

Commodities, Energy and the Macroeconomy

*Workshop at the Brookings Institution 9 March 2016 -
"The Global Economy by 2020: Pressures and Prospects"*

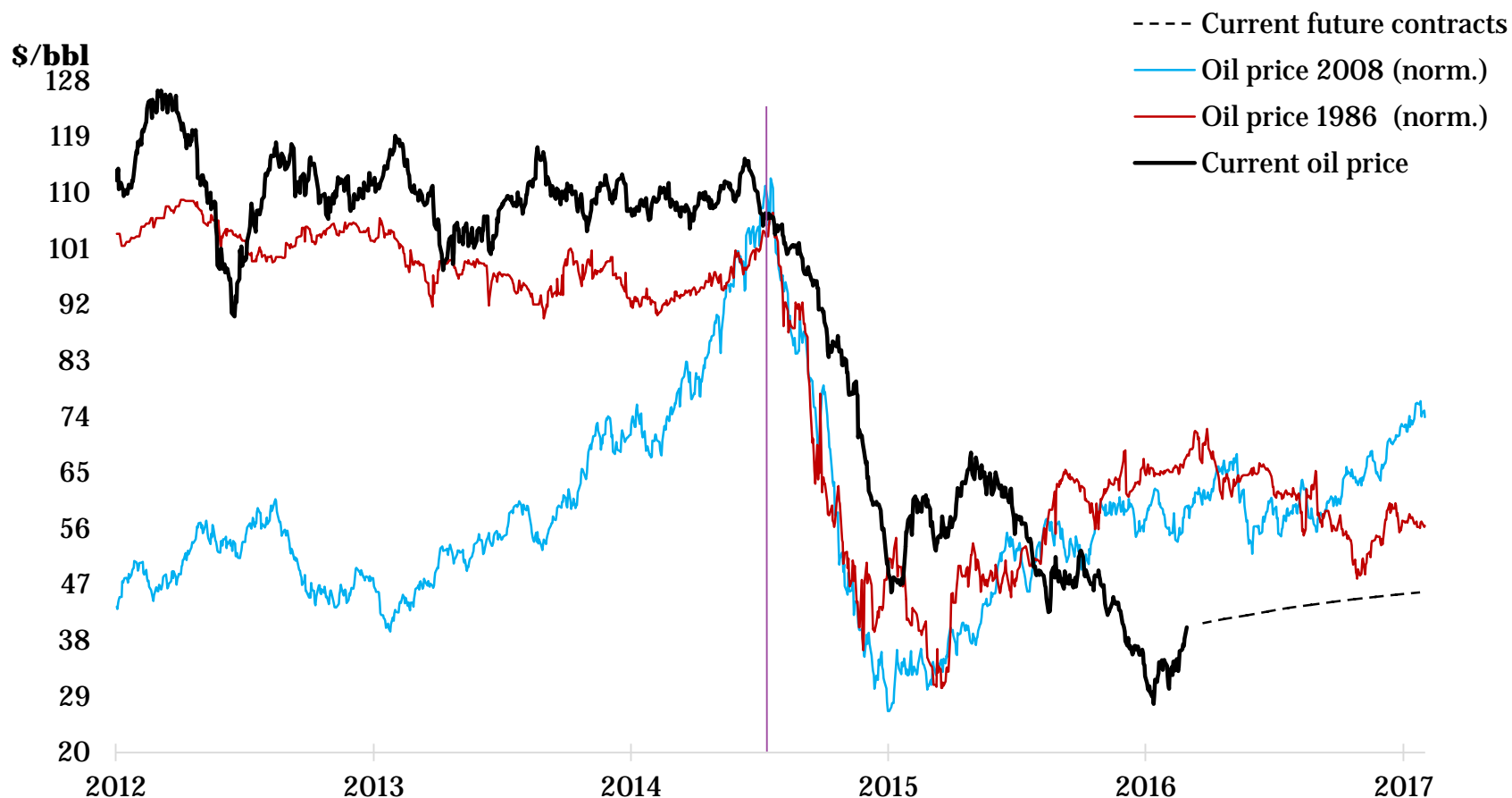
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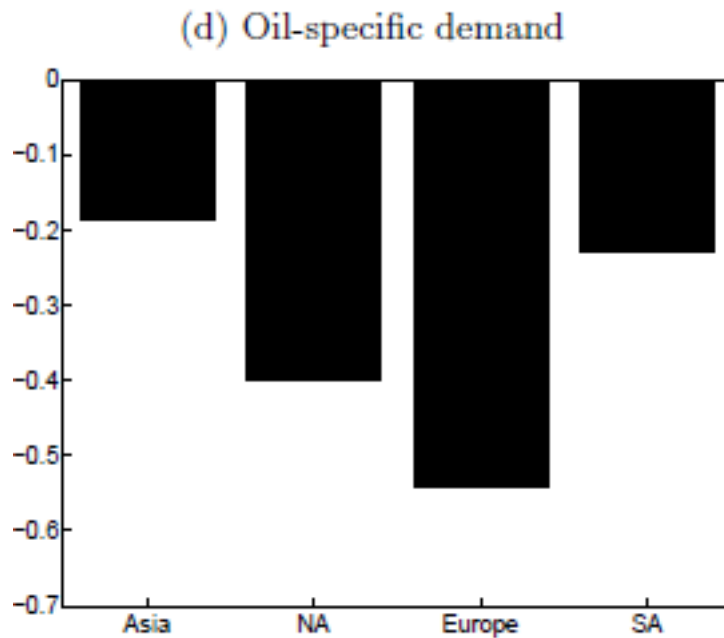
Key questions

- 1.** How do commodity and energy prices affect the global economy
- 2.** What are the prospects for major commodity and energy exporters and importers?

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



The effect of a 10 percent *increase* in oil prices on different regions

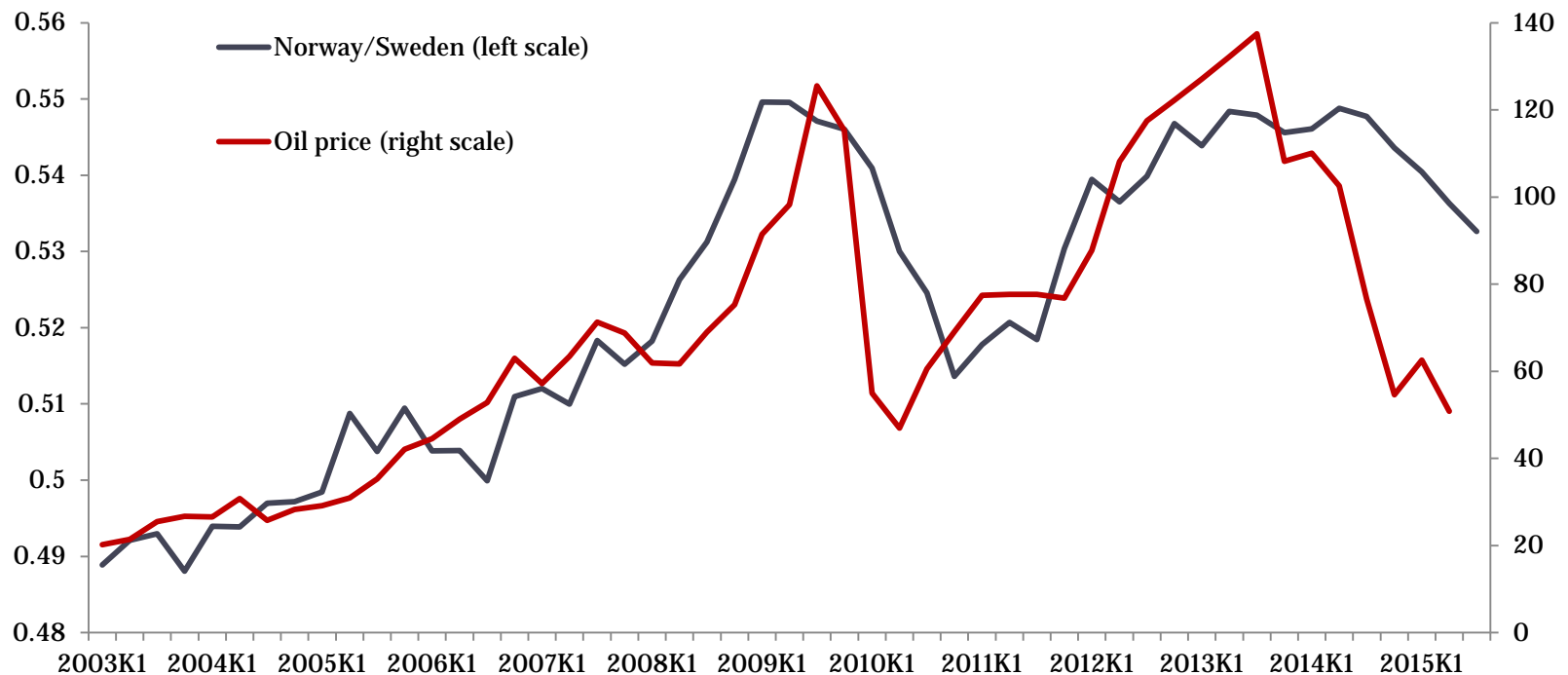


- The median effect of an oil specific (demand) shock, unrelated to global activity, on output after two years.
- Should expect positive effects on the global economy when commodity prices are halved: US + 2 % and Europe + 2.5 %

Why is the global world not doing better? (when oil prices have fallen by 60 percent)

- Why are commodity prices falling?
 - Source (supply/demand) versus effect:
 - If demand driven, say related to decline in demand in emerging countries - negative demand spillovers versus boost. And little room for policy stimulus.
- Asymmetric and non-linear effects.
 - It is not the same if oil prices increase or decrease
 - Temporary versus permanent decline. GFC, commodity prices recovered quickly. Different now
- What is the contrafactual? Oil exporters have done worse than importers, in relative terms...

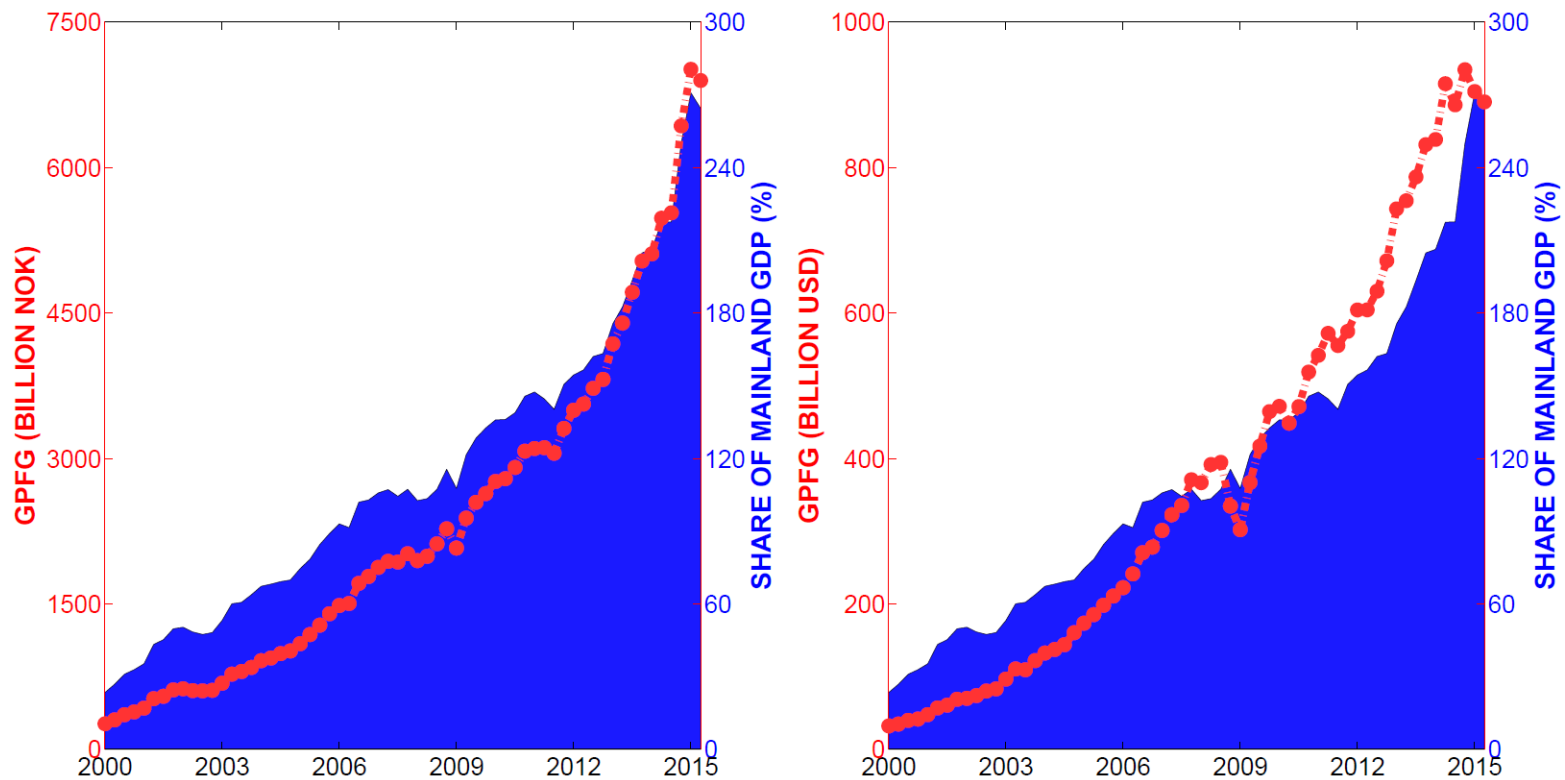
Oil exporters versus importers: Oil price and value added (mainland) Norway relative to Sweden



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 much less willing to invest. Capital investment now faces a significant scaling back.**
- **Spillovers to companies and their stock prices in other sectors, manufacturing, housing markets, hotels and restaurants etc.**

Government Pension Fund Global (GPF Global): Invest in 9,000 companies and have investments in 78 countries.



Source: Norges Bank

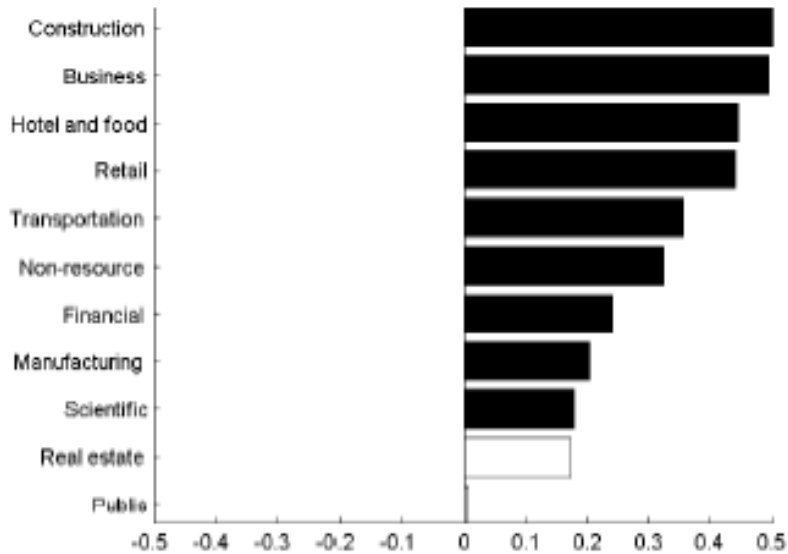
Spillovers to commodity and energy exporters

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

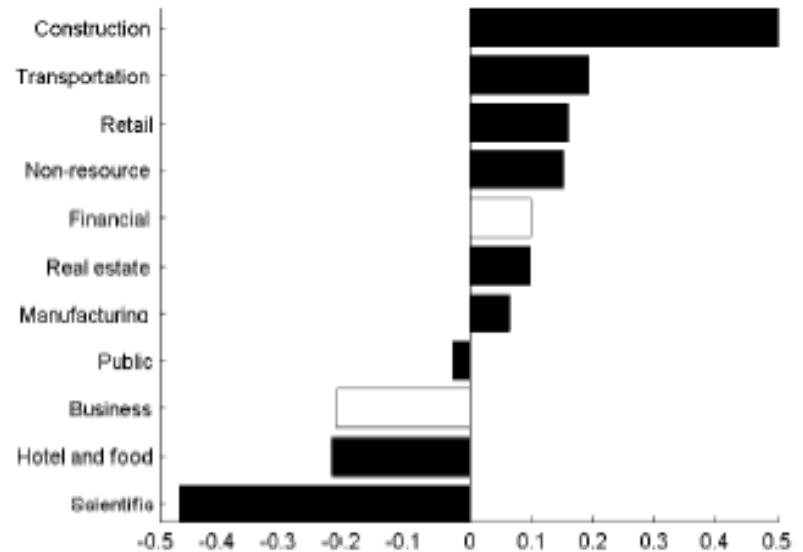
- Is it useful to compare Norway with Nigeria?
- Bjørnland and Thorsrud (EJ, 2016): Tradeable is often assumed to be more productive than the resource sector. Not necessarily true plus large spillovers
 - *E.g., Norway: Offshore oil extraction demands complicated technical solutions which could in itself 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

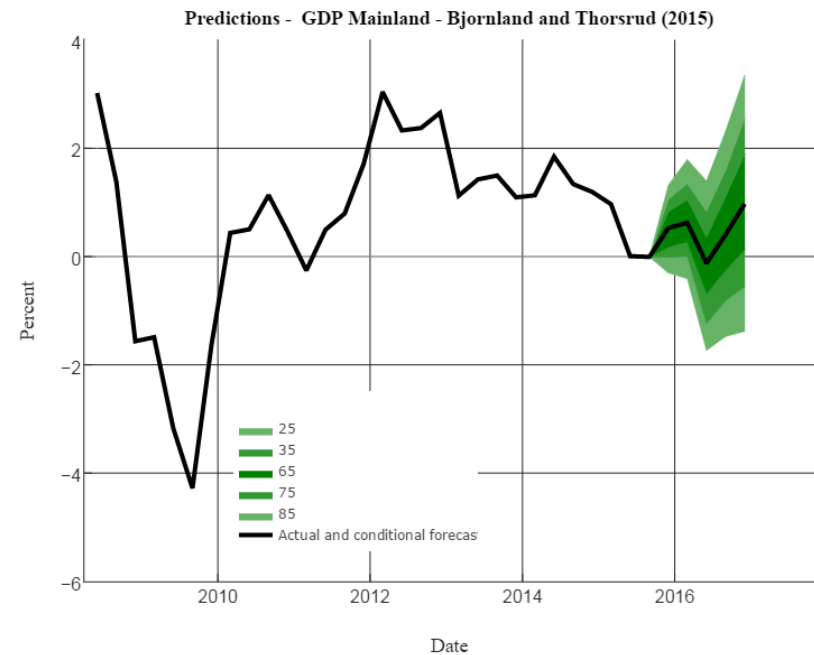
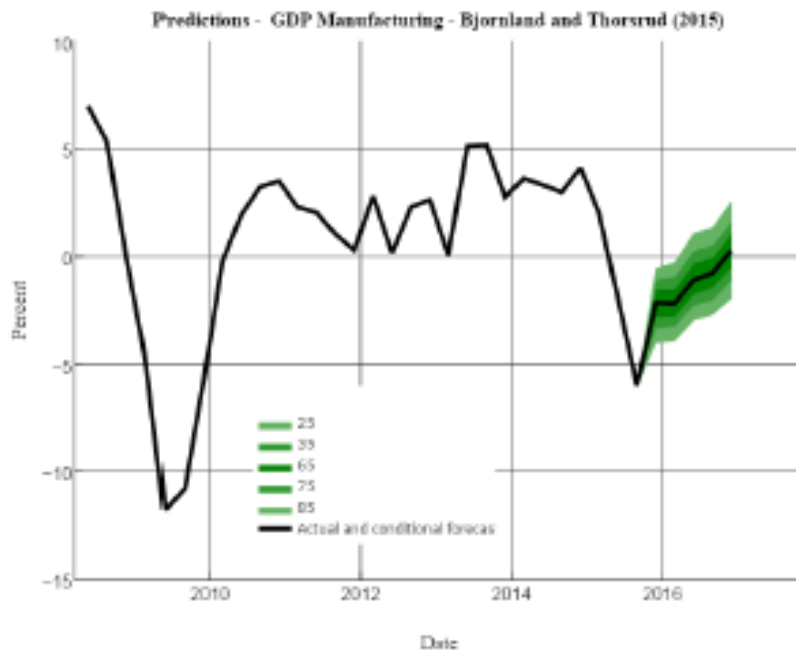
Norway



Australia



Now the signs are reversed - Predictions for 2016, for Norway



Kilde: Bjørnland og Thorsrud (2015)

Technology spillovers going forward

Some good news...

- High skills and technology can be used in other industries:
- Surveillance for drilling:
 - Surveillance of heart operated patients
 - Surveillance of risk for stock market
- Offshore drilling – offshore fish harvesting
- New (renewable) energy

Resources, energy and technology





Thank you!

Sources:

- ❑ Bjørnland, H.C. and L.A. Thorsrud (2016) “Boom or gloom? Examining the Dutch disease in two-speed economies”, forthcoming *Economic Journal*

http://www.bi.edu/InstitutterFiles/Samfunns%C2%B0konomi/CAMP/Working_CAMP_6-2014.pdf

- ❑ Aastveit, K.A., Bjørnland, H.C. and L.A. Thorsrud (2015) “What drives oil prices? Emerging versus developed economies” *Journal of Applied Econometrics*, 30, 1013-1028.

http://www.bi.edu/InstitutterFiles/Samfunns%C2%B0konomi/CAMP/Working_CAMP_2-2012.pdf

- ❑ Bjørnland, H.C. and L.A. Thorsrud (2015) “CAMP forecast for 2016”

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