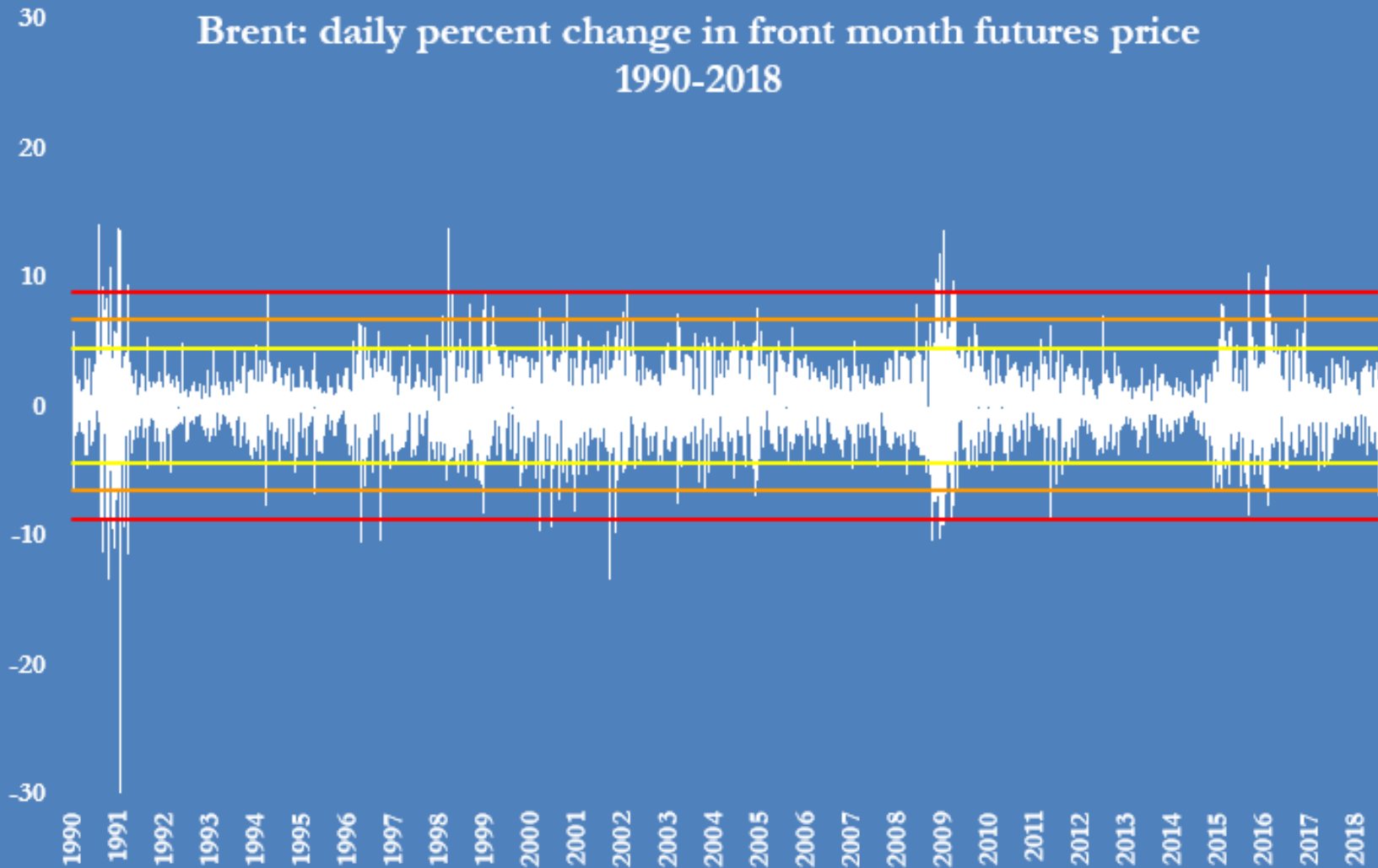


Brent crude oil prices

Selected indicators

JOHN KEMP
REUTERS
12 July 2018

Brent: daily percent change in front month futures price 1990-2018

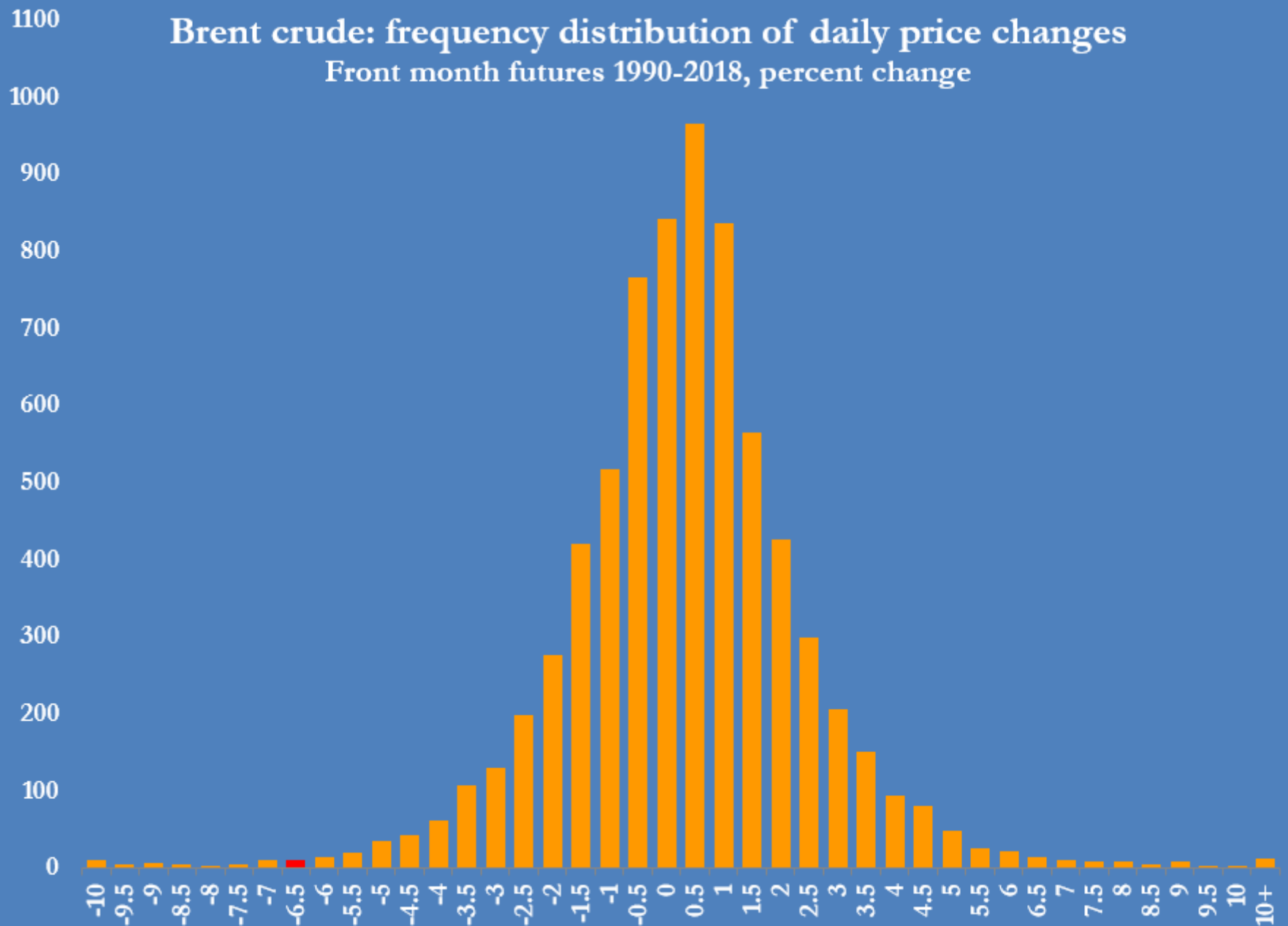


- Brent 1st Month Futures One-Day Percent Change
- Mean percent change + / - 2 standard deviations
- Mean percent change + / - 3 standard deviations
- Mean Percent Change + / - 4 standard deviations

Source: Thomson Reuters Eikon
@JKempEnergy

Brent crude: frequency distribution of daily price changes

Front month futures 1990-2018, percent change

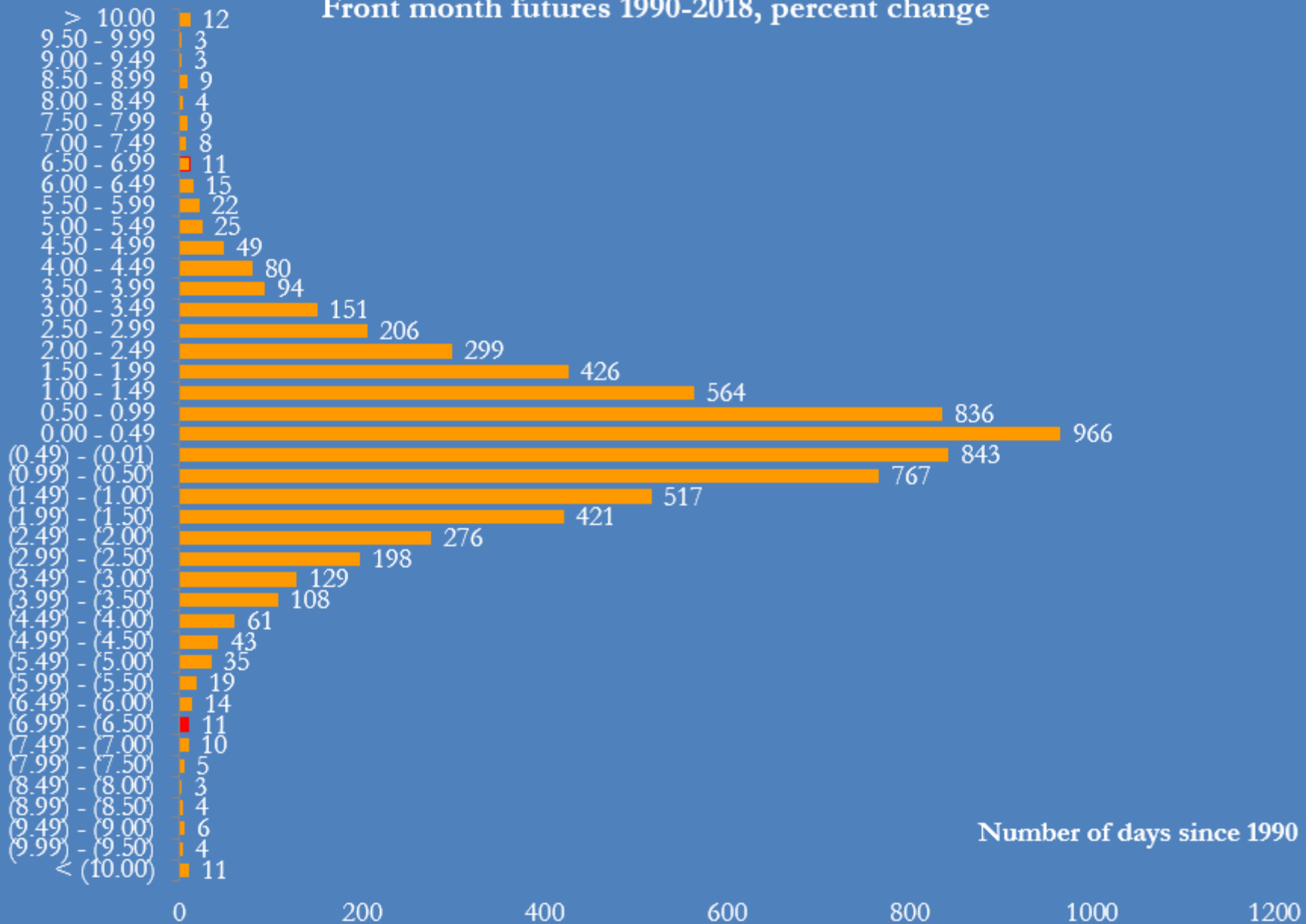


Source: ICE, Thomson Reuters Eikon

@JKempEnergy

Brent crude: distribution of daily price changes

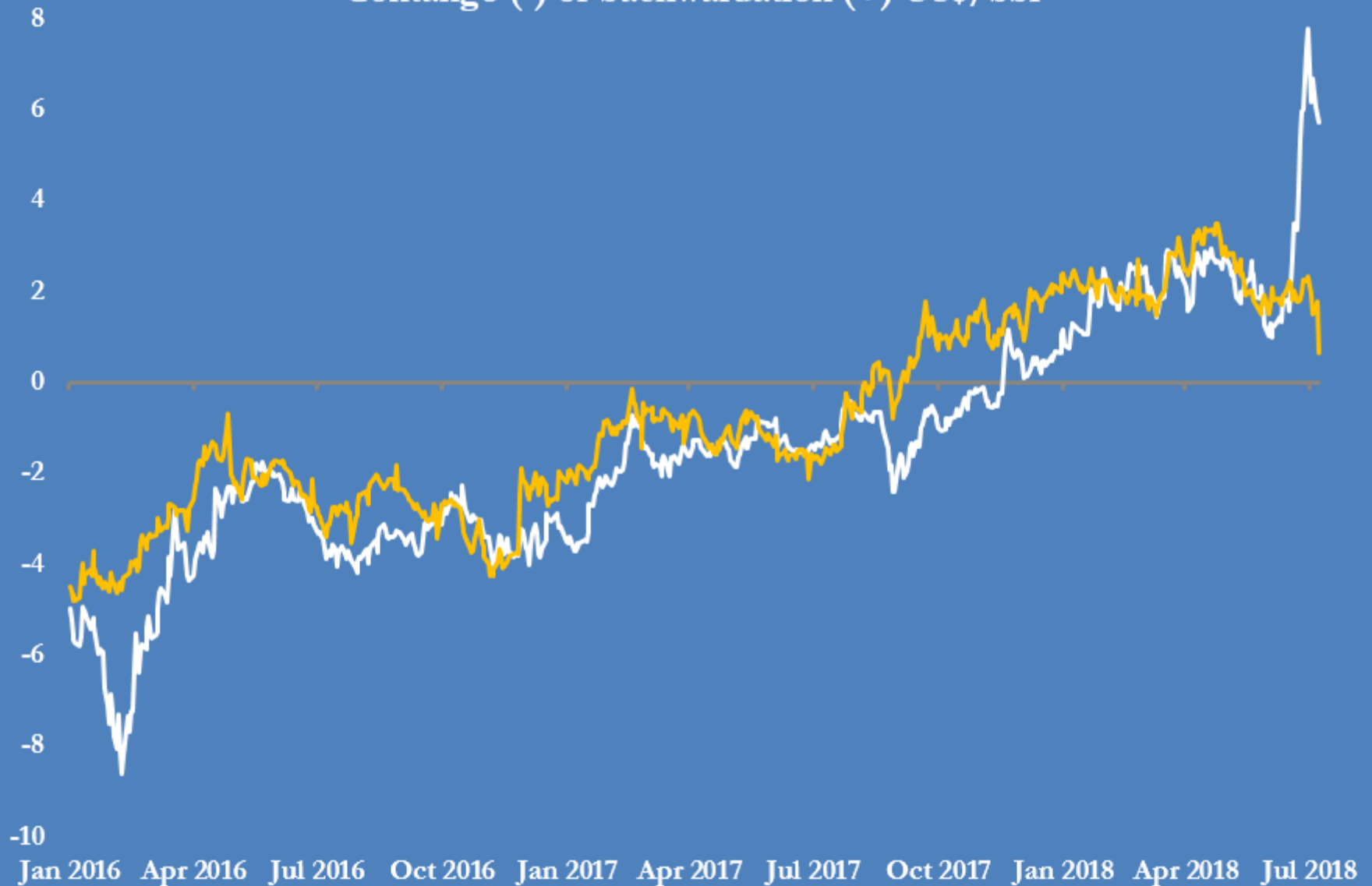
Front month futures 1990-2018, percent change



Number of days since 1990

WTI and Brent Time Spreads

Contango (-) or backwardation (+) US\$/bbl

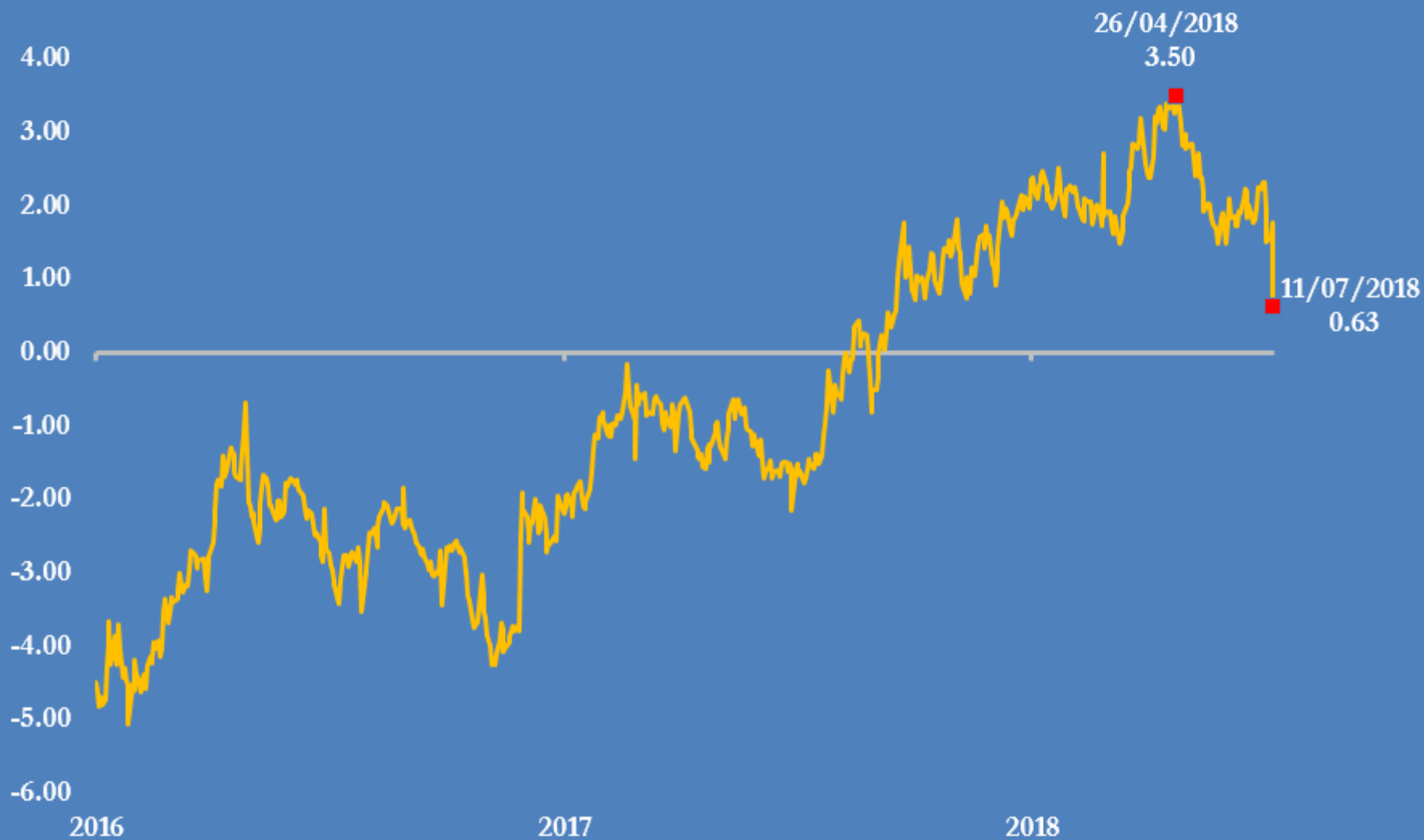


— WTI time spread (1st-7th month)
— Brent time spread (1st-7th month)

Source: ThomsonReuters Eikon, ICE Futures
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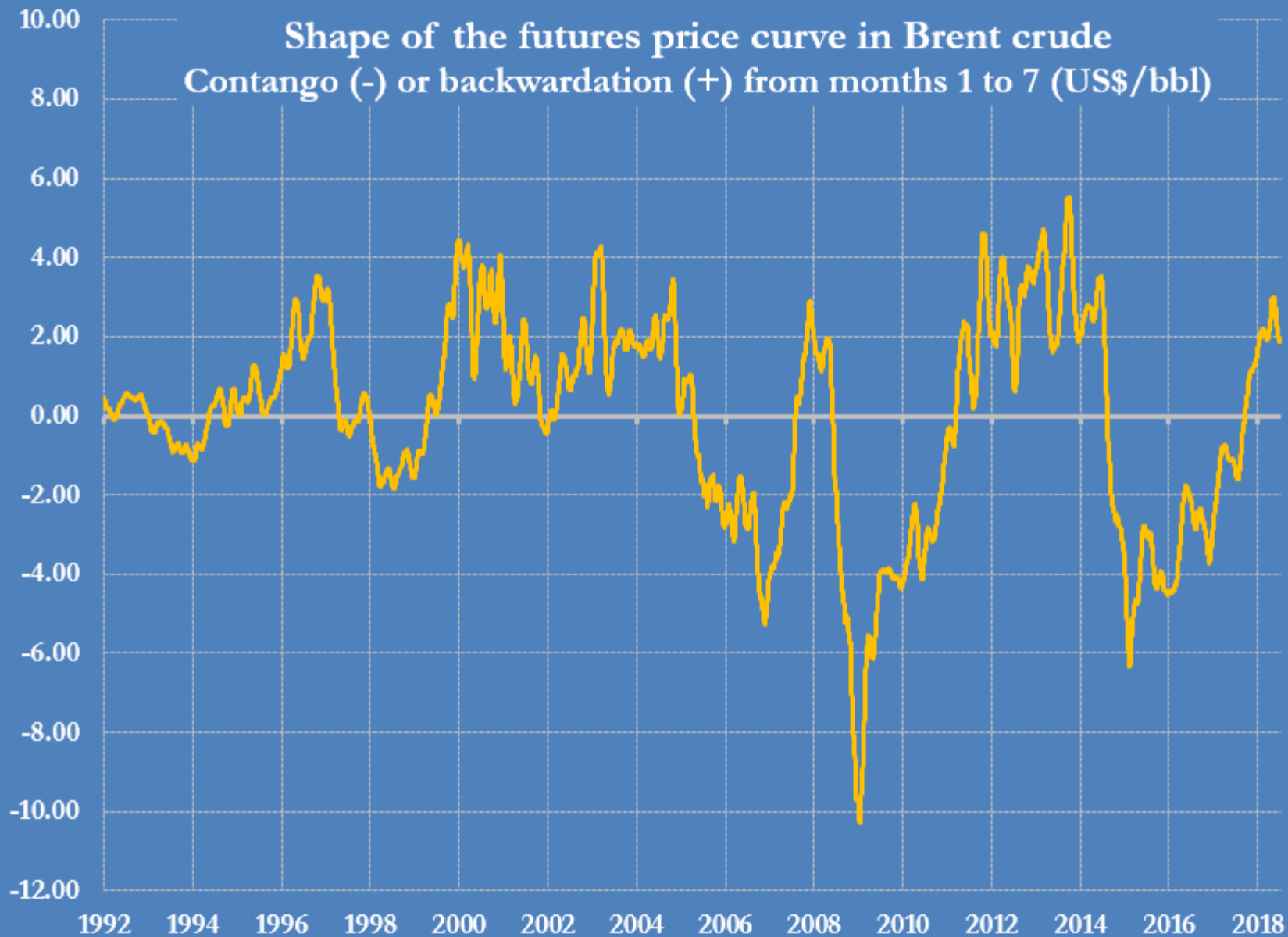
Shape of the futures price curve in Brent crude

Contango (-) or backwardation (+) from months 1 to 7 (US\$/bbl)



Price difference Brent month 1 and month 7 (U.S.\$/bbl)
Contango (-) or backwardation (+)

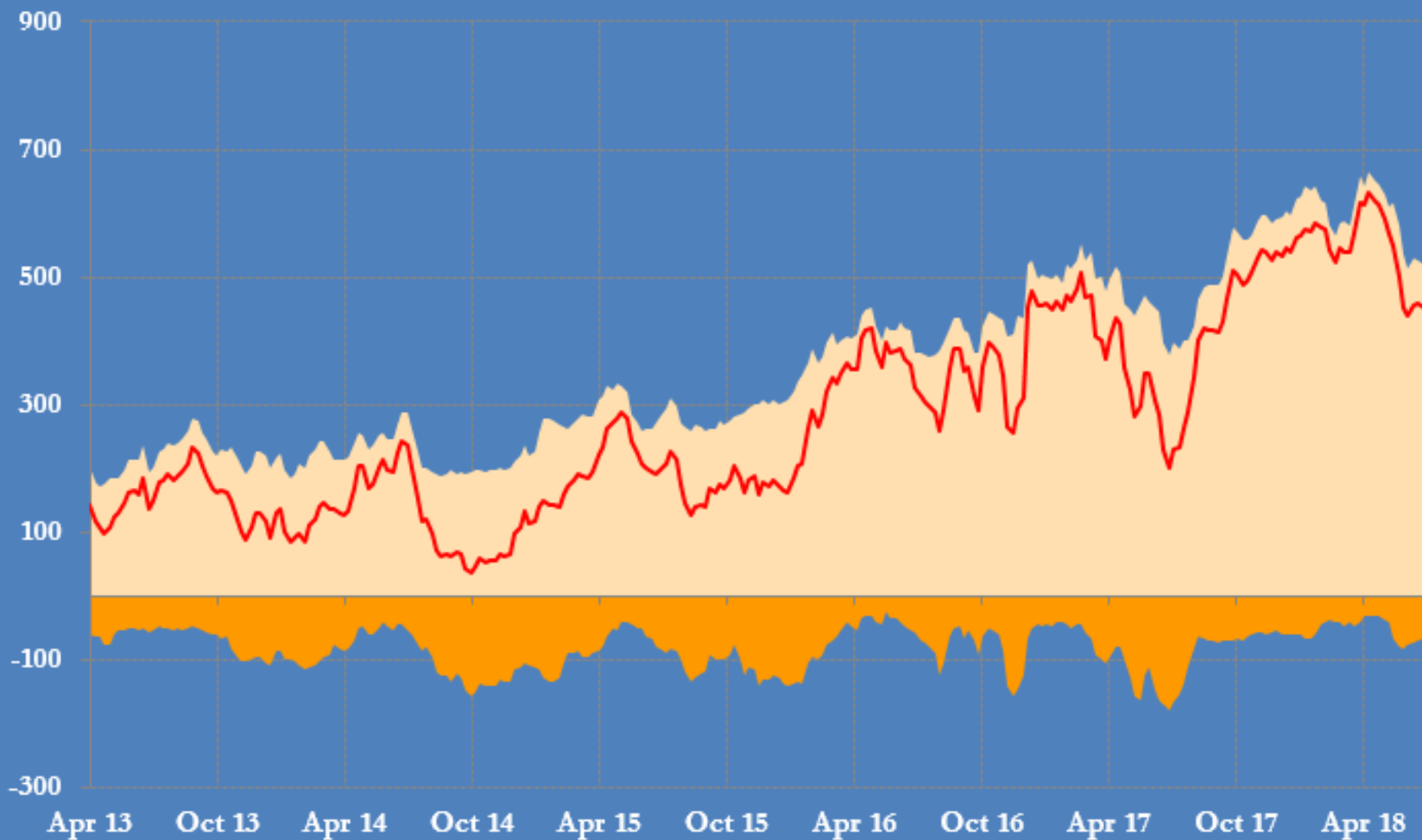
Source: ICE Futures, @JKempEnergy



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

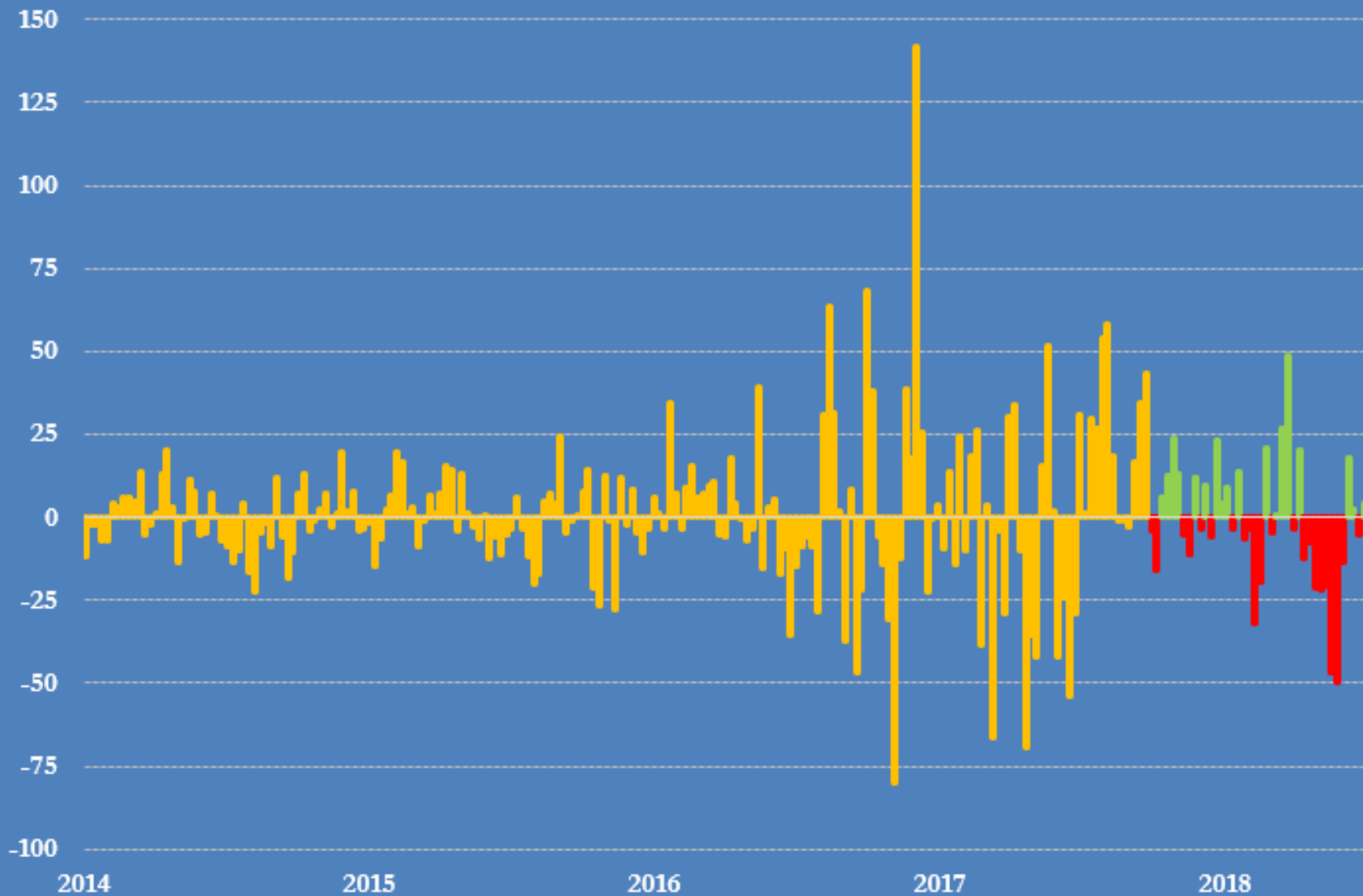
Money managers' long and short positions in Brent futures and options contracts (million barrels) (ICE Brent)



■ Gross Long Positions
■ Gross Short Positions
— Net Long (+) or Short (-) Position

Source: ICE Futures Europe
@JKempEnergy

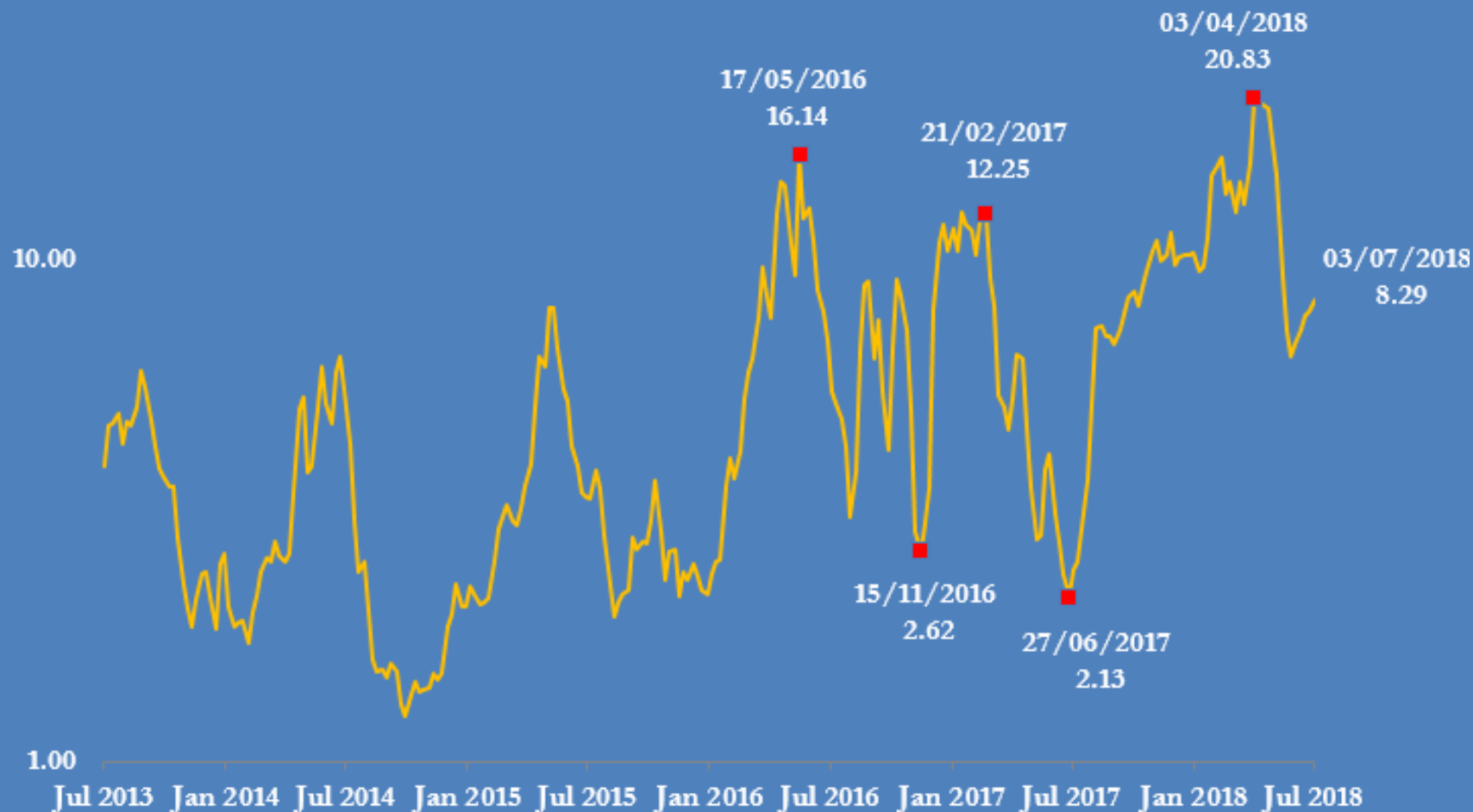
Money managers' net long position in Brent weekly change, million bbl



Source: ICE Futures Europe

@JKempEnergy

Ratio of money managers' long to short positions in ICE Brent (*log scale*)



Source: US Commodity Futures Trading Commission
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