

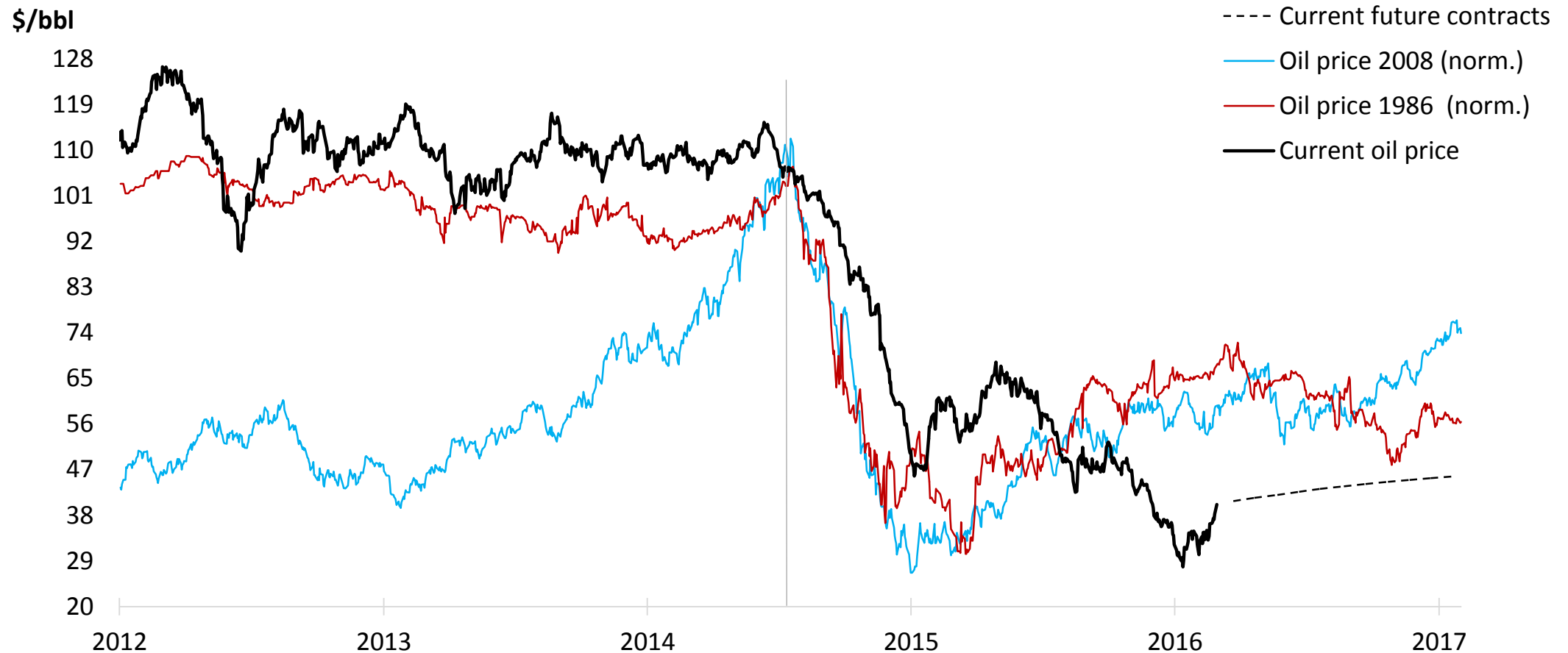
The Norwegian industry: Challenges and new opportunities in the oil downturn

*Statoil Future Energy Forum
Grieghallen, Bergen 12 April 2016*

Hilde C. Bjørnland

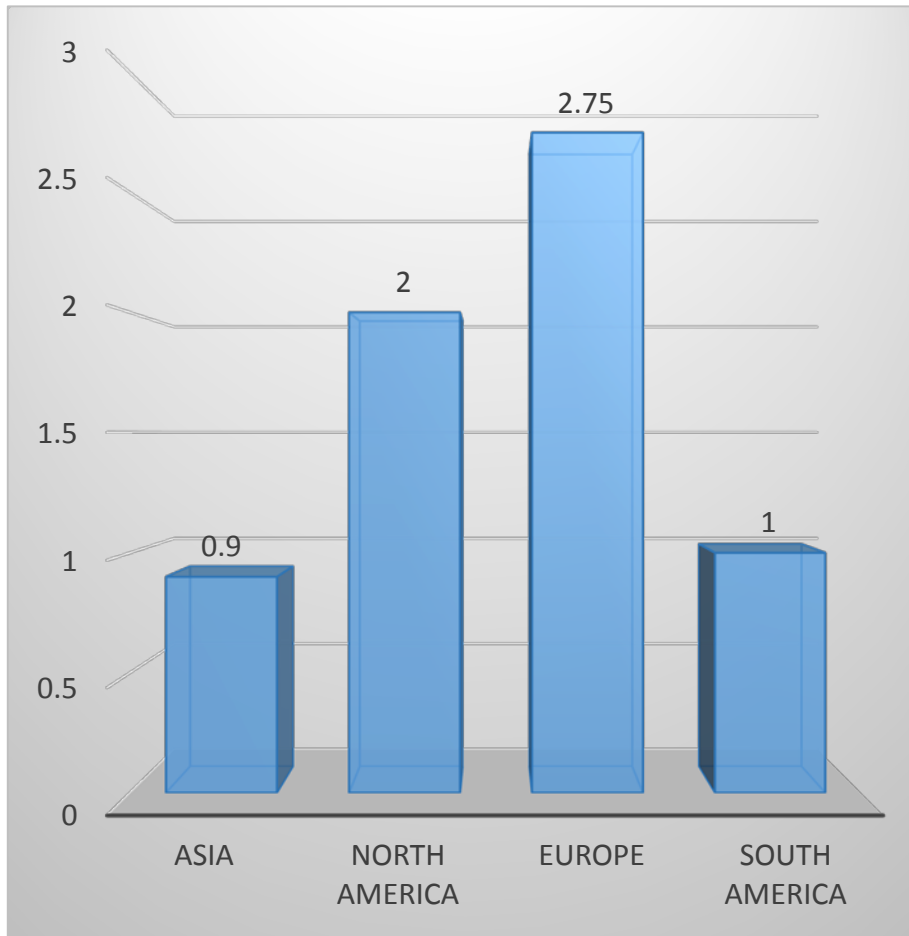
Centre for Applied Macro and Petroleum economics (CAMP)

Long way to recovery! The current oil price decline versus the (supply driven) decline in 1986 and the (demand driven) decline in 2008;
Crude oil - Brent



Source: Datastream and Hilde C Bjørnland

The effect of a 50% decline in oil prices due to an oil specific demand shock ...



Source: Aastveit, Bjørnland and Thorsrud (JAE, 2015)

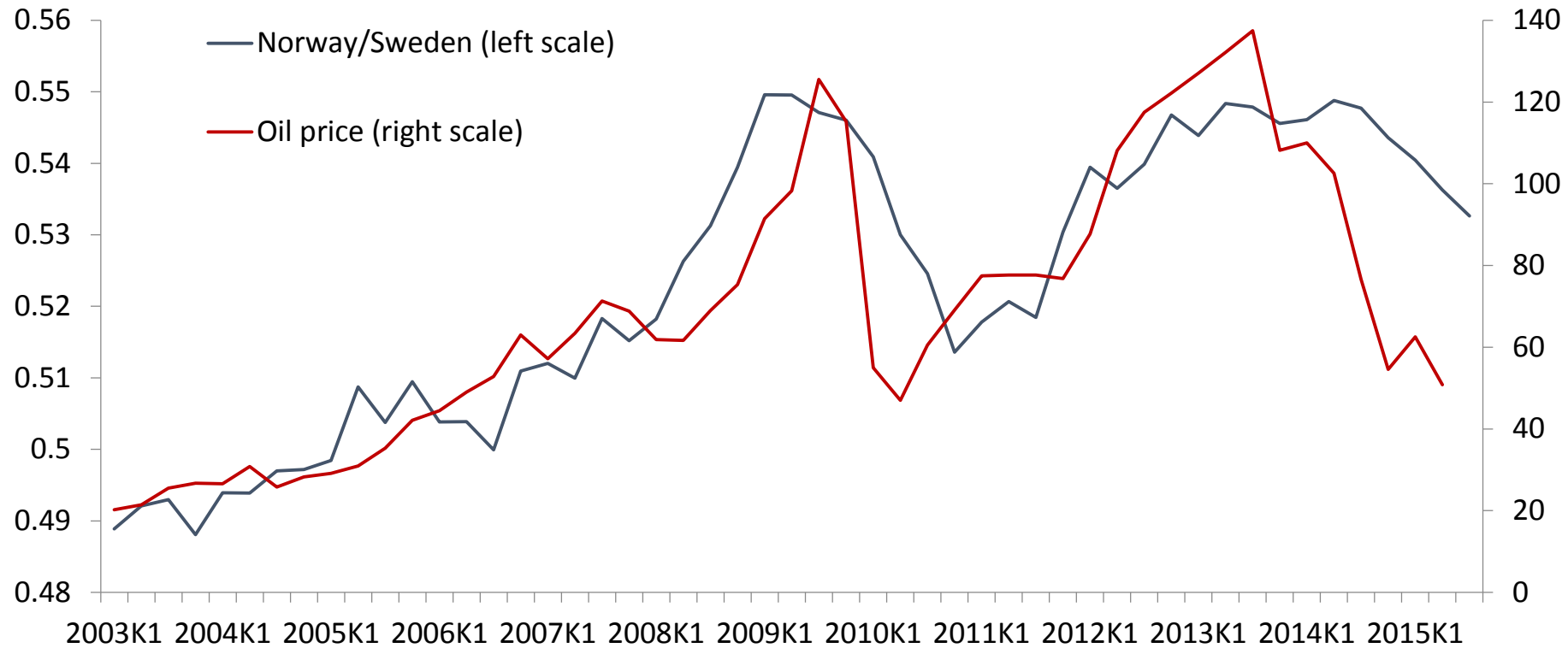
Why has the world not done better?

- Supply versus demand
 - Interest rates are already very low
- Asymmetric effects
 - Temporary versus permanent decline

Boost to consumers – trapped producers

- Bust for energy firms, and their stock prices
- Effects beyond the energy sector: Companies in the energy sector behind much of the capital investment at a time when other sectors have been less willing to invest.
- Capital investment faces a significant scaling back.
- Spillovers to companies and their stock prices in other sectors, manufacturing, housing markets, hotels and restaurants etc.

Oil exporters versus importers: Oil price and value added (mainland) Norway relative to Sweden



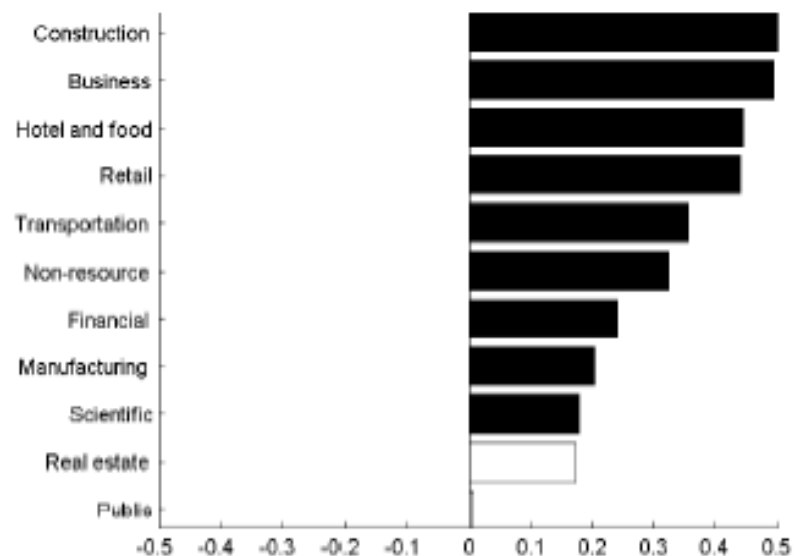
Source: SSB, SCB and Hilde C. Bjørnland

Spillovers in developed research rich economies versus resource curse literature...

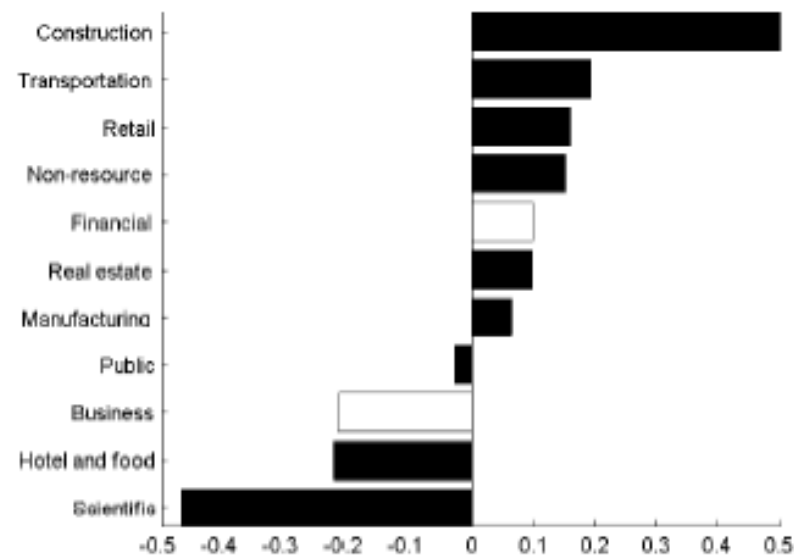
- Is it useful to compare Norway with Nigeria?
- Bjørnland and Thorsrud (EJ, 2016): Large spillovers from resource sector...
 - *E.g., Norway: Offshore oil extraction demands complicated technical solutions which could in itself generate positive knowledge externalities that benefit other sectors.*
- Share of GDP and productivity growth explained by resource boom: **Norway** 30/45 versus **Australia**: 15/6

Large spillovers to other industries: Average effect of a 1% resource boom after three years, percent

Norway



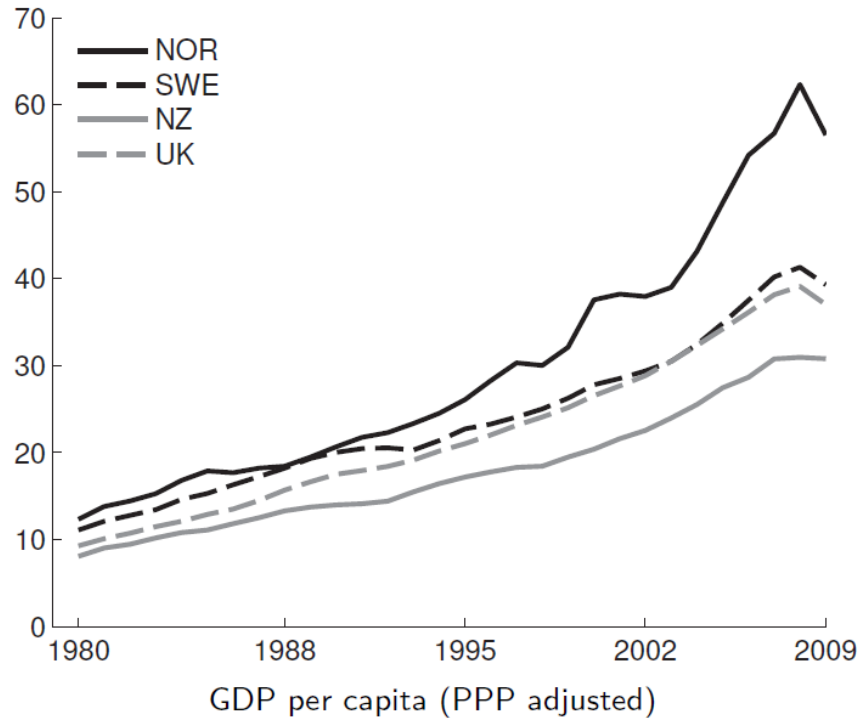
Australia



Source: Bjørnland and Thorsrud (EJ, 2016)

But cost also increased ... Now the sign has turned ...

2013: Rich cousin in the North

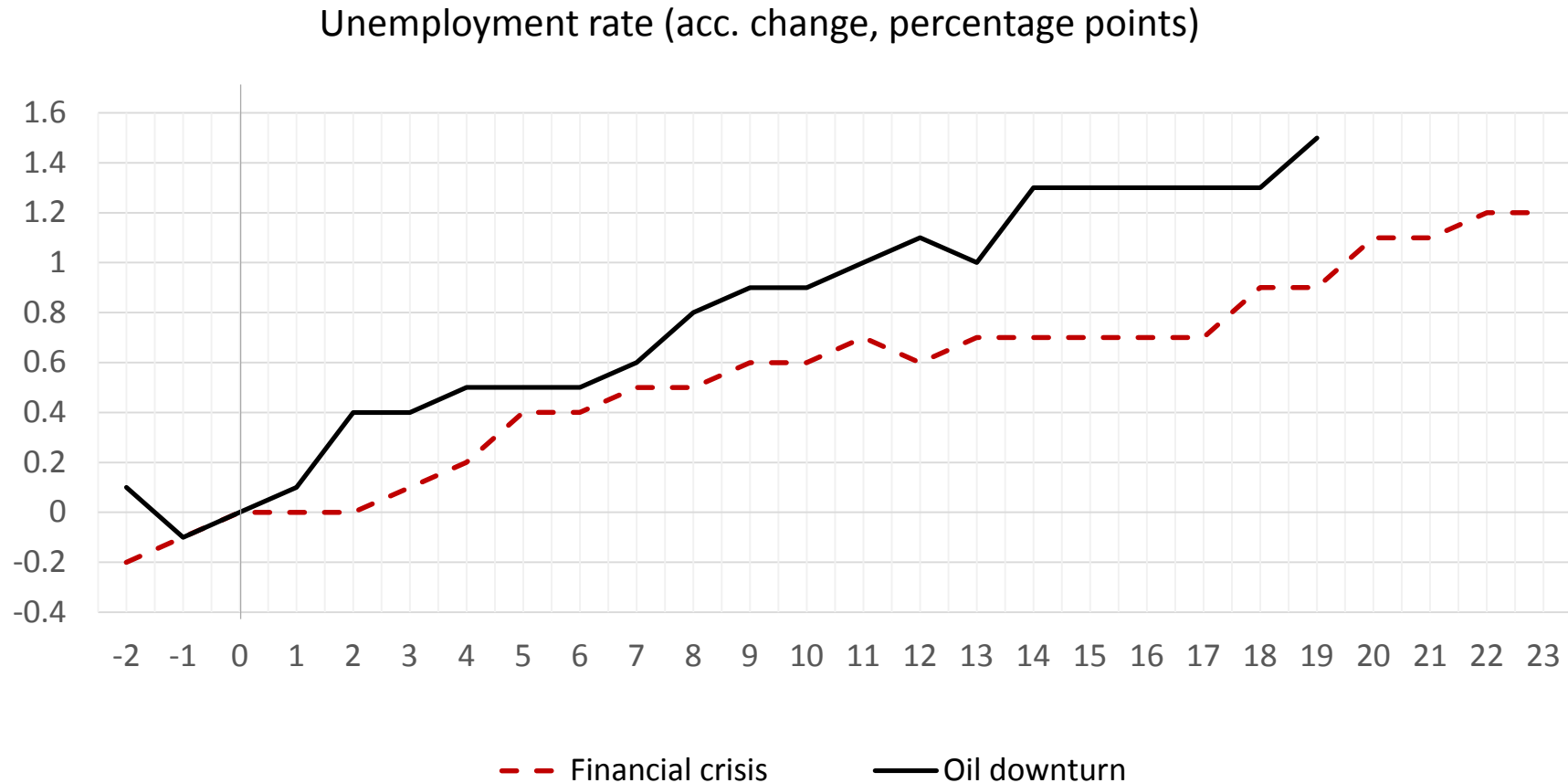


2015: Norwegian Blues



Brett Ryder

Unemployment is increasing fast. Comparing accumulated change since the oil downturn (December 2014) with the financial crisis (July 2008)



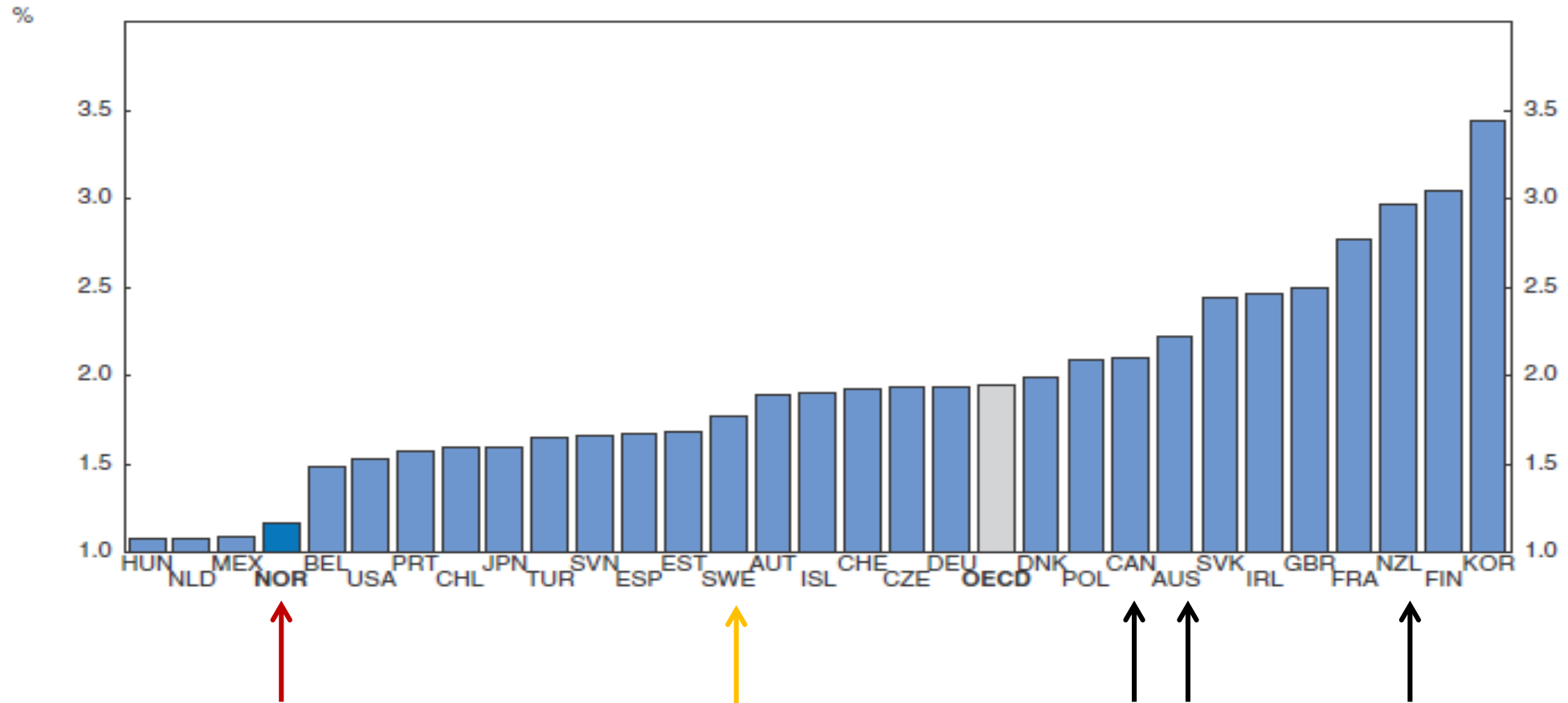
Source: Datastream and Hilde C Bjørnland

But not all is bad... Technology spillovers
Resources, energy and technology



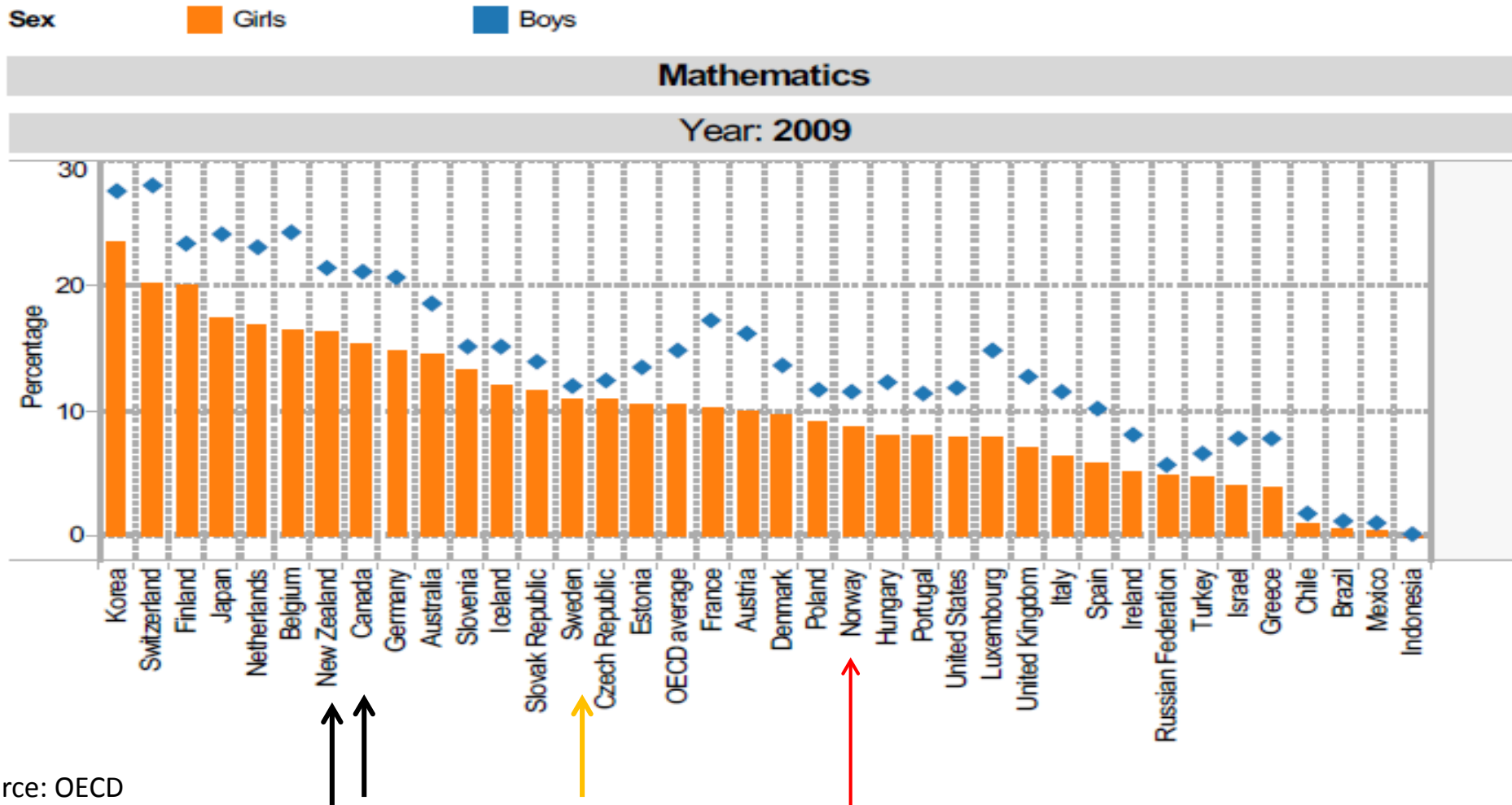
Is Norway ready for a technology-rich world?

Share of students majoring in science



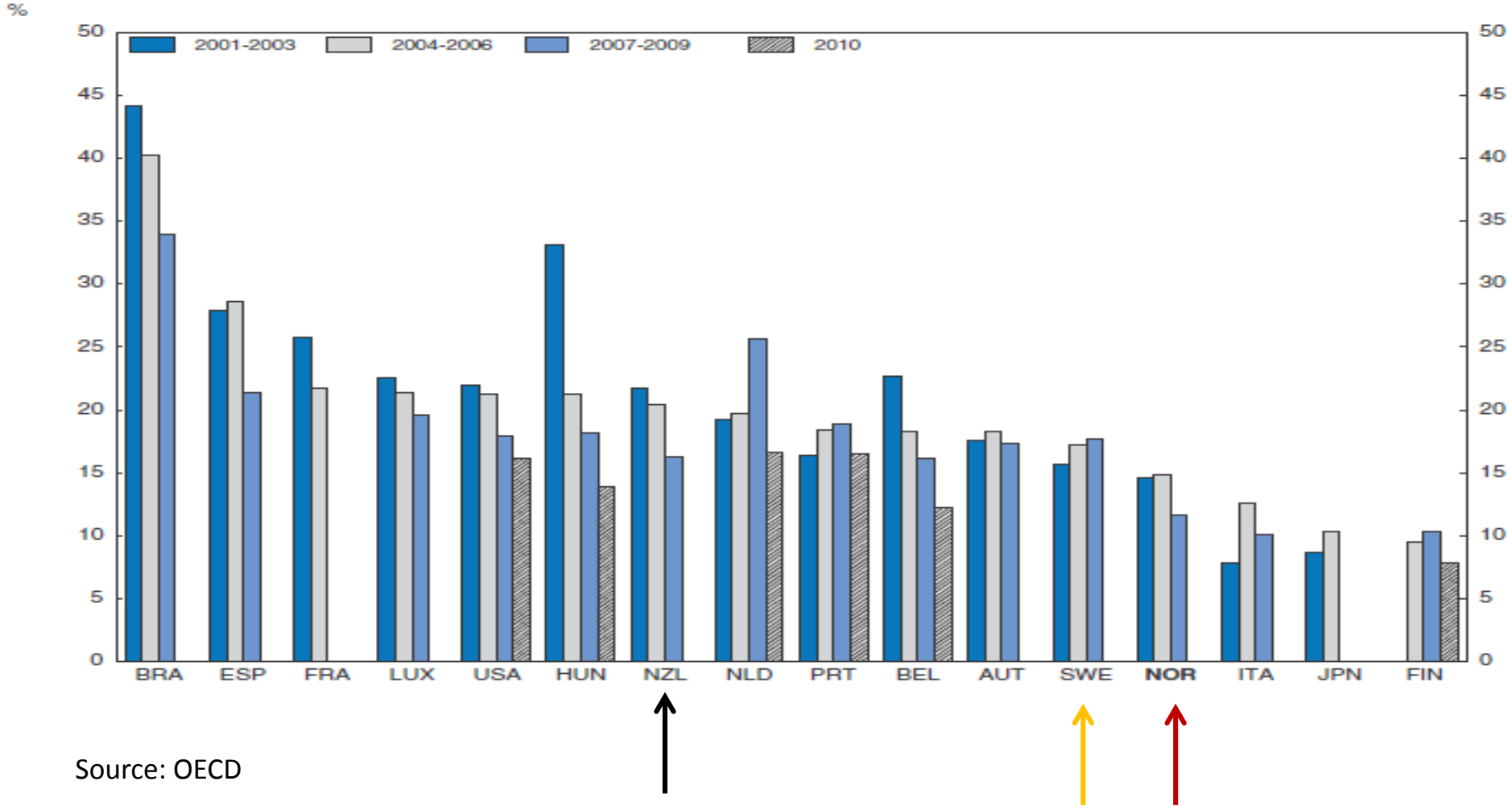
Source: OECD

Education on the agenda: Share of students with top score in mathematics...



Source: OECD

Low startup rate of new firms



Source: OECD

Made in Norway!

- Benefit more from the resources we already have
- Politicians need to strike a balance:
 - Expansionary policies during downturn
 - Encouraging cost efficient use of the resources
- Increase focus on creation of new firms, technological invention and education!

Thank you!