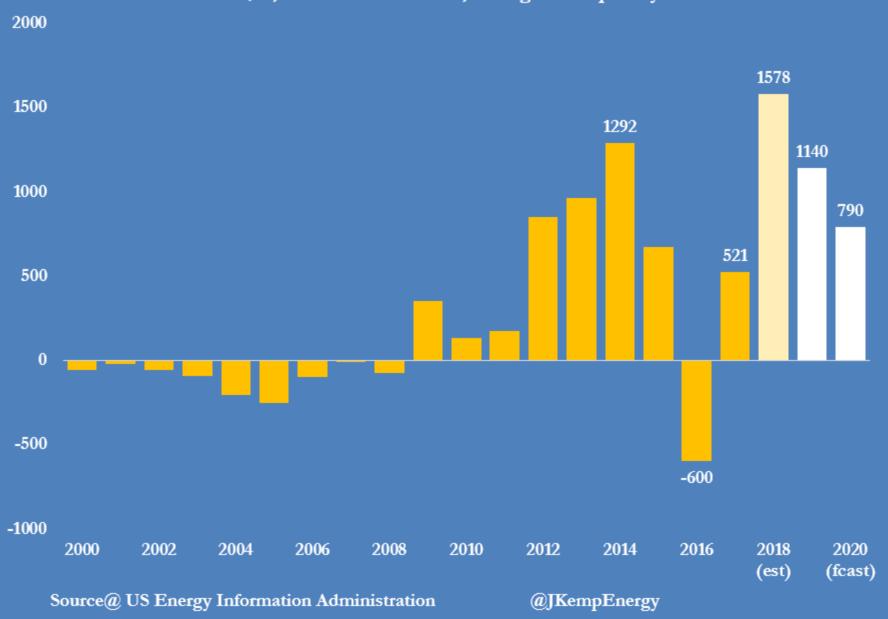
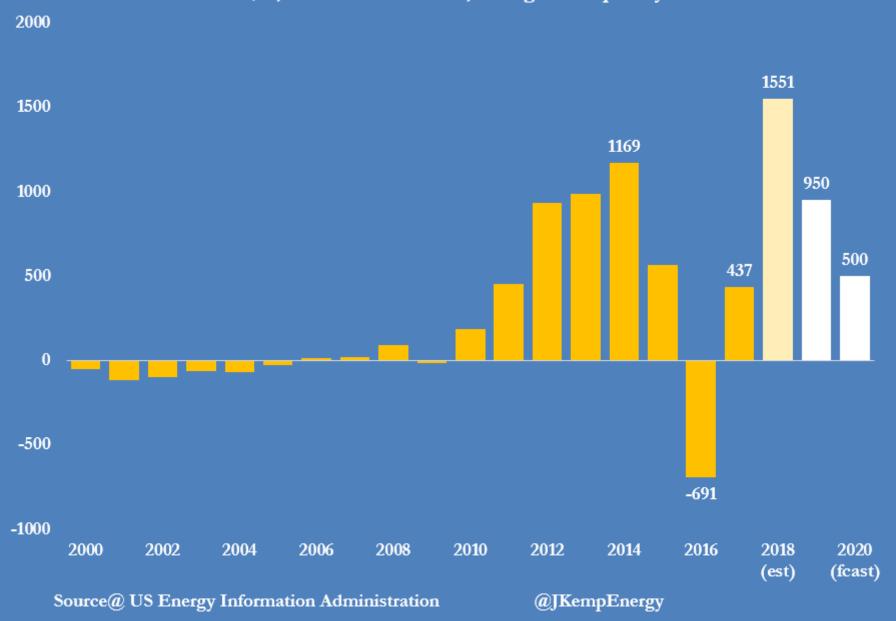
U.S. oil production outlook Selected indicators

JOHN KEMP REUTERS 22 Jan 2019

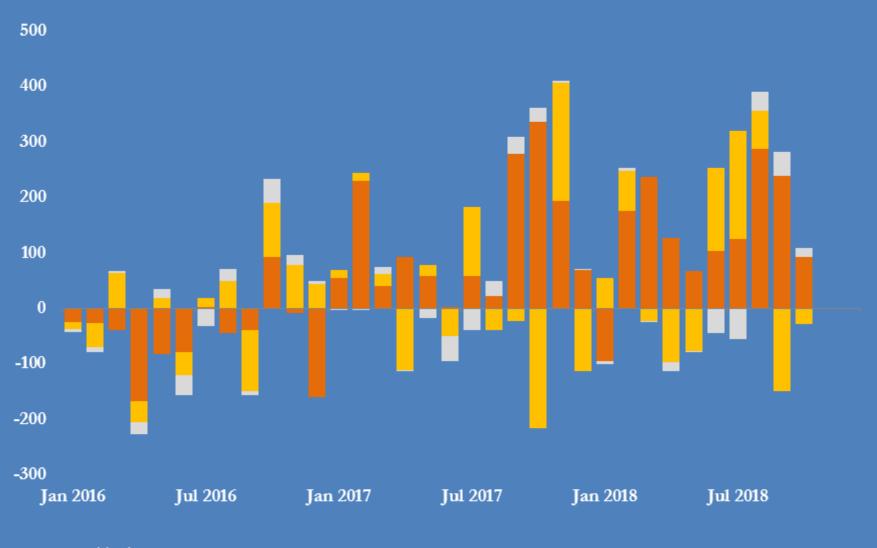
US crude oil and condensates production, 2000-2020 000 b/d, actual and forecast, change from prior year



L48 ex GoM crude oil and condensates production, 2000-2020 000 b/d, actual and forecast, change from prior year



U.S. crude oil production Monthly change in 000 b/d



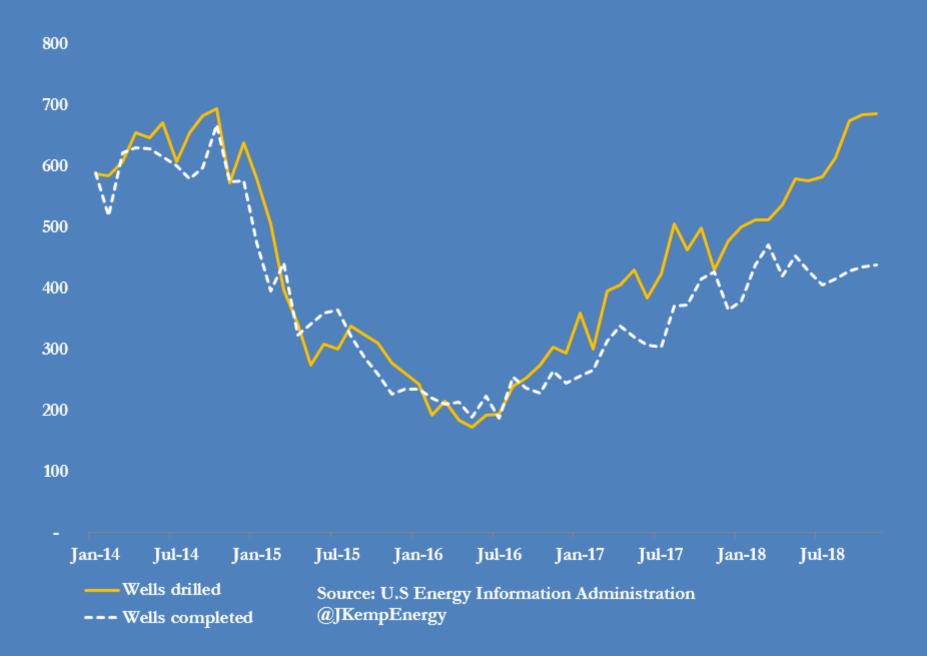
■ Alaska

Federal Gulf of Mexico

Lower 48 states excluding federal Gulf of Mexico

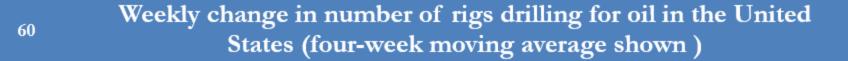
Source: Energy Information Administration @JKempEnergy

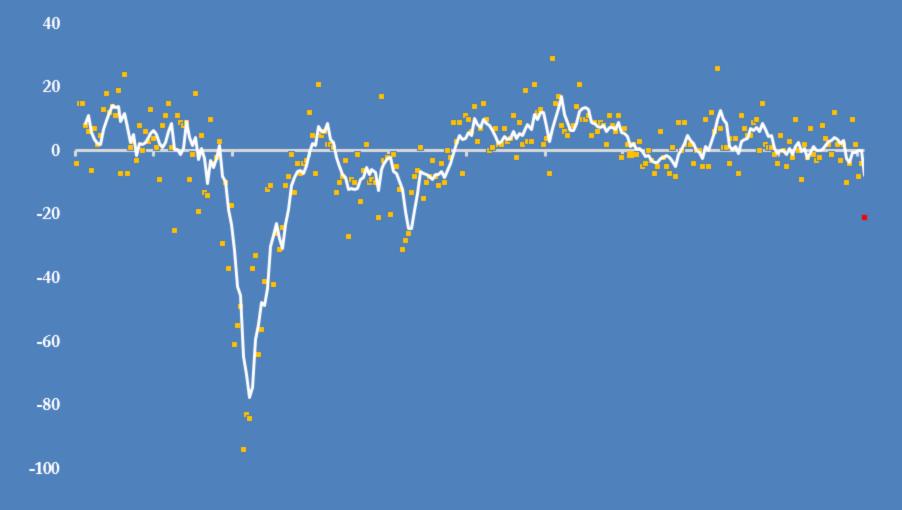
Permian Basin new wells drilled and completions per month



New wells drilled and completions per month ex Permian Basin

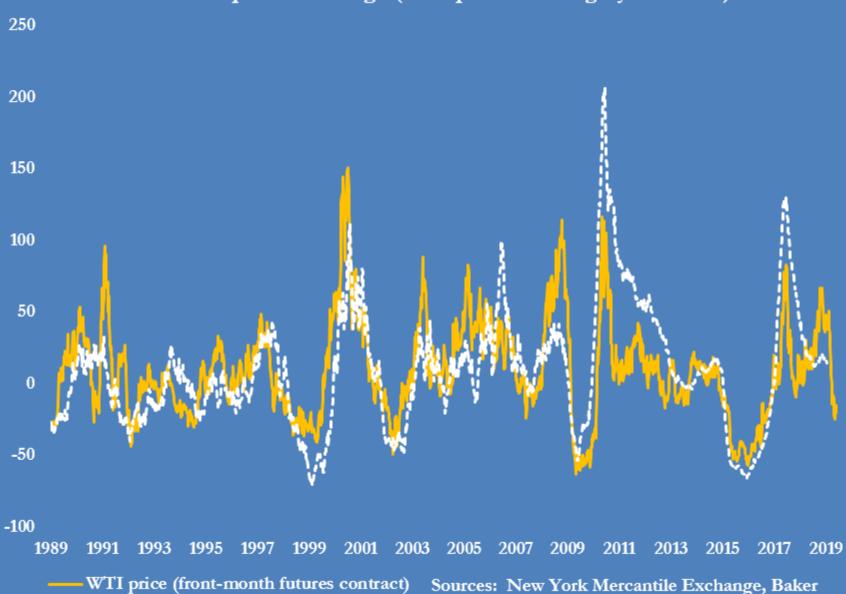






-120 Jan 2014 Jul 2014 Jan 2015 Jul 2015 Jan 2016 Jul 2016 Jan 2017 Jul 2017 Jan 2018 Jul 2018 Jan 2019 Source: Baker Hughes @JKempEnergy

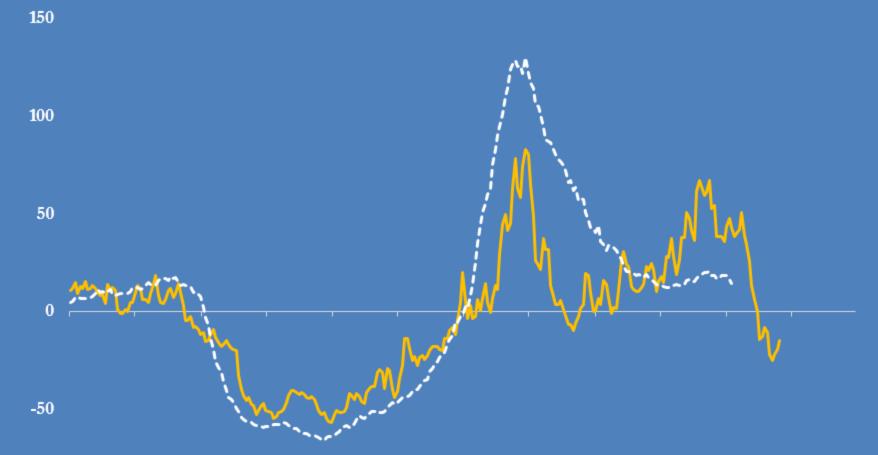
U.S. crude oil prices and drilling activity 12-month percent change (WTI prices leading by 19 weeks)



Hughes; @JKempEnergy

--- U.S. oil rig count (Baker Hughes)

U.S. crude oil prices and drilling activity 12-month percent change (WTI prices leading by 19 weeks)

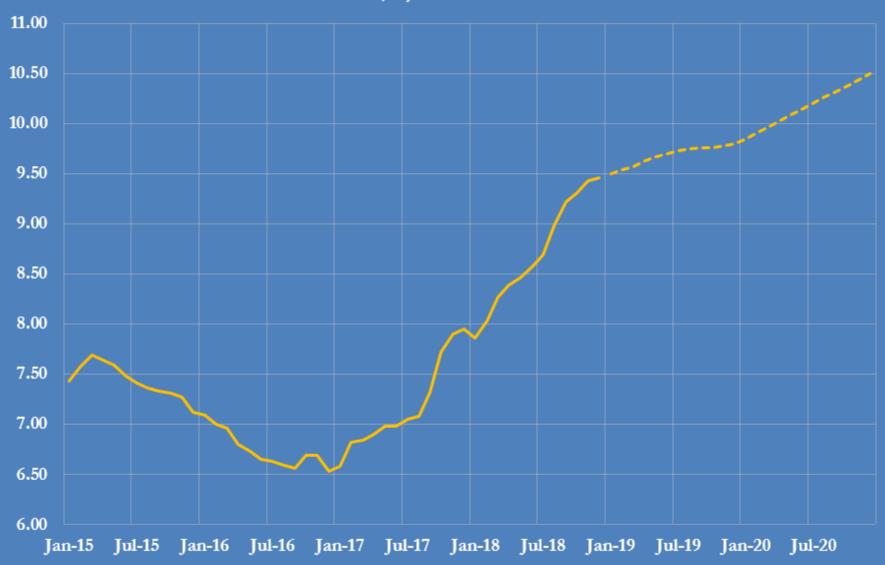


-100 Jan 2014 Jul 2014 Jan 2015 Jul 2015 Jan 2016 Jul 2016 Jan 2017 Jul 2017 Jan 2018 Jul 2018 Jan 2019 Jul 2019

--- U.S. oil rig count (Baker Hughes)

Sources: New York Mercantile Exchange, Baker Hughes; @JKempEnergy

L48 ex Gulf of Mexico crude and condensates production, 2015-2020 million b/d, actual and forecast



Source: U.S. Energy Information Administration "Short-Term Energy Outlook" Jan 2019 @JKempEnergy