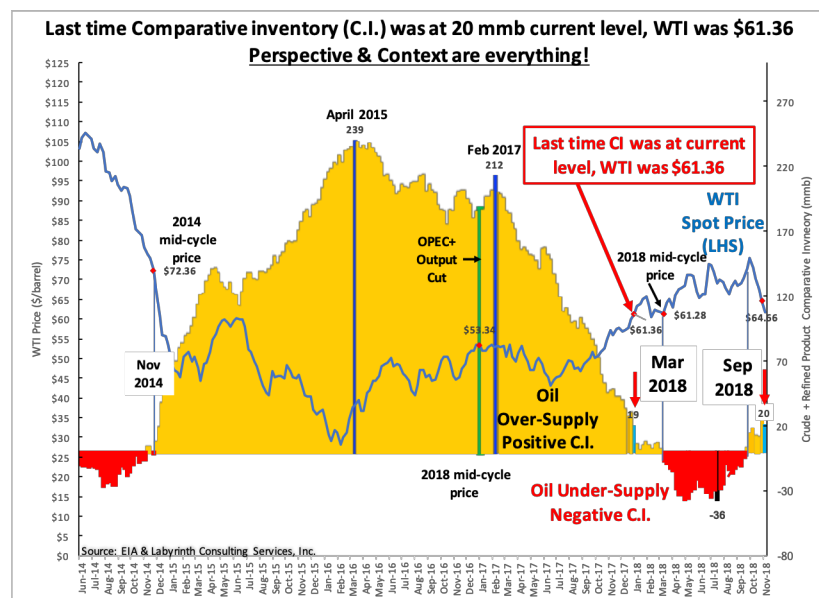
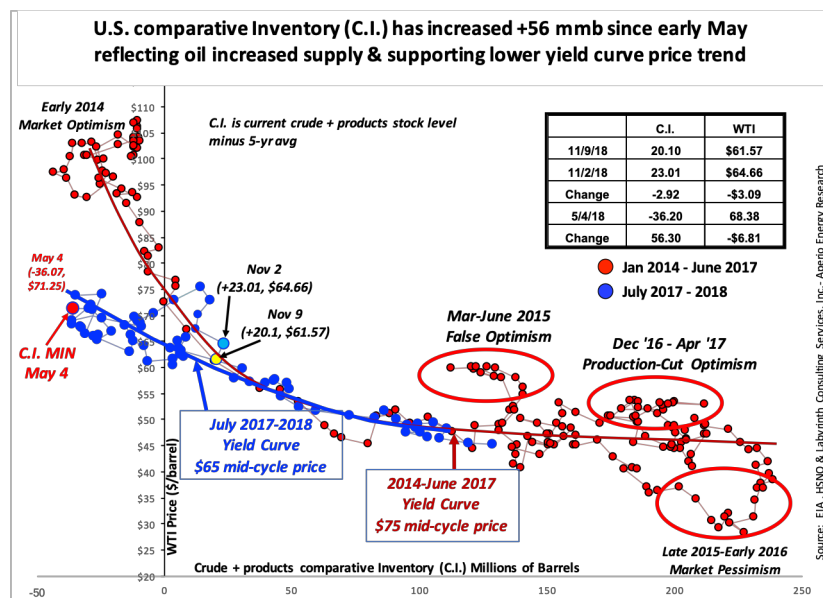


2018 oil-price collapse explained

Art Berman
Labyrinth Consulting Services, Inc.

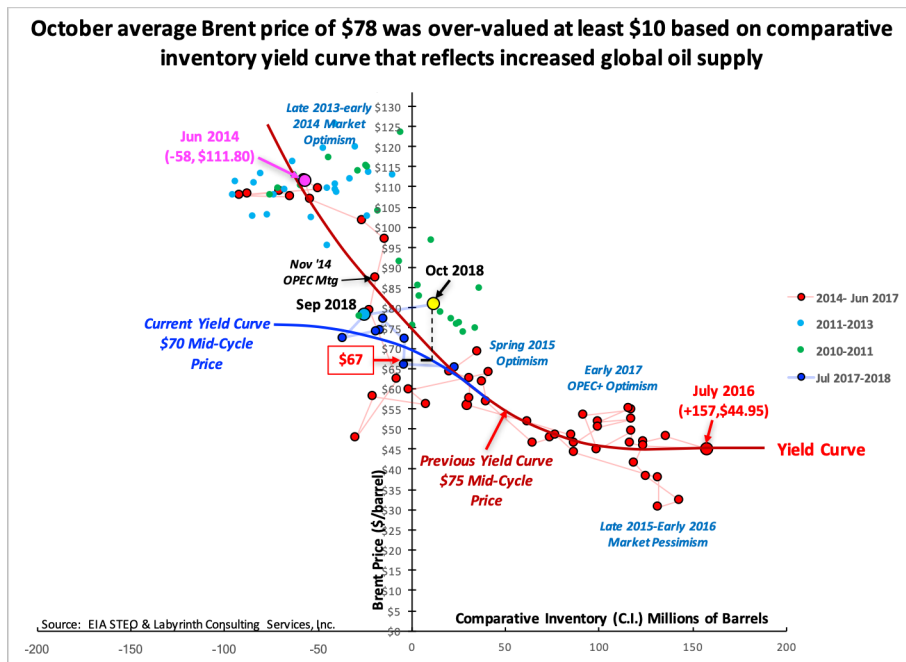
MacroVoices November 20, 2018

Comparative inventory: The most important approach to oil & gas price formation



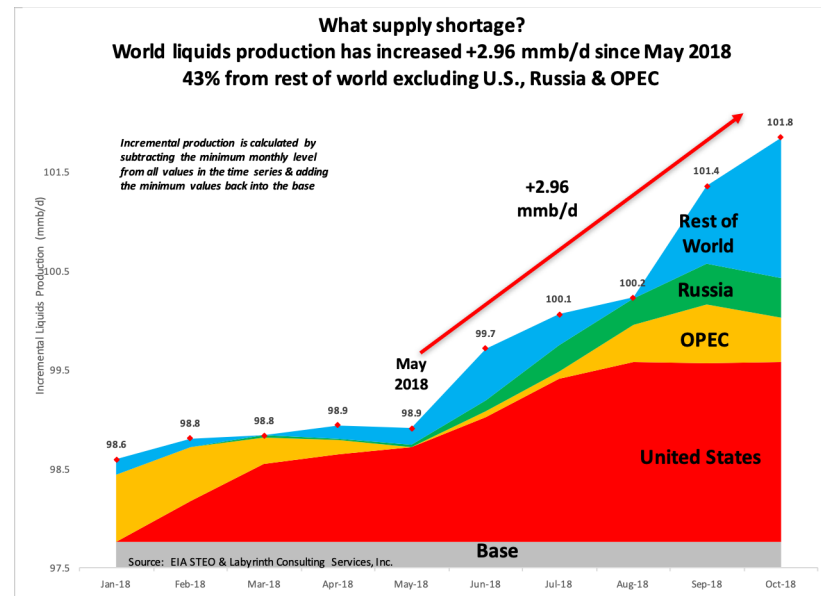
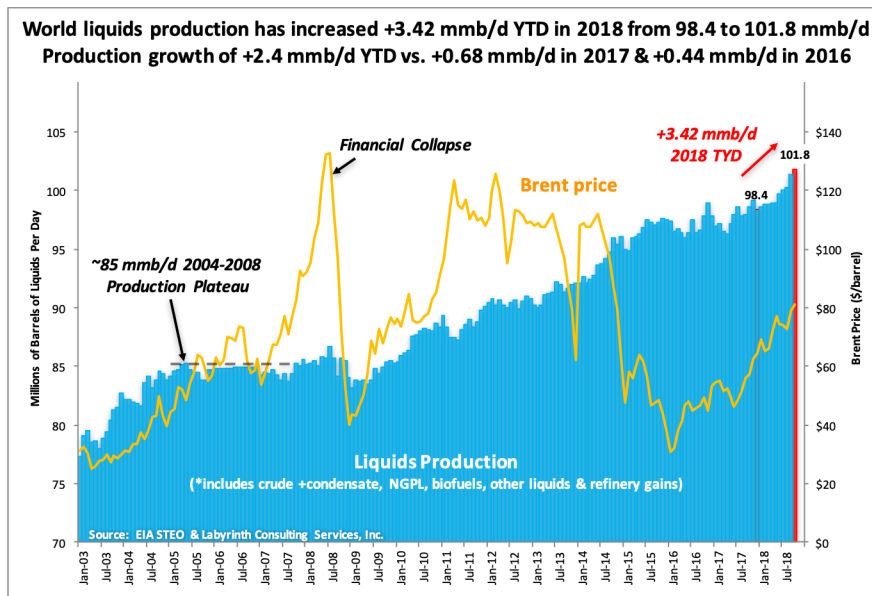
- October-November decrease in oil prices is consistent with comparative inventory context & perspective.
- September-early October WTI price of \$75 was over-valued by ~\$15.
- Market reaction to Iran sanctions was a panic attack not supported by reality.

OECD comparative inventory shows the same pattern as U.S. C.I.



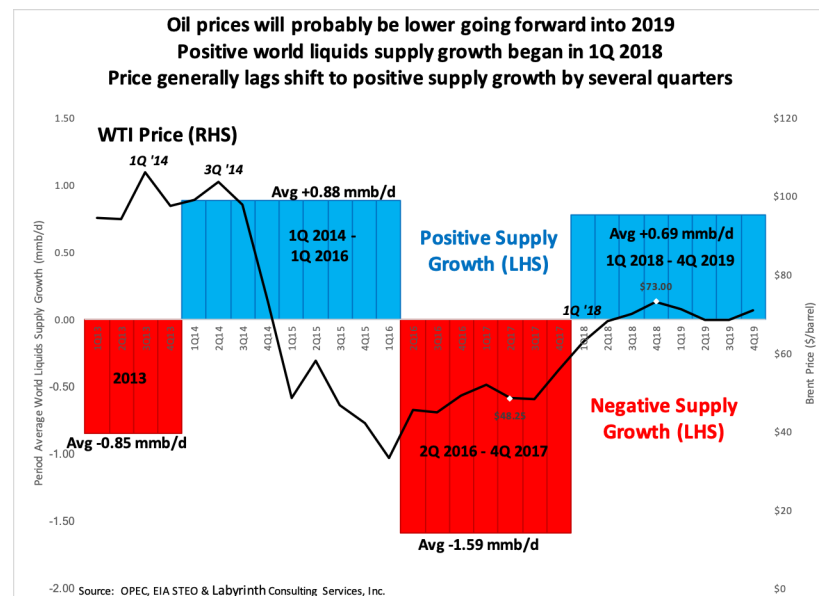
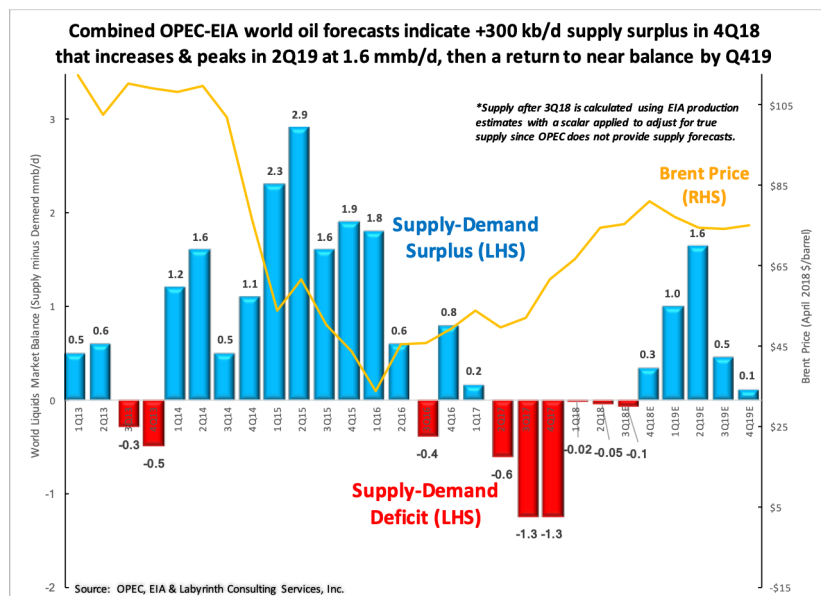
- OECD minus U.S. comparative inventory reflects the same pattern as U.S. C.I.
- October average Brent price of \$78 was over-valued by at least \$10 based on C.I. yield curve.
- C.I. vs Brent price reflects increase in global oil supply.

World supply has increased 3.4 mmb/d in 2018



- World liquids supply has increased 3.4 mmb/d so far in 2018.
- This more than offsets losses from Iran.
- World liquids production has increased almost 3 mmb/d since May.
- Much of the increase has come from countries outside of OPEC+ and the U.S.
- Higher oil prices provide incentive for drilling and more production.

World supply-demand balance suggests over-supply began in early 2018



- World supply-demand data and forecasts suggest that the supply deficit that dominated 2017 oil pricing ended in the 4th quarter of the year.
- Forecasts indicate a 1.6 mmb/d surplus by 2Q 2019 that will move toward balance by year end.
- Supply growth data shows a secular change toward surplus began in early 2018 and should persist through 2019.