

Oil market rebalancing

The long and winding road

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REUTERS

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What do we mean by “oil market rebalancing”?

At least five elements

Closer balance between supply & demand

Normalisation of crude & product stocks

Forward price curve

Sustainable flat price

Sustainable investment

We will put aside for the moment the question of whether the oil market has ever been or will be “in balance”

Adjustment process is never smooth and straightforward

“The long and winding road”

Oil market is a complex system

Low price responsiveness

Long lags in investments

Backward-looking expectations

Multiple feedback mechanisms

Multiple sub-systems

Non-linear dynamics

Oil market is cyclical: no bust (or boom) lasts forever

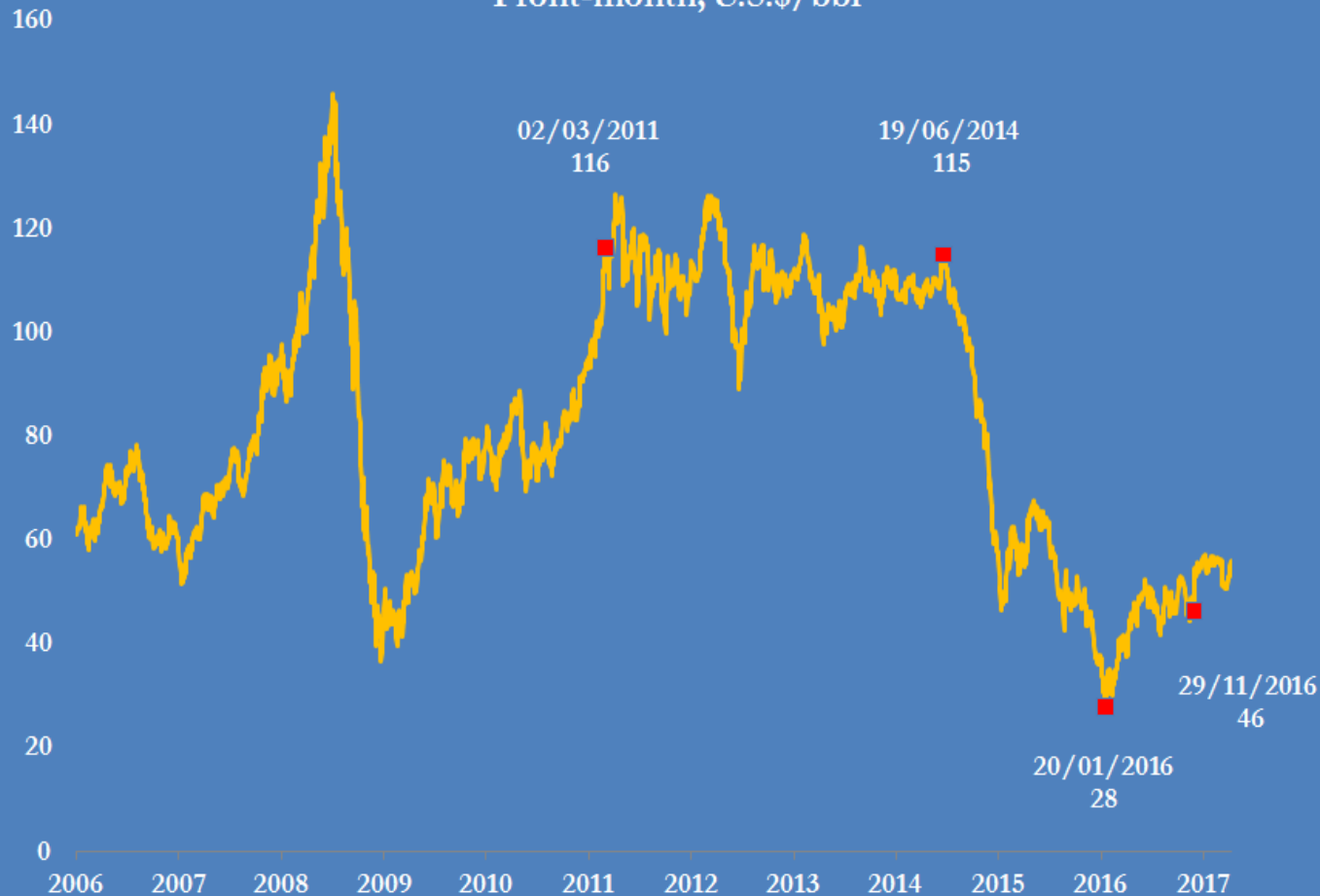
Best advice on oil business comes from *Book of Ecclesiastes (Ch 3)*

To every thing there is a season,
and a time to every purpose under the heaven:
a time to be born, and a time to die;
a time to plant, and a time to pluck up that which is planted;
a time to kill, and a time to heal;
a time to break down, and a time to build up;
a time to weep, and a time to laugh;
a time to mourn, and a time to dance;
a time to cast away stones,
and a time to gather stones together;
a time to embrace, and a time to refrain from embracing;
a time to get, and a time to lose;
a time to keep, and a time to cast away;
a time to rend, and a time to sew;
a time to keep silence, and a time to speak;
a time to love, and a time to hate;
a time of war, and a time of peace.

Recent history of crude oil prices

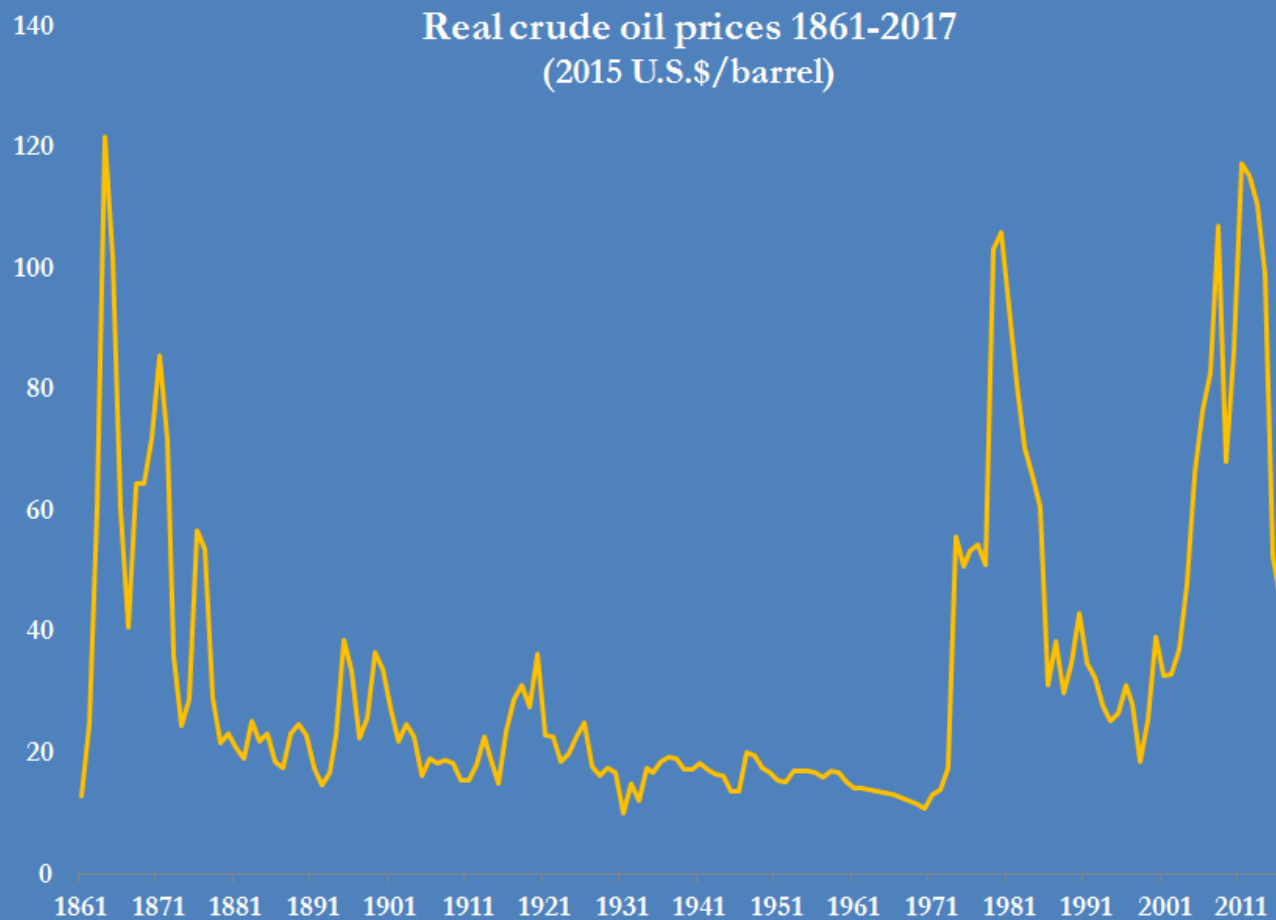
Stability, collapse, partial recovery

Brent crude price, 2006-2017
Front-month, U.S.\$/bbl



Real oil prices in long-run perspective (1)

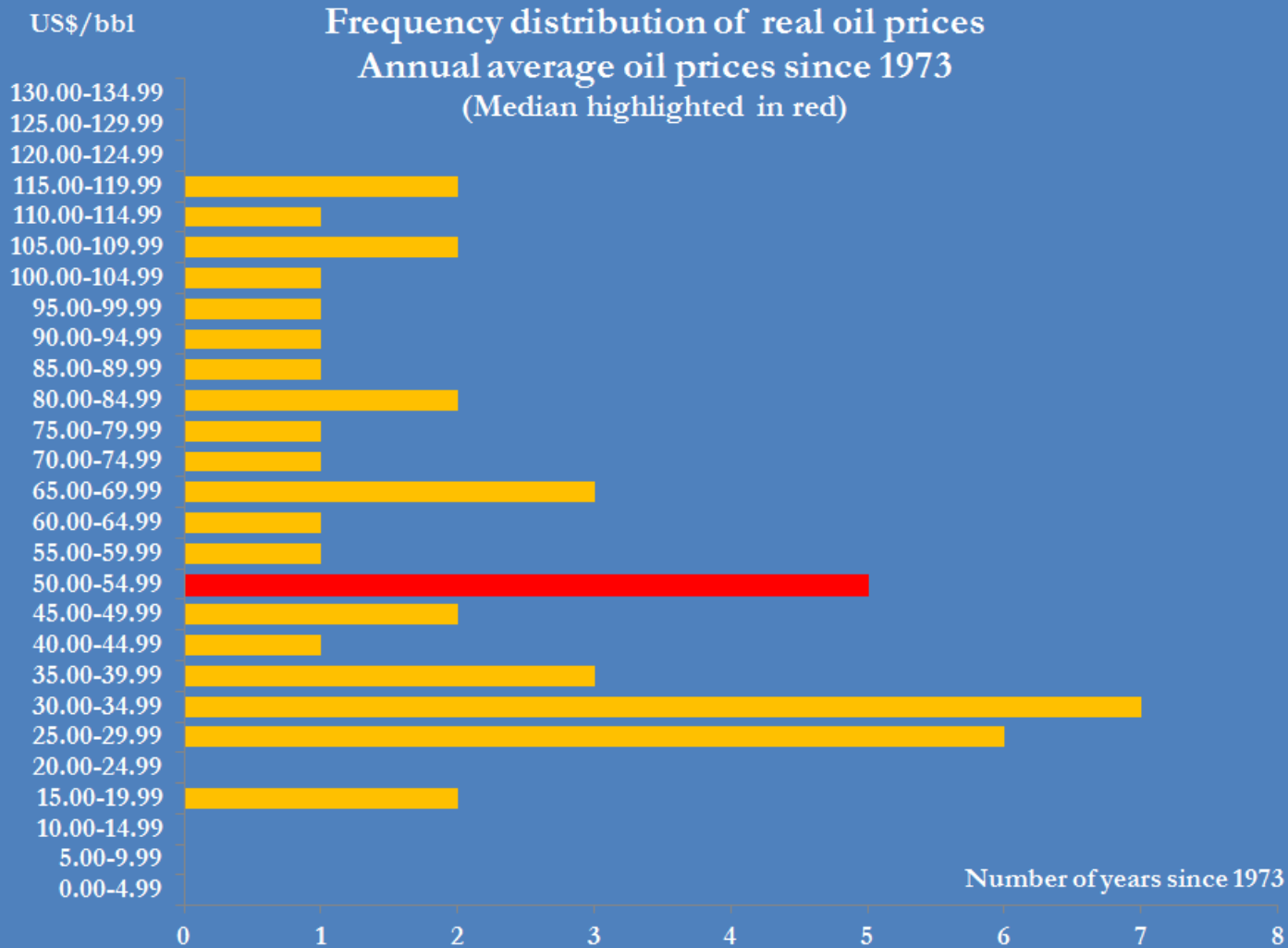
Oil price currently close to post-1973 average



Source: *BP Statistical Review of World Energy 2016*, Reuters calculations for 2016/17
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Real oil prices in long-run perspective (2)

Oil price currently close to post-1973 average

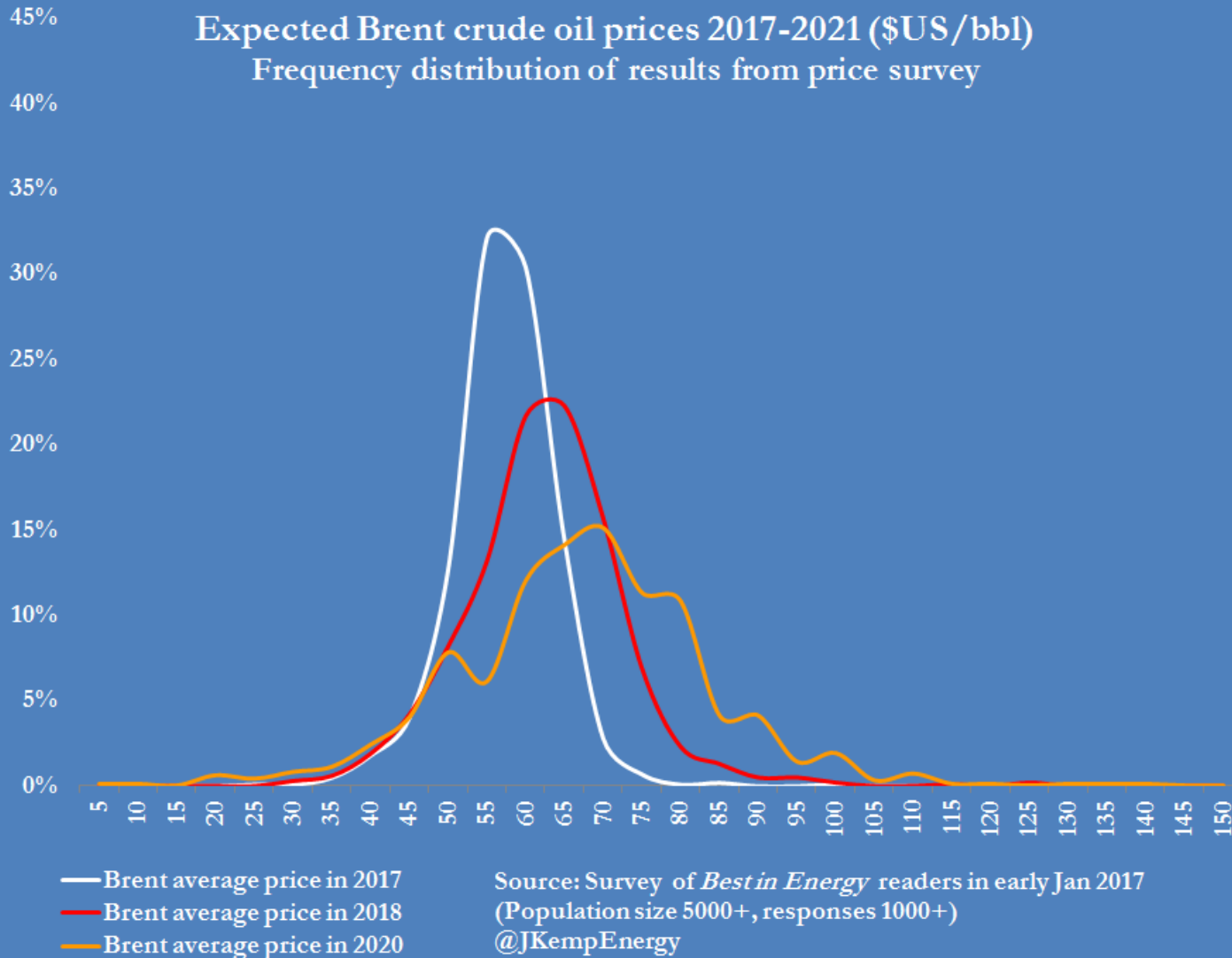


Source: BP Statistical Review of World Energy, 2016 and author calculations

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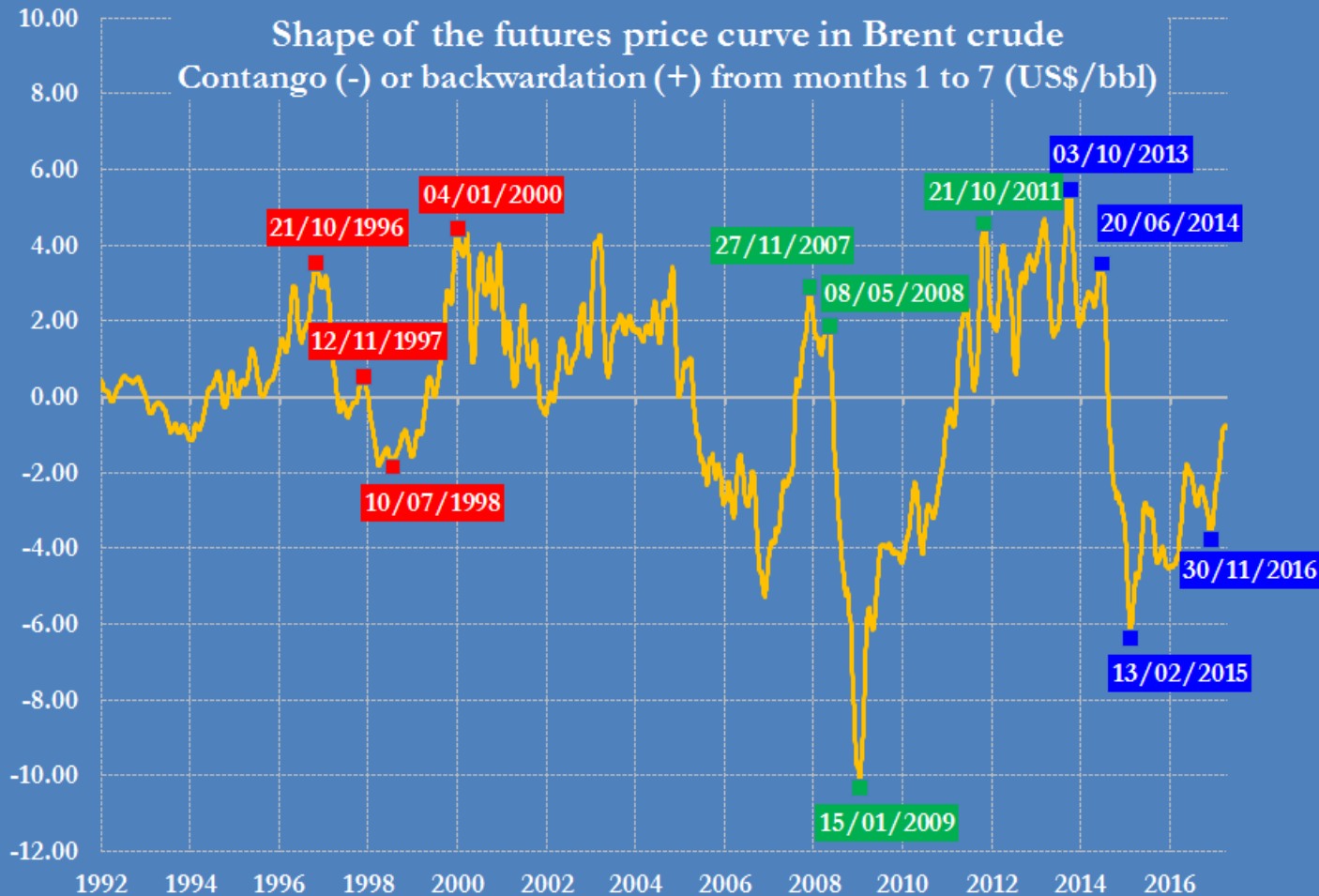
Current oil price near forecast average for 2017

Survey of 1000+ energy professionals in Jan 2017



Rebalancing should see shift towards backwardation

Past experience suggests contango will narrow and disappear



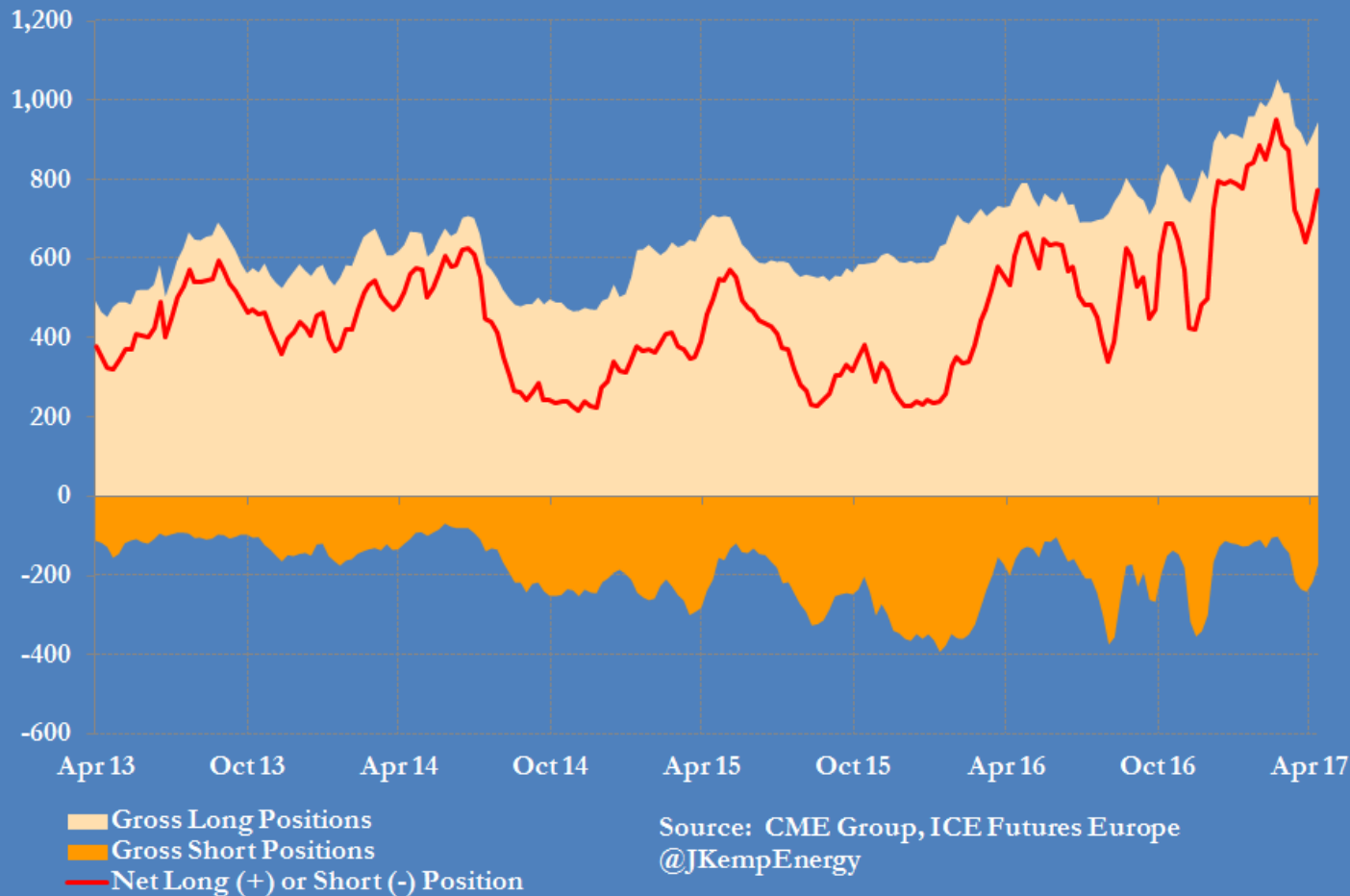
Price difference between 1st listed contract month and 7th listed contract month for Brent futures (U.S.\$/bbl)
Contango (-) or backwardation (+) averaged over 30 days

Source: Thomson Reuters Eikon, ICE Futures @JKempEnergy

Hedge funds anticipate rebalancing and higher prices

Record bullish position accumulated post-OPEC

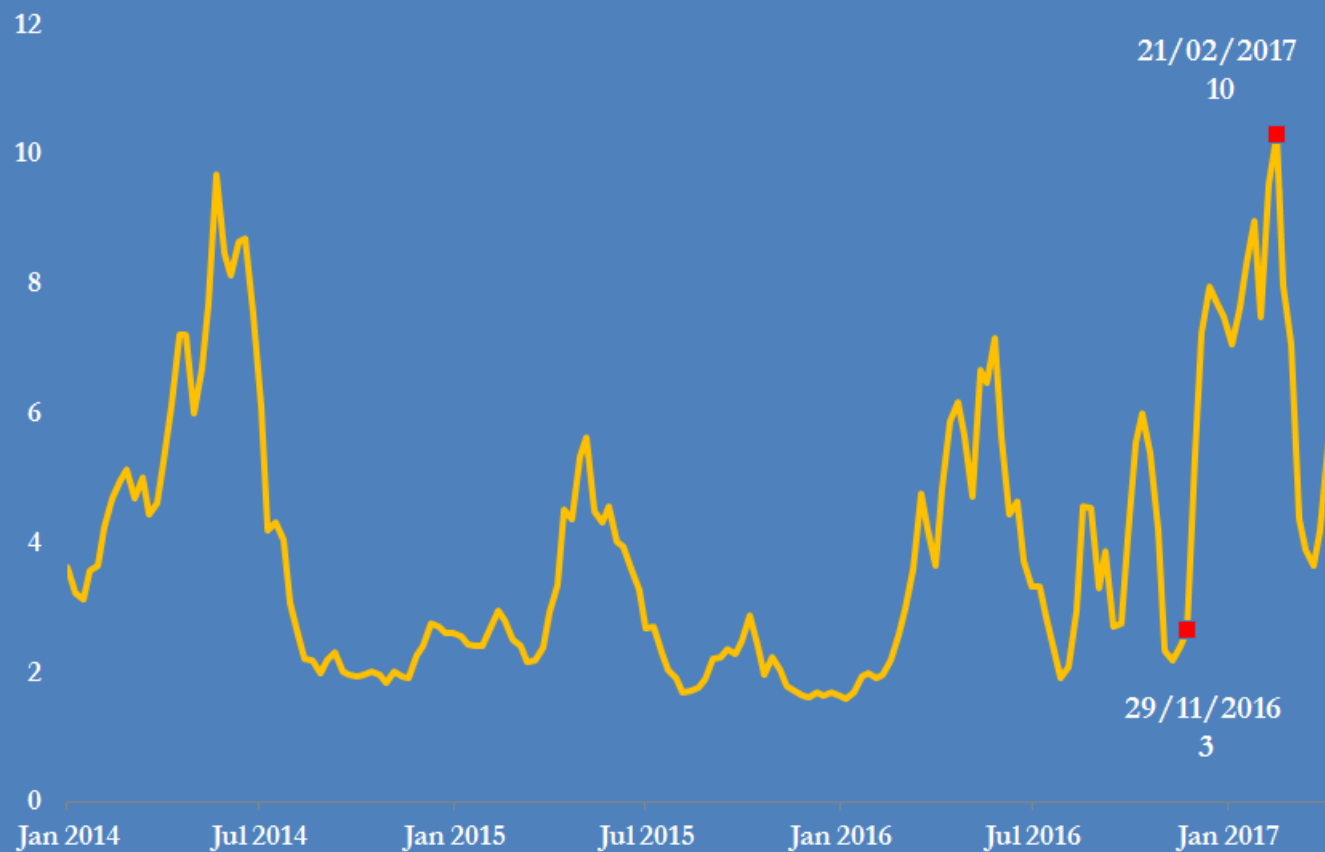
Money managers' long and short positions in the three main crude oil futures and options contracts (million barrels)
(NYMEX WTI, ICE WTI and ICE Brent)



Hedge funds most bullish on oil since price crash in 2014

Big imbalance in speculative positioning

Ratio of money managers' long to short positions in
Brent+WTI (NYMEX +ICE)



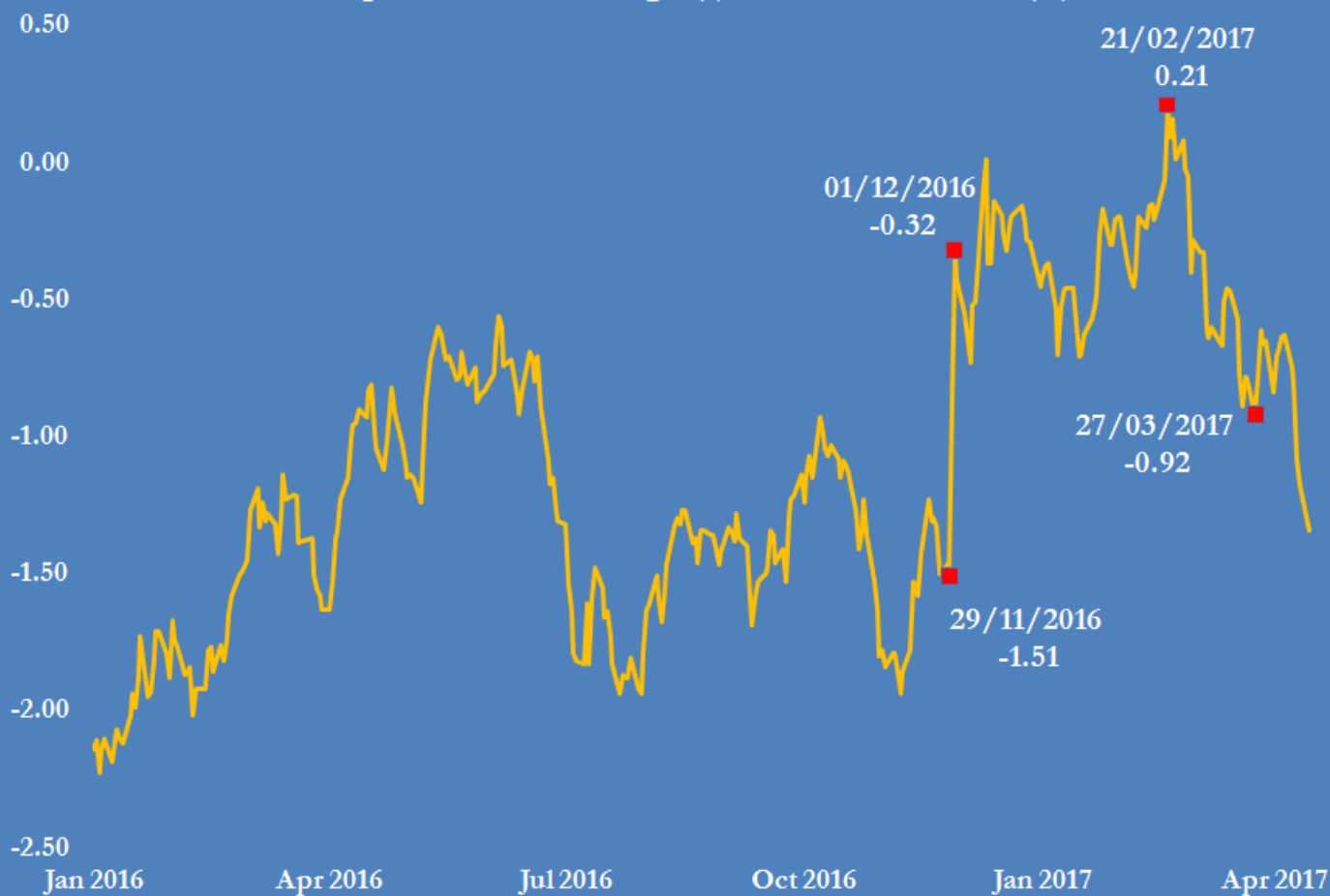
Source: US Commodity Futures Trading Commission, ICE Futures Europe
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Hedge funds also anticipate shift to backwardation

Betting on calendar spreads: too much, too soon?

Brent calendar spread from June 2017 to December 2017

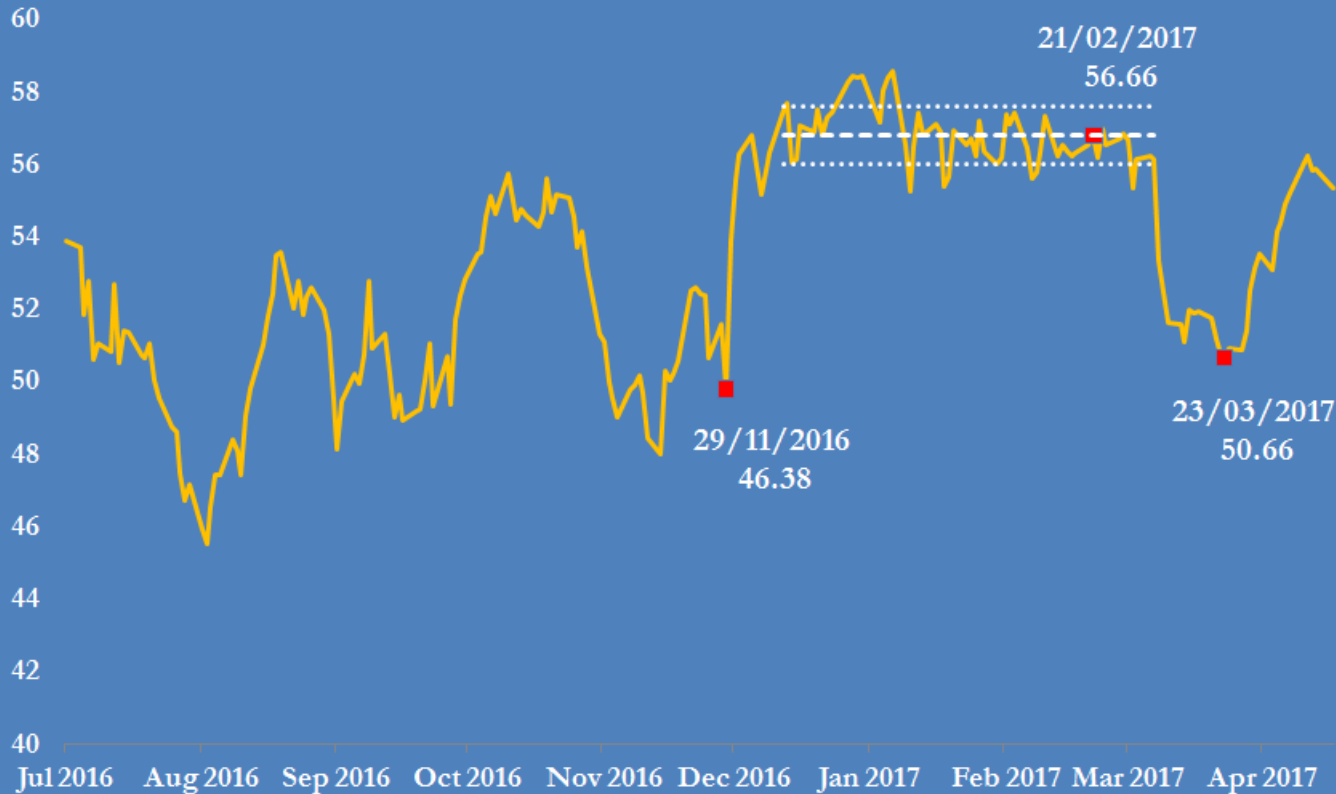
US\$ per barrel, contango (-) or backwardation (+)



Hedge fund positioning in crude oil becomes crowded

Sharp correction in oil prices in early March followed by recovery

Brent crude futures for June 2017
U.S.\$/bbl

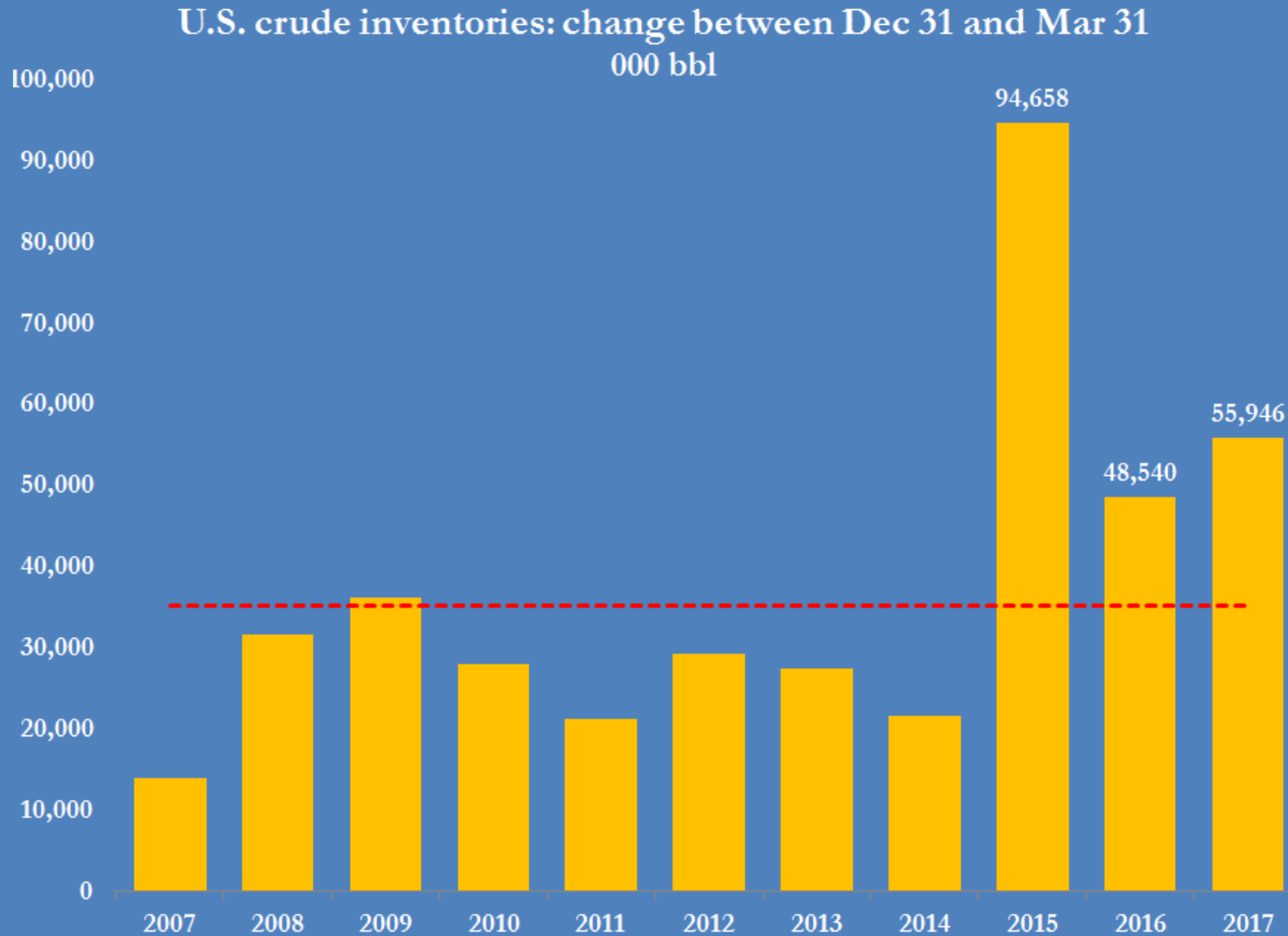


- Brent futures price for June 2017
- - - Mean between 12 Dec 2016 and 7 Mar 2017
- Mean +/- 1 standard deviation

Source: ICE Futures Europe
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U.S. crude oil stocks kept rising during Q1 2017

High imports (incl. OPEC shipments) & refinery maintenance



Source: U.S. Energy Information Administration

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U.S. crude stocks not necessarily representative

Beware data availability bias

U.S. crude and product stocks reported weekly

OECD stocks reported monthly (but delayed)

Non-OECD stocks often not reported at all

Floating storage

Offshore tank farms

Oil in transit

Summary of current situation (1)

OPEC tries to accelerate rebalancing process

Crude oil market has been gradually rebalancing since early 2016

Transition from oversupply in 2014/15 to undersupply in 2017/18

Flat prices and calendar spreads both up significantly pre-OPEC

Compliance with OPEC deal appears good (mostly due to Saudi)

Hedge funds have bought into OPEC's rebalancing narrative

Hedge funds pushed prices and spreads too far, too soon?

Summary of current situation (2)

Some progress on draining stocks

Crude stocks appear to be falling

Invisible stocks becoming visible

Supply & demand close to balance

Inventory overhang remains large

Rebalancing seems to be happening

Slowly at first, likely to accelerate

Summary of current situation (3)

Strategic issues for OPEC

Extension of output curbs probably necessary

Uncertainty around reactivation of U.S. shale

Higher prices versus protection of market share

Protection of relationships with refiners in Asia

Summary of current situation (4)

Key uncertainties in the medium term

Uncertain timing of crude oil market deficit and stock drawdown

Uncertain breakeven price of U.S. shale producers (cyclical costs)

Uncertain breakeven price for oil majors and offshore (costs again)

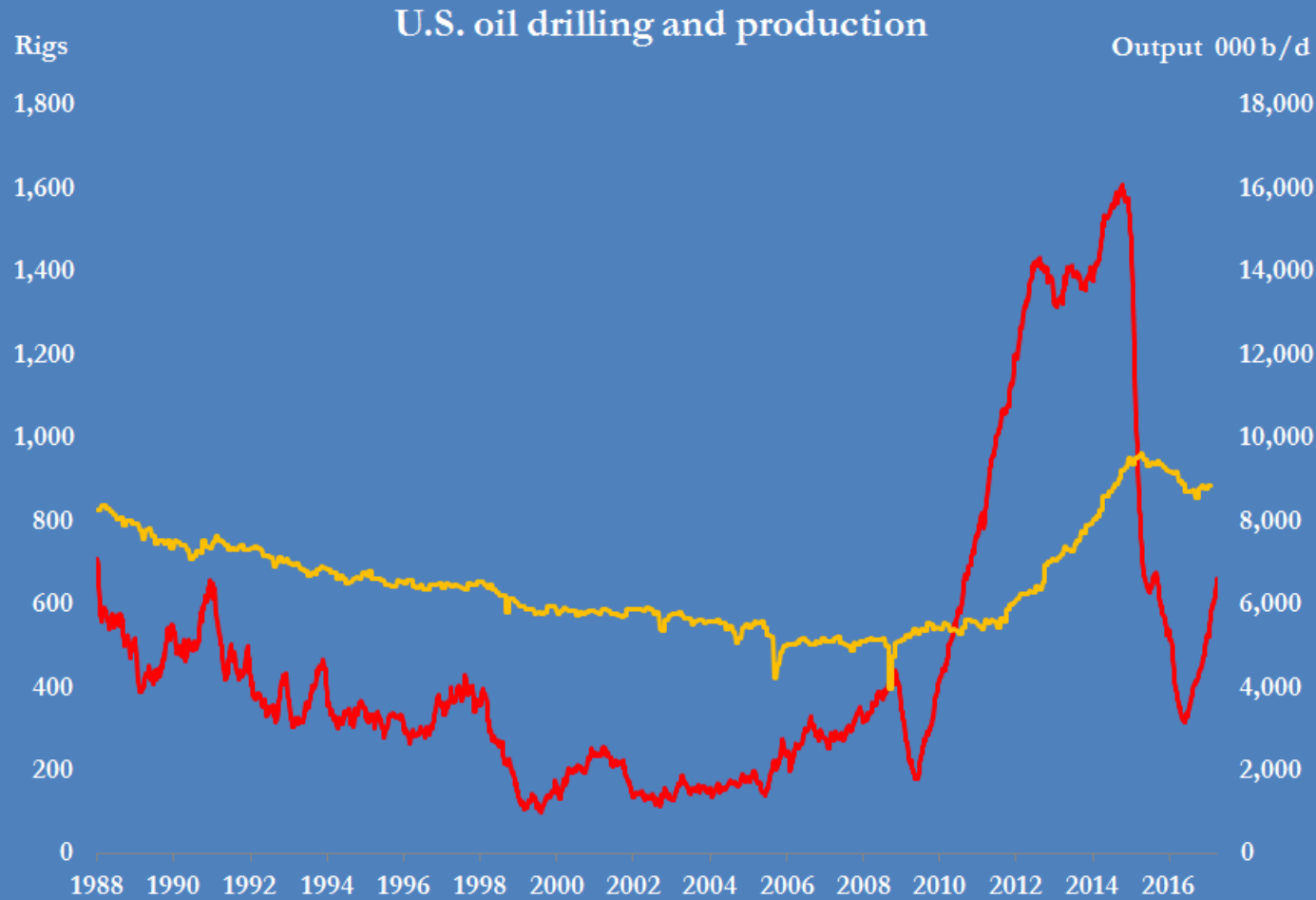
Uncertain global economic outlook (Trump, Brexit, macro-cycle)

Uncertain recovery in commodity-dependent emerging markets

OPEC compliance and relaxation of output curbs

U.S. onshore drilling growing strongly since May 2016

Rig count has doubled but so far limited impact on output



— Number of rigs drilling for oil (Baker Hughes)
— Daily oil production (000 b/d) (EIA)

Sources: Baker Hughes and US Energy Information Administration, @JKempEnergy

U.S. drilling and other services costs are starting to rise

Service companies have warned cost compression unsustainable

U.S. oil and gas drilling activity and prices
Baker Hughes rig count, BLS drilling prices

