

SKILLS, MOBILITY, AND GROWTH

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Commitment to Achievement Growth

- Nation at Risk (1983)
 - Stem a rising tide of mediocrity.
- George H. W. Bush and all Governors (1989)
 - Bring U. S. achievement up to **top of world by 2000.**
- Clinton: Goals 2000:
 - “All Americans can reach international competitive standards.”
- Bush: No Child Left Behind
 - “All students proficient by 2013”
- Obama: State of the Union 2011
 - “We know what it takes to compete for the jobs and industries of our time. We need to out-innovate, out-educate, and out-build the rest of the world.”

Importance to the United States



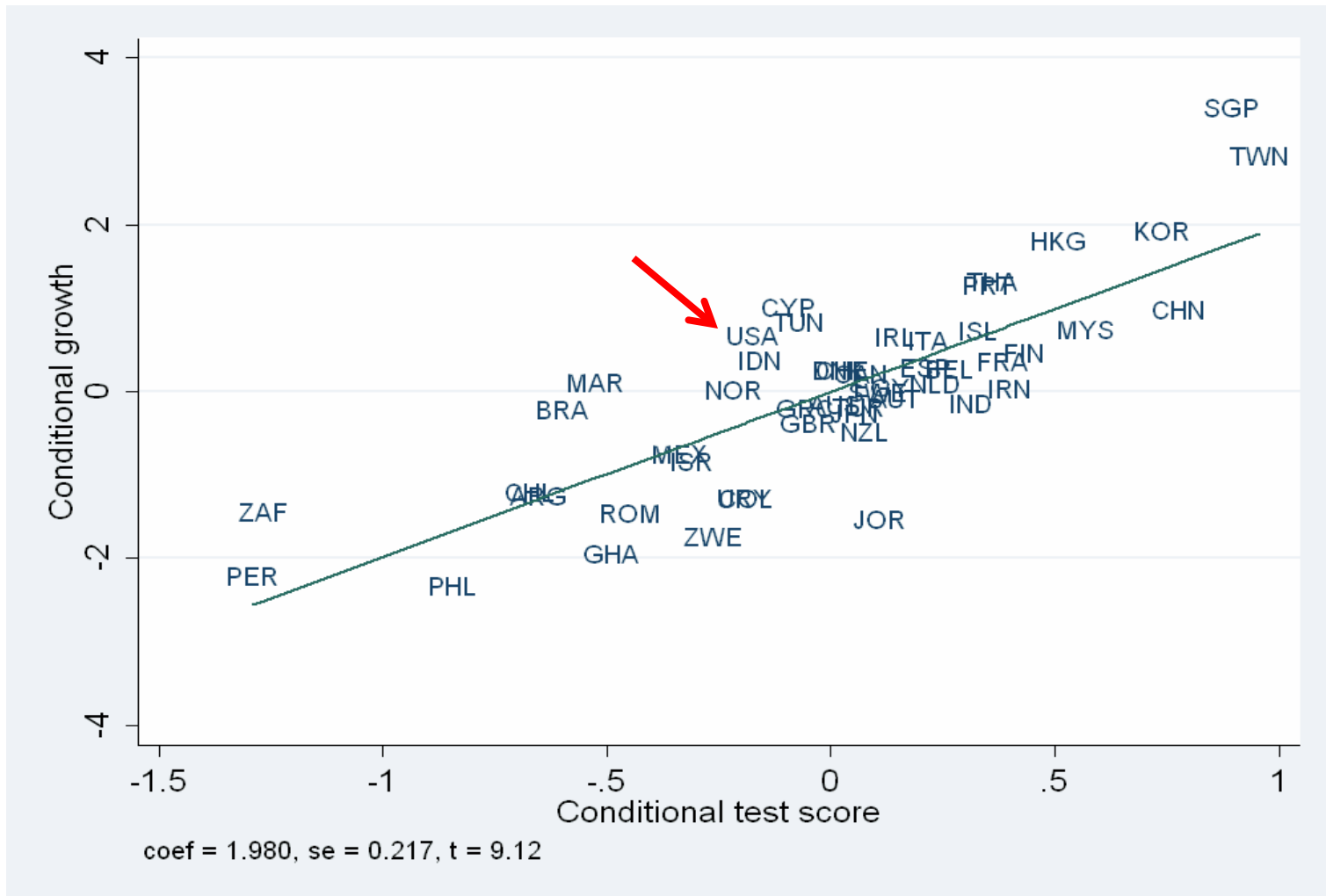
“Human capital will determine power in the current century, and the failure to produce that capital will undermine America’s security.”

**— *Independent Task Force Report,
Condoleezza Rice, co-chair,
Council on Foreign Relations***

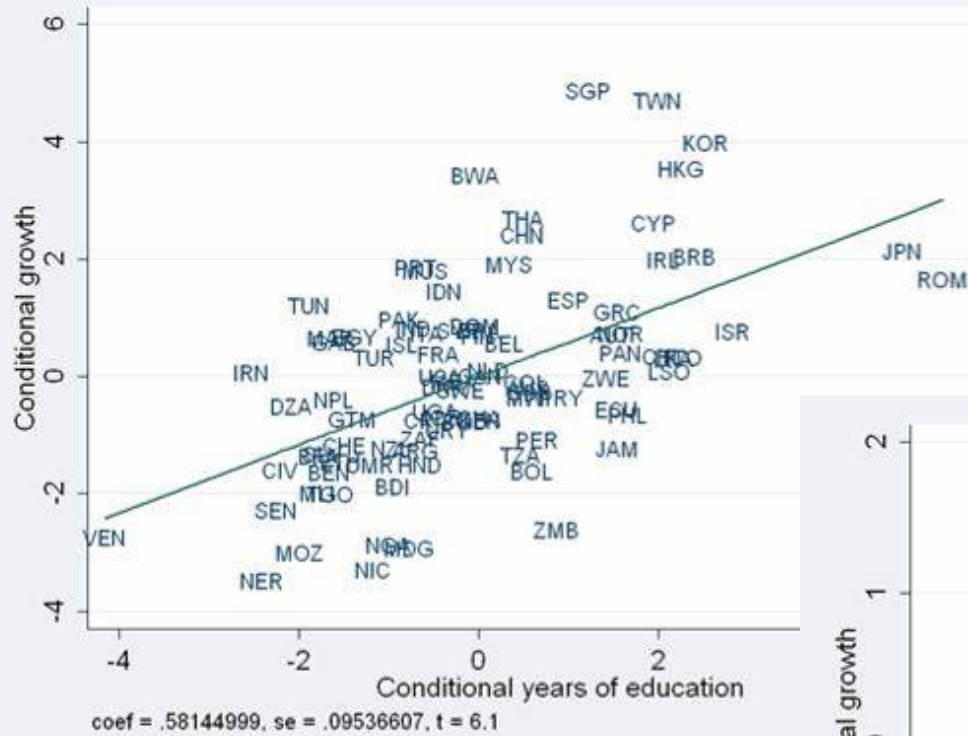
Key Issues

- The importance of knowledge capital
- Economic impacts of improving schools
- Distributional implications of minimal skills

Cognitive Skills and Economic Growth, 1960-2000

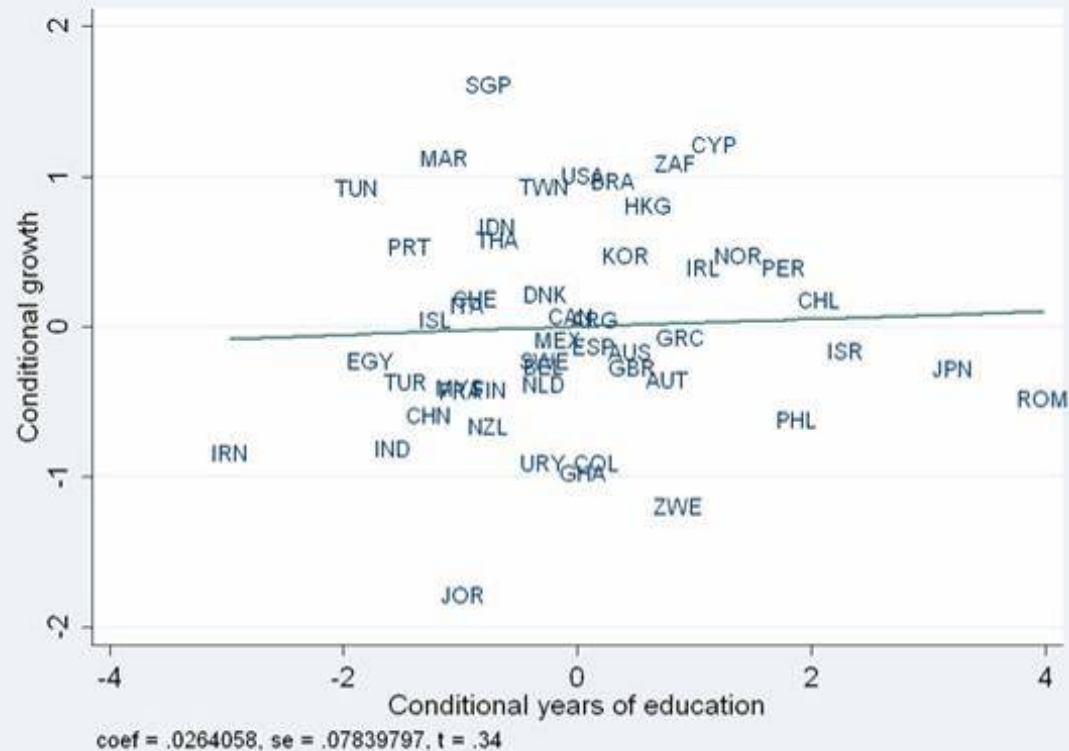


Years of Schooling and Economic Growth

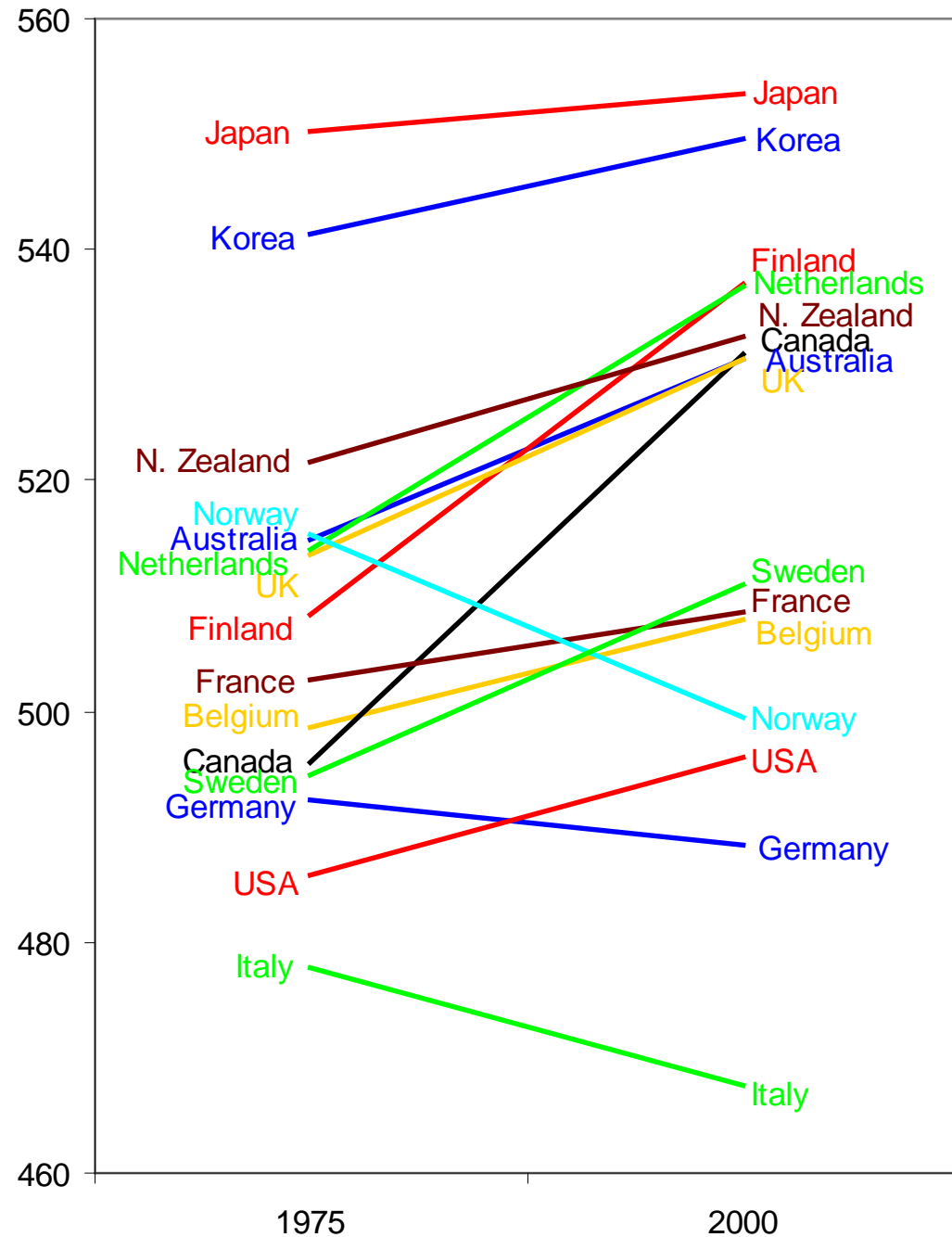


Without quality control

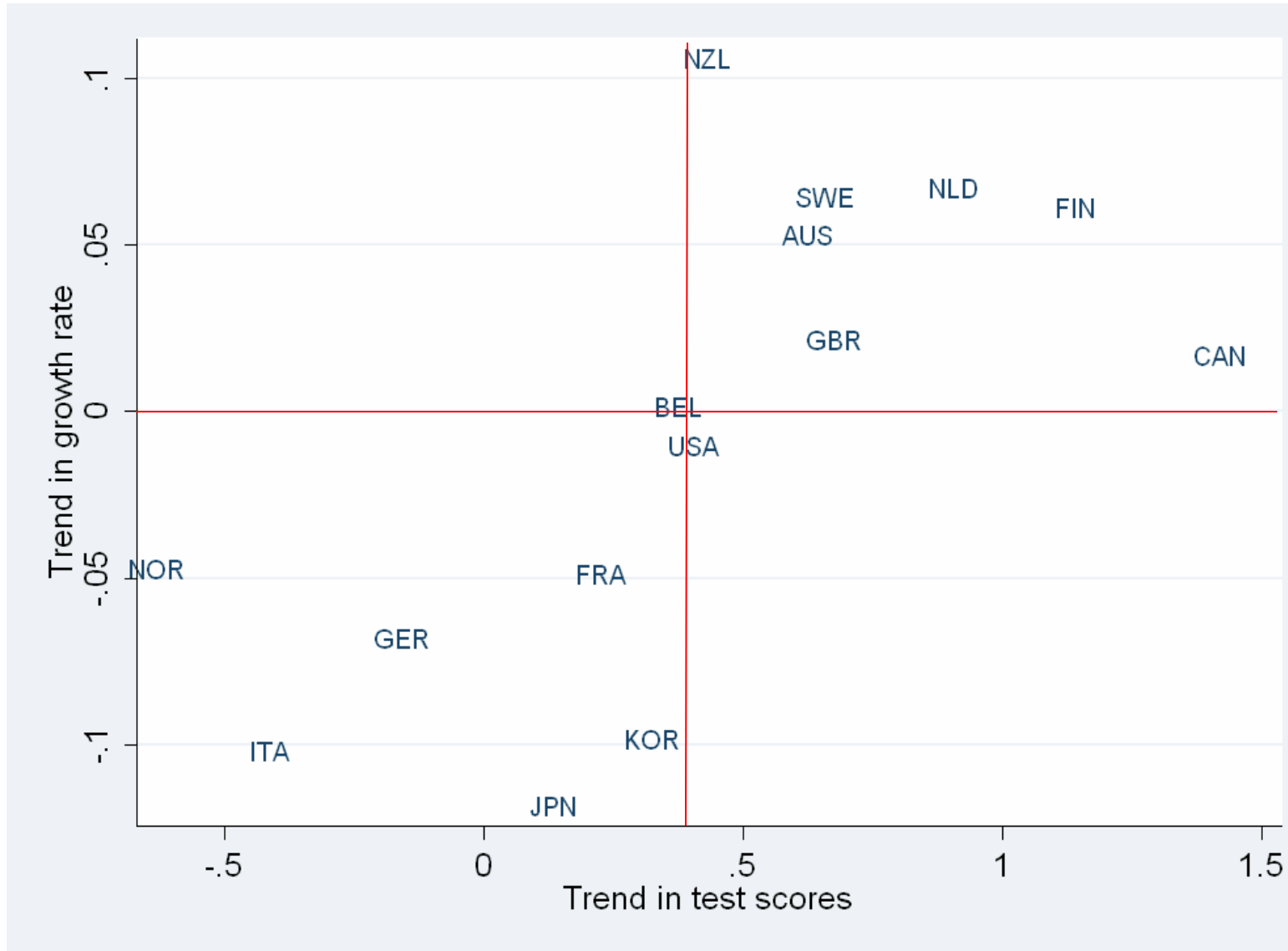
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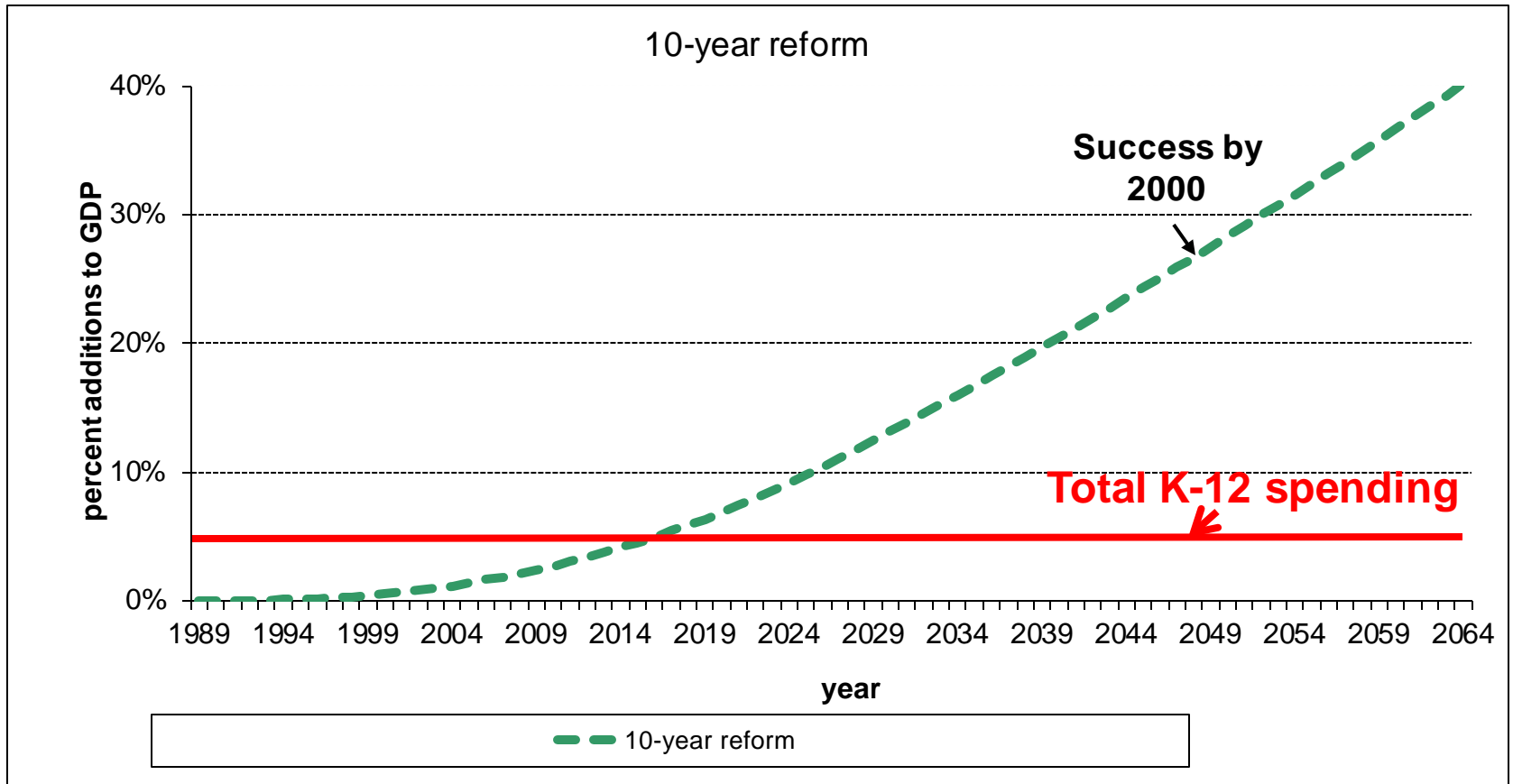
Do these trends in test scores relate to improvements in growth rates?



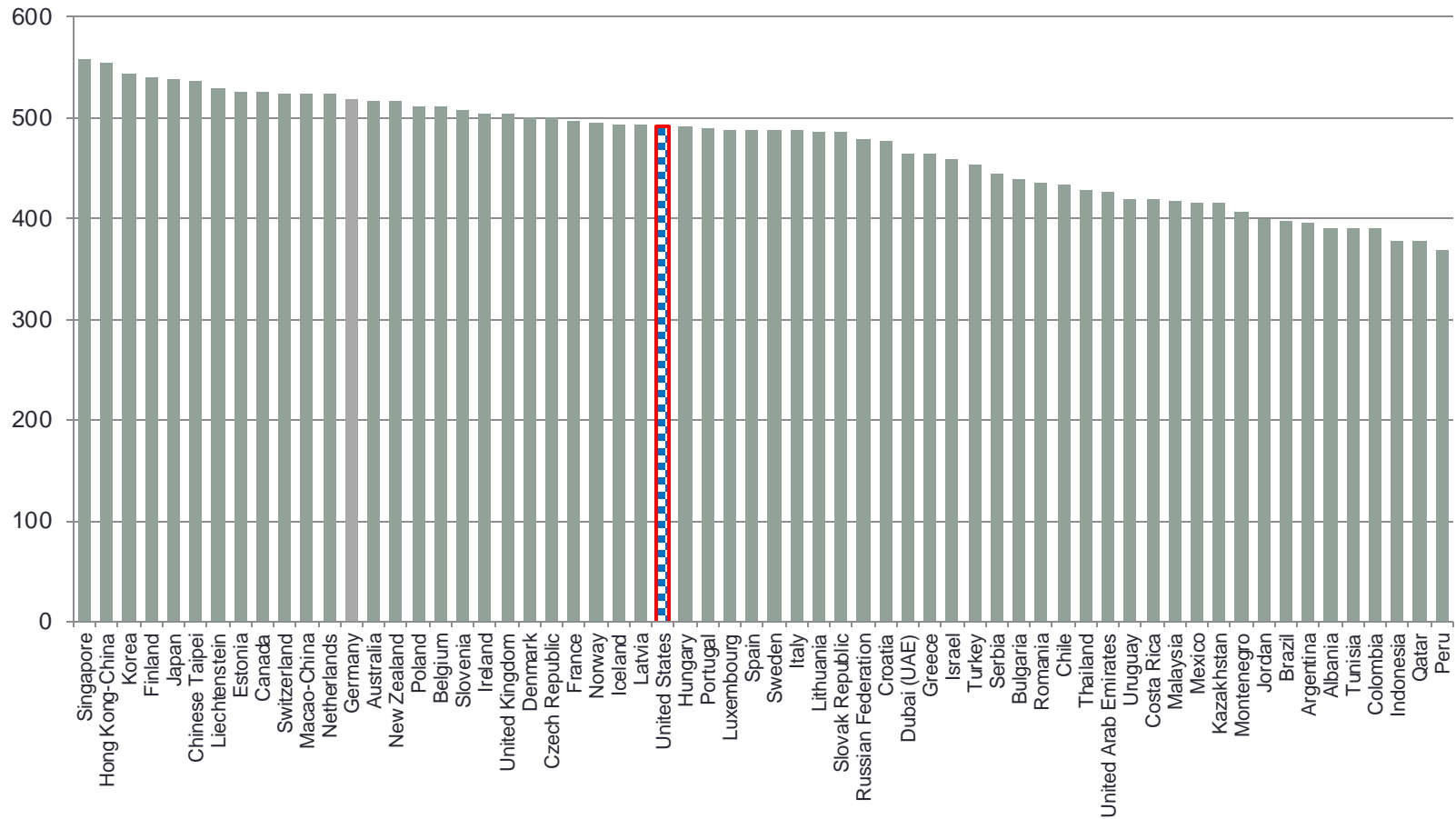
Trends in Growth Rates vs. Trends in Test Scores



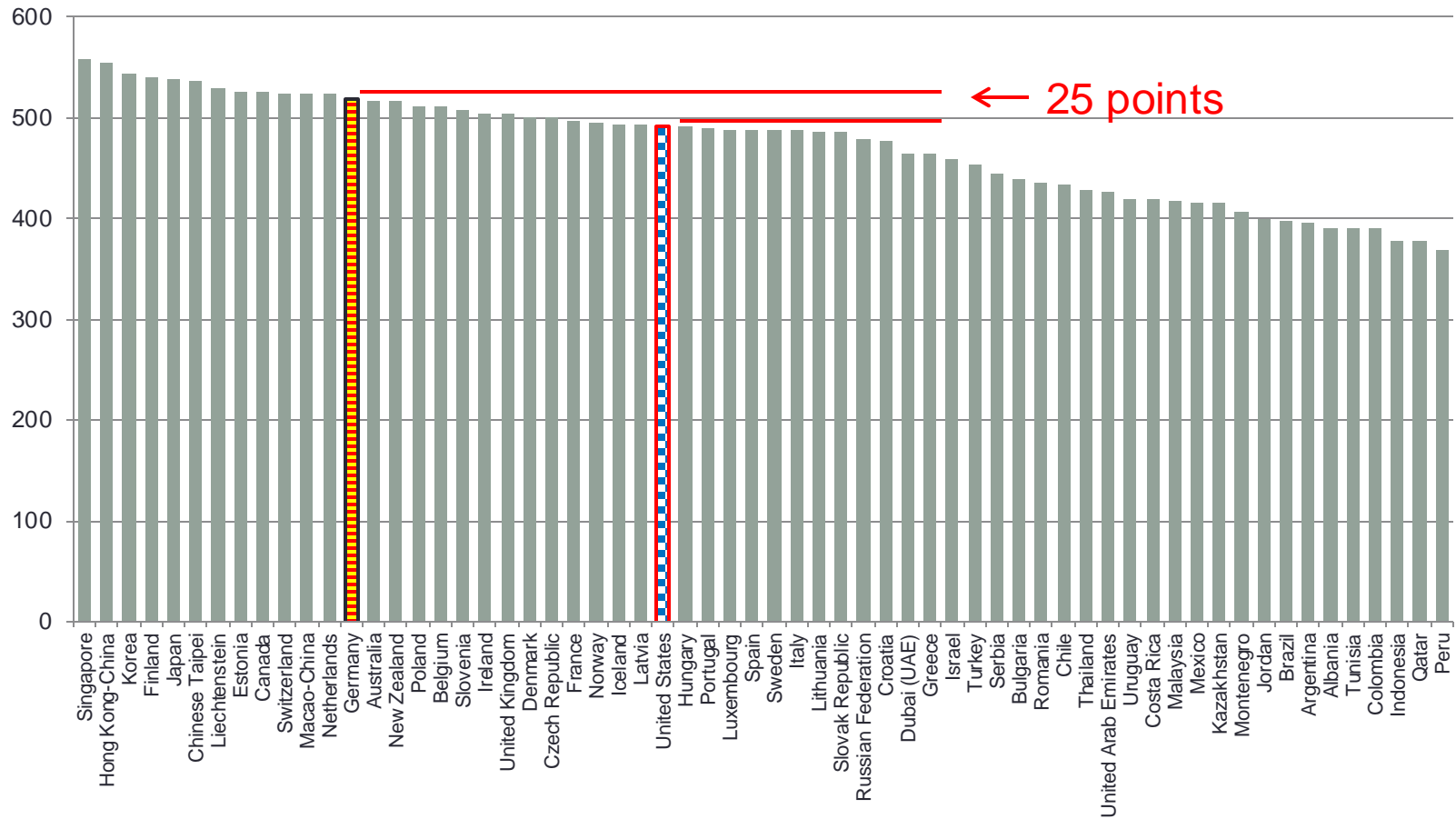
“First in the World by 2000”



PISA Math and Science (2009/2012)



PISA Math and Science (2009/2012)



Value of Improvement to U.S. – I

- Assuming historical patterns hold
- Schools improve over 15 years (2030 target)
- Replace workers over 40 years
- Present value over 80 years

- *Improvement plan I*
 - U.S. reaches Germany
- Economic Benefits
 - Present value of **340% of GDP**
 - Average **7.3% higher GDP/pop** for 80 years
 - **14% higher paychecks** for all workers every year

Value of Improvement to U.S. – II

- Assuming historical patterns hold
 - Schools improve over 15 years
 - Replace workers over 40 years
 - Present value over 80 years

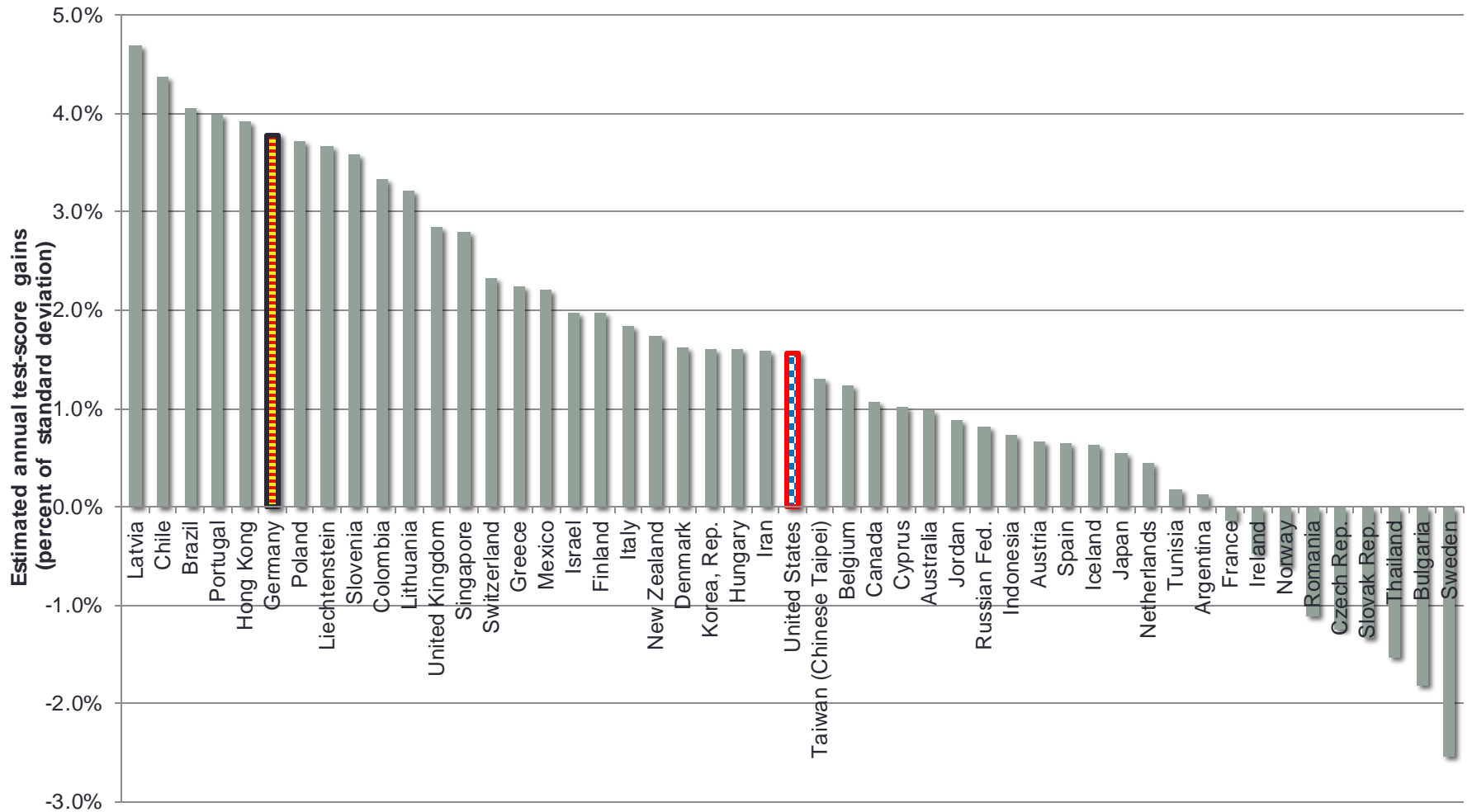
 - *Improvement plan II*
 - All U.S. students at “minimal skills” by 2030
 - Economic Benefits
 - Present value of **153% of GDP**
 - Average **3.3% higher GDP/pop** for 80 years
 - **6% higher paychecks** for all workers every year
- LOWER BOUND (no improvement above minimal skills)

Distributional Issues

- Individual gains from universal minimal skills
 - Minimal skills \implies 23.5% improve to 420
 - Increase average earnings by 3.3 percent
 - Reduce standard deviation of earnings by 4.5 percent
 - Lower bound estimates
- Minimal skills v. Rocket Scientists
 - Both
 - Complementary

Improvement is Possible

Achievement Growth, 1995-2009



Why has U.S. done so well?

- Superior economic institutions
- Early commitment to human capital
- Best colleges and universities
- Immigration
- **All advantages are disappearing**