



June 9, 2017

Oil market and NCS outlook

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SpareBank 
MARKETS

Agenda

Introduction

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Oil market balance

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Summary

A full-service investment bank

SB1 Markets' – Strategic position

Nordic-focus with international reach



Core sectors



- 1 A leading full-service investment bank based in Oslo
- 2 130 employees¹⁾ in total, highly research driven approached
- 3 Backed by Norway's #2 banking group with more than USD 100bn in assets

SB1M has a strong position in the Nordic markets, with a global reach and client base

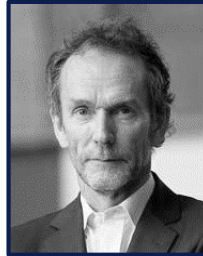
Top-ranked research team and broad sector coverage ¹⁾

Research team – selected members

#1 in macro

Harald Magnus Andreassen

- Ranked #1 in macro for 15 consecutive years with clear margin
- 22 years of experience from investment banking research



#1 in strategy

Peter Hermanrud

- Ranked #1 in strategy for 15 consecutive years with clear margin
- 24 years of experience from asset management and research



#1 in credit

Pål Ringholm

- Ranked #1 in credit, top ranked for a decade
- 18 years of experience from investment banking and finance



Top rated in E&P

Teodor Sveen-Nilsen

- Ranked top 3 in E&P sector, covers Nordic companies
- Experience from sell-side research and consulting
- M.Sc. in Business and Administration from BI, MBA in Corporate Finance from NHH



Top rated in High Yield

Jørgen Haug

- Ranked top 4 in credit in Norway
- 7 years of high yield credit research experience
- M. Phil., Finance, University of Cambridge



Coverage of 10-15 E&P companies, 75+ companies in total

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Do we need more oil and gas?

Most forecasters agree on:

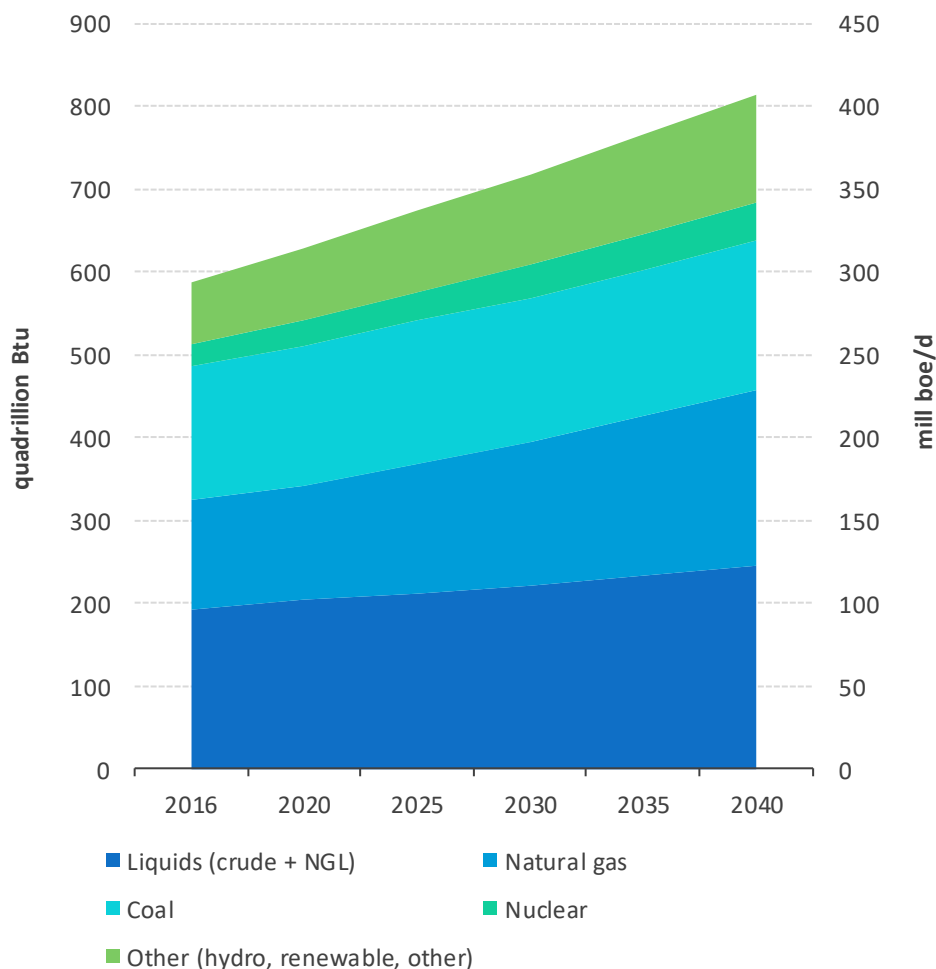
- World population will grow
- World energy demand will increase
- Oil and gas will probably lose market share vs. other energy carriers
- Renewable will grow at high rates (but from a very low base)

In the public debate, it looks like may forget:

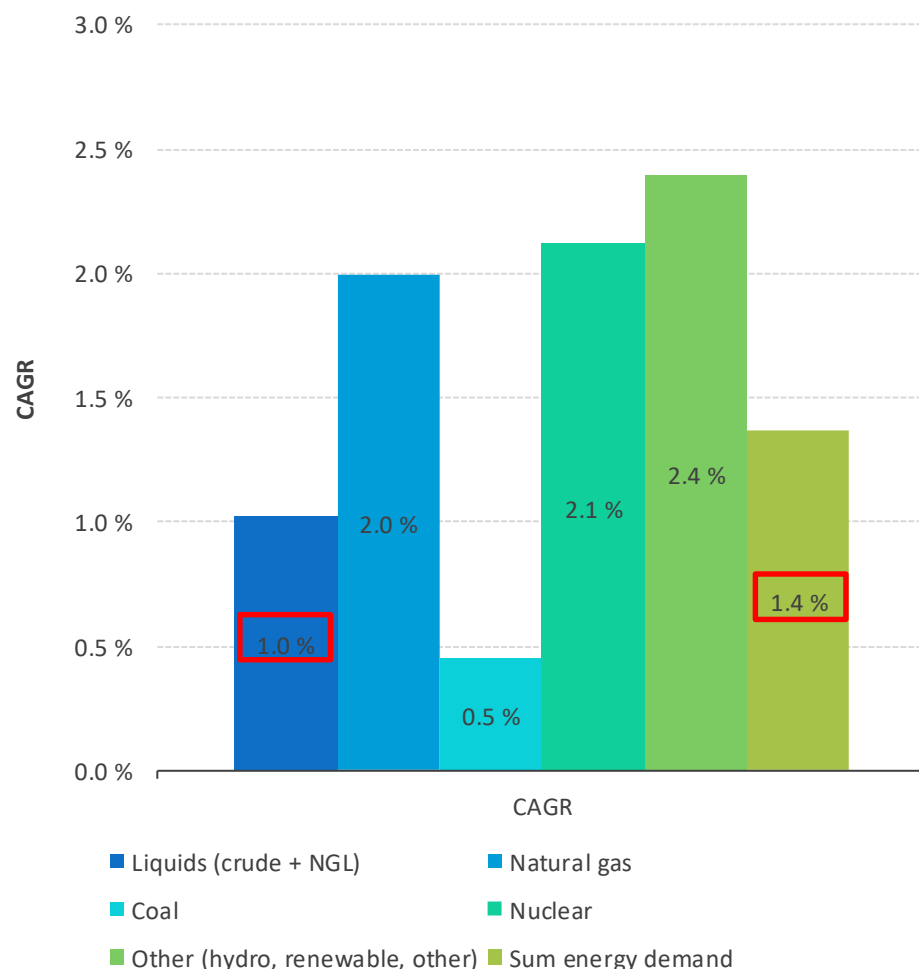
- In its nature, oil and gas are declining and substantial investments are needed to keep production flat
- Losing market share \neq lower absolute demand

EIA: Energy demand will increase by 1.4% per year, all sources expected grow. Oil will lose market share, but still grow ~1% per year

Demand per energy source

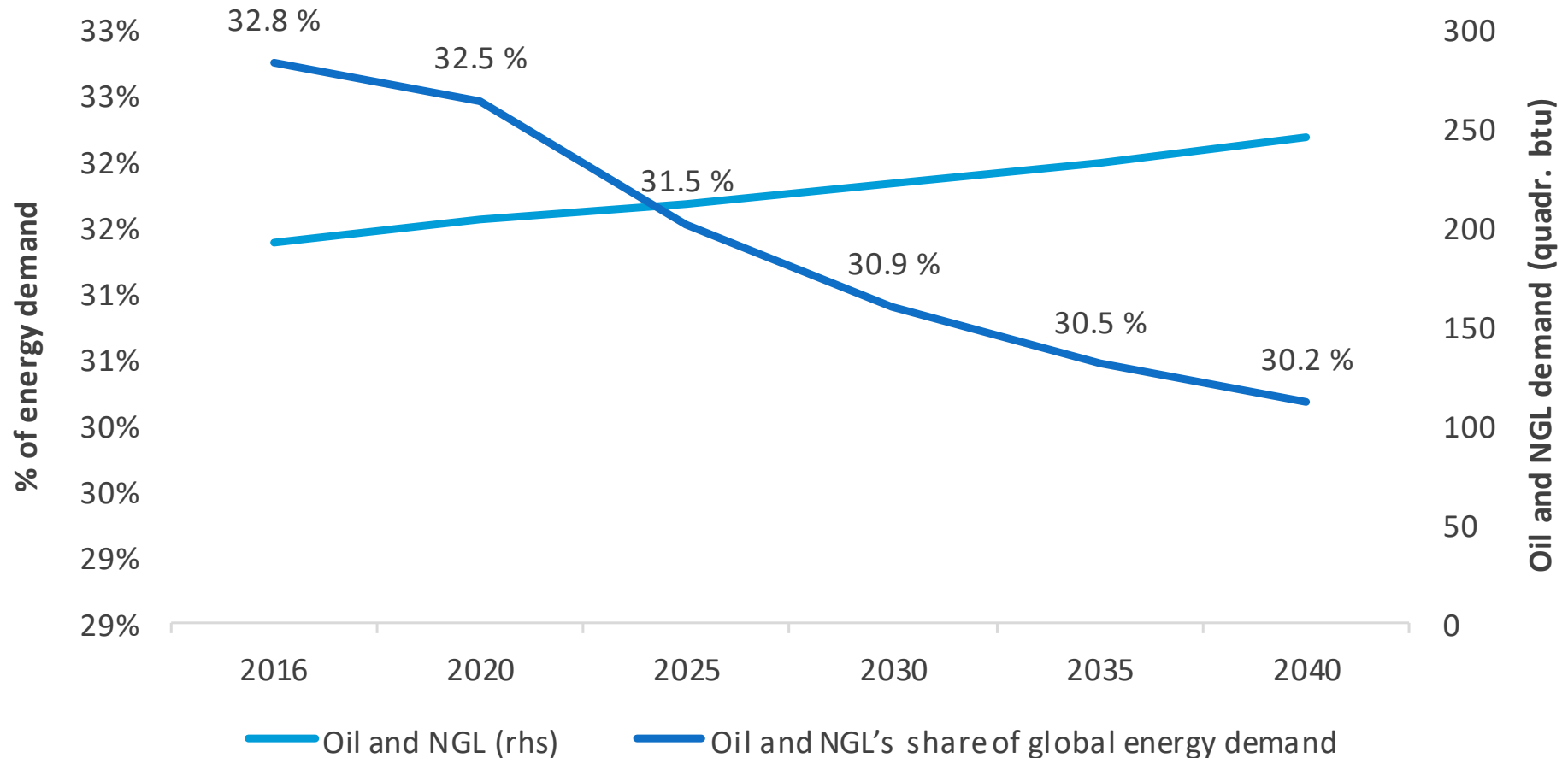


CAGR per energy source



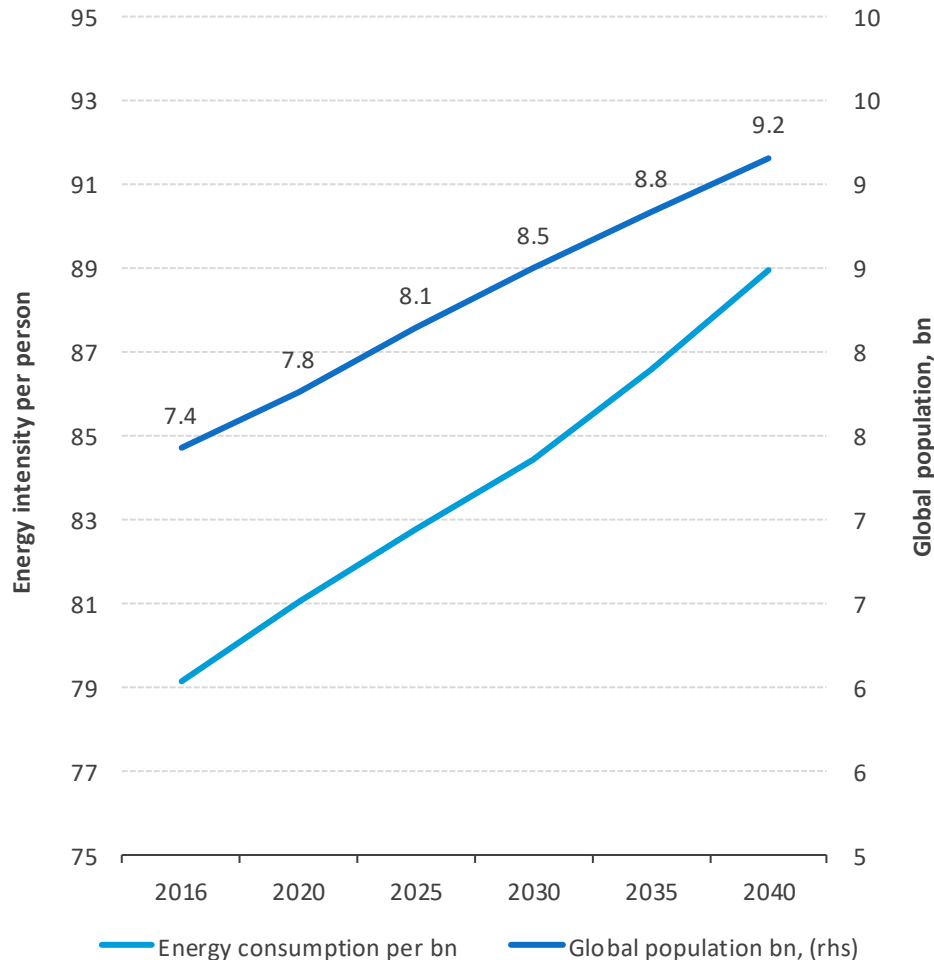
Oil and NGL's share of global energy demand set to decline. However, absolute demand will likely increase.

Oil and NGL's share of global energy demand



Energy intensity will probably increase

World population and energy intensity



UN and EIA projections to 2040

- According to UN, the world population will grow to 9.2 bn by 2040, or 0.9% per year
- If EIA's energy demand forecasts are correct, the global energy intensity will increase
- Total energy demand per billion is set to increase from 79 quadrillion btu in 2016 to 89 per quadrillion btu in 2040, or 0.5% per year

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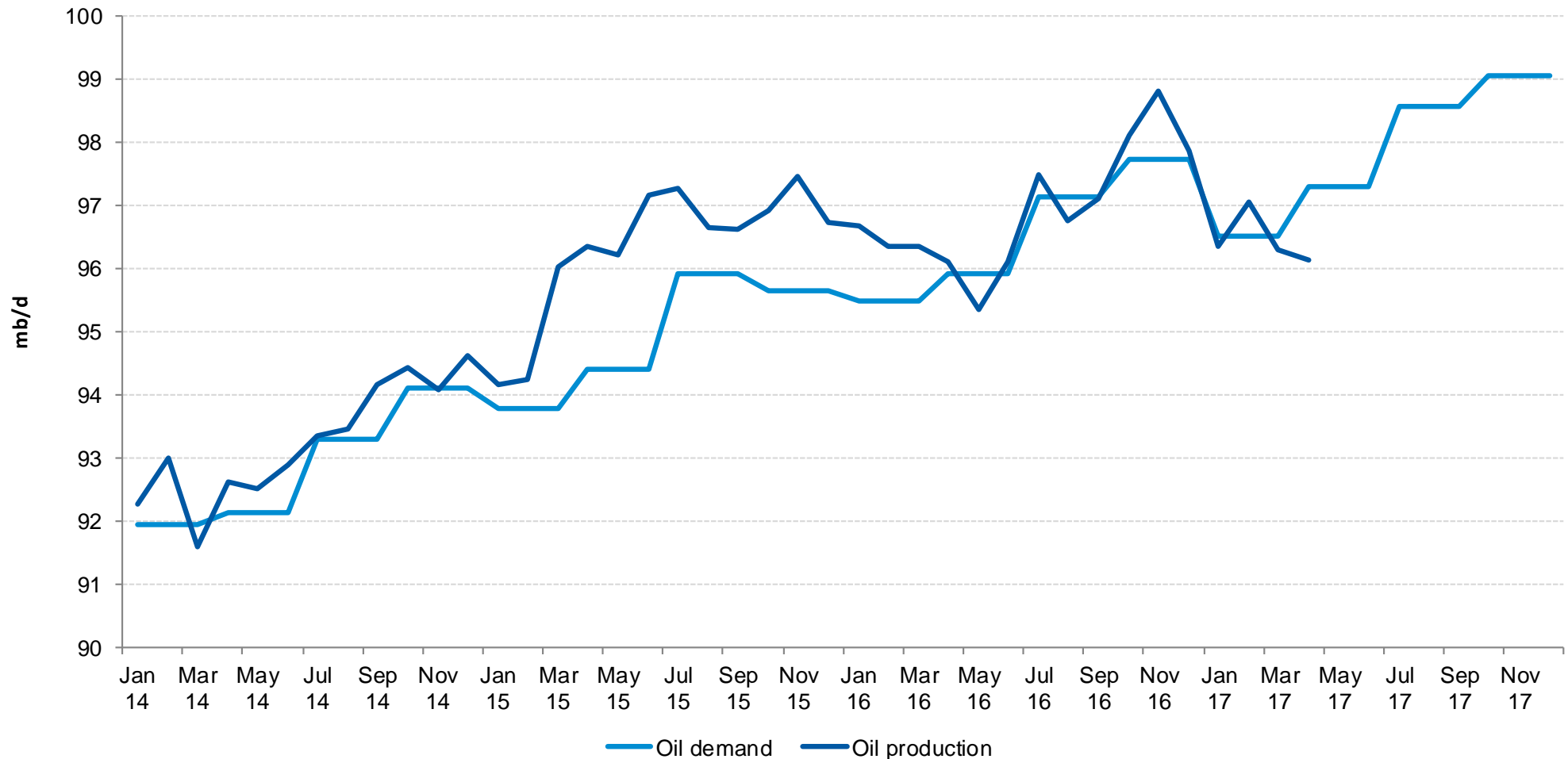
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The oil market is rebalanced

Global oil market balance



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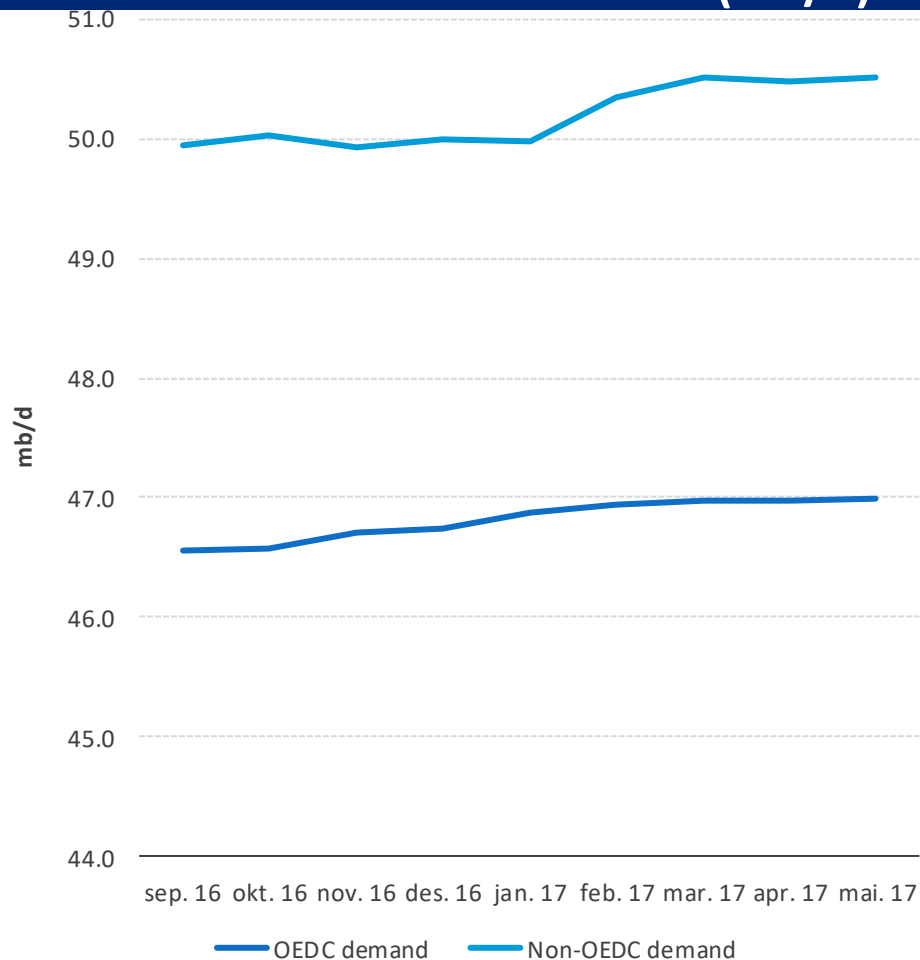
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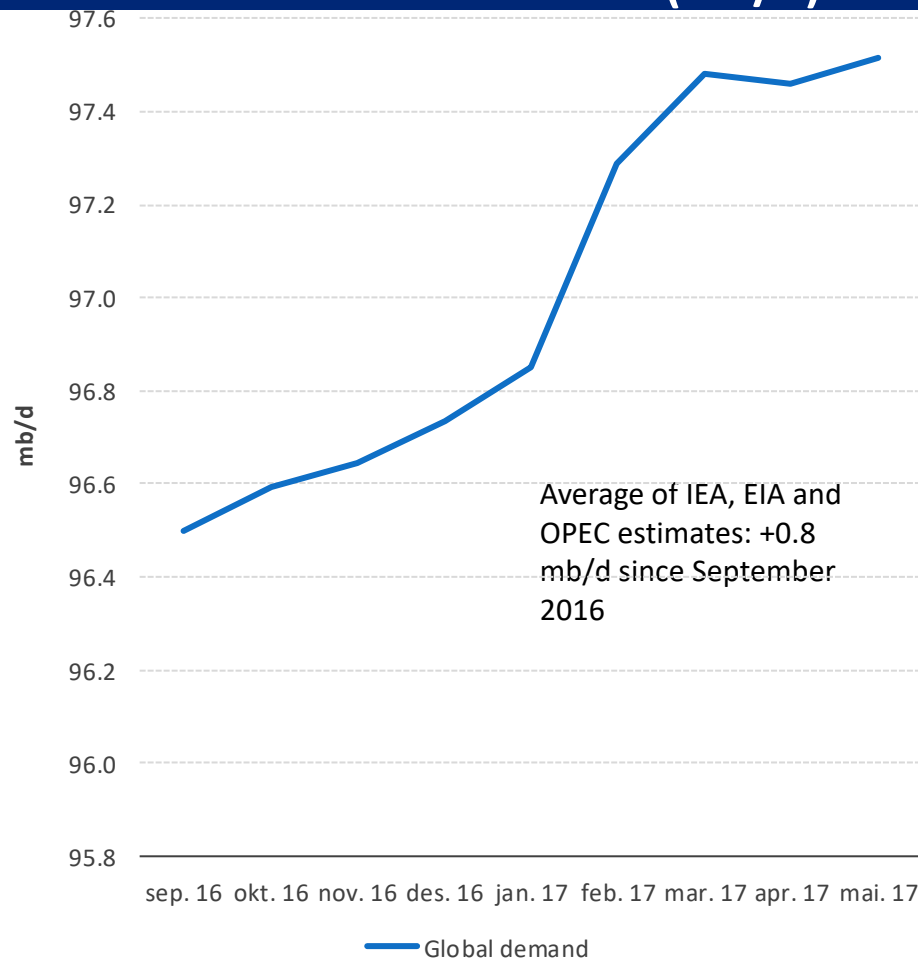
Oil demand is not a problem: Demand estimates revised up

...but **growth** estimates revised significantly less up due to baseline revisions

REGIONAL: Oil demand 2017e (mb/d)

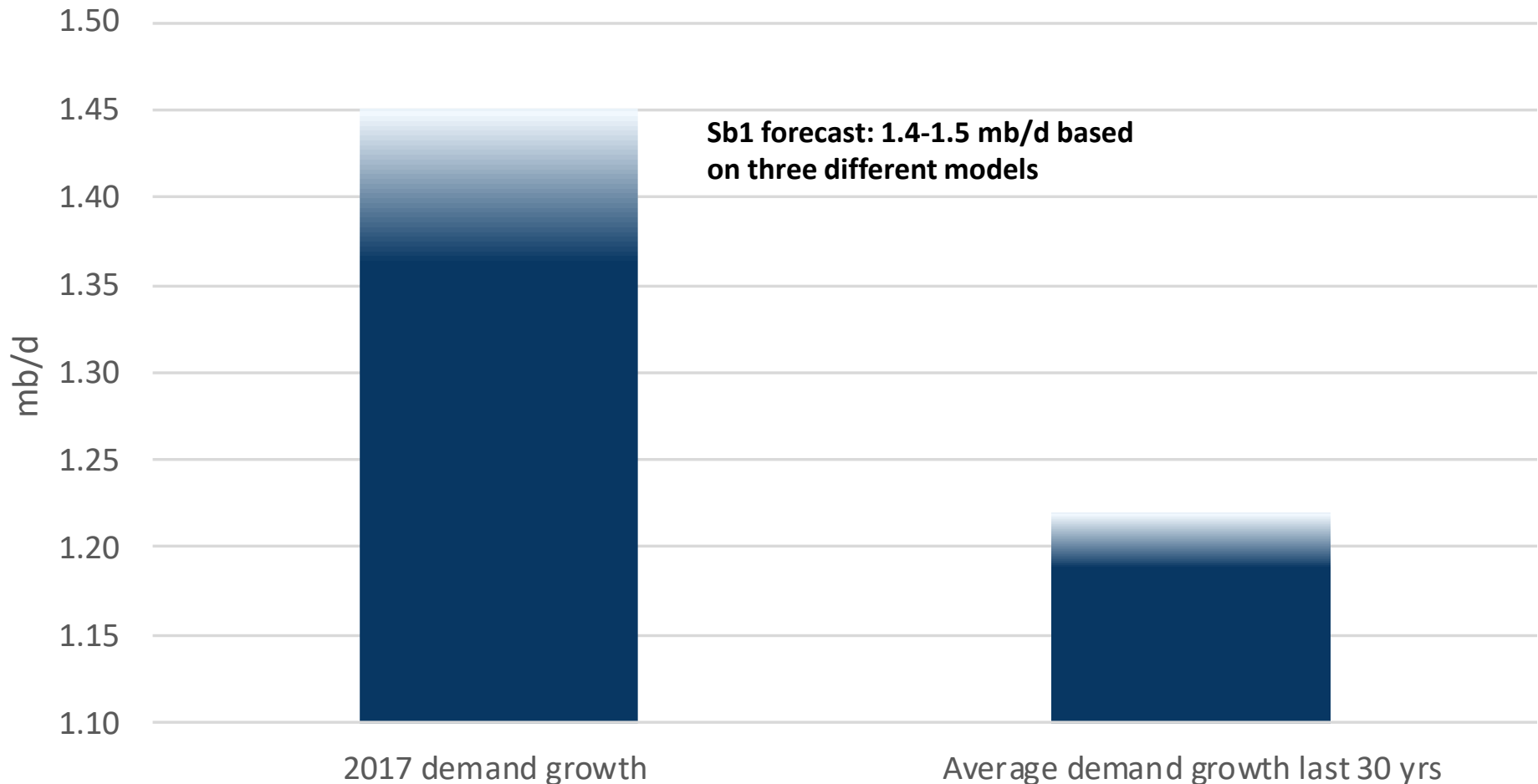


GLOBAL: Oil demand 2017e (mb/d)



We estimate 2017e demand growth of 1.4-1.5 mb/d, vs. average of ~1.2 mb/d last 30 years

Oil demand growth y/y

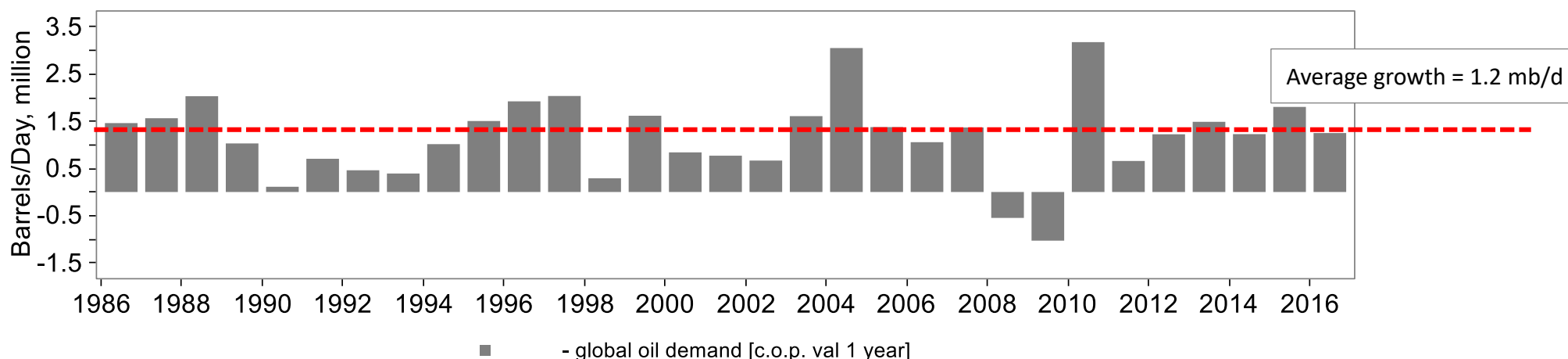


Consensus: 2017e demand growth at 1.4 mb/d vs average of ~1.2 mb/d last 30 years

y/y estimates

y/y changes 2017, mb/d	OEDC demand	Non-OEDC demand	Global demand	Non-OPEC supply + OPEC NGL	Call on OPEC
IEA	-0.2	1.4	1.3	0.7	0.6
EIA	0.3	1.3	1.6	1.4	0.2
OPEC	0.2	1.1	1.3	0.1	1.2
Average	0.1	1.3	1.4	0.7	0.7

y/y oil demand growth



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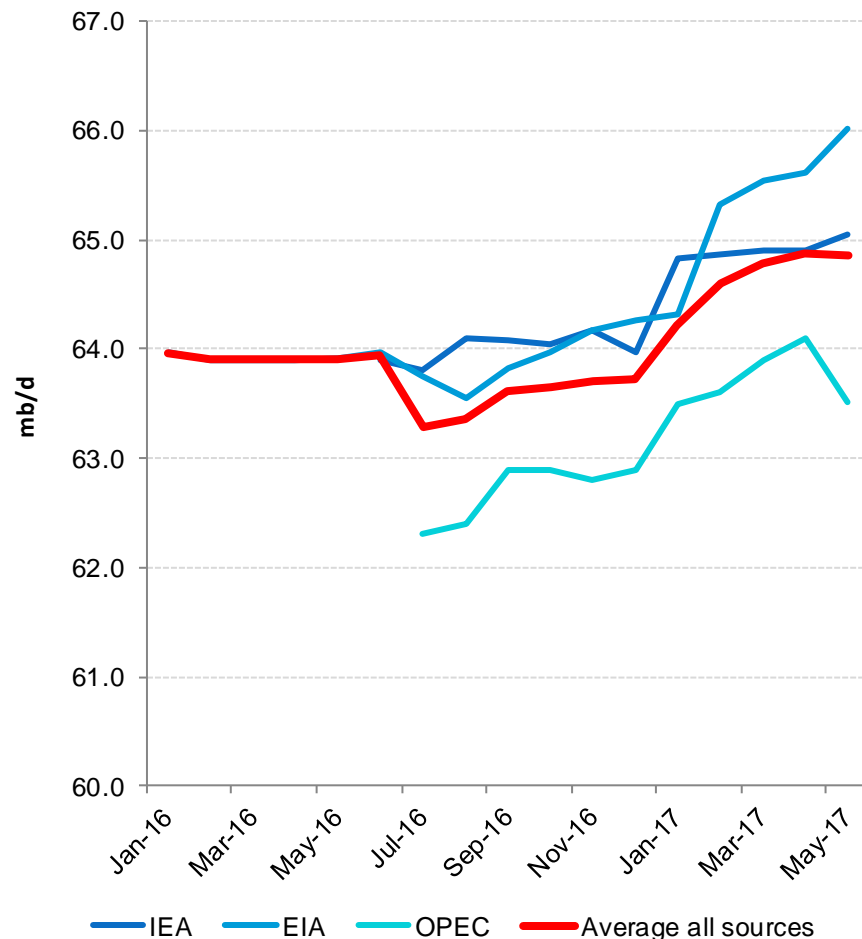
Summary

Key issues oil supply

1. Non-OPEC production and US shale companies' return to the market
2. Long term:
 - » Reserve replacement ratio
 - » Impact of low capex on future production

OPEC cut positive, surging non-OPEC production forecast adds risk

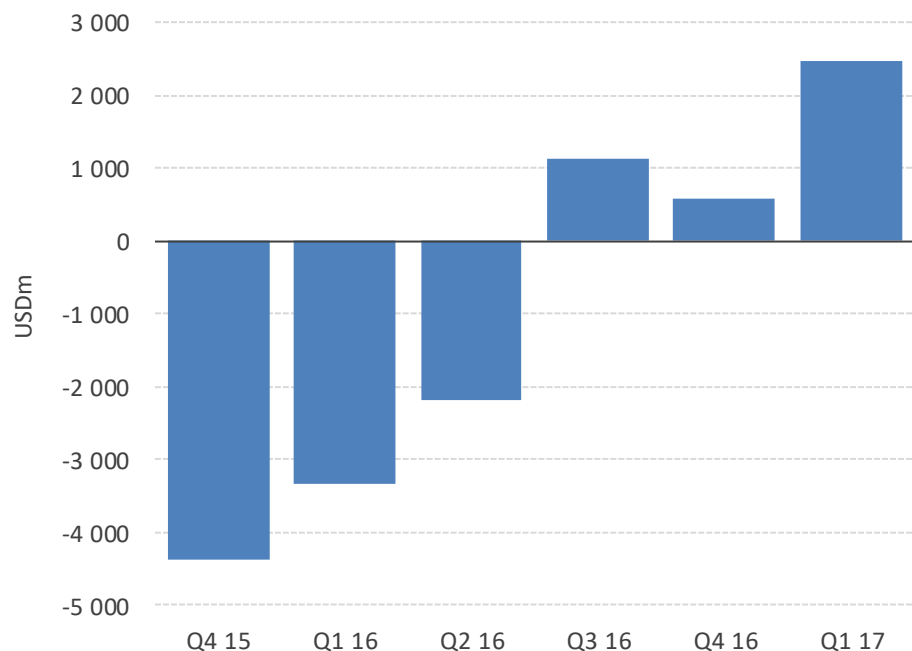
2017 non-OPEC supply estimates



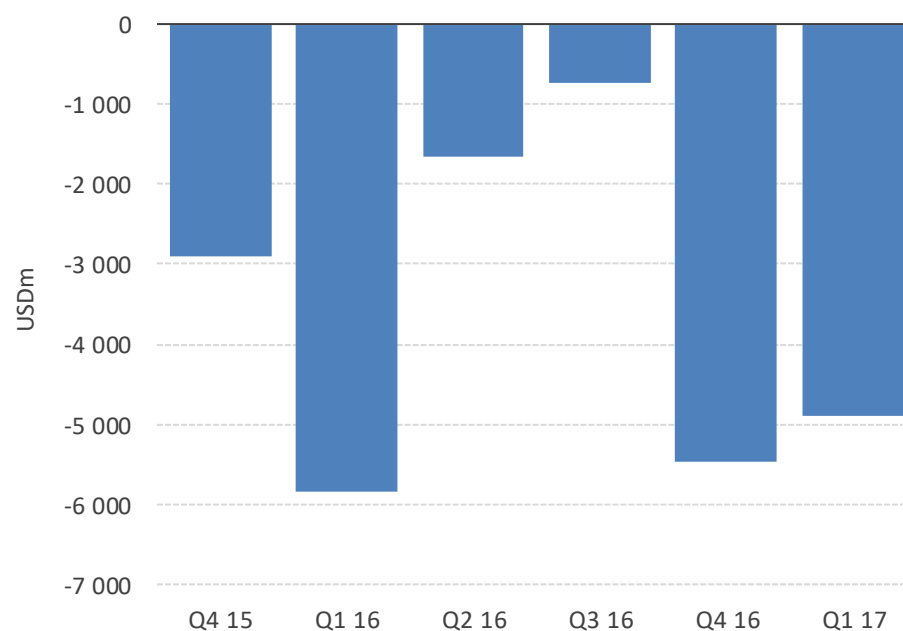
- The OPEC cut in late 2016 and increased global oil demand are the key reason for a balance oil market.
- However, with higher oil prices, we have seen that a number of forecasters have increased 2017e non-OPEC supply forecast (particularly US), which is negative for oil prices
- In the short to medium term, increased non-OPEC production is the key risk for the oil market

Shale companies: Positive EBIT, still negative free cash flow

Shale oil companies' EBIT



Shale oil companies' free cash flow*



Companies included in sample:

Gulfport Energy Corporation
Laredo Petroleum, Inc.
Memorial Resource Development Corp
Newfield Exploration Company
Oasis Petroleum Inc.
QEP Resources, Inc.
Range Resources Corporation
RSP Permian, Inc.
SM Energy Company
Southwestern Energy Company
WPX Energy, Inc. Class A

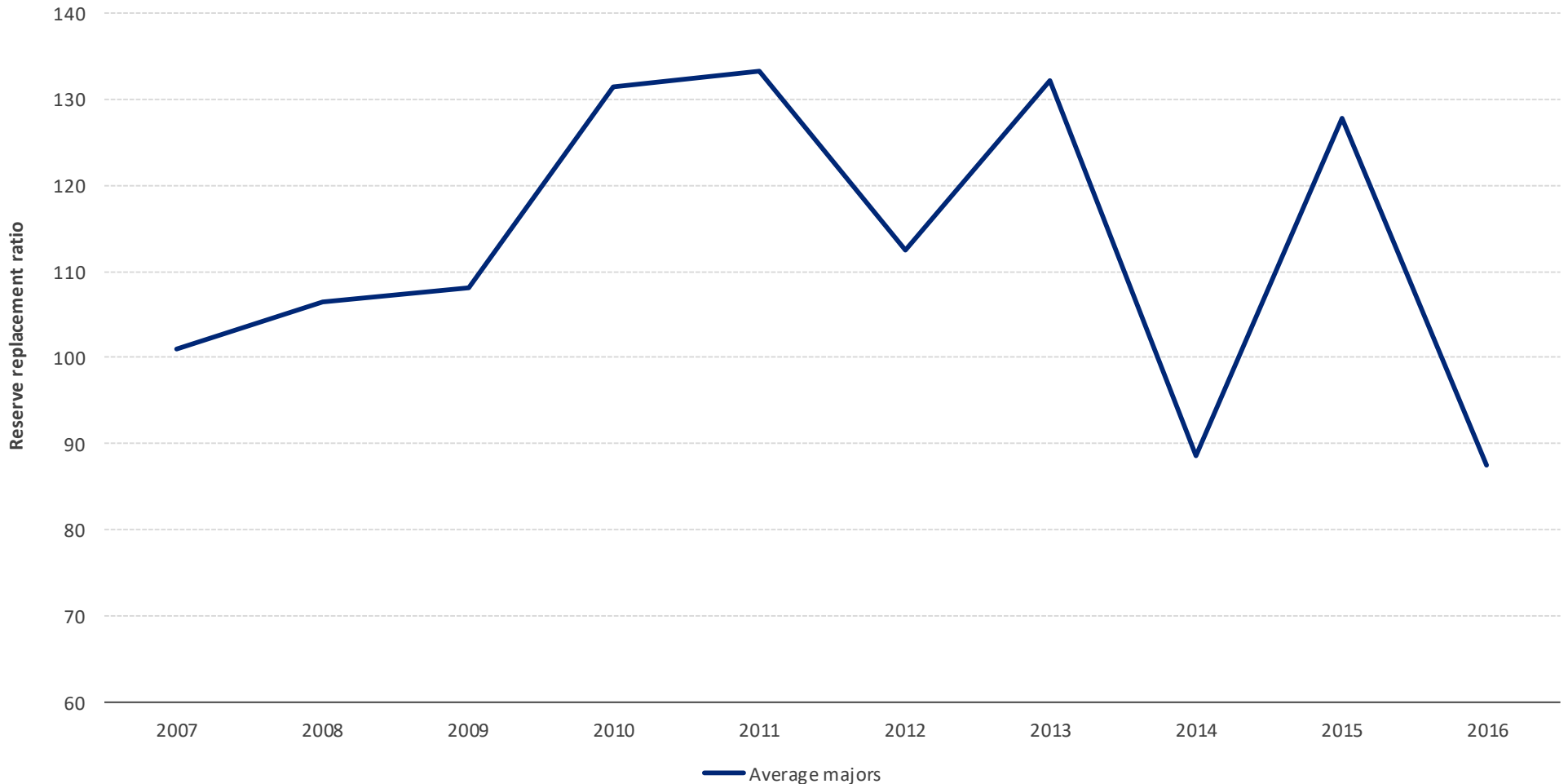
Continental Resources, Inc.
EOG Resources, Inc.
Pioneer Natural Resources Company
Whiting Petroleum Corporation
Apache Corporation
Cabot Oil & Gas Corporation
Chesapeake Energy Corporation
Concho Resources Inc.
Denbury Resources Inc.
Devon Energy Corporation
Diamondback Energy, Inc.

Long term supply considerations

1. Reserve replacement ratio
2. Long-term impact of low capex

Declining trend for majors' reserve replacement ratio

Average RRR E&P majors*



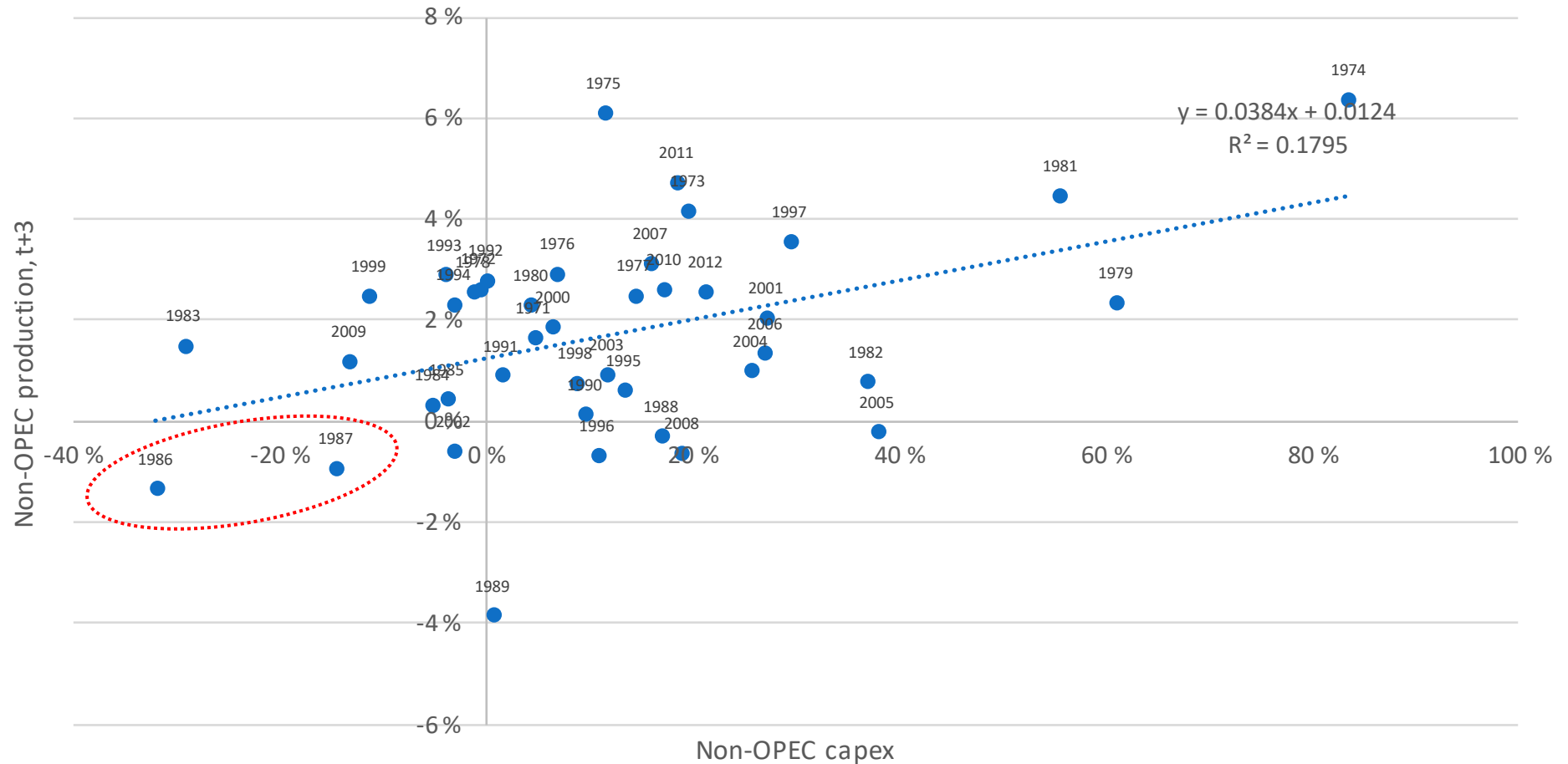
Source: Company reports

*Includes, Statoil, ENI, BP, Total, Shell, Repsol, Chevron, Exxon, ConocoPhillips

Capex drives production, but a lot of noise in data

Intuitively, capex is the most important variable for production growth

Non-OPEC capex vs. production



- **Why look at capex vs. production?**

- » Intuitively correct. With no investments, declining oil production will accelerate decline.
- » History gives support to the thesis that lower capex = lower production, in particular in certain areas
- » However, on an aggregated basis, non-OPEC capex vs. non-OPEC production does not give any statistical significance.

- **Why exclude OPEC in the analysis?**

- » OPEC is a cartel
- » Production and investments decisions are made on different criteria than in non-OPEC (social security, national security, market share, prestige more important than NPV and IRR?)

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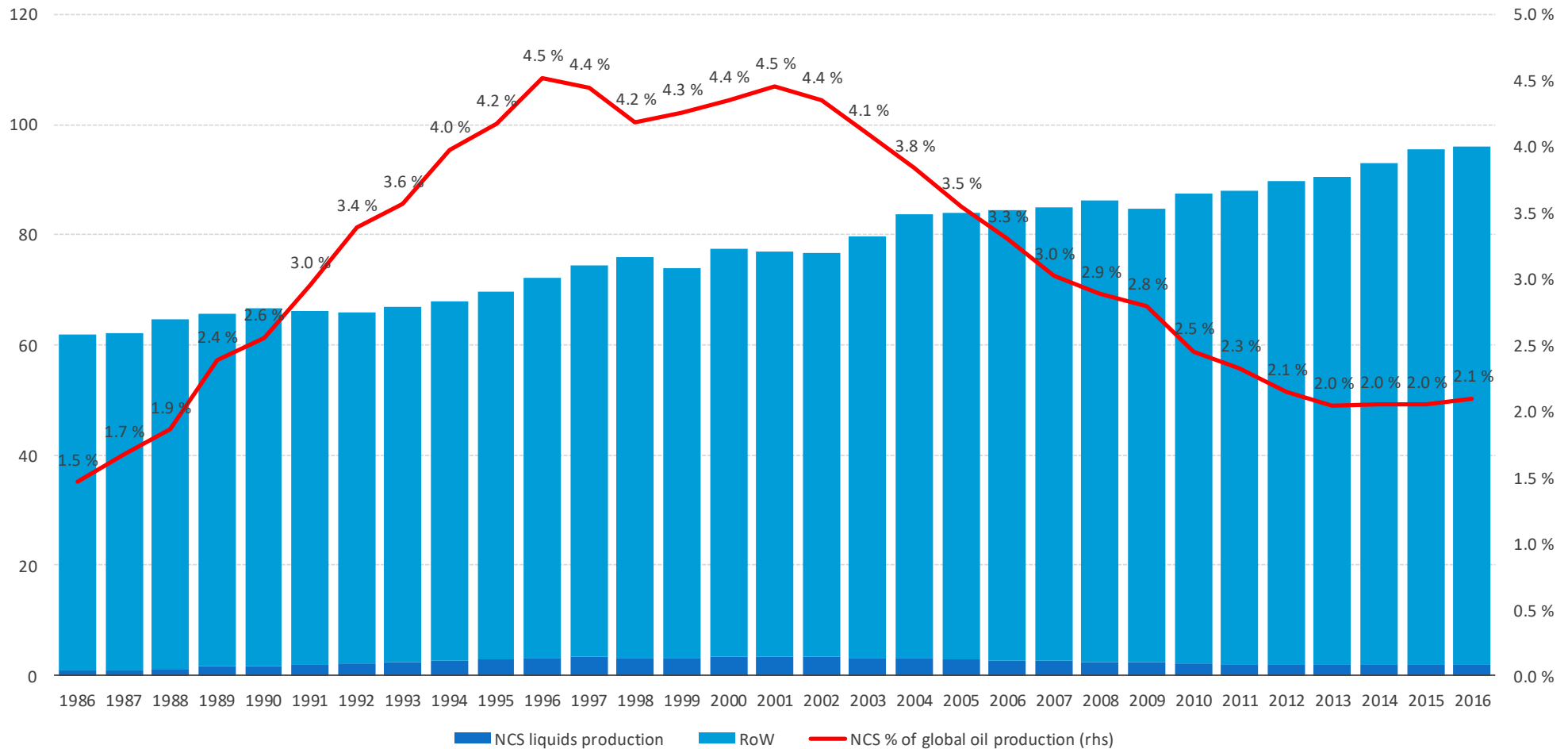
Summary

Two key challenges for NCS:

1. Declining production past 15 years
2. Investments back to 2007 levels

1: Norway has reduced its global market share by 50%

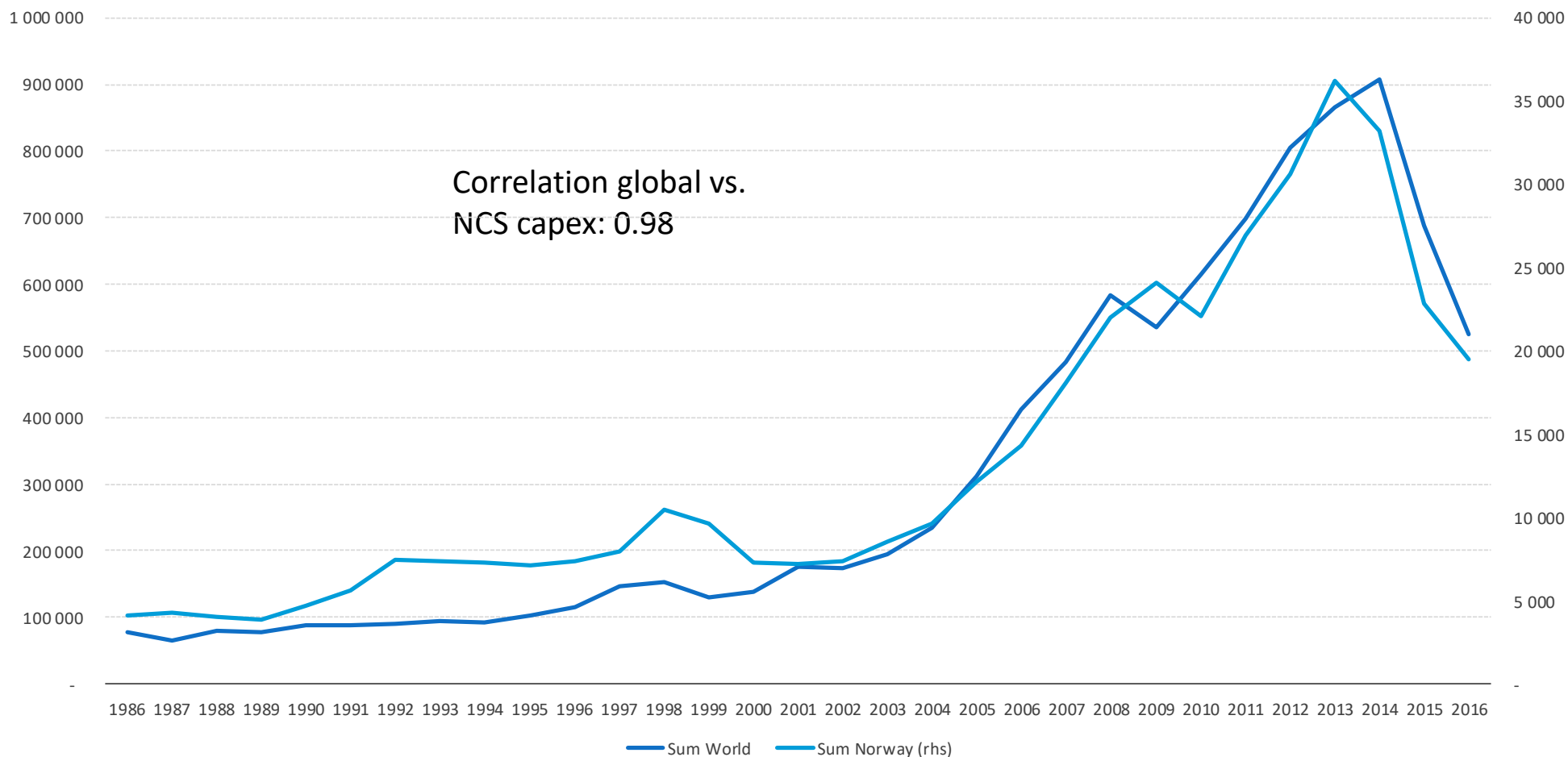
Global vs. NCS liquids production (mb/d)



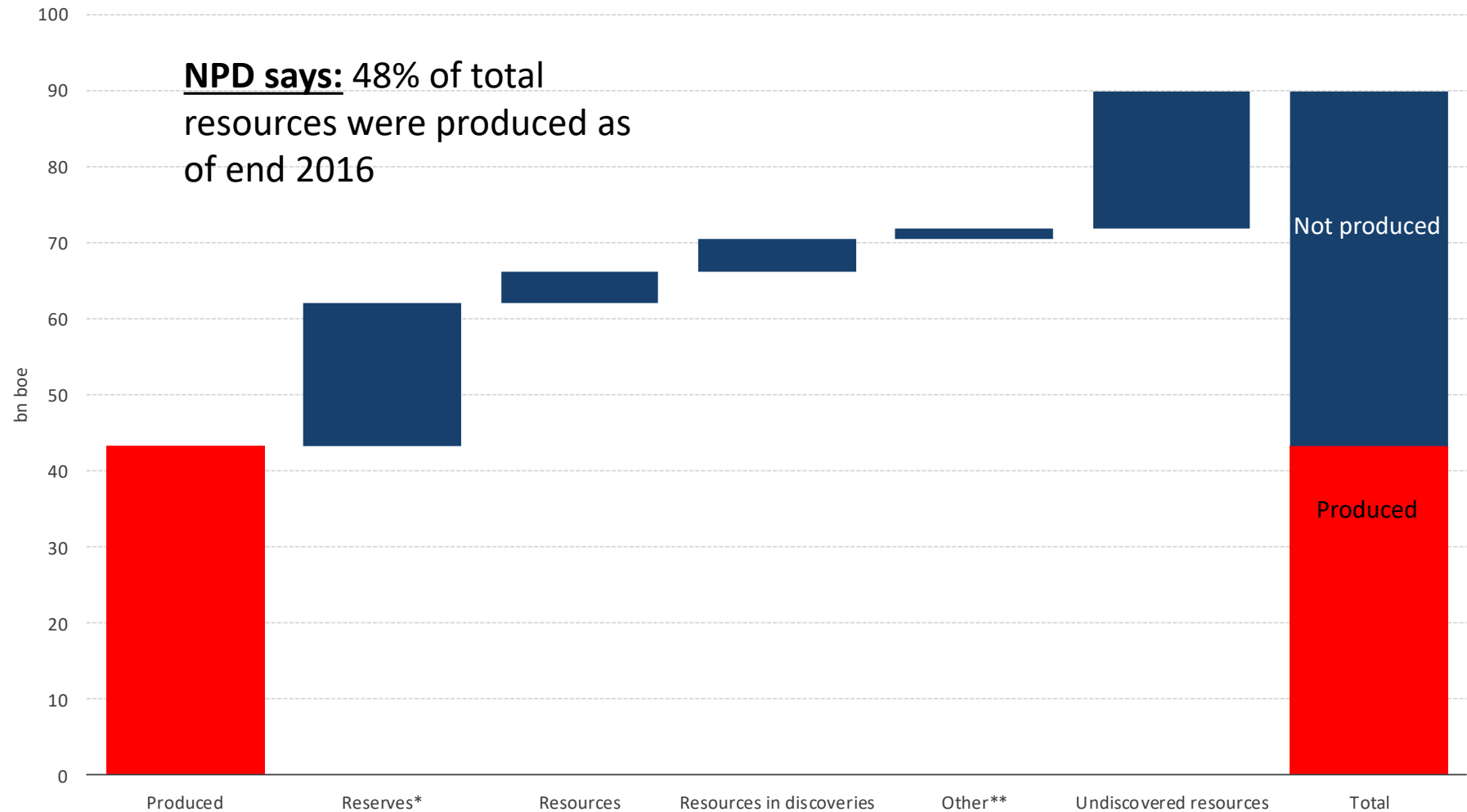
2: E&P investments dropped significantly

1) Global and NCS investments back to 2007 levels, 2) NCS correlates with global capex

Global vs NCS E&P capex (including exploration), USDm



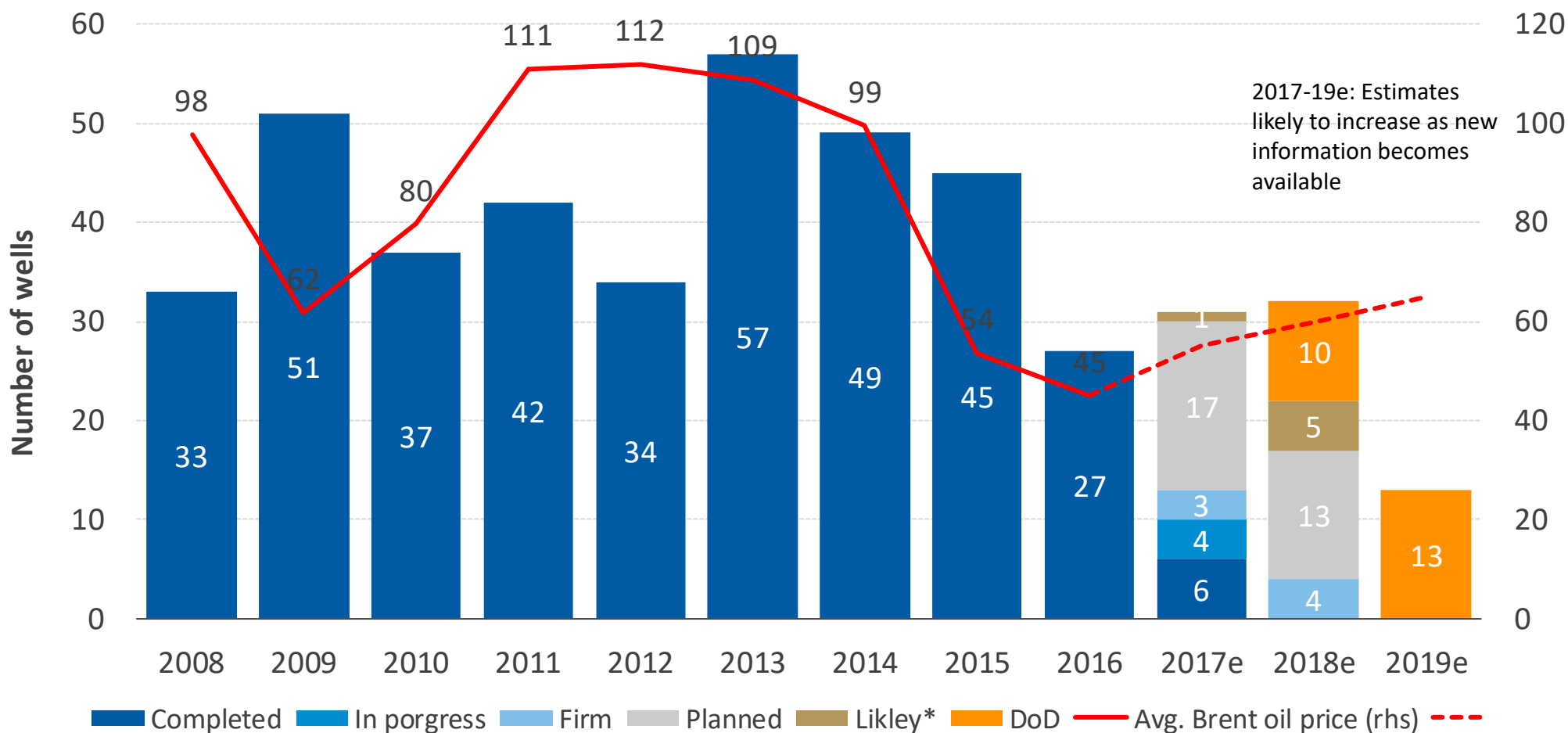
Vast resources left, even after almost 40 years of production!



*Includes resource classes 1, 2 and 3, **Production not evaluated. Source: NPD

NCS exploration: Set to increase

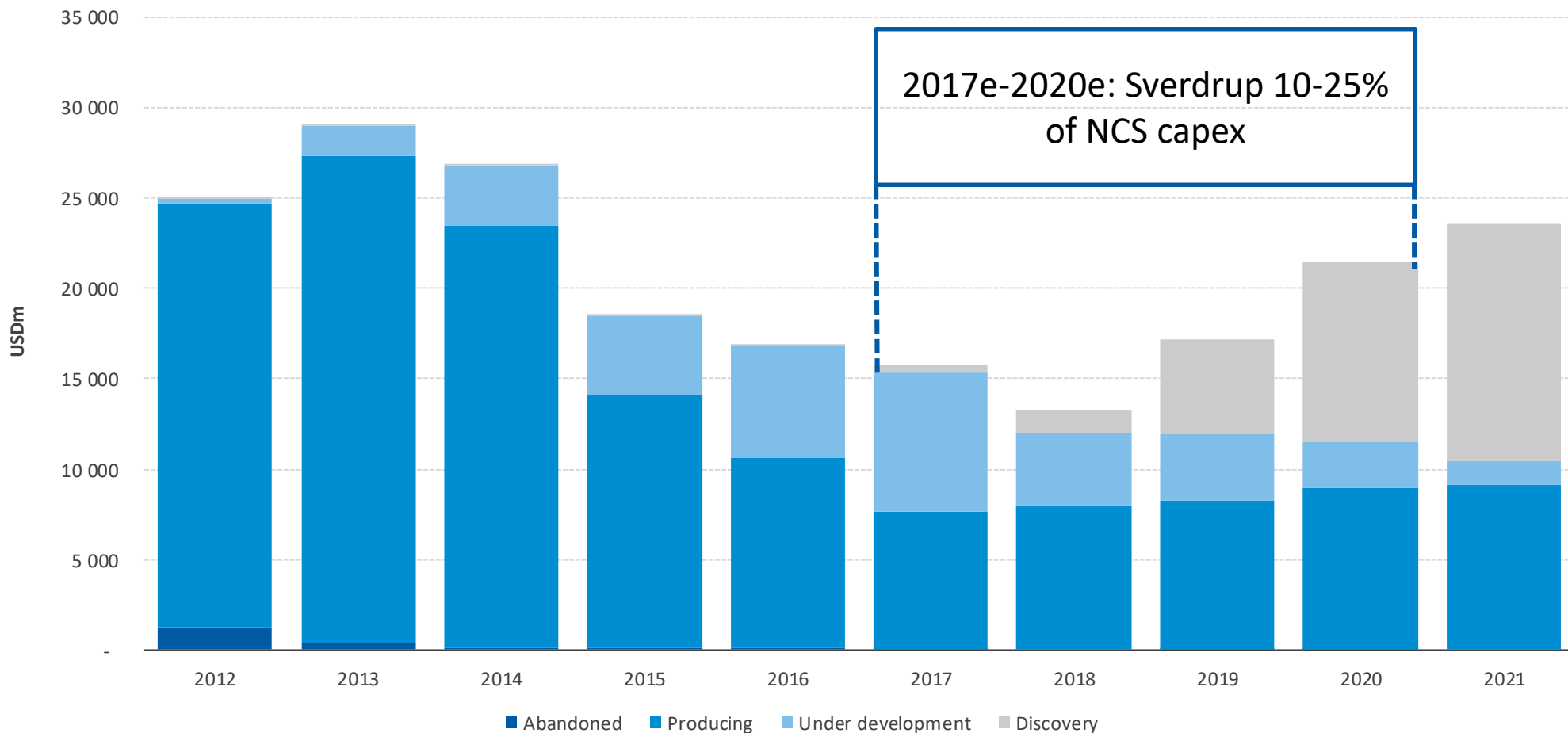
NCS exploration wells vs oil price



Zero sanctions = flat NCS capex. Sanctions = capex growth

...zero sanctions highly unlikely

NCS capex (USDm)



Is there a NCS future?

- Large amount of non-produced resources
- Stable framework (fiscal and regulatory)
 - Investments set to pick up
- New players increasingly more important

= YES

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- The oil market is rebalanced
- Global oil demand is not a problem, we forecast 1.4-1.5 mb/d growth for 2017 (above historical average of 1.2 mb/d)
- OPEC cut positive, surging non-OPEC production forecast adds risk (but US shale oil companies not able to report positive cash flow)
- NCS activity set to increase



June 9, 2017

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