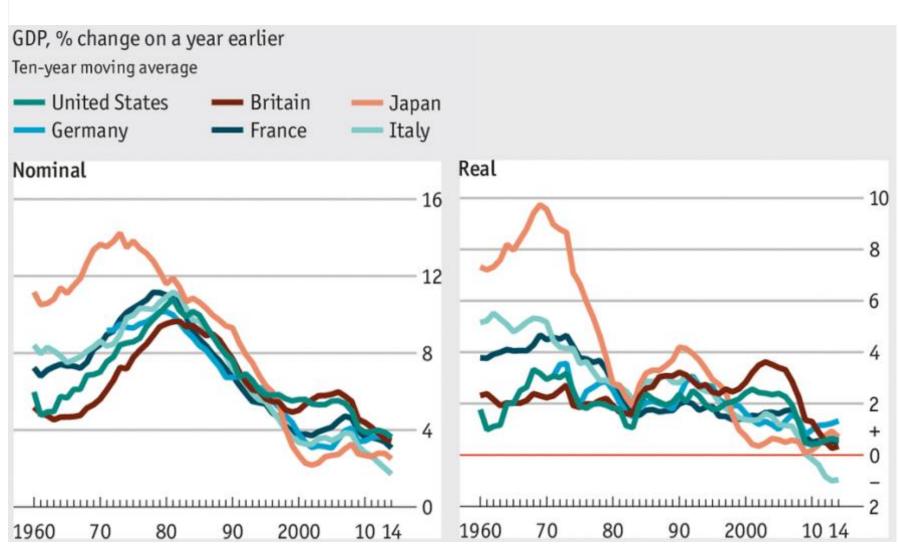
Oil Markets and the Global Economy



Christof Rühl, Global Head of Research

Abu Dhabi February 2016 Outline

- The economy: an age of stagnation and low returns?
- Oil price recap
- Why are lower oil prices not boosting economic growth?
- Where next for oil markets?



Source: The Economist

Real interest rates and total factor productivity (TFP)

ADIA



'95

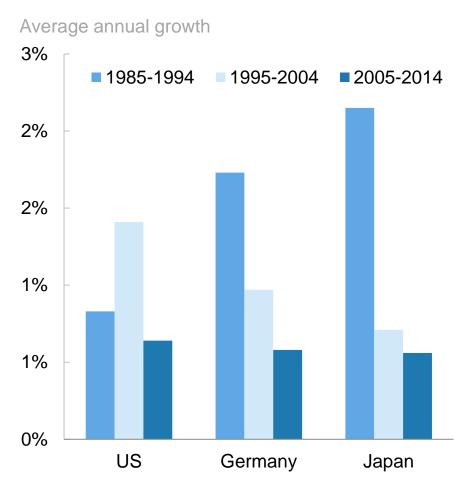
'99

'91

'03

'07

TFP in Advanced Economies



Source: OECD

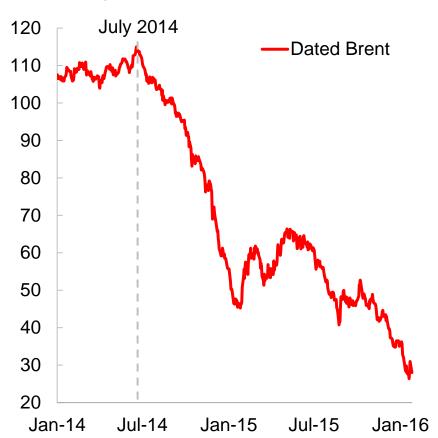
1983 '87

2015

Where is... ADIA

Oil price decline

US dollars per barrel



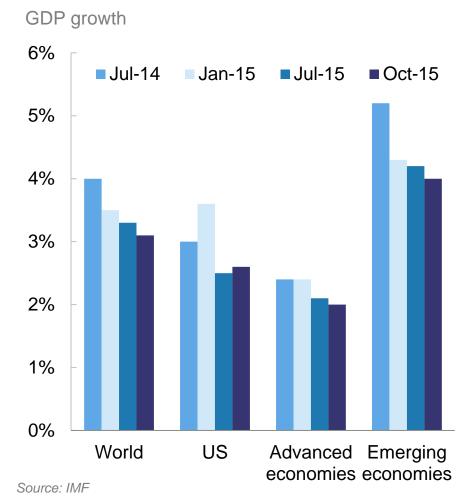
Source: Bloomberg

Oil price decline

US dollars per barrel 120 July 2014 **Dated Brent** 110 100 90 80 70 60 50 40 30 20 Jan-14 Jul-14 Jan-15 Jul-15 Jan-16

Source: Bloomberg

Revisions to GDP growth projections 2015



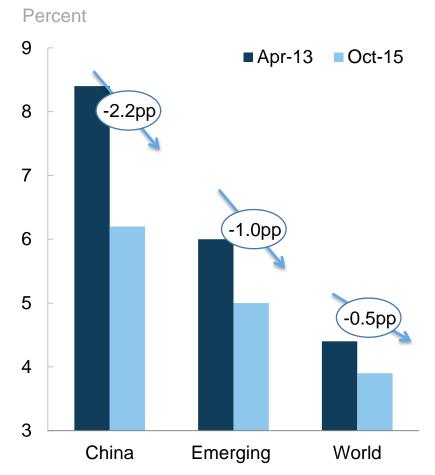
Long term growth projections in emerging markets

ADIA

Share of global oil demand

Percent China 55 Emerging excl. China 50 45 40 35 30 25 20 1990 1993 1996 1999 2002 2005 2008 2011 2014

Revisions to 5-year GDP growth forecast



Source: BP Statistical Review

Source: IMF WEO

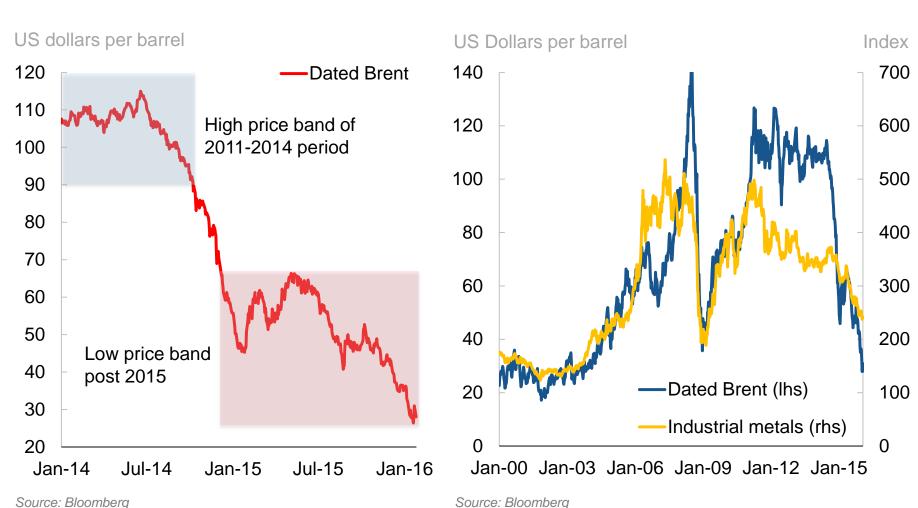
Outline

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Daily oil price

Oil and industrial metals prices



Source: Bloomberg

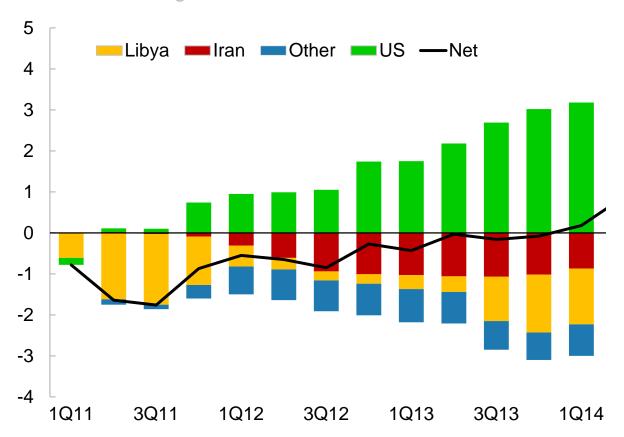
Oil supply disruptions and US production growth

Cumulative change since 4Q10, Mb/d



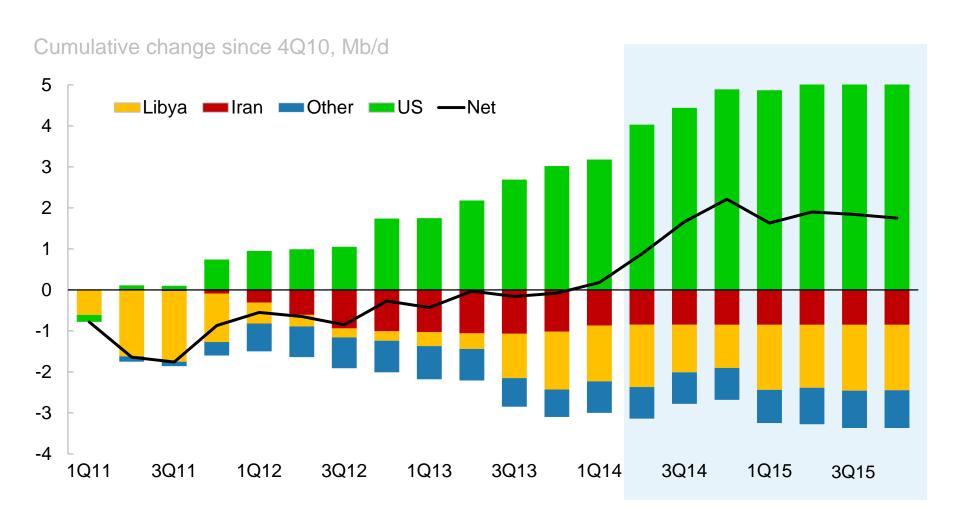
Oil supply disruptions and US production growth

Cumulative change since 4Q10, Mb/d



ADIA

Oil supply disruptions and US production growth



ADIA

TO CUT PRODUCTION? YES NO **OIL PRICE OIL PRICE HIGHER** LOWER U.S. SHALE U.S. SHALE **PRODUCTION PRODUCTION HIGHER LOWER OPEC LOSES OPEC GAINS** MARKET SHARE MARKET SHARE OPEC **OPEC REVENUES REVENUES DECLINE DECLINE**

Outline

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(1) US Dollar is appreciating

ADIA

Real trade weighted US Dollar index...

... rises for good reasons



19% real appreciation since July 2014 (26% since July 2011):

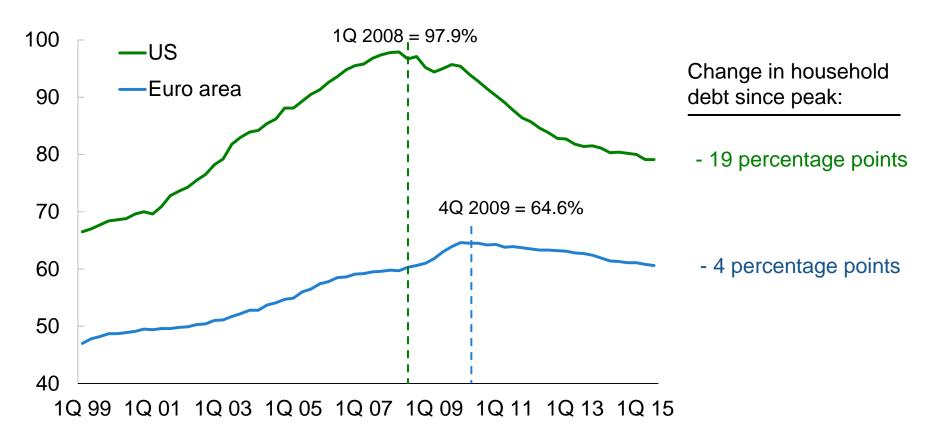
- Relatively strong US growth and productivity gains
- The end of QE in the US

Source: Bloomberg

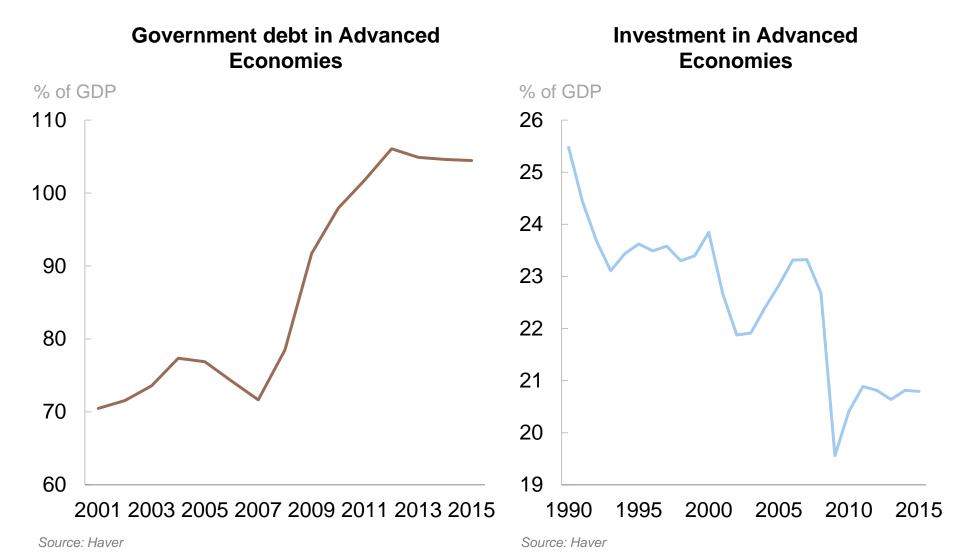
(2) Households are deleveraging...

ADIA

Household debt as a share of GDP



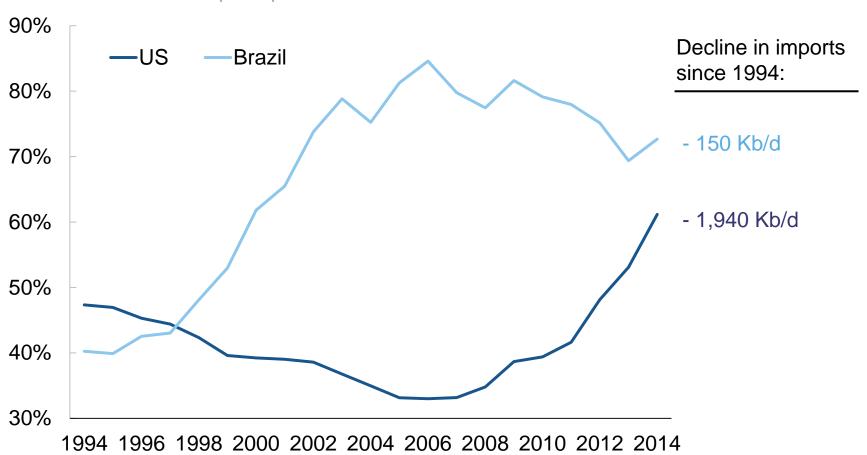
... while government debt hampers demand management ADIA



ADIA

(3) Major importers are becoming producers

Share of local consumption produced 'at home'

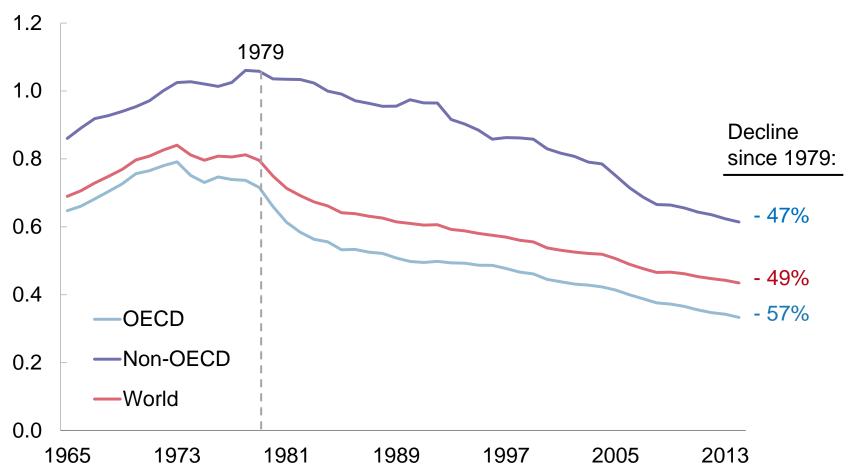


Source: BP Statistical Review of World Energy

ADIA

(4) Oil intensity is in long-term decline





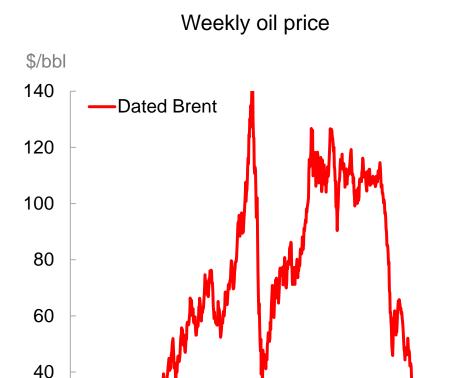
Source: BP Statistical Review of World Energy

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Crude prices and term structure

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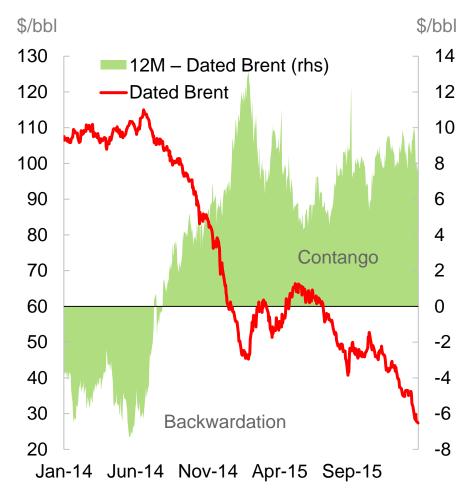


Jan-00 Jan-03 Jan-06 Jan-09 Jan-12 Jan-15

Source: Bloomberg

20

Daily oil price and term structure

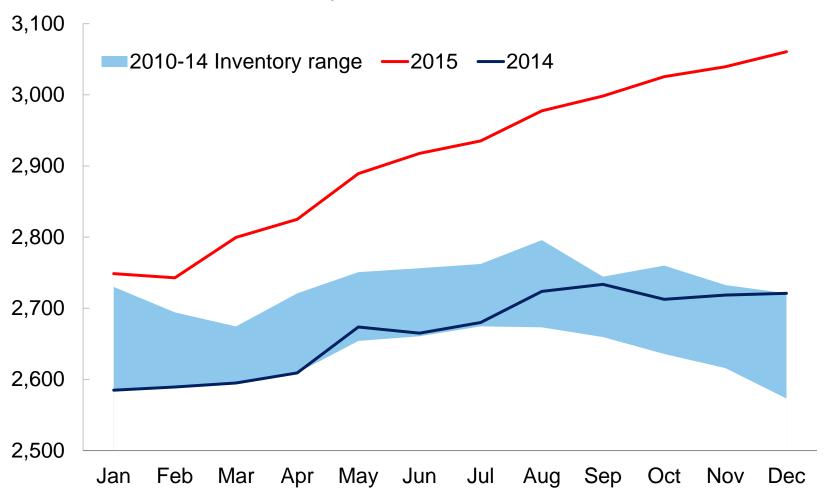


Source: Bloomberg

(1) OECD inventories are at historic highs...

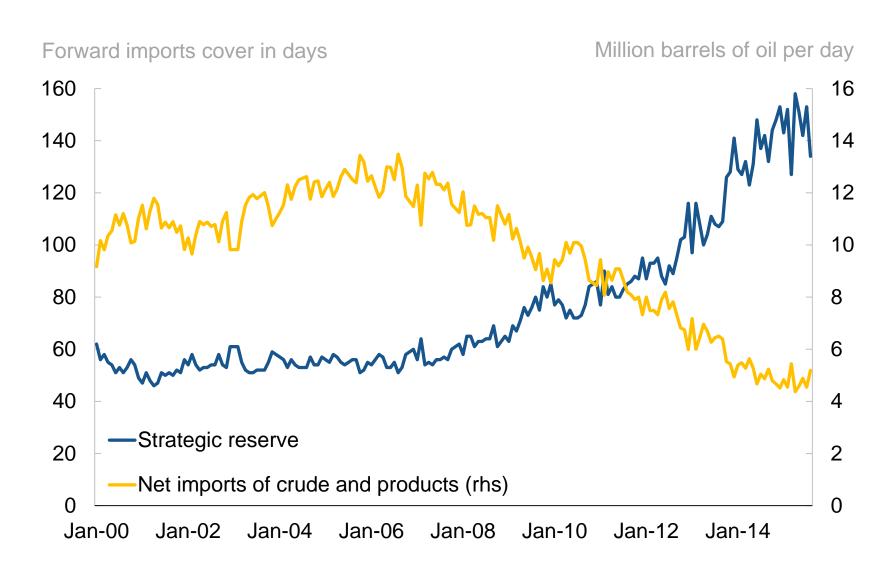
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Million barrels of crude oil and oil products



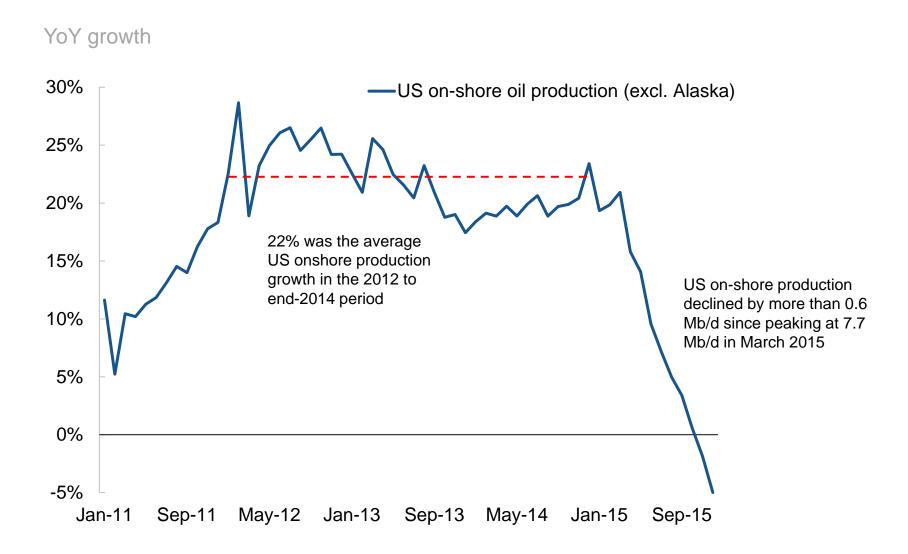
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... and so is the US strategic petroleum reserve



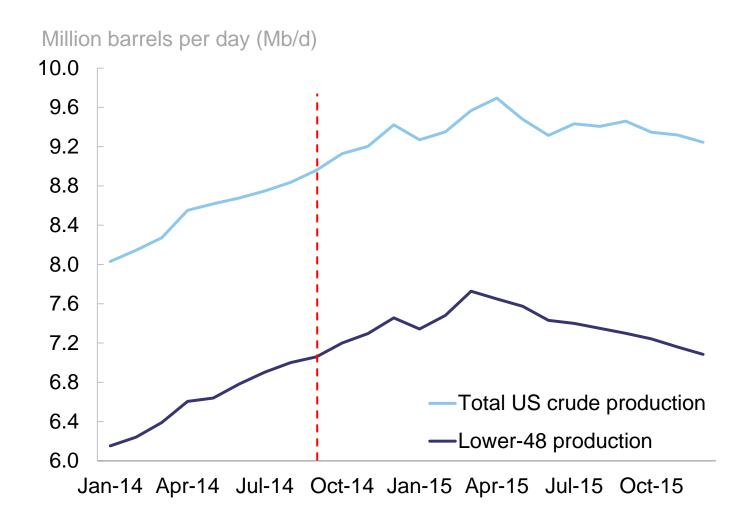
(2) US shale oil production finally declining...

ADIA



... driving overall production lower

ADIA



(3) Above-average demand growth driven by the OECD

ADIA

European and US demand growth

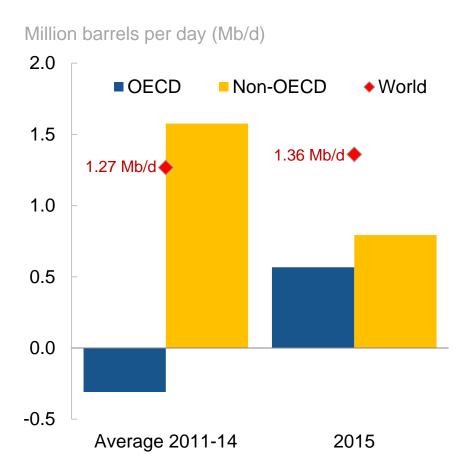
Million barrels per day (Mb/d) 0.4 ■ Europe ■ US 0.3 0.2 0.1 0.0 -0.1 -0.2-0.3

Source: EIA

Average 2011-14

-0.4

OECD and Non-OECD demand growth



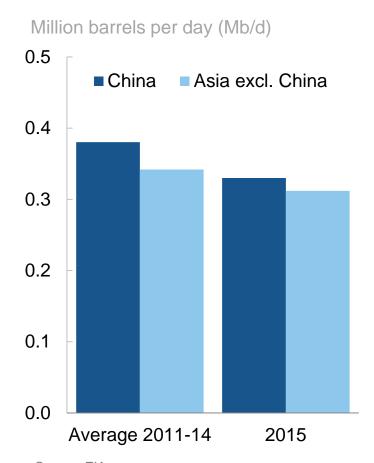
2015

Significant slowdown outside Asia

Million barrels per day (Mb/d) 0.3 Middle East Brazil Russia 0.2 0.1 0.0 0.6 Mb/d lower growth in -0.1 2015, compared to the average -0.2Average 2011-14 2015

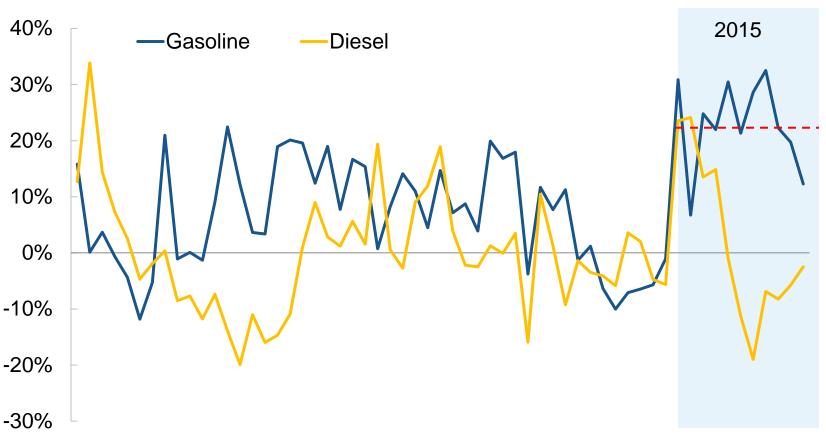
Source: EIA

Asian demand remains robust



... China worries overblown



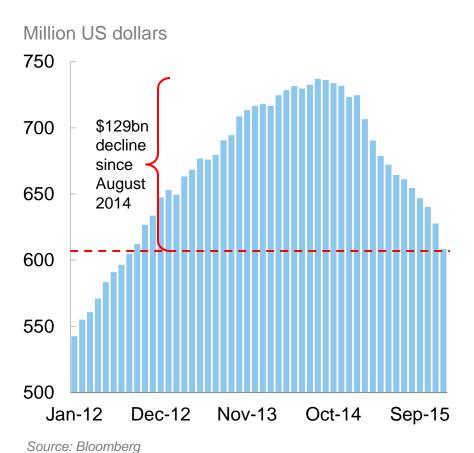


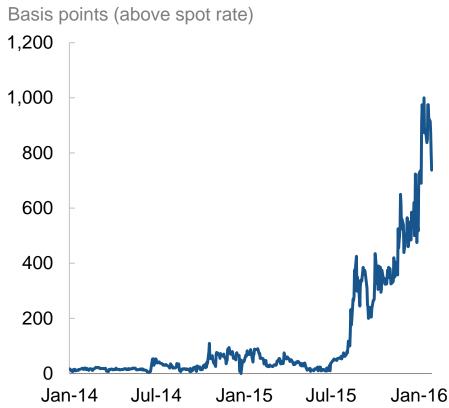
Jan-11 Jul-11 Jan-12 Jul-12 Jan-13 Jul-13 Jan-14 Jul-14 Jan-15 Jul-15

(4) Saudi Arabia: FOREX reserves and forward rate

Saudi Arabian FOREX reserves

Saudi Riyal 12-month forward premium



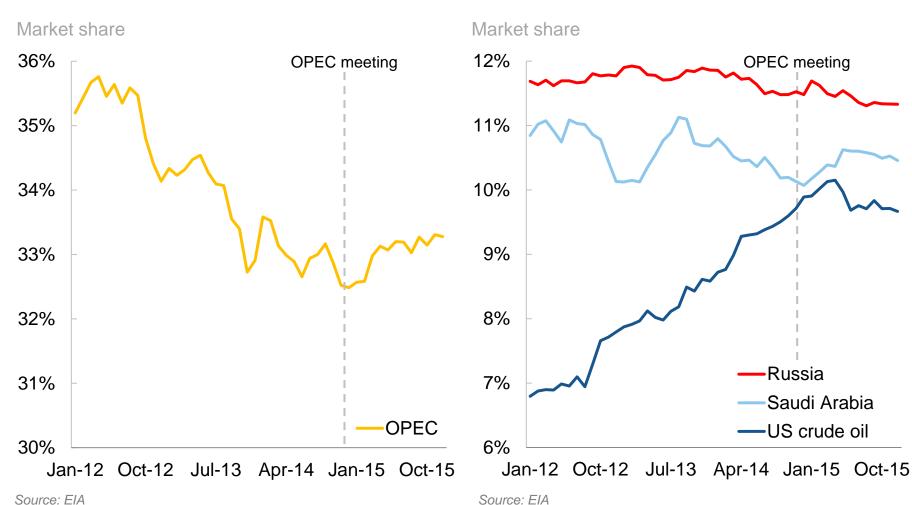


Source: Bloomberg

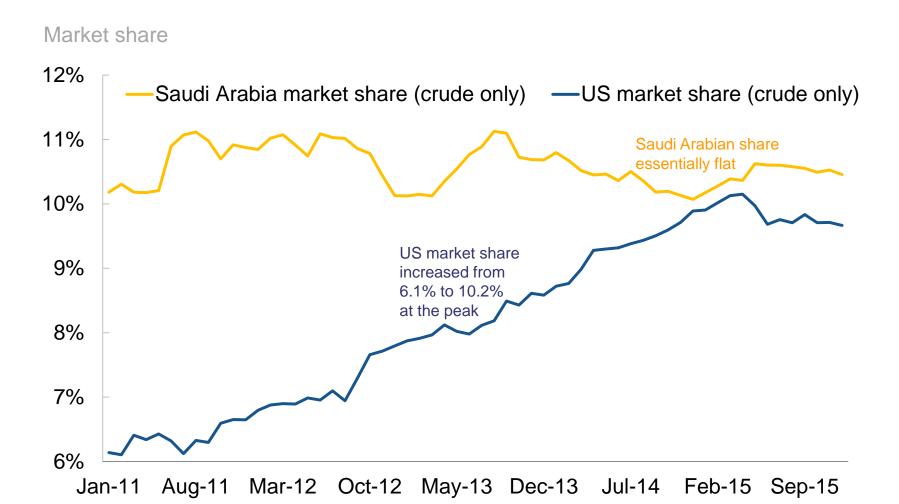
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OPEC market share

Country market shares



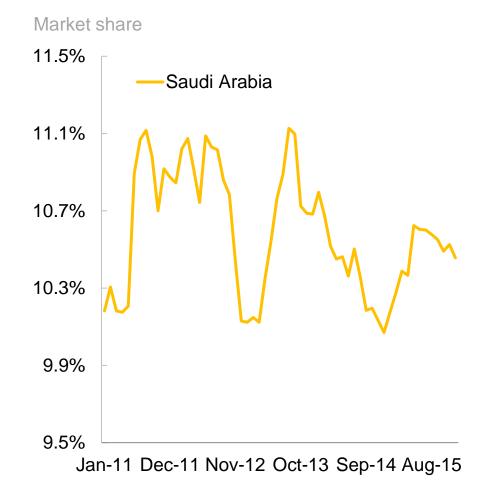
US and Saudi Arabia: oil market shares





Market share 4.8% -Iran Iraq 4.4% 4.0% 3.6% 3.2% 2.8% Jan-11 Dec-11 Nov-12 Oct-13 Sep-14 Aug-15

Saudi Arabia



Conclusion

The economy: Multiple and volatile adjustments, but still locally driven

- Relationship between oil and global growth has weakened
- Oil markets are searching for a new equilibrium, accommodating OPEC as well as unconventional growth
- Expect volatility with an upward drift in prices for 2016-17