

# Recovery, reversal, and risk

## Macro and oil industry outlook

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1

## Outline

### Oljeselskapenes investeringer: Drivere og beslutningsprosess

- Macro perspectives
  - Global growth
  - Energy outlook
- Industry perspectives
  - The oil price matters
  - IOC shortcomings
  - Cash and capital formation
- The nature of the oil price shock
  - Source and persistence
  - Industry and macro implications
  - Policy response
- NCS activity outlook



2

## IMF's World Economic Outlook

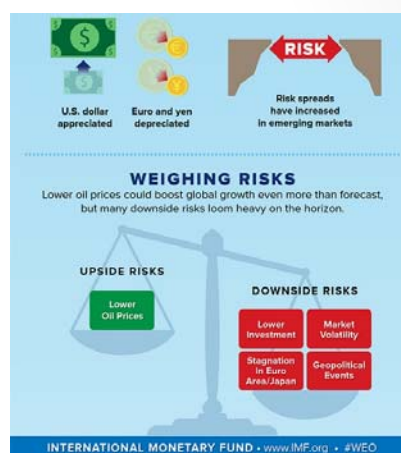
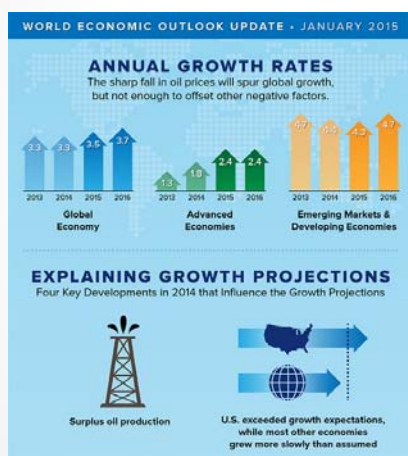
"Uneven global recovery continues, downside risks have increased"



- GDP forecast downgraded
  - China, Russia, Euro area, Japan
  - Major oil exporters
- Rebound suspended - again
  - A classical post-crisis pattern
- Risks are more balanced
  - Financial market risk
  - Secular stagnation
  - Boost from lower oil prices

## IMF's World Economic Outlook

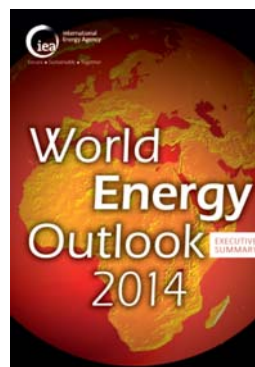
"Uneven global recovery continues, downside risks have increased"



# IEA's World Energy Outlook

"Signs of stress in the global energy system"

- Difficult road ahead
  - Middle East and oil market
  - Capital market tension
- Mixed climate signals
  - Emissions still rising
  - Cautious optimism for Paris 2015
- Prepare for change
  - Policy-based...
  - ...or event-based

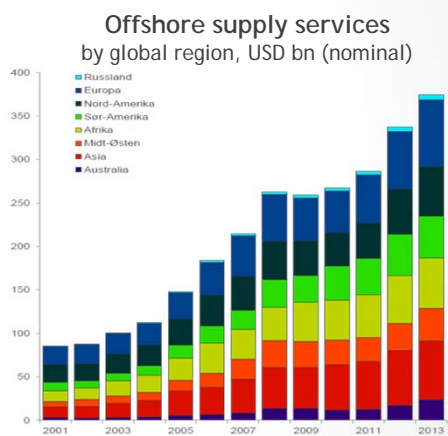
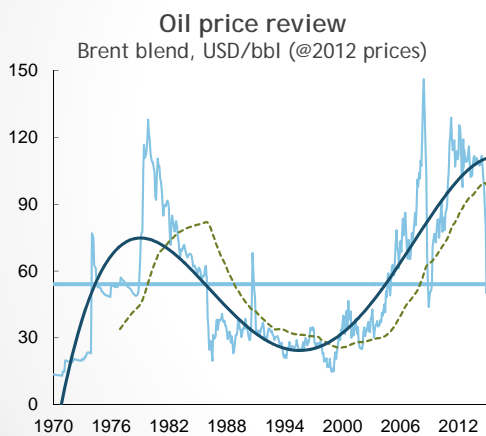


5

Source: International Energy Agency.

# The oil price matters...

... for investment, production, and revenues

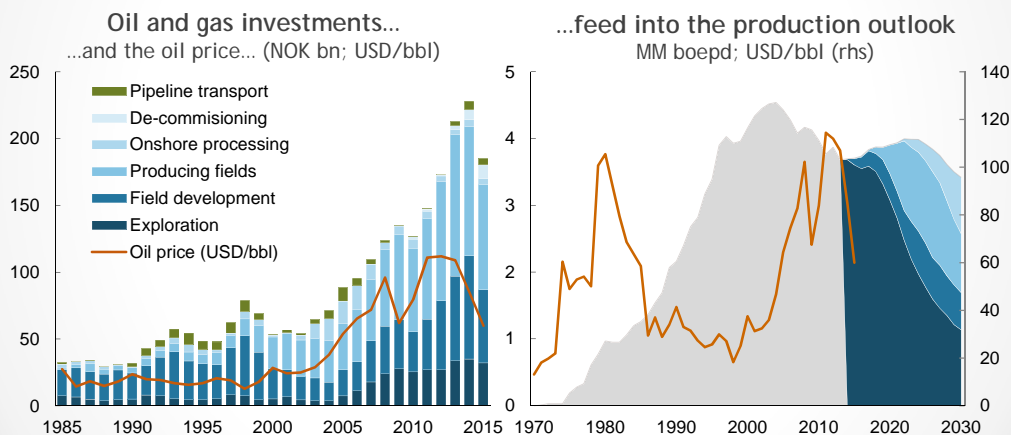


6

Source: Reuters EcoWin, Rystad Energy.

## Higher valuations, higher volumes

Oil price influences investments, production and reserves

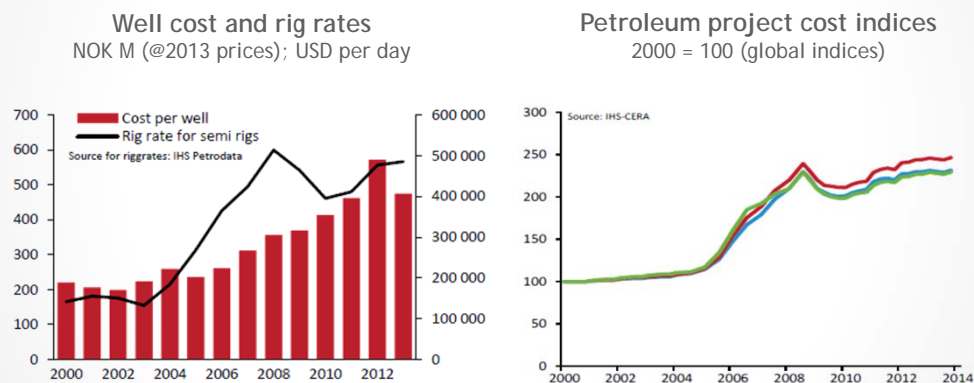


Source: Statistics Norway, Norwegian Petroleum Directorate, Reuters EcoWin.

7

## Costs followed suit

Supplier market pressures are cyclical - and partly reversible



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

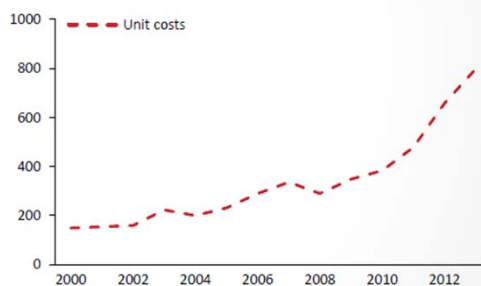
## The NCS is maturing steadily

Costs relating to maturation are structural - and harder to reverse

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



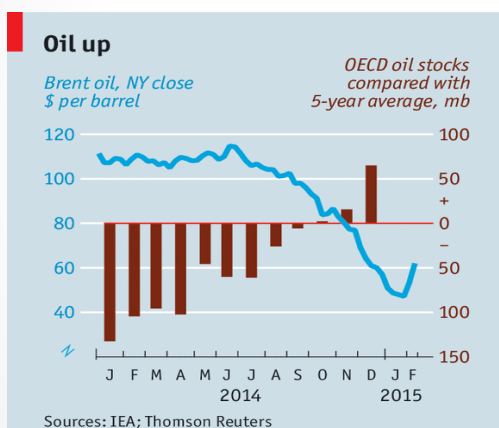
Sample field: Unit production cost  
NOK/SM<sup>3</sup> oe (@2013 prices)



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

## Then came the oil price shock

Deepest drop since 2008, and hardly as temporary



10

## IOC returns fall short of the market

Unimpressive shareholder returns

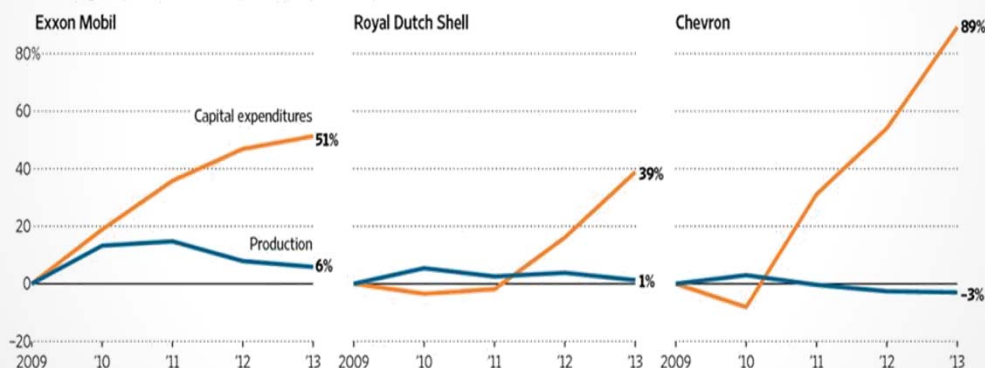


Source: <http://www.statoil.com/IR>.

## IOC revenues fall short of expenditures

More capital is required for each barrel of production capacity

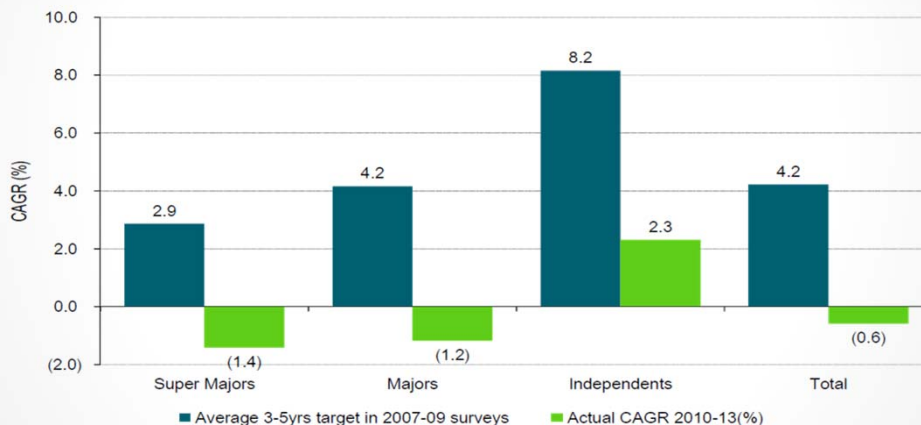
Exxon, Shell and Chevron have been spending at record levels as they seek to boost their oil and gas output. It has yet to pay off. Below, change in production and capital expenditures since 2009.



Source: Wall Street Journal.

## IOC production falls short of promises

Production growth versus targeted growth last four years

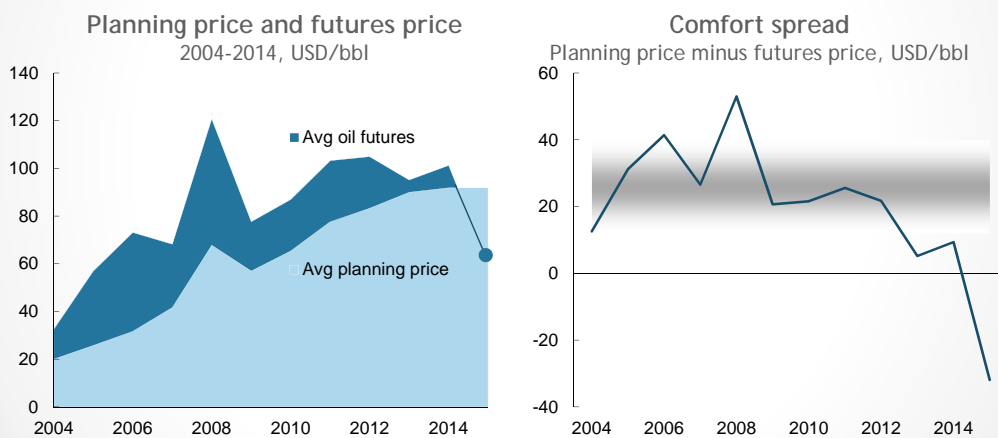


Source: Enskilda Securities (Oil companies' E&P budgets, 20 August 2014).

13

## «Breaking bad»

Market developments fall short of IOC planning assumptions



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

14

# 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

Corporate managers are the agents of shareholders. In a normally competitive market, they are expected to maximize shareholder value. Agency costs are the costs of free cash flow that are not used to increase shareholder value. These costs include: (1) the costs of over-investment, (2) the costs of empire building, and (3) the costs of perquisite consumption. The costs of over-investment are the costs of investments that are not profitable. The costs of empire building are the costs of acquisitions that are not profitable. The costs of perquisite consumption are the costs of excessive executive compensation.

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

**Takeovers: Their Causes and Consequences**  
 Michael C. Jensen

**E**vidence indicates and evidence indicates that the market for corporate control is an important mechanism for disciplining managers, and for reducing the agency costs of free cash flow. The value of takeovers in the market for a second year of about \$10 billion.

**Jensen, M. (1988)  
 Takeovers: ...  
 JEP 2(1)**

**Shifting sentiments in firm investment: an application to the oil industry**  
 Kalle Mohn and Bjørn Misund

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

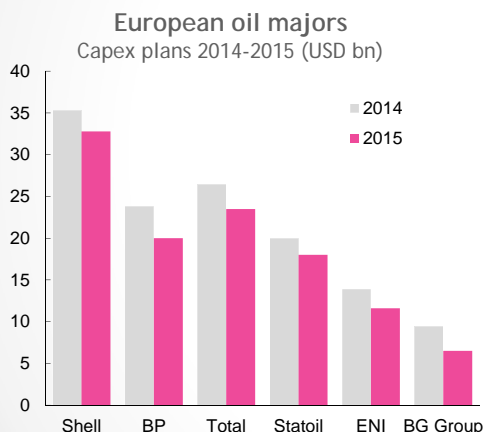
**Nye kutt i kjømda frå Statoil**  
 Statoil kjem etter alt å dømme med nye kutt i investeringsplanene. Det godt nytt for Statoils eigarar, men ille for norsk økonomi.

**Mohn, K. (2015)  
 Dagens Næringsliv  
 7 January**

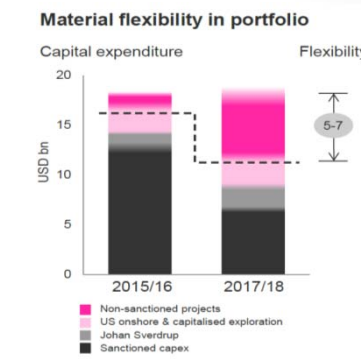


# Capex dampened by cash constraints

## Lower investment will dampen activities - and costs



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



Sources: <http://www.statoil.com/IR>, Platts, Company reports.



## The great plunge in oil prices

Causes, consequences, and policy responses

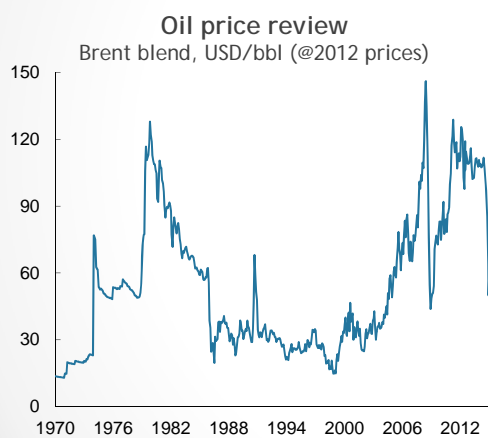


- Developments in demand and supply
- Changes in OPEC objectives
- Geopolitical developments
- Appreciation of the USD
- Speculative demand and inventory management

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

## The nature of the oil price shock...

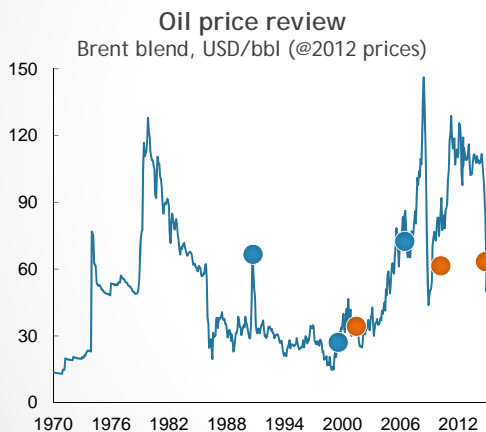
... is decisive for its impact



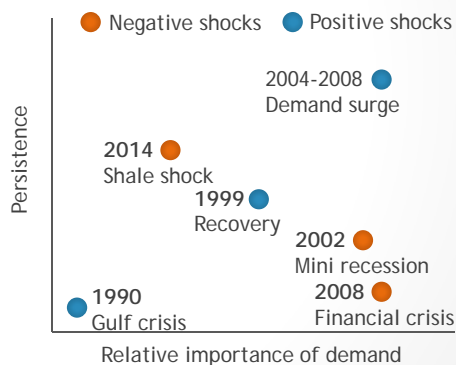
- The source of the shock
  - Demand
  - Supply
- Persistence
  - Temporary shock (cyclical)
  - Permanent shock (structural)

## The nature of the oil price shock...

... is decisive for its impact

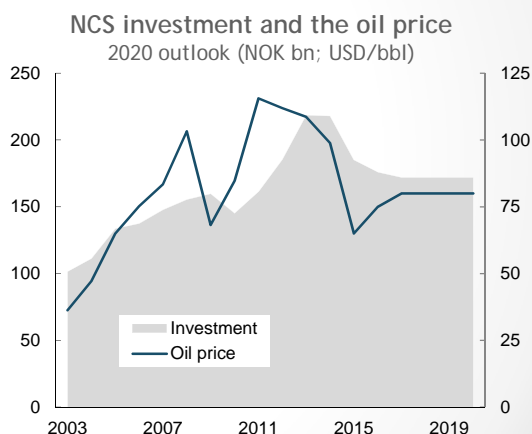
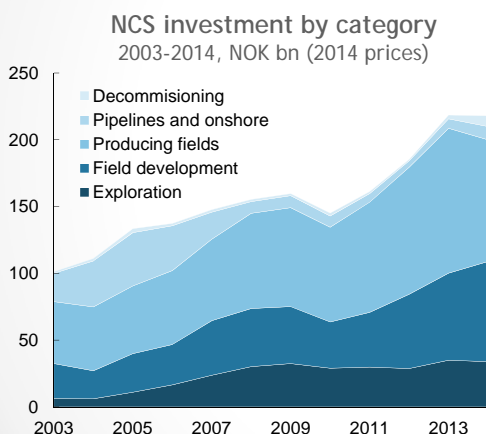


**Classification of oil price shocks**  
by shock origin and persistence



## NCS Investment outlook

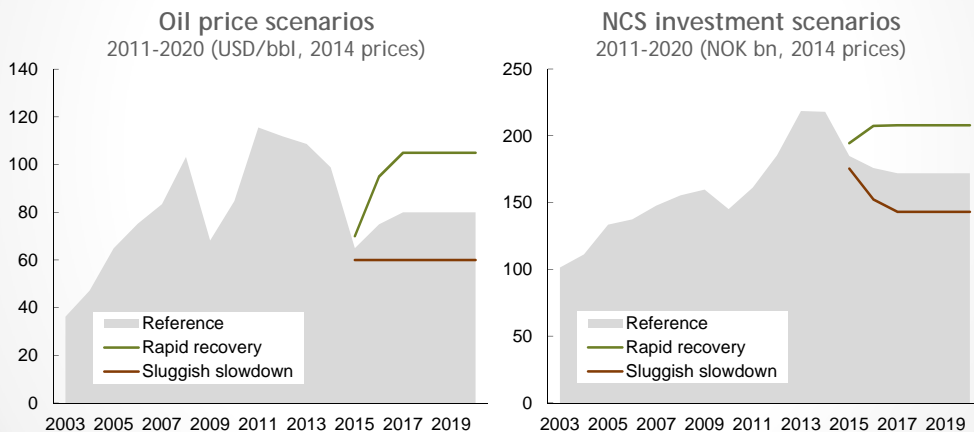
Point of departure: Norges Bank December 2014 forecast



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

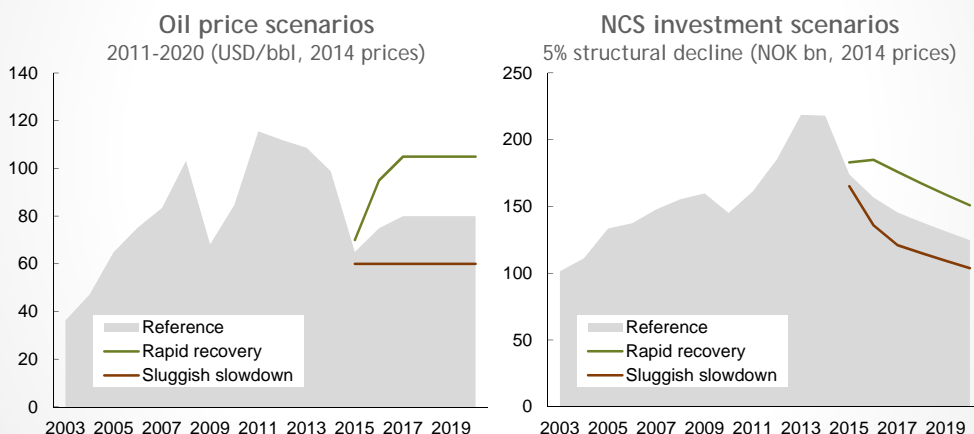
## NCS investment outlook

A scenario exercise



## Capital and resource constraints

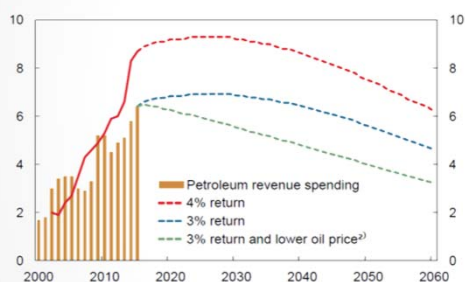
The reference scenario has a downward bias



## The nature of the oil price shock...

... is decisive for the policy response

Return scenarios for GPFG<sup>1)</sup>  
Ratios to mainland GDP (%)



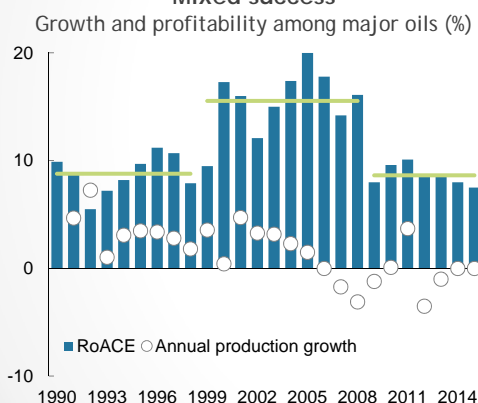
1) Assuming actual spending corresponds to the return as from 2016 and in all subsequent years.  
2) Assuming an oil price of 400 per barrel in NOK (2015) to the end of the estimation period.  
Sources: Ministry of Finance and Norges Bank

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

## Short-term challenge: Profitability

Increasing focus on cash-flow management and capital discipline

Mixed success

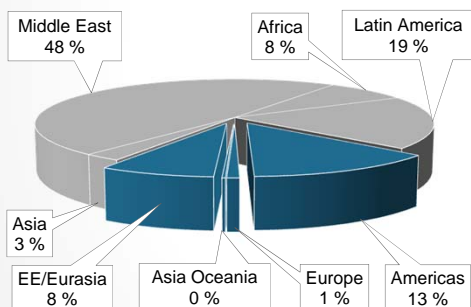


- Doubtful shareholders
  - Returns eroded by prices and performance
- Diverging market views...
  - ... and valuations
- Disputed business model
  - Scarcity and access
  - Stranded assets

## 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



## Recovery, reversal, and risk

Stagnation is the new normal

- 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

**Uncertain oil price outlook**  
Brent blend (USD per barrel)

