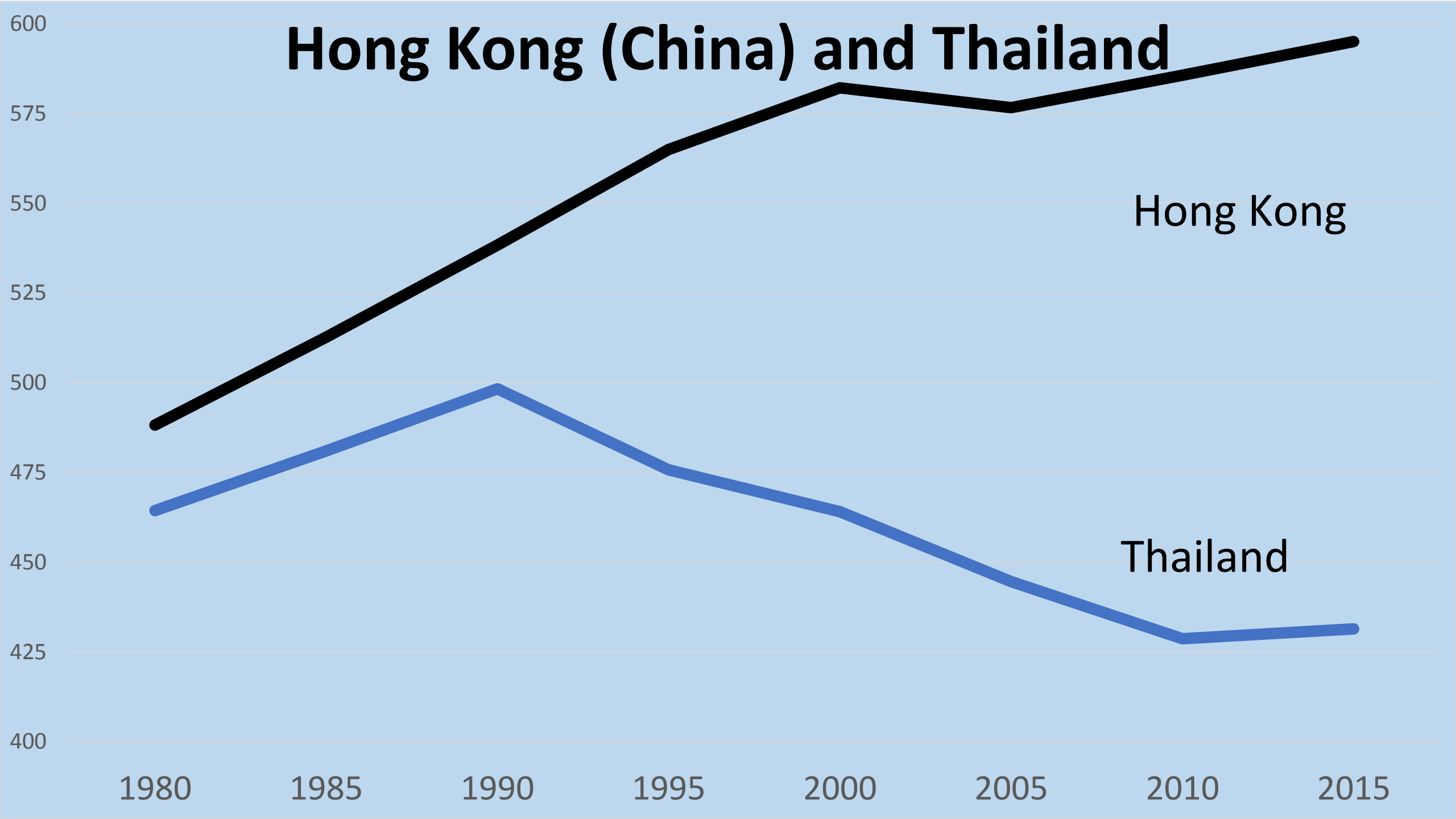
Finland: School Tracking & Development of Cognitive Skills



Hong Kong (China) and Thailand

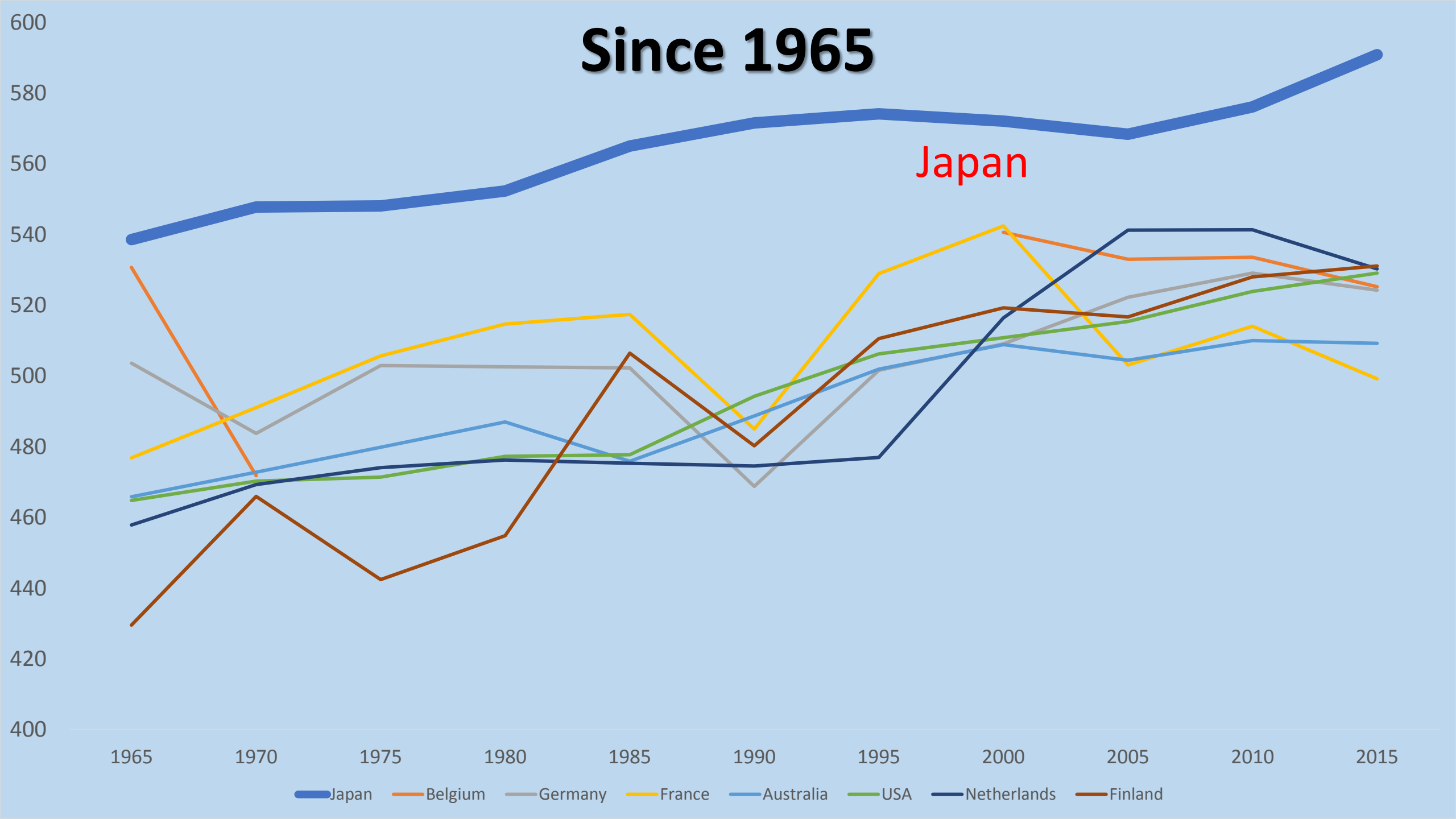
Hong Kong

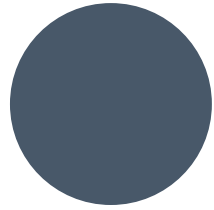
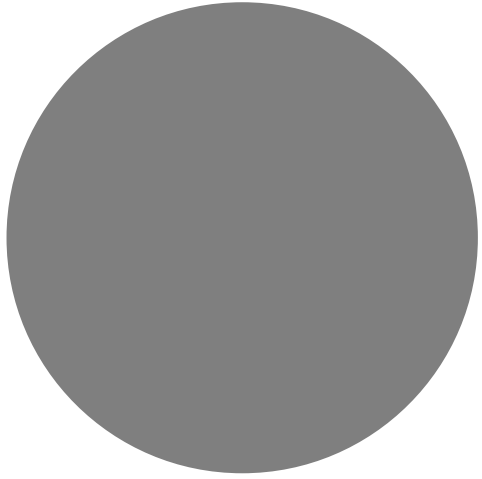
Thailand



Since 1965

Japan





Focus on Results



Use Information for Improvement & Accountability

**Expand
Opportunities
but Pay
Attention to
Equity**



Thank you

Harry Anthony Patrinos
[@hpatrinos](#)