

Status and outlook for the NCS

An economist's perspective

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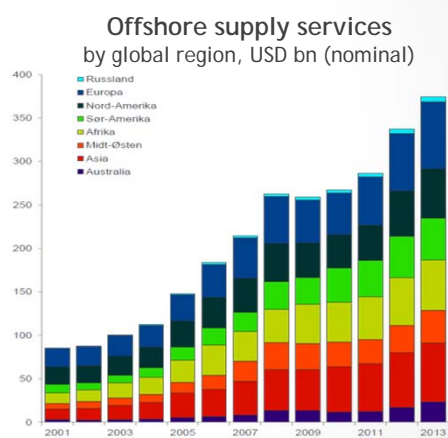
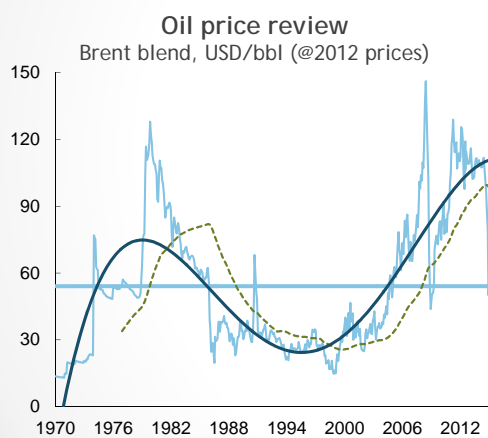


NTVA Anniversary Conference
 Stavanger, 4 March 2015

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A global market and industry boom...

... was supported by continuous demand-driven oil price shocks

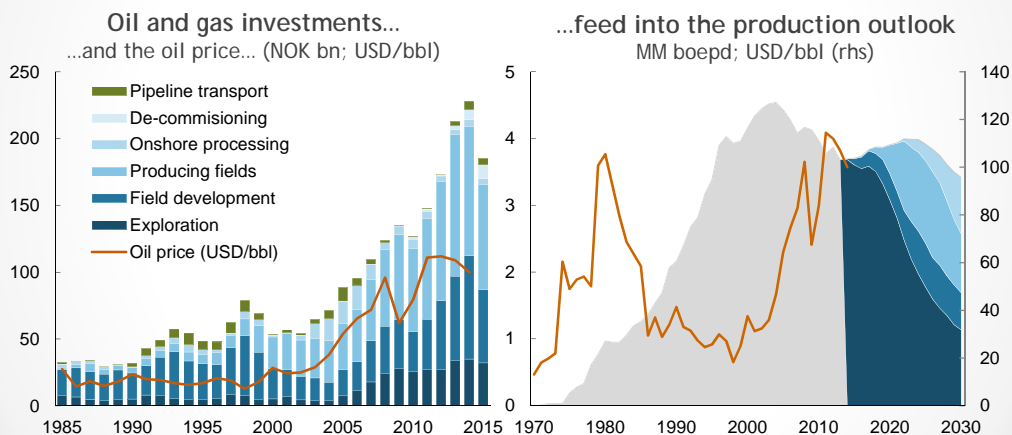


Source: Reuters EcoWin, Rystad Energy.

2

Higher valuations unlock additional volumes

Oil price influences investments, production and reserves

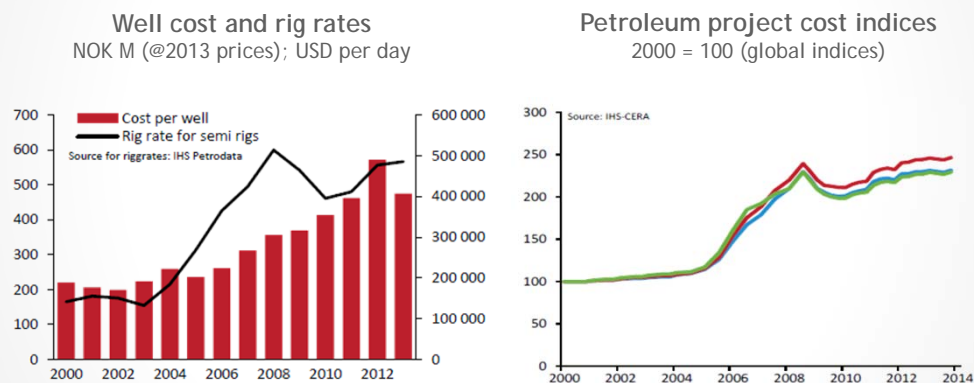


Source: Statistics Norway, Norwegian Petroleum Directorate, Reuters EcoWin.

3

Costs have followed suit

Supplier market pressures are cyclical - and partly reversible

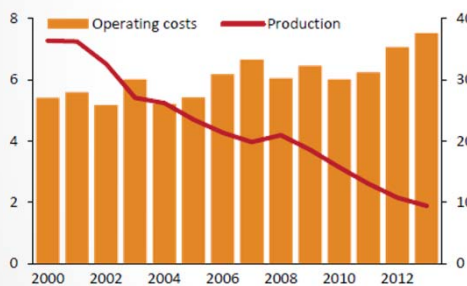


Source: Norwegian Ministry of Petroleum and Energy, Norwegian Petroleum Directorate.

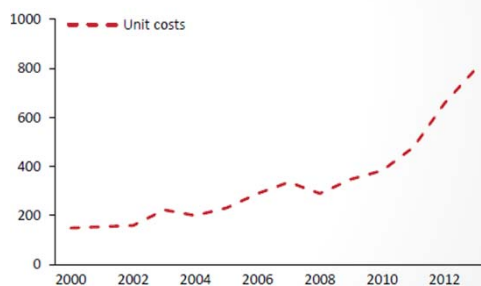
The NCS is maturing steadily

Costs relating to maturation are structural - and harder to reverse

Sample field: Cost and production
NOK bn (@2013 prices)



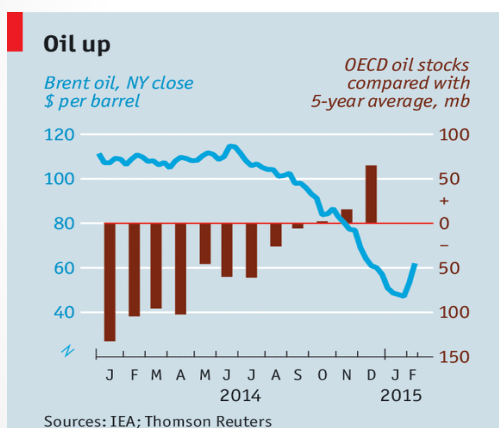
Sample field: Unit production cost
NOK/SM³ oe (@2013 prices)



Source: Norwegian Ministry of Petroleum and Energy, Norwegian Petroleum Directorate.

Turning point 2014

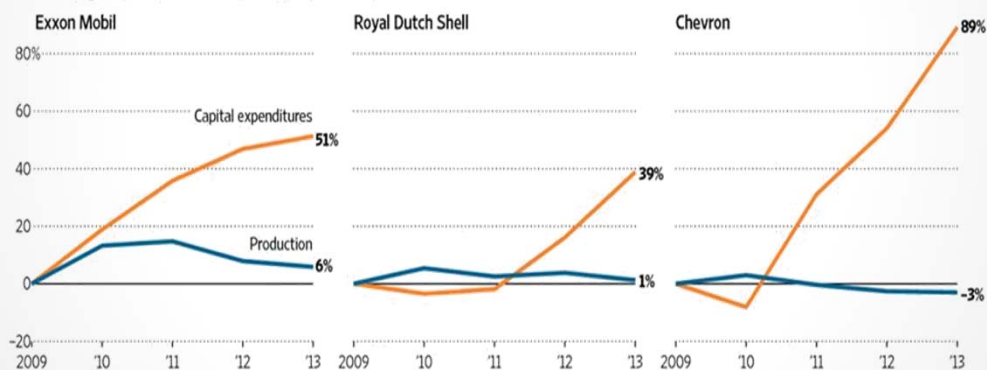
NCS outlook dampened by cost escalation and oil price war



IOC revenues fall short of expenditures

More capital is required for each barrel of production capacity

Exxon, Shell and Chevron have been spending at record levels as they seek to boost their oil and gas output. It has yet to pay off. Below, change in production and capital expenditures since 2009.

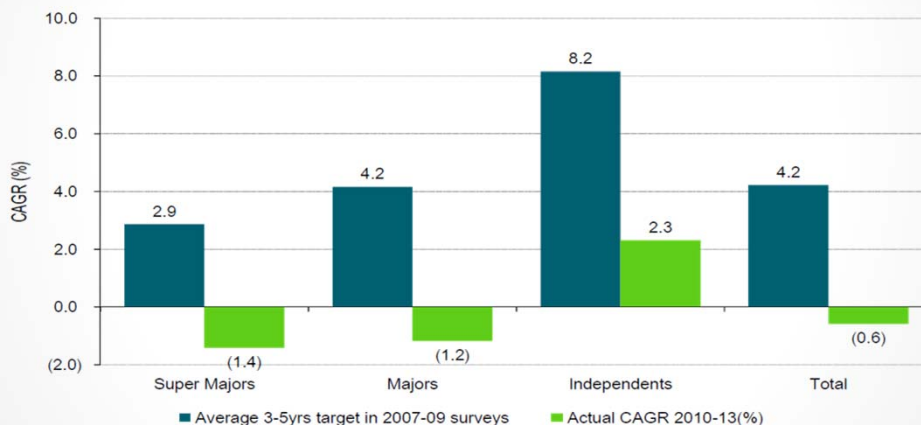


Source: Wall Street Journal.

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IOC production falls short of promises

Production growth versus targeted growth last four years

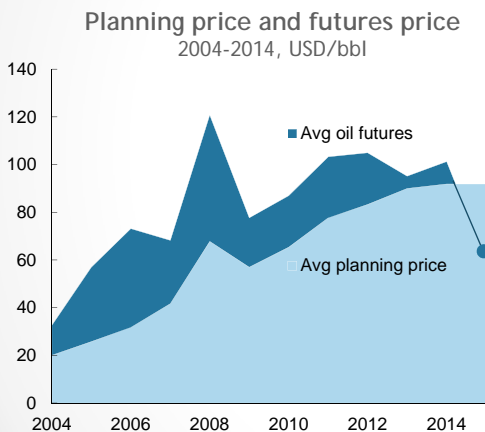


Source: Enskilda Securities (Oil companies' E&P budgets, 20 August 2014).

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«Breaking bad»

Market developments fall short of IOC planning assumptions



Source: Oil Companies' E&P Budgets, SEB Equity Research, 15 August 2014.

A case for cash as an investment driver

Agency costs of free cash-flow

Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers
By Michael C. Jensen
Journal of Economic Perspectives - Volume 1, Number 1 - Winter 1987 - Page 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
Department of Economics and Business Administration, University of Stavanger

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

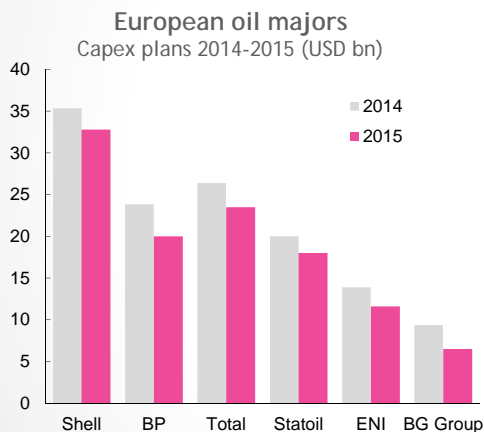
Nye kutt i kjømda frå Statoil
Statoil kynn erett alt i dette med nye kutt i investeringsplanane. Det godt nytt for Statoils eigarar, men blåse for norsk økonomi.

Mohn, K. (2015)
Dagens Næringsliv
 7 January

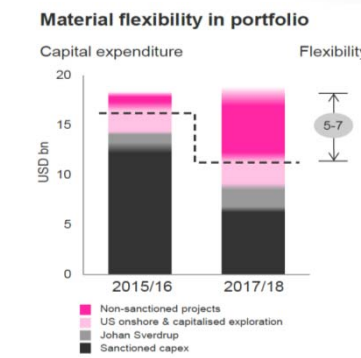


Capex dampened by cash constraints

Lower investment will dampen activities - and costs

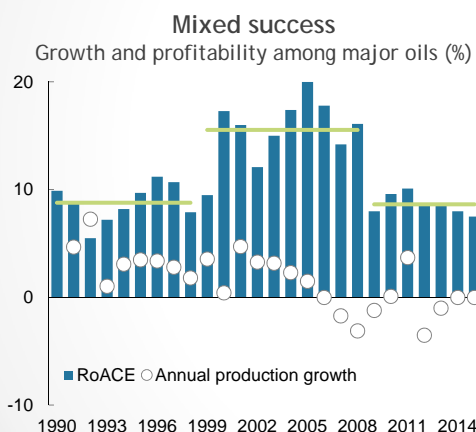


“Prepared to use material flexibility”
Statoil, 6 February 2015



Short-term challenge: Profitability

Increasing focus on cash-flow management and capital discipline

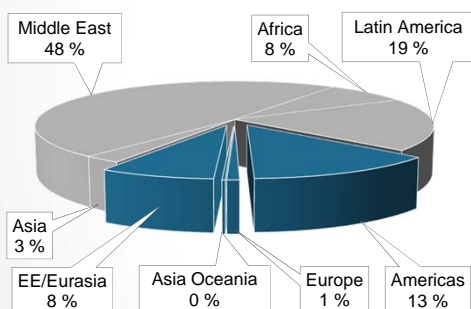


- Doubtful shareholders
 - Returns eroded by prices and performance
- Diverging market views...
 - ... and valuations
- Disputed business model
 - Scarcity and access
 - Stranded assets

Longer-term challenge: Growth

Risks and restraints on the outlook for earnings growth

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

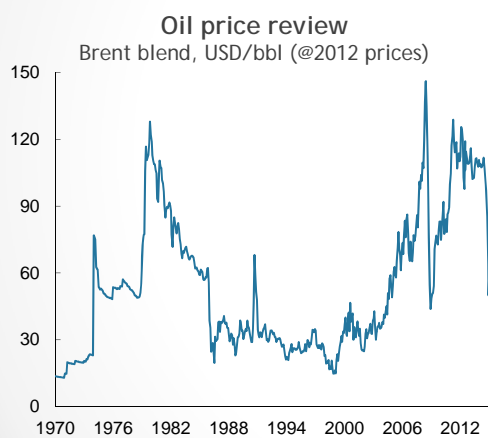


Constraints on demand
Policies, preferences, and prices



The nature of the oil price shock...

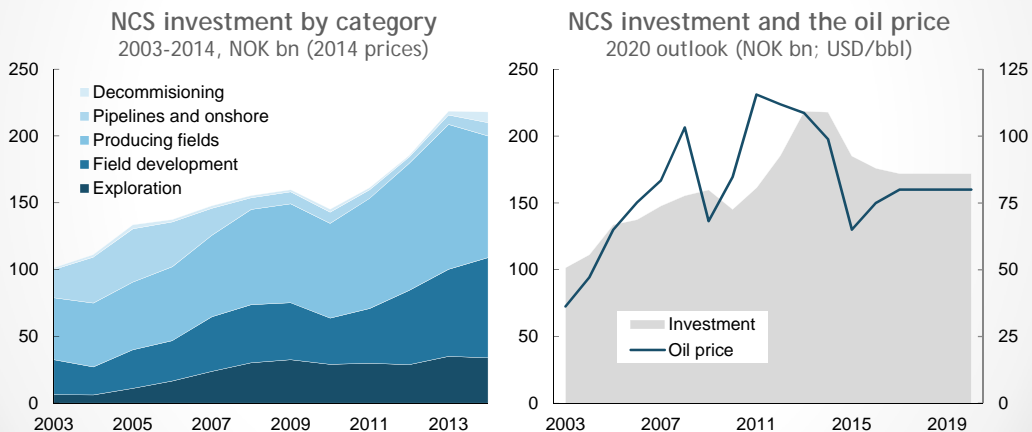
... is decisive for its impact



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

NCS Investment outlook

Point of departure: Norges Bank December 2014 forecast

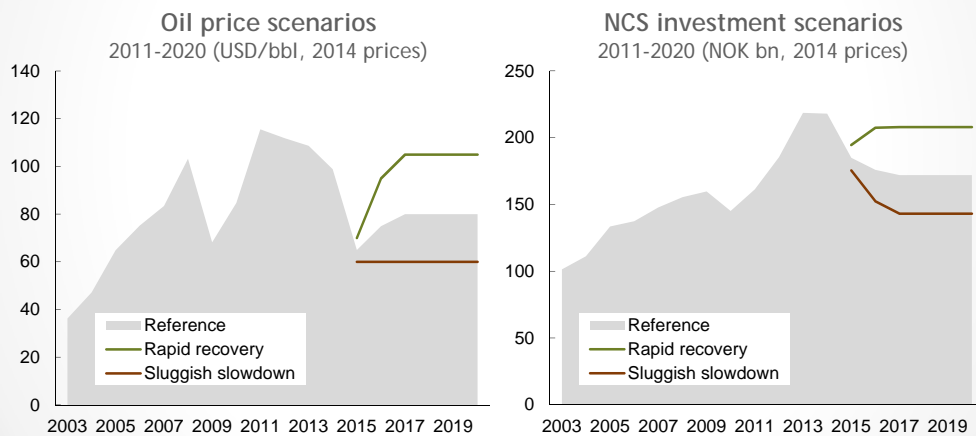


Source: Norges Bank, 2014. *Pengepolitisk rapport no 4*, December 2014 (2-year flat extrapolation by author).

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NCS investment outlook

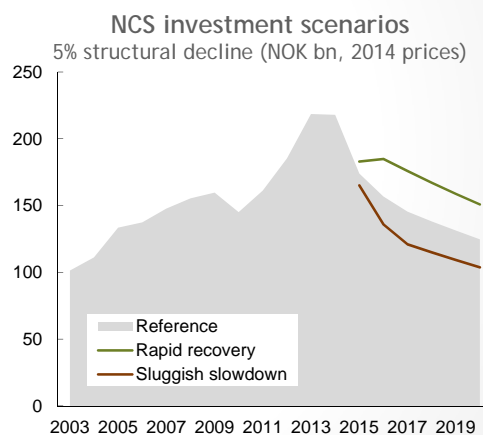
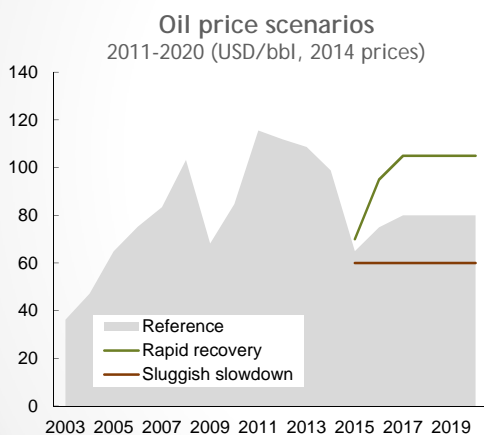
A scenario exercise



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Capital and resource constraints

The reference scenario has a downward bias



Stagnation is the new normal

Beware of structural decline ahead

- No growth without profit
 - Oil price increase has reversed
 - Costs challenge will prevail
- More challenges ahead
 - Project pipeline may dry up
 - Global warming means oil industry cooling
- Readjustment is looming

