

Oljen og norsk økonomi

Etter festen kjem testen

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Frokostseminar, Samfunnsøkonomene
 Oslo, 13 May 2015

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Oil and the Norwegian economy

Will Norway escape the Dutch Disease?



- Resource revenues appreciate the real exchange rate
 - Erosion of competitiveness
 - Crowd-out of manufacturing
- Aggravates the cost of (structural) re-adjustment
- Two channels of transmission
 - Spending effect
 - Resource movement effect



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Source: Mohn (2015), Resource revenue management and wealth neutrality. Working Paper, University of Stavanger, January 2015.

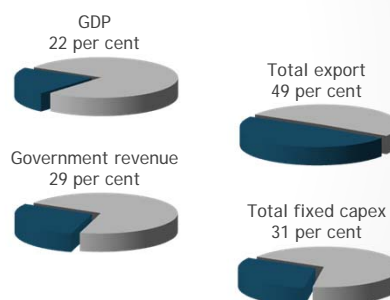
Oil and the Norwegian economy

An industry that makes a difference

- Three special characteristics
 - Norway is a small economy...
 - ...with a large petroleum sector,...
 - ... and high domestic deliveries
- High attention on spending effects
 - Fund mechanism and fiscal policy rule
- Less concern for resource movement effects
 - Re-direction of Norwegian industries

Macroeconomic key figures 2013

Oil and gas share in...



Oil and the Norwegian economy

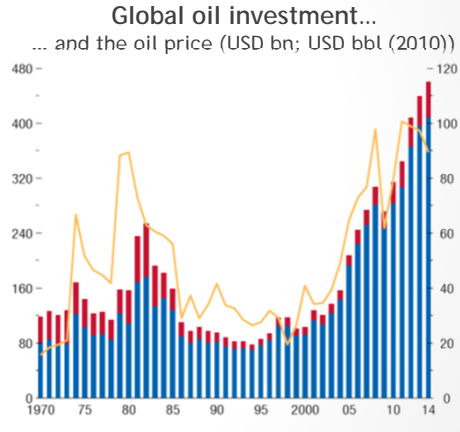
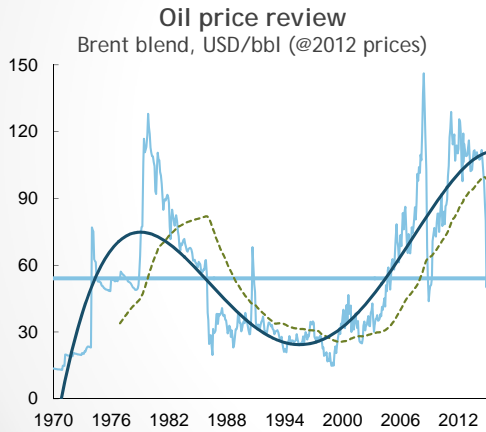
Forget anything, but bear in mind that...

- The oil price matters
- The nature of the oil shock matters
- Market imperfections matter
- Resource scarcity matters



The oil price matters...

... for investment

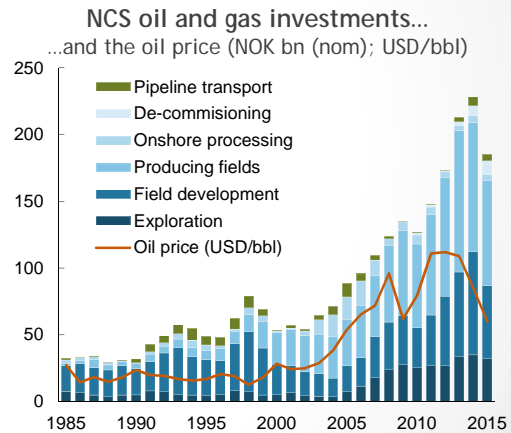
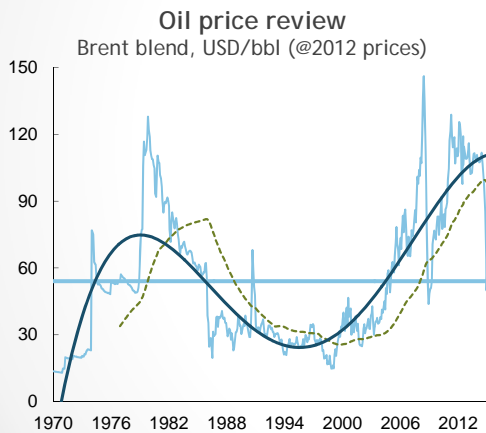


Source: International Monetary Fund, *World Economic Outlook*, April 2015.

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The oil price matters...

... for investment



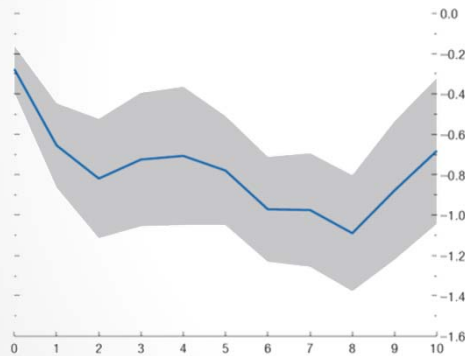
Source: International Monetary Fund, *World Economic Outlook*, April 2015. Statistics Norway.

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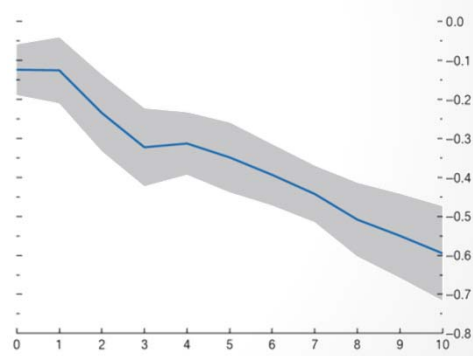
The oil price matters...

... for investment - and for production

Oil investment response to an oil price drop
Impulse response in per cent (elasticity)



Oil production response...
... to a 1% drop in investment (elasticity)



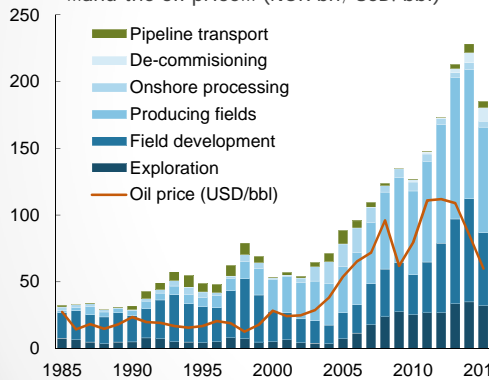
Source: International Monetary Fund. *World Economic Outlook*, April 2015.

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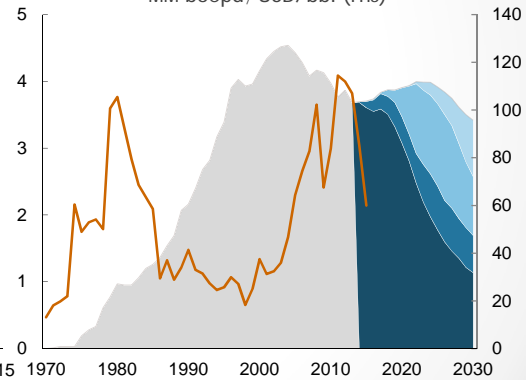
The oil price matters...

... for production

Oil and gas investments...
...and the oil price... (NOK bn; USD/bbl)



...feed into the production outlook
MM boepd; USD/bbl (rhs)

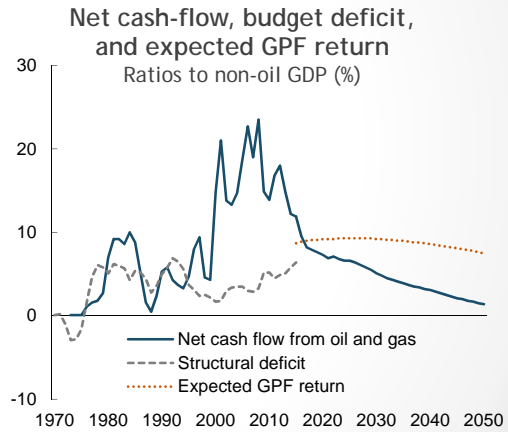
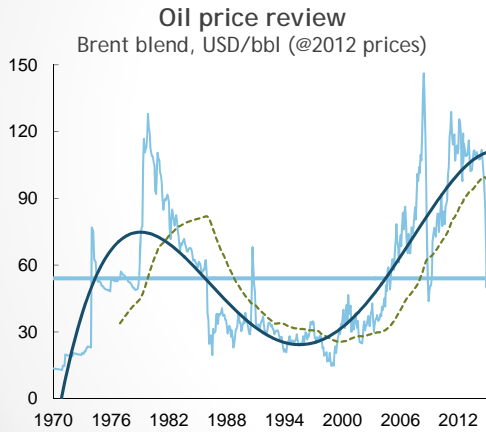


Source: Statistics Norway, Norwegian Petroleum Directorate.

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The oil price matters...

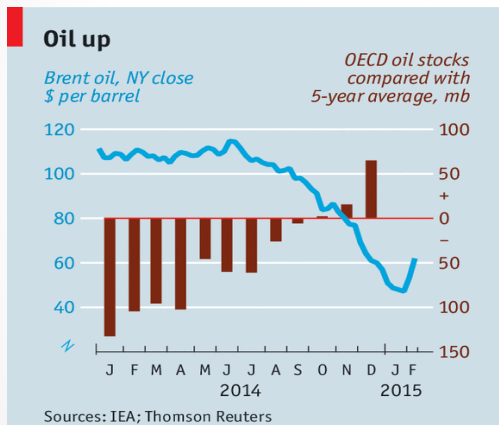
... for revenues



Source: International Monetary Fund. *World Economic Outlook*, April 2015.

The great plunge in oil prices

Deepest drop since 2008, and hardly as temporary, ... or (?)



Sources: IEA; Thomson Reuters

The great plunge in oil prices

Causes, consequences, and policy responses

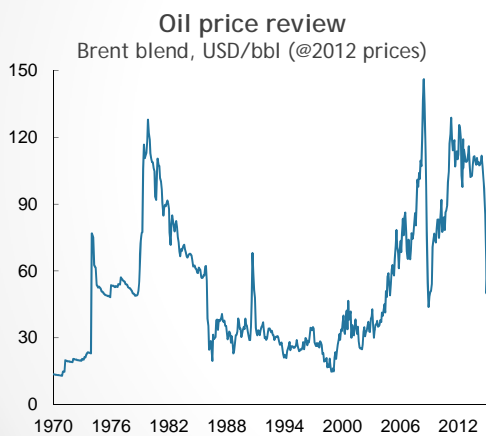


- Developments in demand and supply
- Changes in OPEC objectives
- Geopolitical developments
- Appreciation of the USD
- Speculative demand and inventory management

Source: World Bank (2015). The great plunge in oil prices. Causes, consequences, and policy responses. *Policy Research Note* 15/01. March.

The great plunge in oil prices

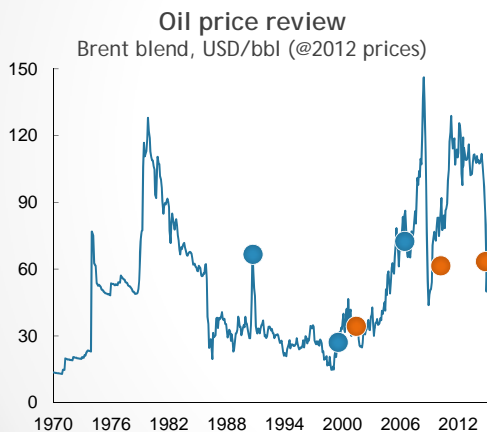
The nature of the oil price shock is decisive for its impact



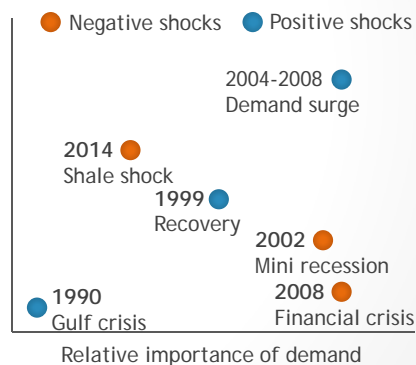
- The source of the shock
 - Demand
 - Supply
- Persistence
 - Temporary shock (cyclical)
 - Permanent shock (structural)

The great plunge in oil prices

The nature of the oil price shock is decisive for its impact

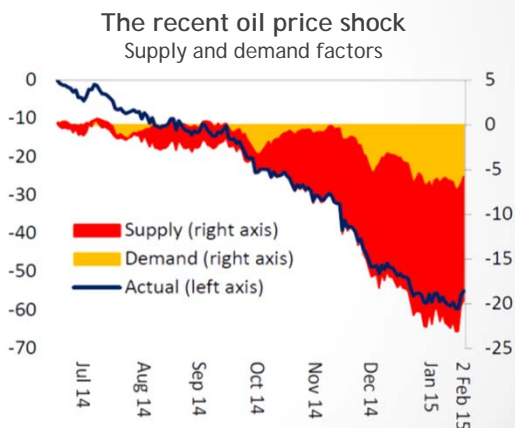


Classification of oil price shocks by shock origin and persistence



The great plunge in oil prices

Largely supply-driven, but not entirely...



Source: World Bank (2015). The great plunge in oil prices. Causes, consequences, and policy responses. Policy Research Note 15/01. March.

Oil industry in distress

Pressures were building ahead of the oil price plunge

November 2013



April 2014

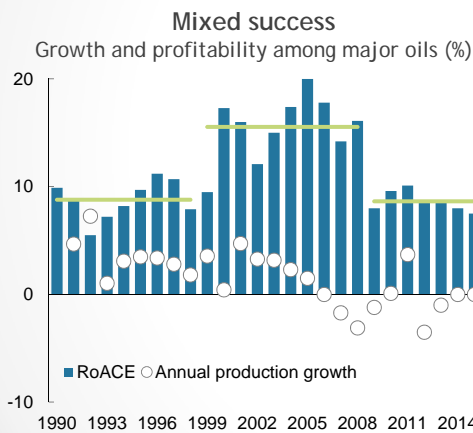


Sources: Mohn, K. 2014. Kva skjer med oljeinvesteringane? Samfunnsøkonomen 2/2014, 10-14.

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Oil industry in distress

Short-term challenge: Profitability and investment returns



- Disappointed shareholders
 - Returns eroded by spending, cost escalation, and oil price stagnation
- Diverging market views...
 - ... and valuations
- Disputed business model
 - Scarcity and access
 - Stranded assets



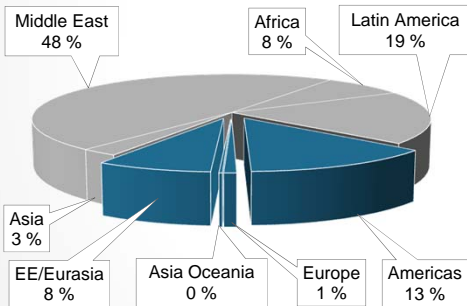
*Sources: Deutsche Bank, UBS Warburg.

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Oil industry in distress

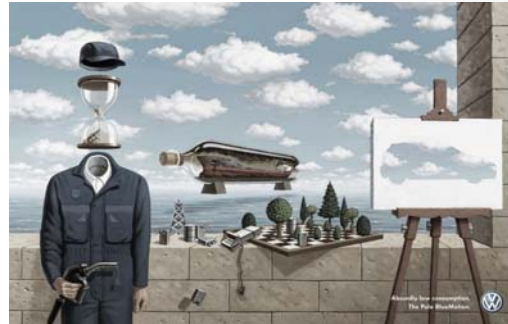
Longer term challenge: Growth

Constraints on access and supply
Proven oil and gas reserves by global region



Source: IEA (2014), *World Energy Outlook*.

Constraints on demand
Policies, preferences, and prices



A case for cash as an investment driver

Market imperfection: Agency costs of free cash-flow

Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers
By Michael C. Jensen

Journal of Financial Economics, Volume 1, Number 1, Winter 1986, Pages 31-49

Takeovers: Their Causes and Consequences
Michael C. Jensen

Jensen, M. (1986)
Agency cost of FCF...
AER 76(2)

Shifting sentiments in firm investment: an application to the oil industry
Klaus Misund and Mark Mohn

Journal of Applied Corporate Finance, Volume 23, Number 4, Summer 2011, Pages 30-37

Mohn and Misund (2011)
Shifting sentiments...
AFE 21

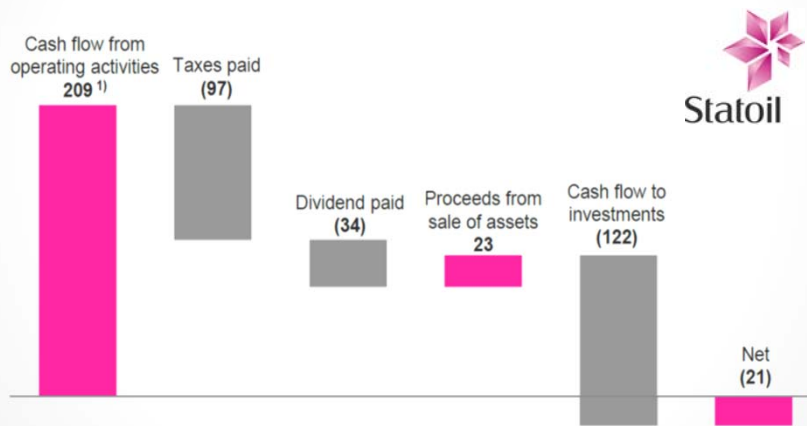
Nye kutt i kjømda frå Statoil
Statoil kynn erer alt å dreme med nye kutt i investeringsplanane. Det godt nytt for Statoil's eigarar, men blage for norsk økonomi.

Mohn, K. (2015)
Dagens Næringsliv
7 January



A case for cash as an investment driver

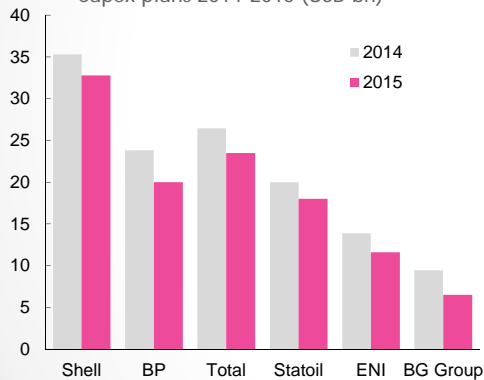
Statoil's cash disposal 2014 (NOK bn)



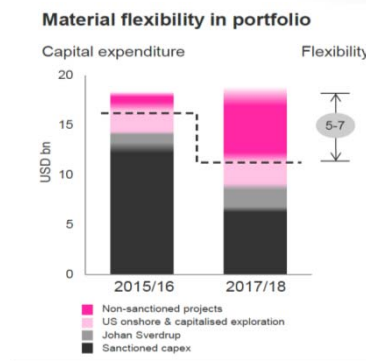
A case for cash as an investment driver

Lower investment will dampen activities - and costs

European oil majors
Capex plans 2014-2015 (USD bn)

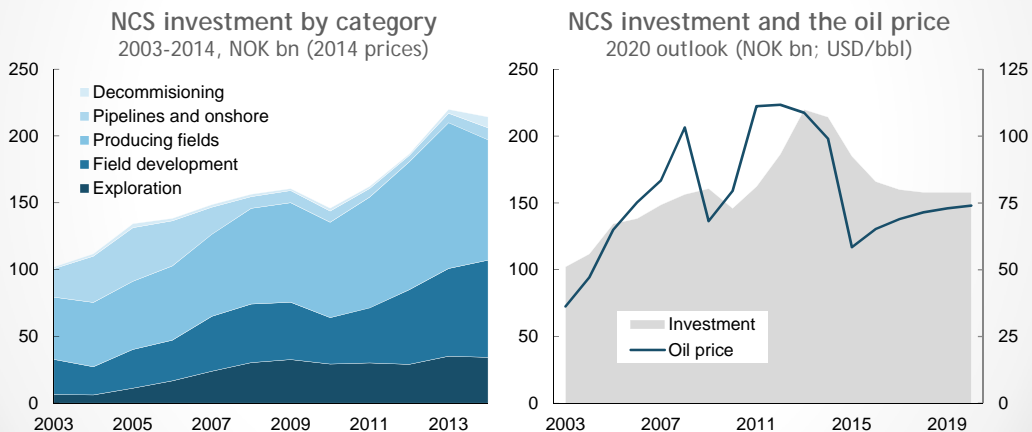


"Prepared to use material flexibility"
Statoil, 6 February 2015



NCS investment outlook

Point of departure: Norges Bank March 2015 forecast (adjusted)

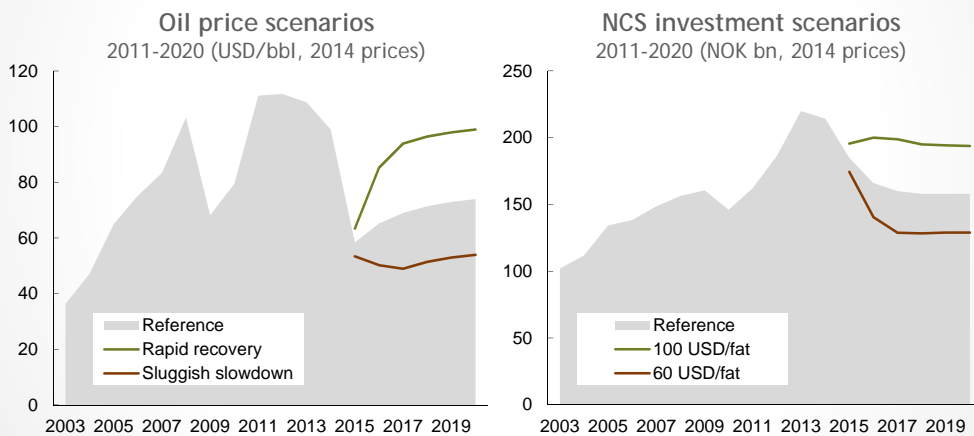


Source: Norges Bank, 2013. *Pengepolitisk rapport no 1*, March 2015 (historical figures). Author's calculations (outlook).

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NCS investment outlook

A scenario exercise

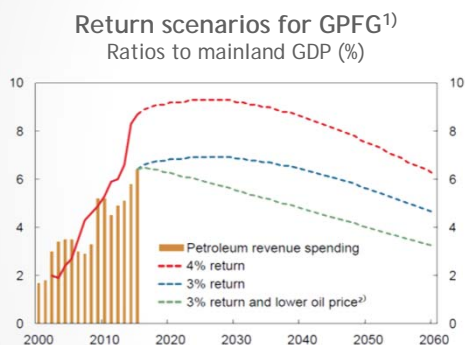


Source: Norges Bank, 2013. *Pengepolitisk rapport no 1*, March 2015 (historical figures). Author's calculations (outlook).

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Reflections on policy response

... depends on the nature of the oil price shock



1) Assuming actual spending corresponds to the return as from 2016 and in all subsequent years.
2) Assuming an oil price of 400 per barrel in NOK (2015) to the end of the estimation period.
Sources: Ministry of Finance and Norges Bank

- The degree of aggressiveness
- Optimal policy mix
 - Monetary policies
 - Fiscal policies
 - Industrial policies
- Stabilisation vs re-adjustment

Key takeaways

Forget anything, but bear in mind that...

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- The nature of the oil shock matters
- Market imperfections matter
- Resource scarcity matters

