

## OIL MARKET REPORT – NOVEMBER 2016

### EXECUTIVE SUMMARY

In November 2016 the crude oil market returned to above \$50 per bbl levels on agreement among OPEC members to cut production in the first half of 2017 to a target of about 32.7 mln bbl / d. The deal was made possible by Saudi Arabia's willingness to support the market at almost any costs. Iran was granted higher quote than its oil production level in October according to second sources. Russia officially pledged to cut by 300 thsd bbl / d, but gradually from record production numbers in November or even December. It seems, for Russia, as for other non-OPEC countries, the cut is nothing more than natural production decline, which was apparently accepted by Saudi Arabia.

Deterioration of market's fundamentals in recent months must have made Saudi Arabia to ease its requirements for the rivals. Higher production in Libya and Nigeria and possible weak demand in China next year are mostly the risks for the price. Traders with short futures positions in the market didn't look any more as concern of OPEC verbal interventions in November as they had before in 2016. Prior to the OPEC meeting on November 30, Saudi Arabia had been persuaded to act by invited to Vienna traders from trading companies, like Vitol, and hedge funds, according to Financial Times. Obviously, Saudi's minister had been convinced that without announcement of the promised deal the price would crush below \$40 per bbl.

Our base-case scenario for the OPEC meeting outcome was about a half of the promised cut to support crude oil price in its trading range from May (\$40 - \$50 per bbl). The full commitment from OPEC was a surprise for the market too and the price went to new highs, but stopped eventually after getting to \$55 per bbl level. Even a surprising attempt to reassure the market from Saudi Arabia by promising more cuts (below psychological 10 mln bbl / d) didn't work as expected. Positive effect was short-lived and the price is still not far from \$50 per bbl.

Waiting for the actual cuts in January, the market remains skeptic. Supply/Demand forecasts by energy agencies have very different outcomes given OPEC/non-OPEC commitment to cut. IEA prediction looks overwhelmingly optimistic: oil stockpiles decline by about 600 thsd bbl / d in the first half of 2017 as curbs by OPEC and its partners take effect.

"Before the agreement among producers, our demand and supply numbers suggested that the market would re-balance by the end of 2017," the Paris-based agency said in its monthly market report. "If OPEC promptly and fully sticks to its production target" and other producers cut as agreed, "the market is likely to move into deficit in the first half of 2017." Oil stockpiles will decline by about 600,000 barrels a day in the next six months as curbs by OPEC and its partners take effect, said the agency, which had previously assumed inventories wouldn't drop until the end of 2017.

The most surprising thing, IEA is looking very positive on oil demand from Russia and China. The agency increased its forecast for global oil demand in 2017 by 100,000 barrels a day. Consumption will rise by 1.3 million barrels a day, or 1.4 percent, to 97.6 million a day:

"Following revisions to Chinese and Russian data, we have raised our 2016 global net demand growth number to 1.4 mbd and that for 2017 to 1.3 mbd."

However, there are significant risks for China demand next year:

- According to consulting agency Energy Aspect, China may lower its program for fulfilling Strategic Petroleum Reserves by 100 thsd bbl / d when the price is above \$50 per bbl.
- Tightening regulation for Chinese teapot refineries may curb oil demand by 400 thsd bbl / d.
- Possibility of trade wars between China and the USA.

The import of crude oil to China in November reached 32.35 mln metric tons (equals to 7.9 mln b / d) according to China's General Administration of customs, pretty high level. But the data do not look so bright taking into consideration the fact that no less than 15% of imported crude oil nowadays China forwards to its SPR. So any delays or temporary suspensions of reserve accumulation process in China may result in significant drop of Chinese demand for crude oil.

Chinese interest to SUV vehicles was encouraged by retail gasoline price fall in 2015 and still has stood at rather high levels. This year each month Chinese citizens bought another roughly 600 thsd of SUVs, so the total amount of these gas-guzzlers in China grows at a very rapid pace. In November number of sold of SUVs in China surged above 1000, possibly another positive signal for IEA to look more positively in 2017.

OECD commercial inventories fell in October for the 3rd month in a row. They have drawn 75mb since record high in July. Global oil demand growth of 1.4 mbd is foreseen for 2016, 120 kb/d above previous forecast.

The stockpile declines will only occur if OPEC reduces supply enough to meet and maintain a target of about 32.7 million barrels a day, the agency said. The organization pumped a record 34.2 million a day in November, according to the IEA.

According to Bloomberg Energy assessments in November 2016 total crude oil stocks stored on floating storages (including oil in transportation) was equal to 148.6 mln bbl, 37.3 mln bbl less than in October 2016 (-20.1% mom) and 7.8 mln bbl above the level a year ago (+5.5% yoy).

OPEC's deal deteriorated contango in oil futures. In particular, 12-months futures to spot spread in Brent crude oil had been decreased by \$1.1 per bbl to \$4.9 per bbl by the end of November. After the deal it fell to about \$3 per bbl, the lowest level from September 2014. U.S. oil producers are believed to hedge actively its production for 2017-2019, putting pressure on the futures curve. Lowering contango is also easily explained by the temporarily effect of OPEC and non-OPEC commitments to cut production. The time of the deal is limited by the first half of 2017. Production ceiling in the second half will be discussed further.

The futures curve illustrates how OPEC short-term support puts some limit on oil price growth potential in the mid-term. Had Saudi Arabia been stronger and stricter in its strategy, the negative effect of low prices on U.S. shale and other high cost producers could have been much more extensive. Saudi Arabia is believed to be satisfied with lower oil production pace of growth in the USA after some negative effect of last two years (+0.5...0.6 mln bbl / d instead of +1...1.2 mln bbl / d). It is yet to be seen.

## 1. MARKET PERFORMANCE

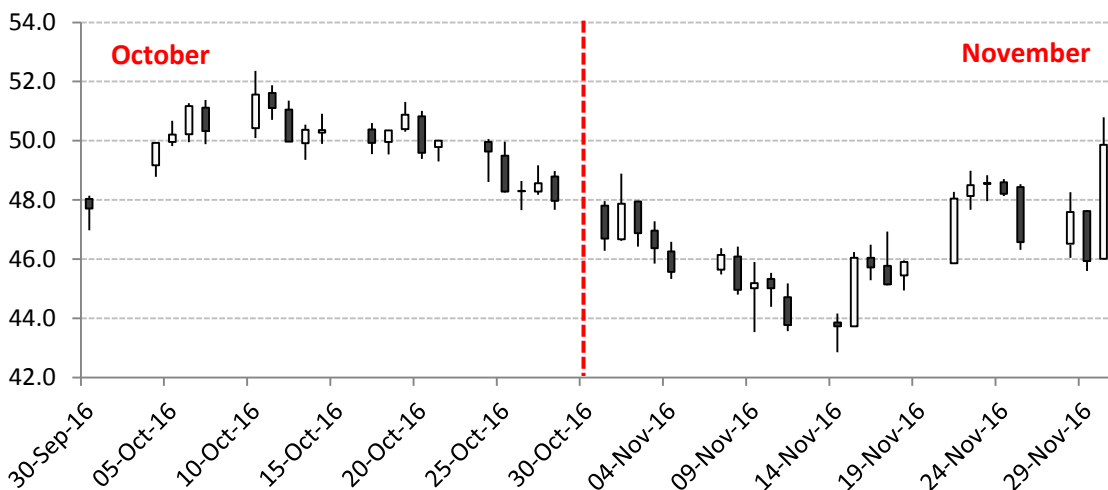
In November 2016 the crude oil market continued side trading within a narrower than a month before range of \$44-50 per bbl. To be more precisely, Brent crude oil spot price grew in the reporting month by \$3.2 per bbl or 6.8% mom, while WTI Cushing crude oil rose in price by as much as \$2.6 per bbl or 5.5% mom. The monthly average Brent spot price (equal to \$46.5 per bbl) in November was more than 6% below October average price level (\$49.6 per bbl). In December up to date the average spot price is above \$53 per bbl.

Volatility on the oil market has been considerably lower in December than in the previous months. Effective monthly trade range of Brent spot price shrank to less than \$3 per bbl (5.6% to average price of \$53) in comparison with about \$5 per bbl range (10% and 13% to average price of \$49.6 and \$46.5 respectively) in October and November.

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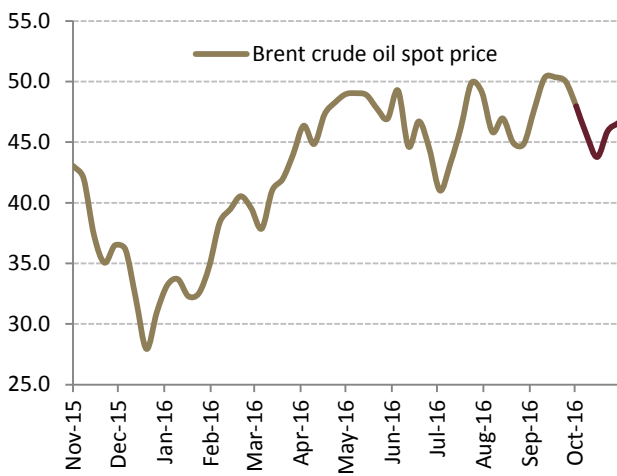
The futures curve illustrates how OPEC short-term support puts some limit on oil price growth potential in the mid-term. Had Saudi Arabia been stronger and stricter in its strategy, the negative effect of low prices on U.S. shale and other high cost producers could have been much more extensive. Saudi Arabia is believed to be satisfied with lower oil production pace of growth in the USA after some negative effect of last two years (+0.5...0.6 mln bbl / d instead of +1...1.2 mln bbl / d). It is yet to be seen.

**Chart 1.1. Brent crude oil price performance over last 2 months, \$ per bbl**



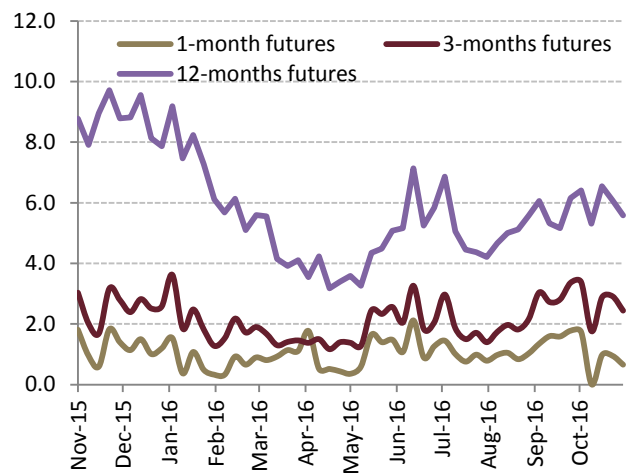
Source: Bloomberg

**Chart 1.2. Brent crude oil price performance over last 12 months, \$ per bbl**



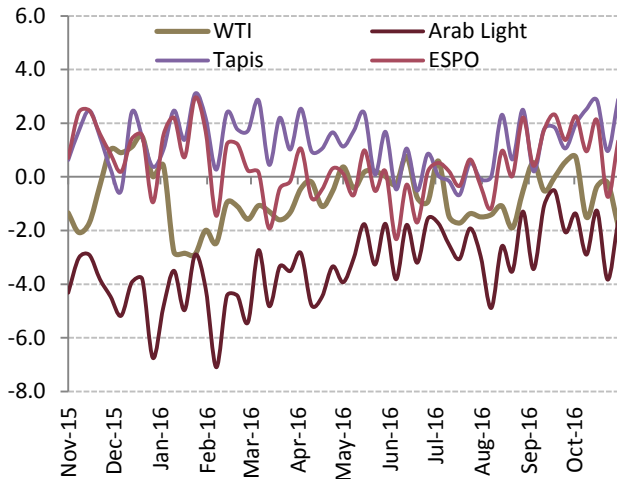
Source: Bloomberg

**Chart 1.3. Contango (+) / backwardation (-) in Brent crude oil futures, \$ per bbl**



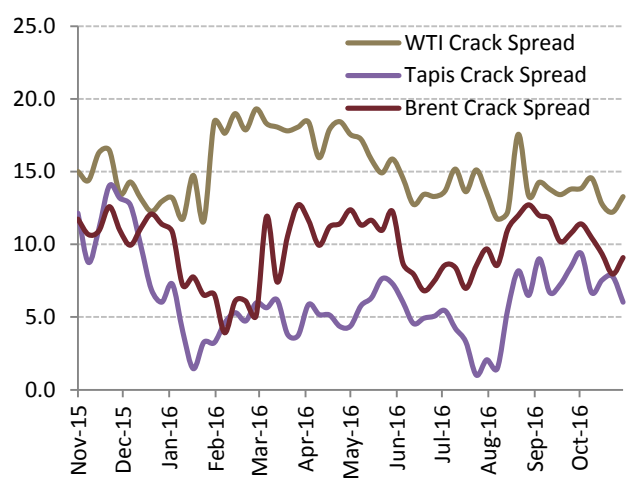
Source: Bloomberg

**Chart 1.4. Crude oil benchmarks premium (+) / discount (-) over Brent crude oil, \$ per bbl**



Source: Bloomberg

**Chart 1.5. Crude oil 321 crack spread, \$ per bbl**



Source: Bloomberg

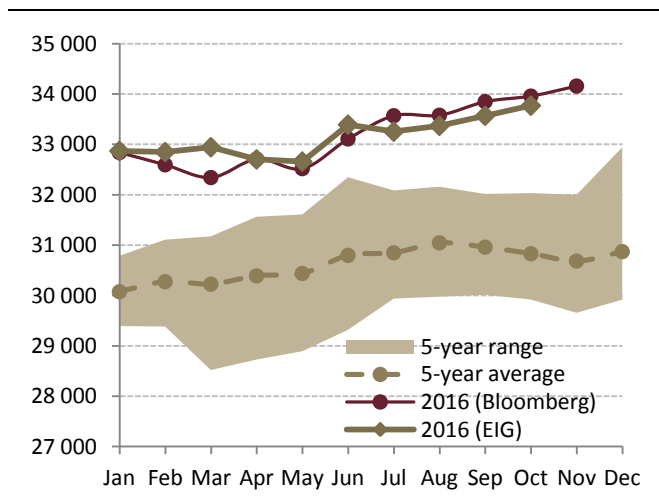
## 2. OPEC PRODUCTION

According to Bloomberg assessments, total OPEC oil production in November grew by another 0.6% mom or 200 thsd bbl / d to new record high of 34.16 mln bbl / d (inc. Indonesia). The largest contribution to the increase in OPEC oil production rising was made by Angola (+170 thsd bbl / d), Libya (+60 thsd bbl / d) and Nigeria (+80 thsd bbl / d), while Saudi Arabia and Venezuela slightly reduced output by 50 and 60 thsd bbl / d respectively.

From a y-o-y basis in November the cartel ramped up its total output by 6.7%. Iran demonstrated the most annual crude oil production growth (+870 thsd bbl / d or 31.1%), followed by Iraq (+259 thsd bbl / d or +6.0%) and Libya (+205 thsd bbl / d or +54.7%). The most significant annual production decrease was observed in Venezuela (-280 thsd bbl / d or -11.9%). Nigeria partly recovered from continuous NDA attacks and leaks, but the decline in the production is still significant (-196 thsd bbl / d or -10.4%). Angola and Qatar also produced less crude oil in September than a year ago.

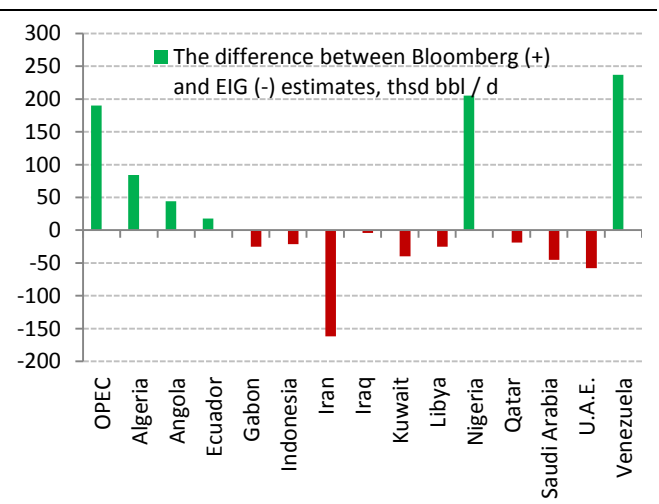
By the same token Energy Intelligence Group (EIG) in November realized its estimates of crude oil production around the world for the previous month (October, 2016). In comparison with earlier October OPEC oil output figures by Bloomberg, EIG evaluated total OPEC production equal to 34.28 mln bbl / d (32 thsd bbl / d more than Bloomberg). In particular EIG printed significantly lower numbers for Venezuela (-177 thsd bbl / d), and Nigeria (-239 thsd bbl / d) relative to Bloomberg ones. Considerable upward assessments was made for Iran (+172 thsd bbl / d), Angola (+203 thsd bbl / d) and Saudi Arabia crude oil output (+95 thsd bbl / d versus Bloomberg).

Chart 2.1. OPEC crude oil output, thsd bbl / d



Source: Bloomberg, EIG

Chart 2.2. Different assessments of OPEC crude oil output in the previous month

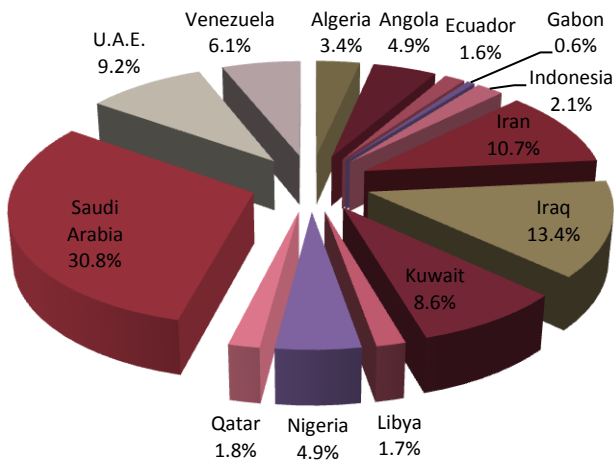


Source: Bloomberg, EIG

In accordance with EIG figures, in October OPEC as a whole increased its share in a world crude oil output by insignificant 2 bps to 41.3%. Generally, despite to continuous output ramping up the OPEC share at global crude oil market has stood close to 41% for 7 months in a row as fierce competition between OPEC and non-OPEC oil producers continued ahead of OPEC's meeting on November 30.

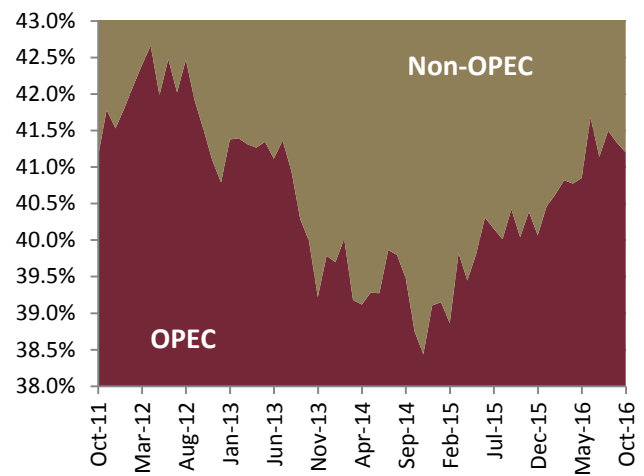
All in all, thanks to its «pump as much oil as possible» strategy OPEC significantly increased its share at world crude oil market from its February, 2016 lows of 38.5% and returned to the pre-crisis status-quo with non-OPEC producers.

**Chart 2.3. OPEC crude oil production structure, by country**



Source: Bloomberg

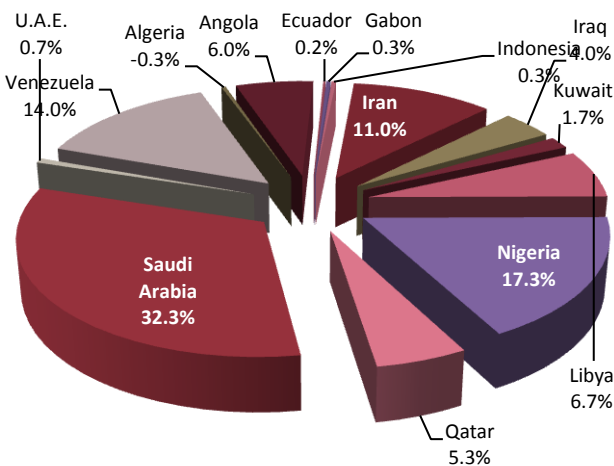
**Chart 2.4. OPEC share, as % of world crude oil production**



Source: EIG

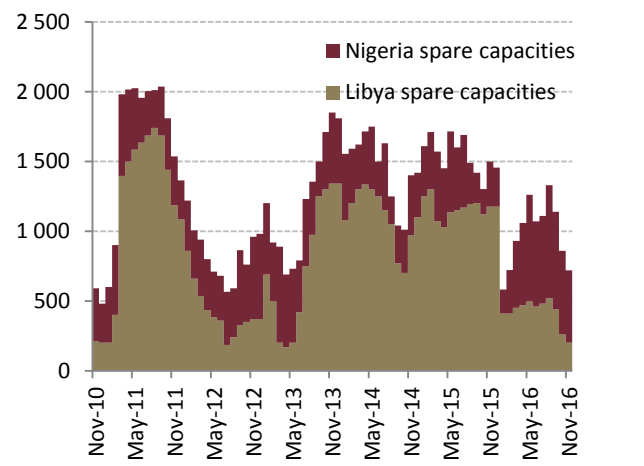
In November the Bloomberg estimated OPEC's total spare capacities at roughly 2.98 mln bbl / d. More than 80% of OPEC's potential to ramp up crude oil production were located just in 5 states, namely Saudi Arabia (970 thsd bbl / d or 32.3% of total), Nigeria (520 thsd bbl / d or 17.3% of total), Libya (200 thsd bbl / d or 6.7% of total), Iran (330 thsd bbl / d or 11.0% of total) and Venezuela (420 thsd bbl / d or 14.0% of total).

**Chart 2.5. OPEC crude oil spare capacities structure, by country**



Source: Bloomberg

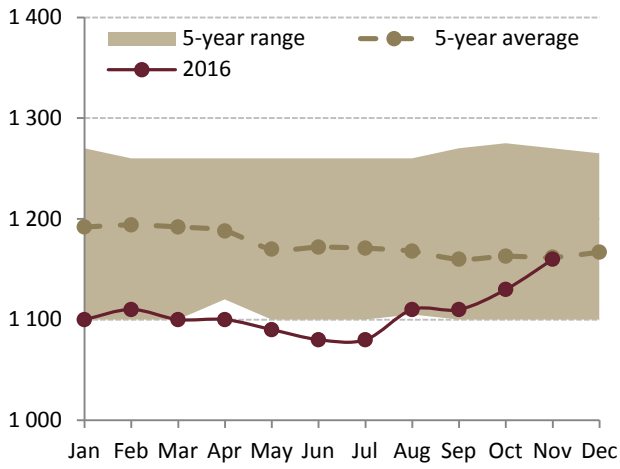
**Chart 2.6. Nigeria & Libya oil production disruptions, thsd bbl / d**



Source: Bloomberg

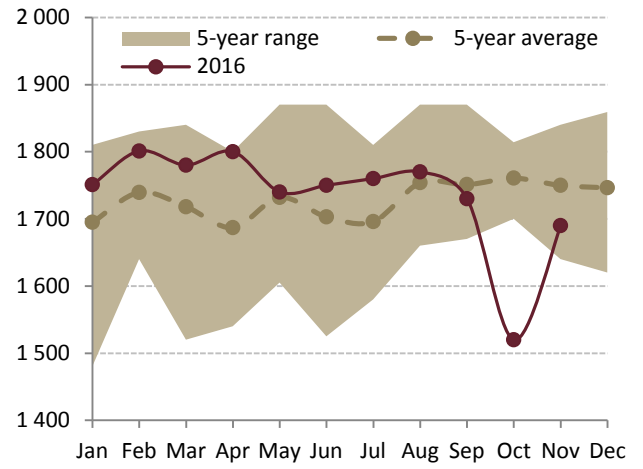
However, all these OPEC's free capacities are not the same. Saudi Arabia has a large room to build up production due to its unique main oil-fields characteristics and historical role of main world oil market balancing producer in the Cartel's strategy. Spare capacities are playing a great role to avoid energy crisis in case of extreme supply disruption. OPEC spare capacities have been narrowing for last two years due to fierce competition for market's share. The most concerning moment for the market is lowered assessment of Saudi Arabia oil production capacity from 12.5 mln bbl / d to 11.5 mln bbl / d in the middle of 2016, according to Bloomberg. If OPEC's cutting in the first half of 2017 is successful, than the concerns about spare capacities will be quite eased.

**Chart 2.7. Algeria crude oil output, thsd bbl / d**



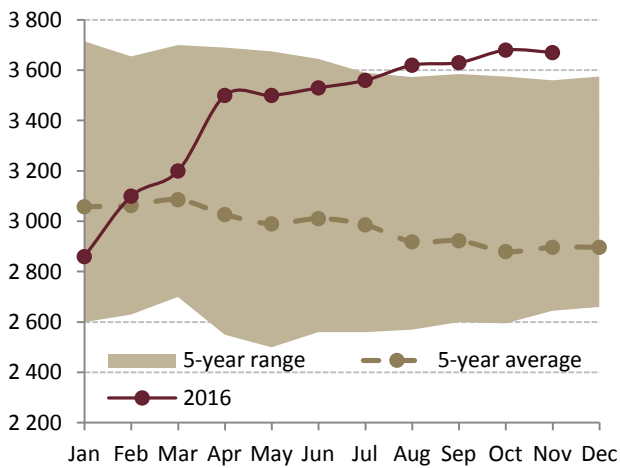
Source: Bloomberg

**Chart 2.8. Angola crude oil output, thsd bbl / d**



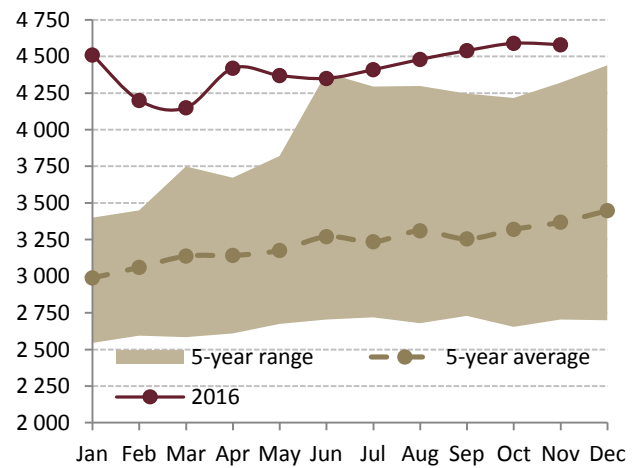
Source: Bloomberg

**Chart 2.9. Iran crude oil output, thsd bbl / d**



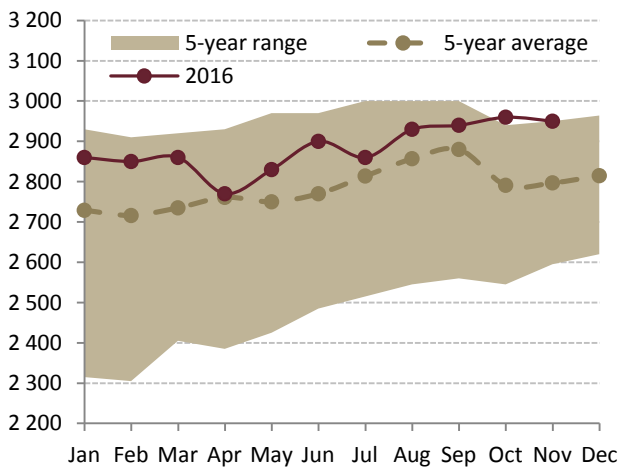
Source: Bloomberg

**Chart 2.10. Iraq crude oil output, thsd bbl / d**



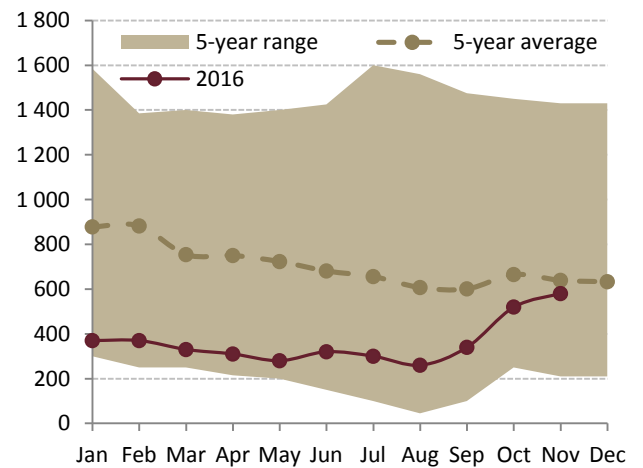
Source: Bloomberg

**Chart 2.11. Kuwait crude oil output, thsd bbl / d**



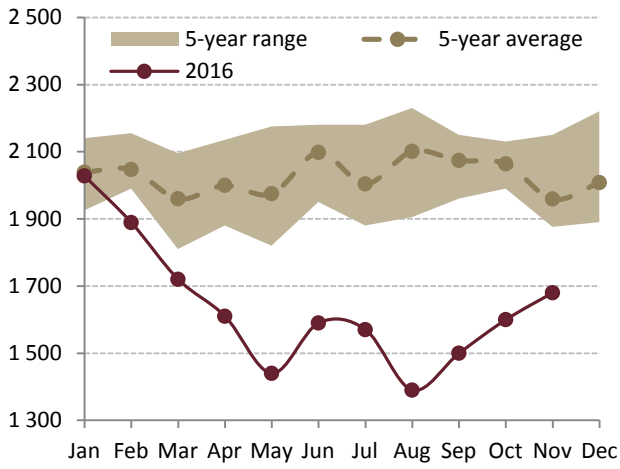
Source: Bloomberg

**Chart 2.12. Libya crude oil output, thsd bbl / d**



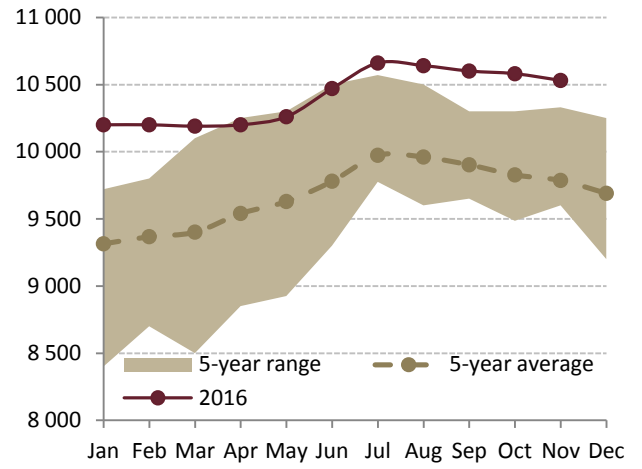
Source: Bloomberg

**Chart 2.13. Nigeria crude oil output, thsd bbl / d**



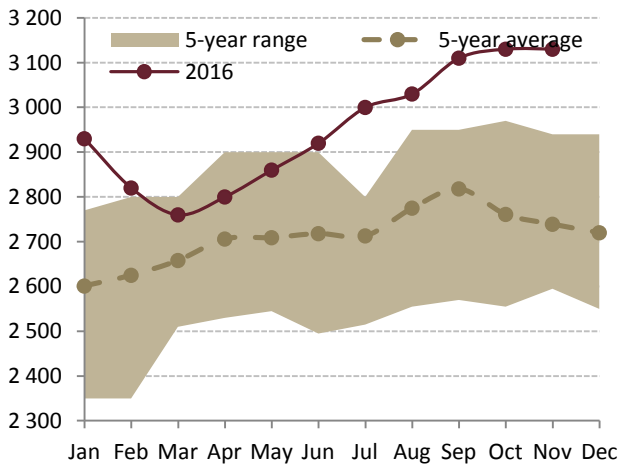
Source: Bloomberg

**Chart 2.14. Saudi Arabia crude oil output, thsd bbl / d**



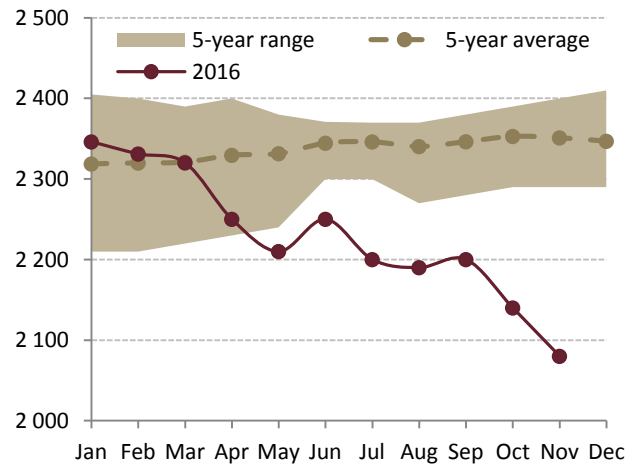
Source: Bloomberg

**Chart 2.15. U.A.E. crude oil output, thsd bbl / d**



Source: Bloomberg

**Chart 2.16. Venezuela crude oil output, thsd bbl / d**



Source: Bloomberg

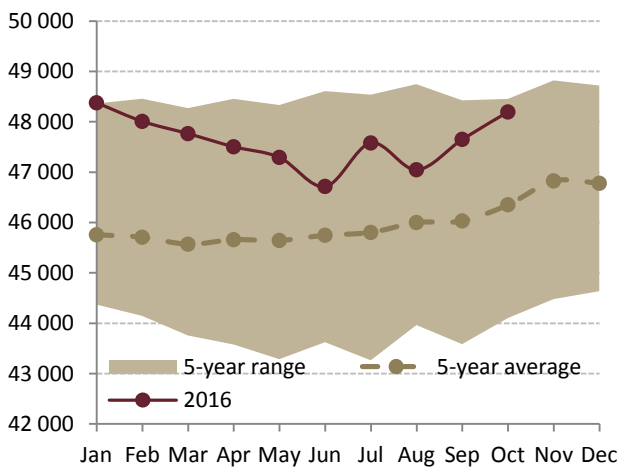


### 3. NON-OPEC PRODUCTION

According to the most recent EIG assessments of worldwide crude oil production total crude oil output in non-OPEC states grew in October by 466 thsd bbl / d or 1.0% to 48.68 mln bbl / d. So October became the 5<sup>th</sup> month in a row of non-OPEC crude oil production increase from the low of 46.94 mln bbl / d printed in May, 2016. Nevertheless, non-OPEC oil production in October was still lower comparing to the records of December, 2014 (49.20 mln bbl / d) and December 2015 (48.84 mln bbl / d). The most considerable production growth in October relative to the previous months among the non-OPEC oil producing countries was achieved in the USA (+137 thsd bbl / d), Russia (+123 thsd bbl / d) and Norway (+161 thsd bbl / d), while the UK was a main cutback with oil output reduce of 21 thsd bbl / d.

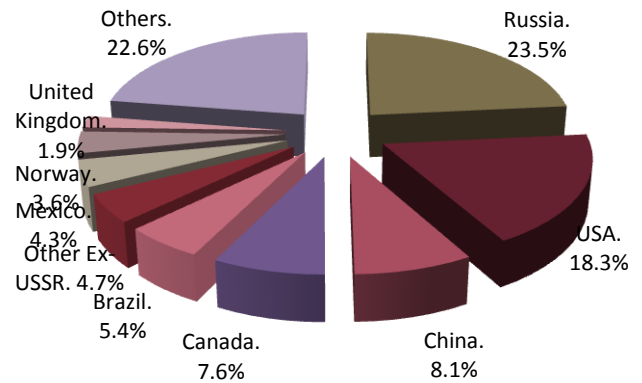
The same time from the longer-term point of view (in terms of y-o-y) non-OPEC crude oil output in October increased by more than 0.26 mln bbl / d or 0.5% with the USA (-534 thsd bbl / d or -5.7% yoy), China (-372 thsd bbl / d or -8.7% yoy) and Mexico (-155 thsd bbl / d or -6.8% yoy) being the main down players. Overall increase in oil output was made possible due to annual production growth in Russia (+489 thsd bbl / d or +4.5%) and the North Sea, where crude oil production in Norway rose by 114 thsd bbl / d. Other non-OPEC oil-extracting countries with positive annual output change in October were Brazil and Malaysia with addition of 256 thsd bbl / d and 76 thsd bbl / d respectively.

**Chart 3.1. Non-OPEC crude oil output, thsd bbl / d**



Source: EIG

**Chart 3.2. Non-OPEC crude oil production structure, by country**



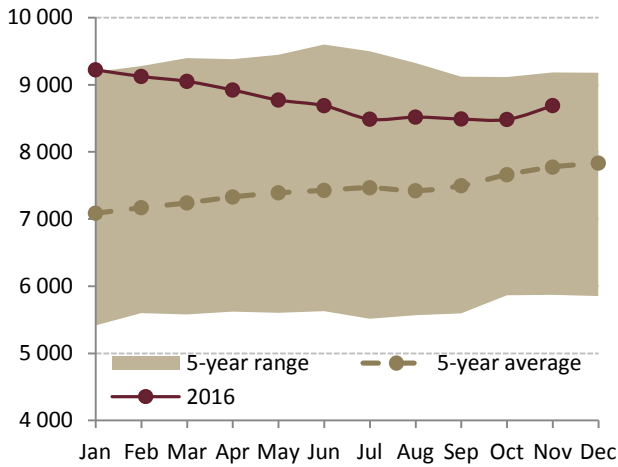
Source: EIG

#### USA

Crude oil production in the USA significantly increased in November by 206 thsd bbl / d or 2.4% in comparison with October data and decreased by 493 thsd bbl / d or 5.4% in comparison with November 2015 figures. According to the most recent EIG data, the USA was accounted for 10.61% of global crude oil output that is nearly 150 bps lower relative to the record high of 12.20% printed in February 2015. The same time natural gas liquids (NGL) production in the USA in November fell by 185 thsd bbl / d or 5.2% on the month-to-month basis and grew by 80 thsd bbl / d or 2.4% on the year-on-year basis. Crude oil net imports from the US in November grew by 5.2% mom to 7.29 bn bbl /d, while crude oil exports slightly increased to 459 thsd bbl / d comparing to 435 thsd bbl / d in October. Oil products exports to the US in November raised by 543 thsd bbl / d or 16.1% mom, while net

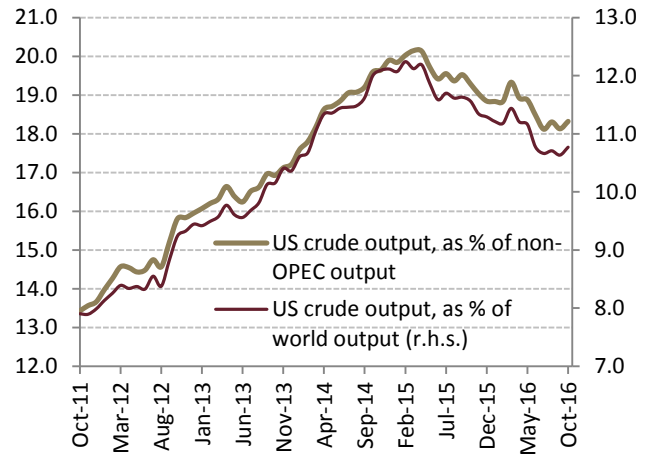
imports of refined oil products from the US in September declined by 313 thsd bbl / d.

**Chart 3.3. USA crude oil production, thsd bbl / d**



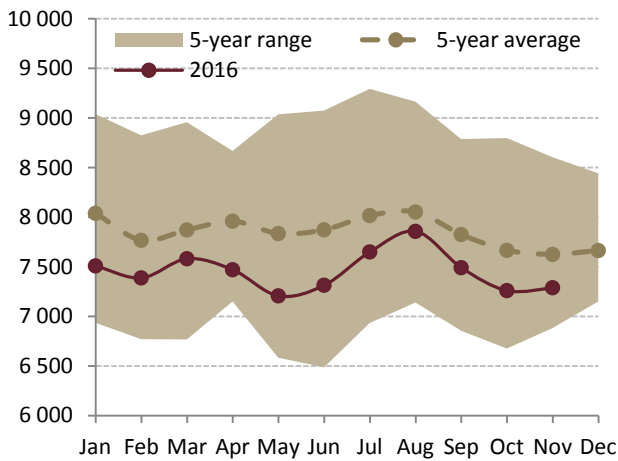
Source: DOE

**Chart 3.4. The share of the USA in oil production, %**



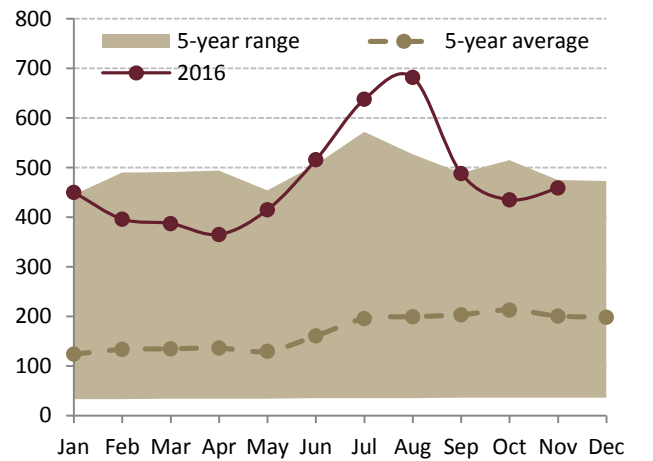
Source: EIG

**Chart 3.5. USA crude oil net import, thsd bbl / d**



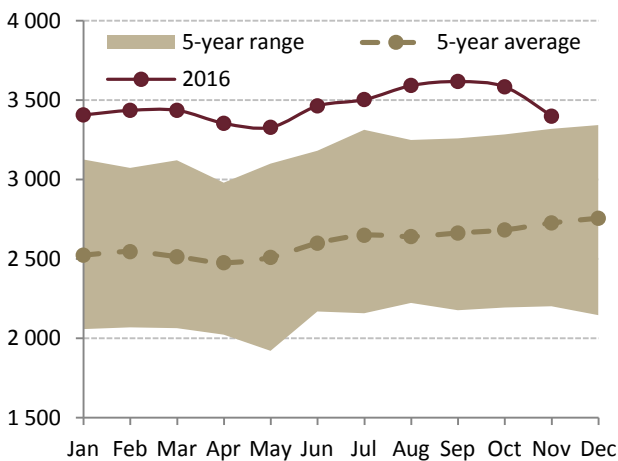
Source: DOE

**Chart 3.6. USA crude oil export, thsd bbl / d**



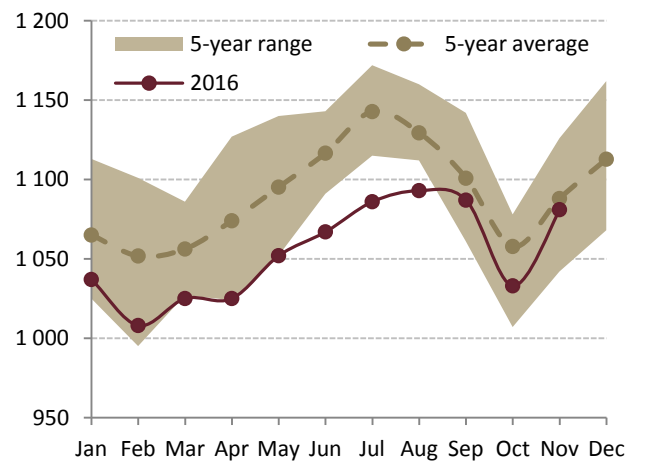
Source: DOE

**Chart 3.7. USA NGL production, thsd bbl / day**



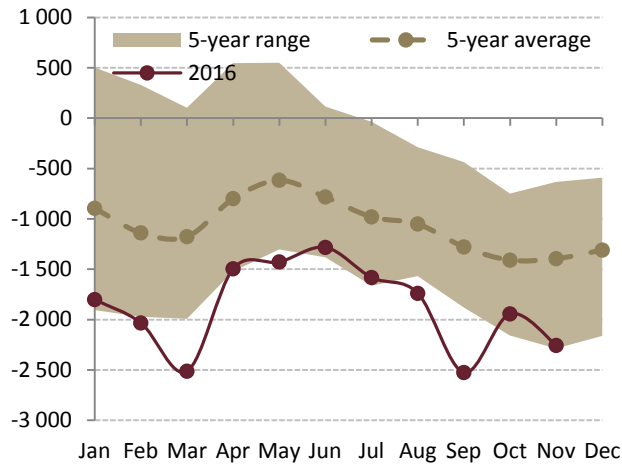
Source: DOE

**Chart 3.8. USA oil processing gain, thsd bbl / day**



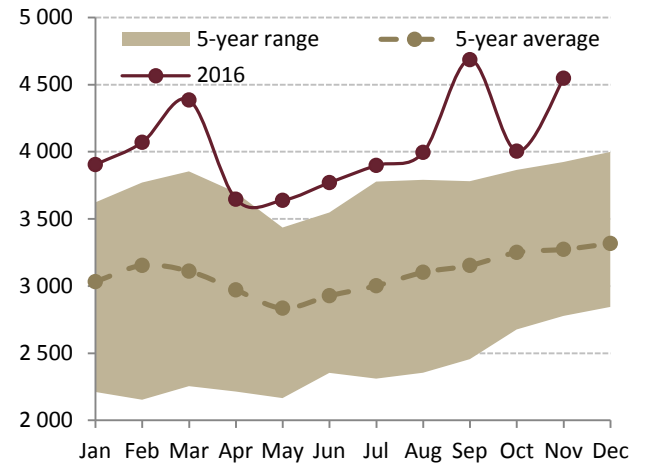
Source: DOE

**Chart 3.9. USA oil product net import, thsd bbl / d**



Source: DOE

**Chart 3.10. USA oil product export, thsd bbl / d**



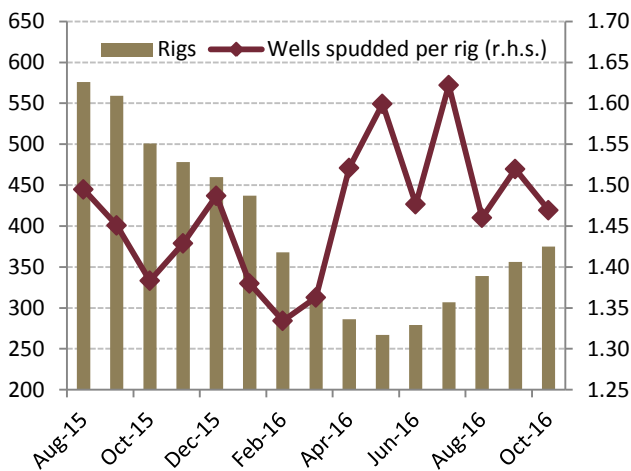
Source: DOE

Total production of shale oil in the US in November reduced by insignificant 33 thsd bbl /d over against October data, but on the year-on-year basis the decline rate was much higher and was equal to 8.8% or 481 thsd bbl / d.

The most output contraction was observed on the Eagle Ford deposit, where crude oil production in November decreased both on month-to-month and year-on-year basis by 1.7% and 25.0% respectively. Significant annual output shrinkage was also detected on the Bakken deposit, where crude oil extraction in November 2016 was 13.0% lower than a year ago.

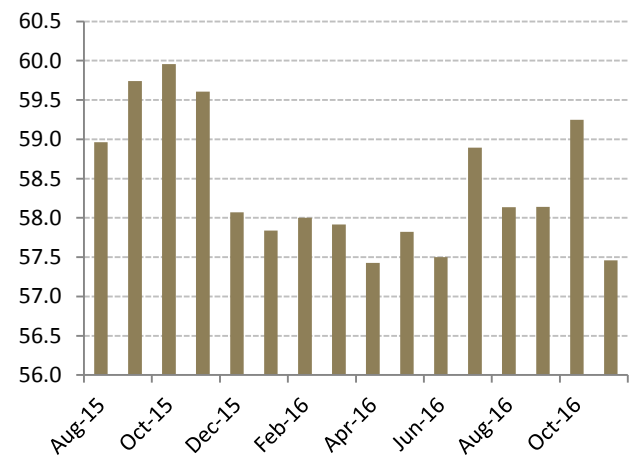
However, crude oil production on the largest shale oil deposit, namely Permian, in November was roughly flat in m-o-m with some rise annually and was equal to 2.07 bn bbl / d. It seems that the Permian deposit has a relatively low total cost of oil extraction (including drilling) regarding other US shale oil deposit, so on average it's profitable to pump oil here even at current (\$40-50 per bbl range) oil prices. So, total oil production on the Permian deposit demonstrates no decline on opposite to Eagle Ford, Bakken etc.

**Chart 3.11. USA rigs and wells spudded**



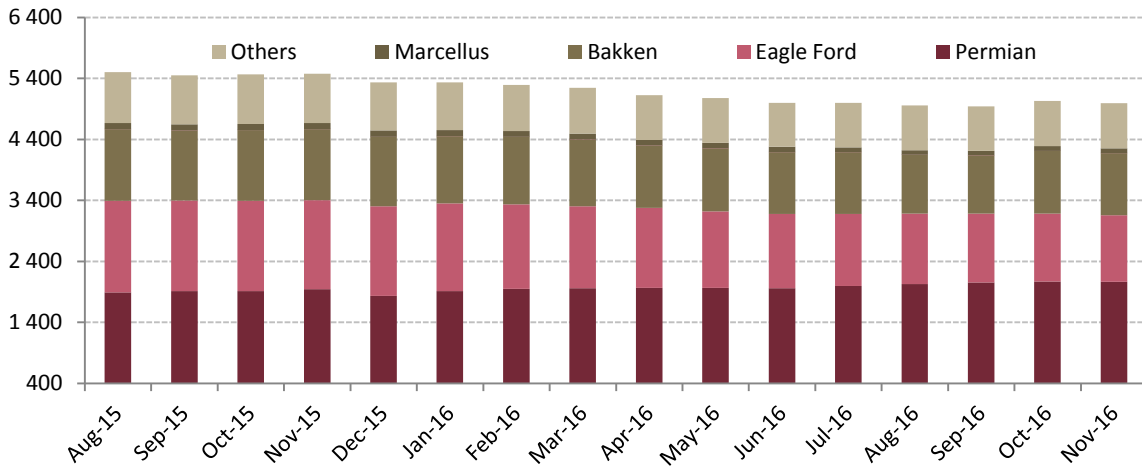
Source: DOE

**Chart 3.12. Shale oil production, as % of total US crude oil output**



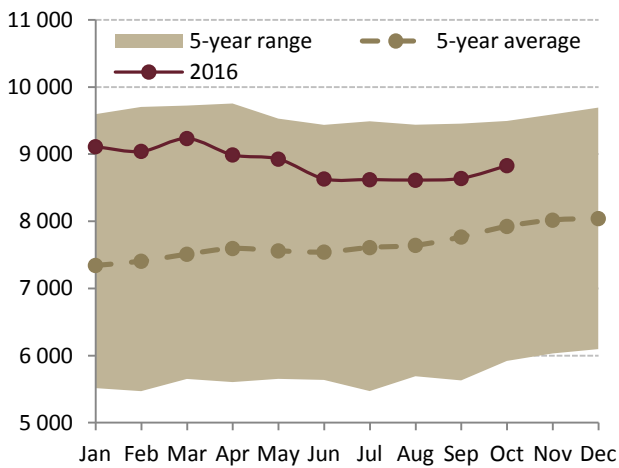
Source: Rystad Energy, Bloomberg

**Chart 3.13. USA shale oil production by regions, thsd bbl / d**



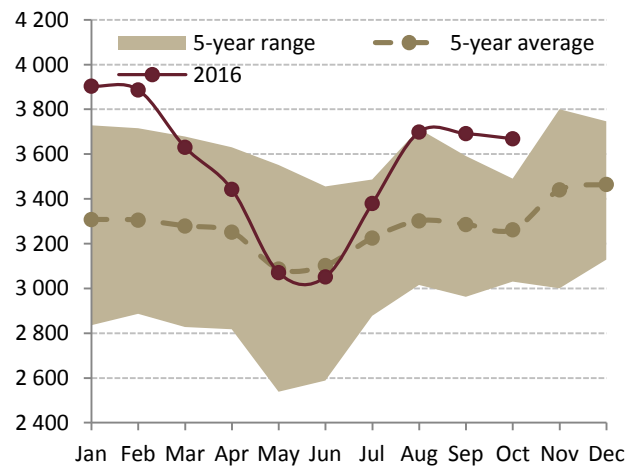
Source: Rystad Energy, Bloomberg

**Chart 3.14. USA crude oil output, thsd bbl / d**



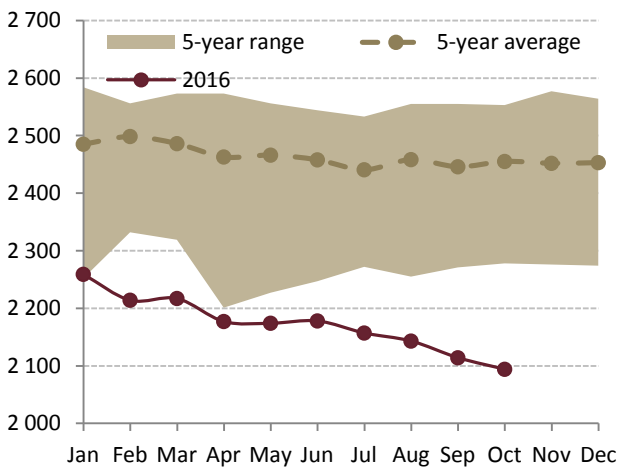
Source: EIG

**Chart 3.15. Canada crude oil output, thsd bbl / d**



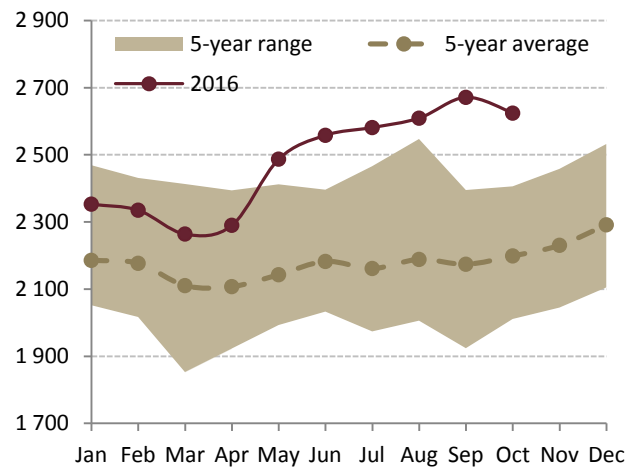
Source: EIG

**Chart 3.16. Mexico crude oil output, thsd bbl / d**



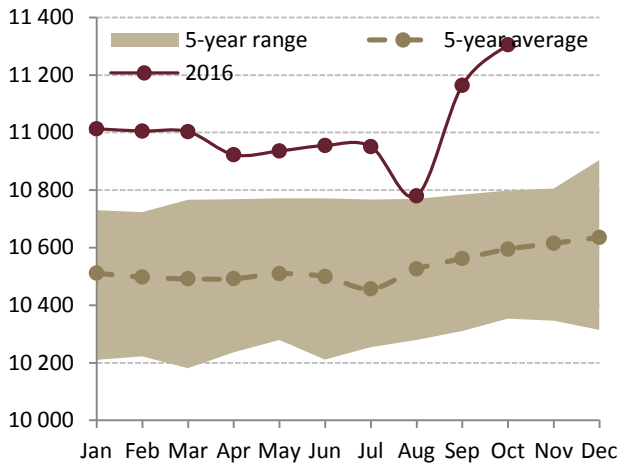
Source: EIG

**Chart 3.17. Brazil crude oil output, thsd bbl / d**



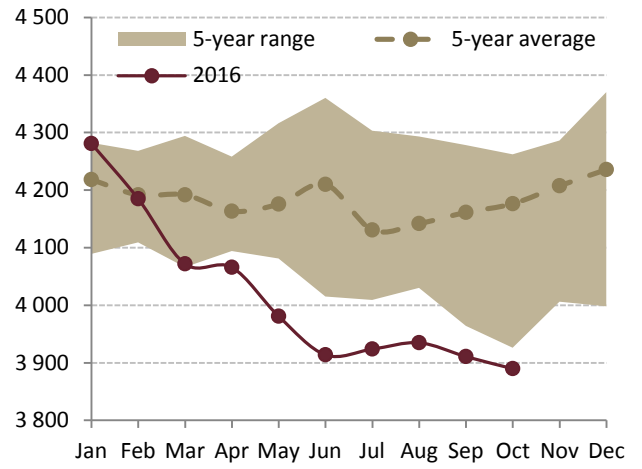
Source: EIG

**Chart 3.18. Russia crude oil output, thsd bbl / d**



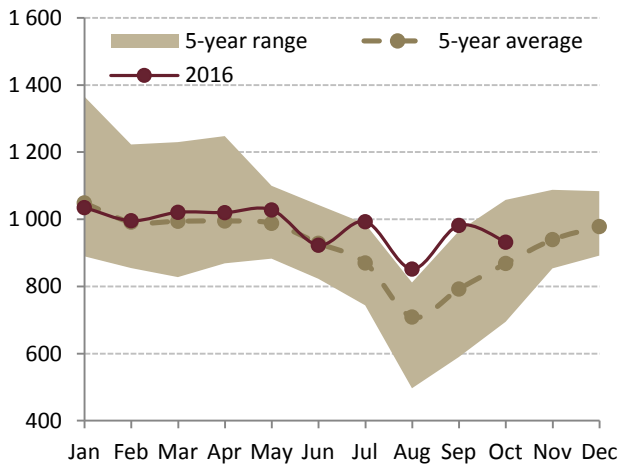
Source: EIG

**Chart 3.19. China crude oil output, thsd bbl / d**



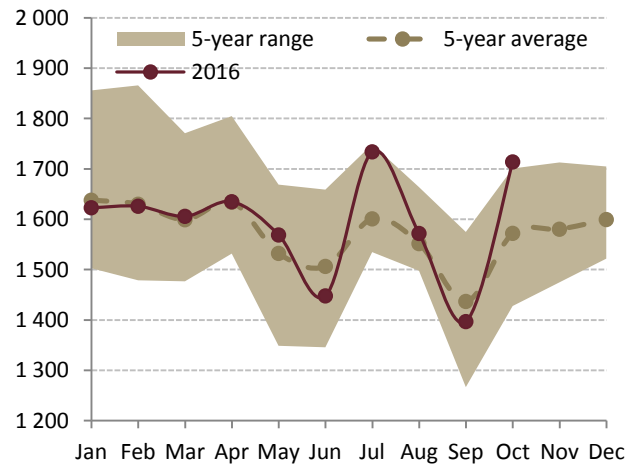
Source: EIG

**Chart 3.20. UK crude oil output, thsd bbl / d**



Source: EIG

**Chart 3.21. Norway crude oil output, thsd bbl / d**



Source: EIG

## 4. DEMAND

### Global

There was a little new information regarding global oil demand in November as IEA refreshes its world oil demand estimations on quarterly basis. So the most up-to-date EIA's data on global oil demand is now figures for the 3<sup>rd</sup> quarter of 2016.

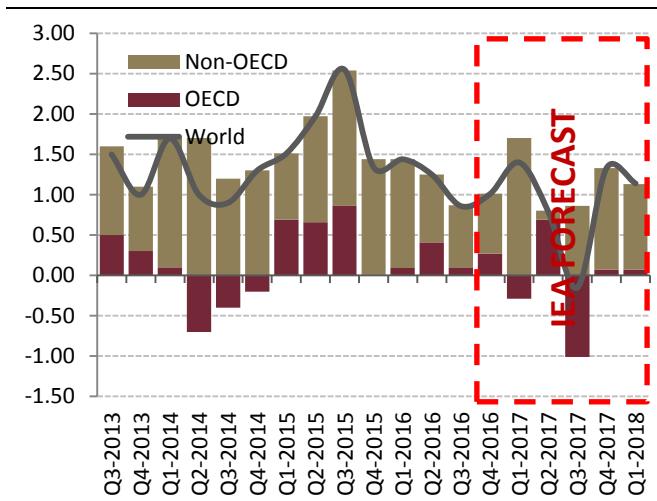
According to these EIA's numbers total world demand for oil in the 3<sup>rd</sup> quarter increased by 1190 thsd bbl / d or 1.2% over against the 2<sup>nd</sup> quarter of 2016. Comparing to the 3<sup>rd</sup> quarter of 2015 global demand for oil grew by 0.86 mln bbl / d or 0.9%, partly encouraged by relatively low oil prices. The main source of global oil demand growth in the latest EIA reported quarter was OECD countries whose aggregate demand raised by 990 thsd bbl / d (+2.2% qoq), while the demand from non-OECD states rose by 200 thsd bbl / d (+0.4% qoq). Interestingly on the year-on-year basis OECD and non-OECD countries in the 3<sup>rd</sup> quarter of 2016 showed different pace of growth of 0.2% and 1.6% respectively.

As for demand from single states and regions, the most significant demand shrinkage in the 3<sup>rd</sup> quarter was observed in China and India, where demand for oil dropped by 270 thsd bbl / d (-2.3% qoq / + 0.1% yoy) and 280 thsd bbl / d (-6.5% qoq / + 4.9% yoy). Also negative demand tendencies had a place in Africa (-110 thsd bbl / d or -2.6% qoq). The same time among the OECD states in the 3<sup>rd</sup> quarter of 2016 demand for crude oil increased in Europe by 410 thsd bbl / d (+2.9% qoq / +1.2% yoy).

Surprisingly, given 3<sup>rd</sup> quarter statistics, IEA found positive signs for demand in China, increasing forecast for 2017. The agency increased its forecast for global oil demand in 2017 by 100,000 barrels a day. Consumption will rise by 1.3 million barrels a day, or 1.4 percent, to 97.6 million a day:

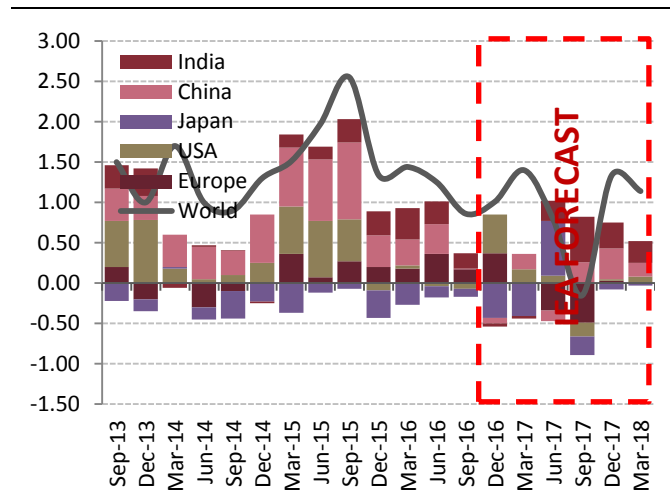
“Following revisions to Chinese and Russian data, we have raised our 2016 global net demand growth number to 1.4 mbd and that for 2017 to 1.3 mbd.”

Chart 4.1. World oil demand yoy change, mln bbl / d



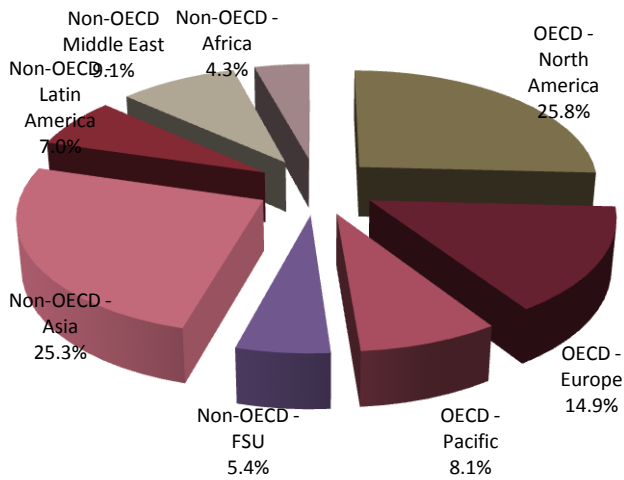
Source: IEA

Chart 4.2. Regional oil demand yoy change, mln bbl / d



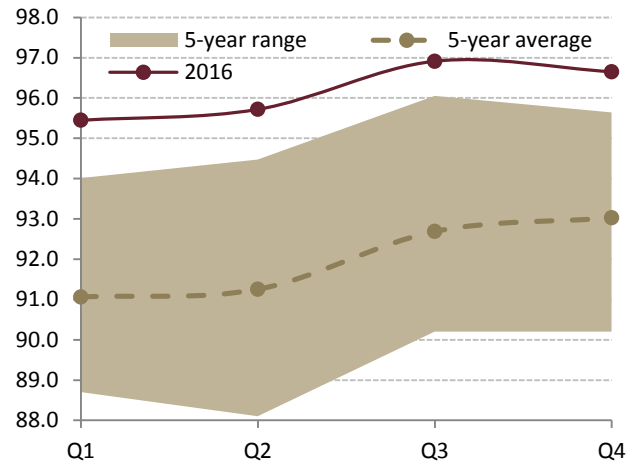
Source: IEA

**Chart 4.3. World oil demand structure, by region**



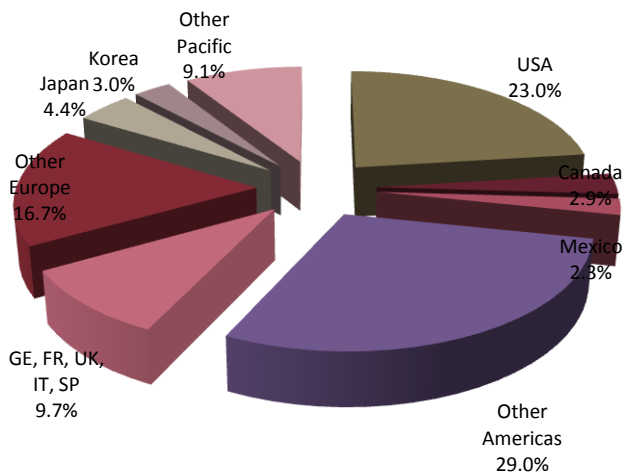
Source: IEA

**Chart 4.4 World crude oil demand, mln bbl / d**



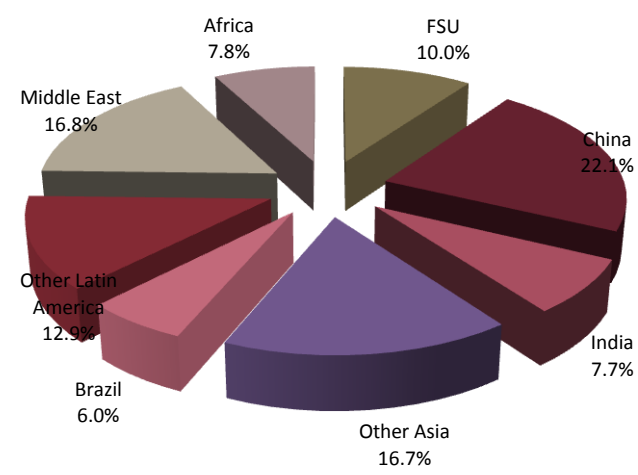
Source: IEA

**Chart 4.5. OECD oil demand structure, by country**



Source: IEA

**Chart 4.6. Non-OECD oil demand structure, by country**



Source: IEA

## China

Total apparent demand for oil in China in November slightly lowered by 91 kbd or 0.9% mom, but increased comparing to prior year by 300 kbd or 2.2% yoy. Perhaps return to yoy rising in apparent demand in October and November made IEA to look more positively on China demand in 2017.

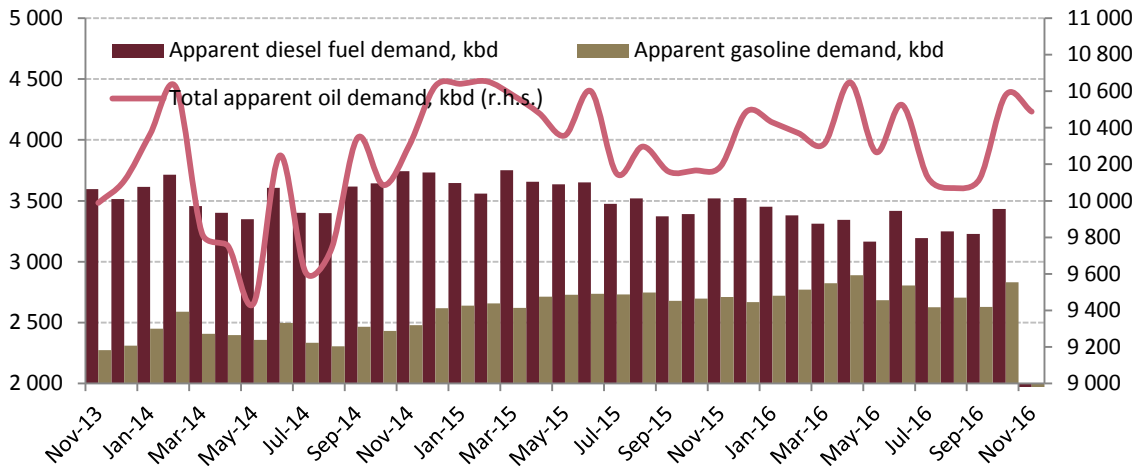
The import of crude oil to China in November reached 32.35 mln metric tons (equals to 7.9 mln b / d) according to China's General Administration of customs, pretty high level. But the data do not look so bright taking into consideration the fact that no less than 15% of imported crude oil nowadays China forwards to its SPR. So any delays or temporary suspensions of reserve accumulation process in China may result in significant drop of Chinese demand for crude oil.

Chinese interest to SUV vehicles was encouraged by retail gasoline price fall in 2015 and still has stood at rather high levels. This year each month Chinese citizens bought another roughly 600 thsd of SUVs, so the total amount of these gas-guzzlers in China grows at a

very rapid pace. In November number of sold of SUVs in China surged above 1000, possibly another positive signal for IEA to look more positively in 2017.

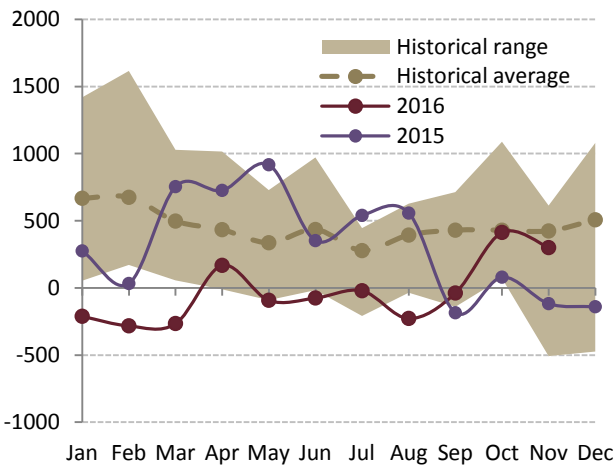
The same time Chinese refineries in November increased export of oil products by 780 thsd metric tons. China exported in this November roughly 18% higher volumes of oil products than a year ago.

**Chart 4.7. Chinese apparent oil demand, thsd barrels per day**



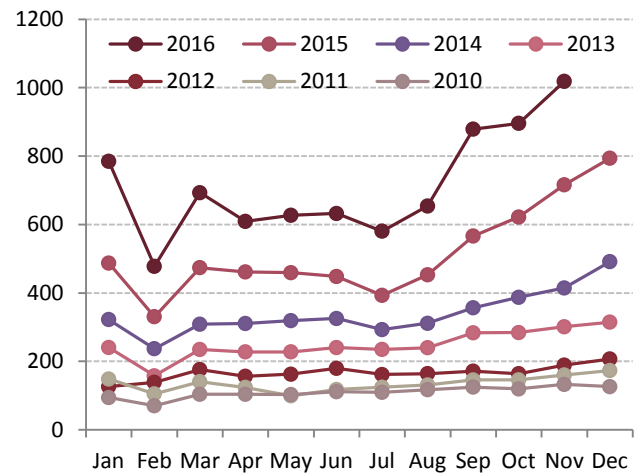
Source: National Bureau of Statistics of China, Customs General Administration PRC, Bloomberg

**Chart 4.8. Annual changes in Chinese apparent oil demand, thsd bbl / d**



Source: National Bureau of Statistics of China, Customs General Administration PRC, Bloomberg

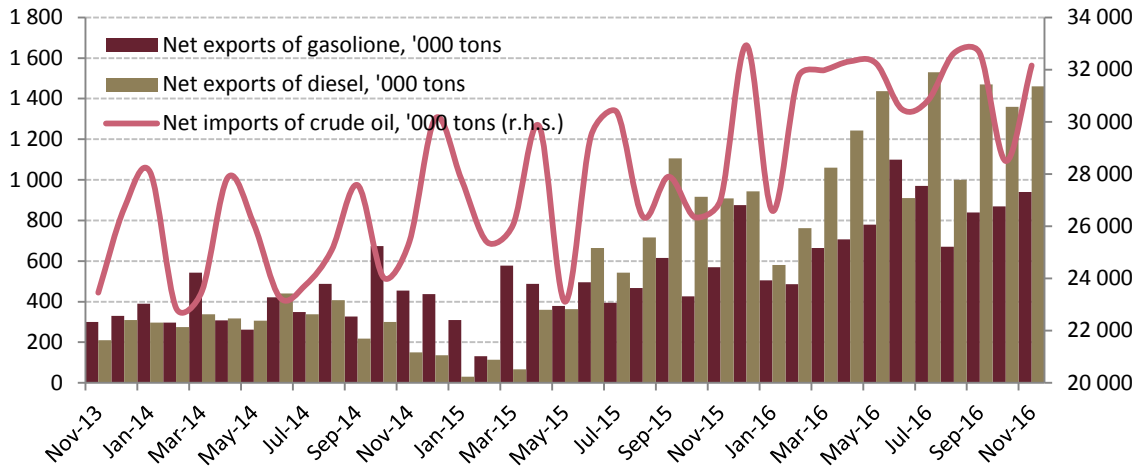
**Chart 4.9. Chinese SUVs sales, thsd vehicles**



Source: China Passenger Car Association, Bloomberg



Chart 4.10. China crude oil net imports Vs net exports of gasoline & diesel



Source: Customs General Administration PRC, Bloomberg

## 5. INVENTORIES

Pursuant to the most recent IEA monthly report, total OECD commercial oil stocks dropped in September 2016 (the last reported month on oil stocks) by 17.1 mln bbl (-0.6%). The most part of the decrease were the result of total oil products inventories drop by 12.2 mln bbl (-0.8% mom), while total OECD crude oil stocks were fell by 1.7 mln bbl (-0.1% mom). The same time in comparison with a year ago figures total OECD commercial oil stocks in September 2016 jumped on 113.8 mln bbl or 3.9% yoy with crude oil stocks grew by 52.3 mln bbl (+4.6% yoy) and oil products stocks increased by 113.8 mln bbl (+3.9% yoy).

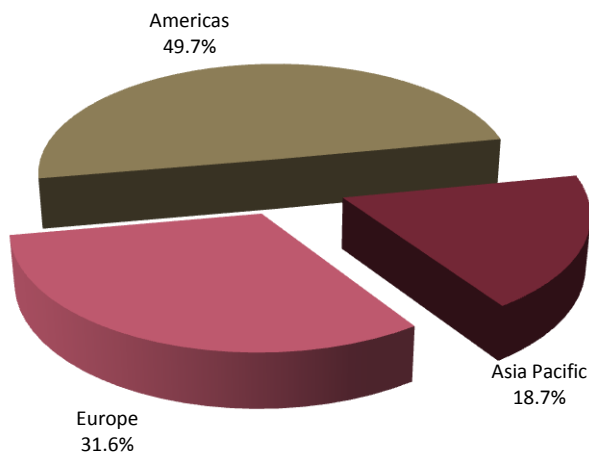
From the standpoint of the regional structure of oil inventories the weakest situation in September was observed in the Pacific region, where crude oil stocks surged by 11.4 mln bbl sequentially and slightly fell y-o-y by 2.1 mln bbl. In the Americas region crude oil stocks fell 14.5 mln bbl m-o-m and rose 38.4 mln bbl or 6.6% yoy, while stocks of refined oil products added 2.5 mln bbl (+0.3%) on m-o-m and 38.2 mln bbl (+5.0%) on y-o-y basis. Stocks of crude oil in Europe in September rose both in m-o-m and y-o-y terms on 1.4 mln bbl (+0.4% mom) and 16.0 mln bbl (+4.7% yoy) respectively. However these crude oil inventories increase was partly offset by drop of refined oil products stocks on 10.4 mln bbl (-1.4%) m-o-m.

As for the by-product inventories structure, the largest decline in OECD inventories in September was noticed in heavy fuel that stocks fell by 3.2 mln bbl (-2.4%) monthly and 6.3 mln bbl (-4.5%) yearly. The smallest monthly stocks decline took place in distillates, but it grew 40.8 mln bbl or 6.9% comparing to last year figure. Gasoline OECD stocks decreased by 2.7 mln bbl (-0.7%) comparing to August 2016, but went up 5.9 mln bbl (+1.6%) relative to September 2015.

To sum these all up we should conclude that global oil inventories in highly developed states (OECD) are still on very elevated levels.

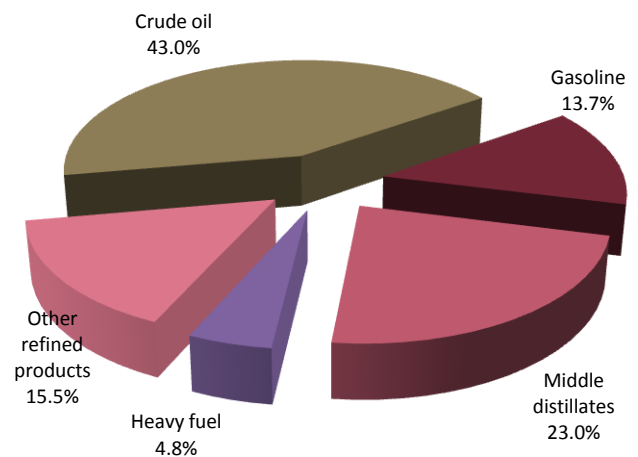
That's why we see limited upside on crude oil market from current levels as these large inventories will be an additional pressure for the market for the prolonged period of time even when supply and demand for crude oil will be finally balanced. And this is expected only in the second half of 2017 (or likely earlier with full realization of the cut from OPEC and non-OPEC countries).

**Chart 5.1. OECD oil stocks structure, by country**



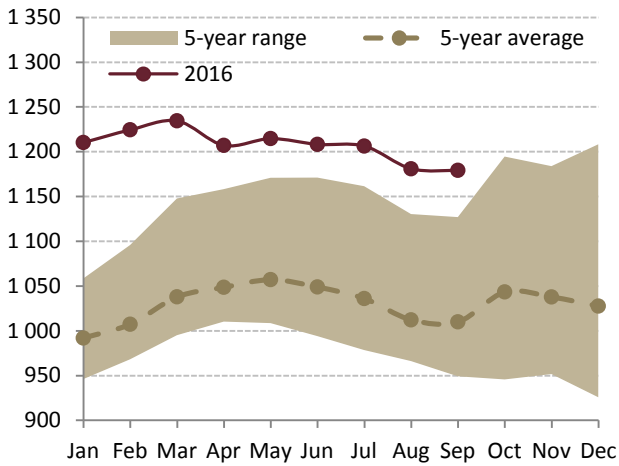
Source: IEA

**Chart 5.2. OECD oil stocks structure, by product**



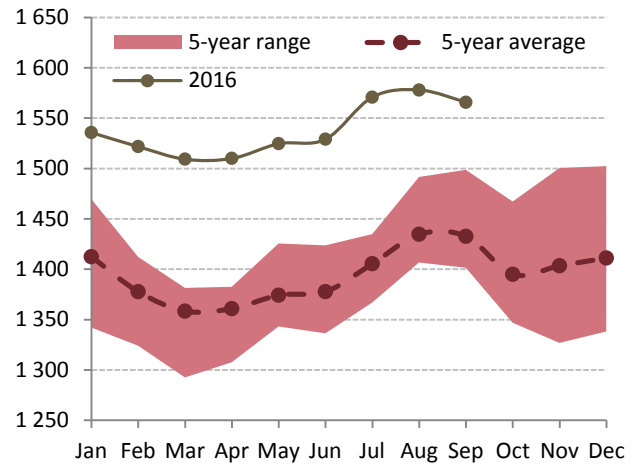
Source: IEA

**Chart 5.3. OECD crude oil stocks, mln bbl**



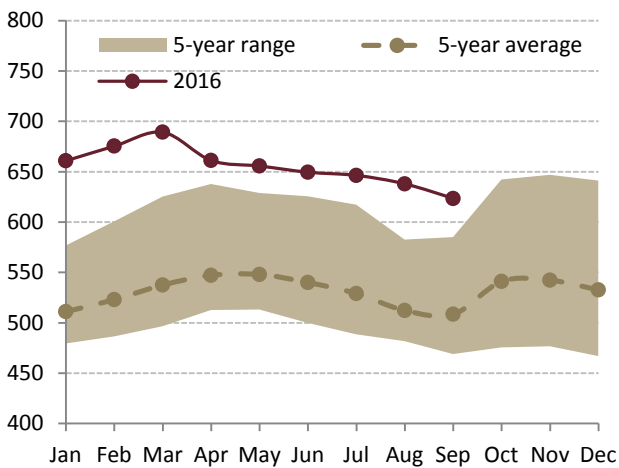
Source: IEA

**Chart 5.4. OECD oil products stocks, mln bbl**



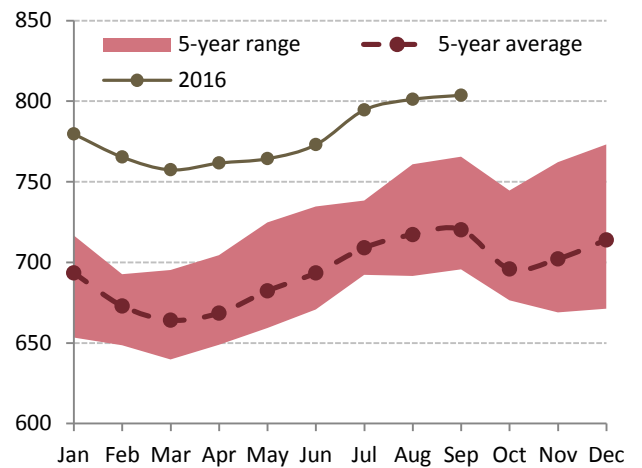
Source: IEA

**Chart 5.5. Americas (OECD) crude oil stocks, mln bbl**



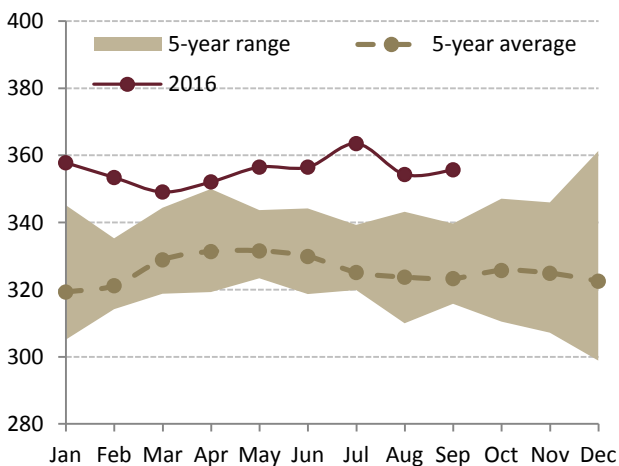
Source: IEA

**Chart 5.6. Americas (OECD) oil products stocks, mln bbl**



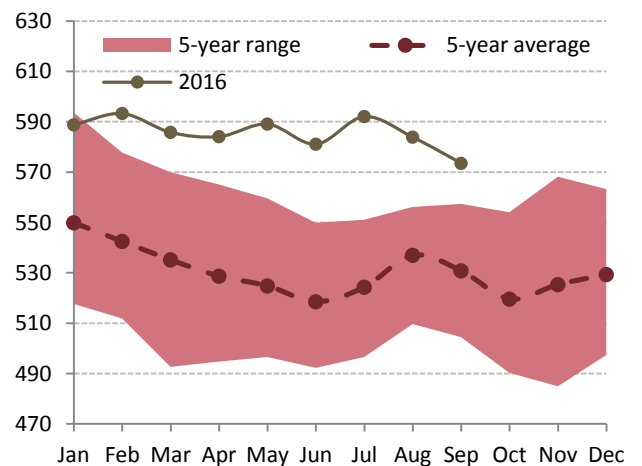
Source: IEA

**Chart 5.7. Europe (OECD) crude oil stocks, mln bbl**



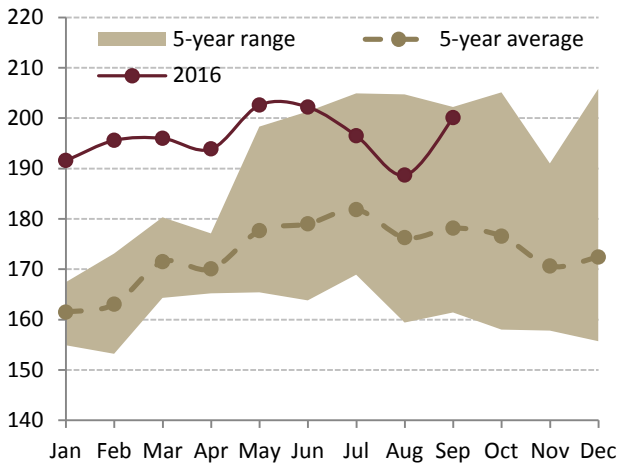
Source: IEA

**Chart 5.8. Europe (OECD) oil products stocks, mln bbl**



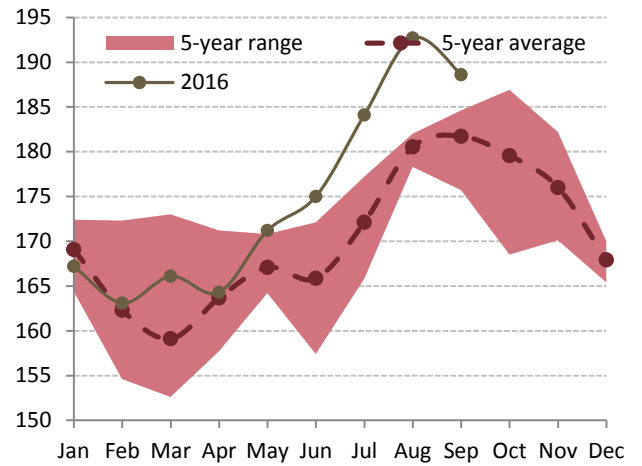
Source: IEA

**Chart 5.9. Pacific (OECD) crude oil stocks, mln bbl**



Source: IEA

**Chart 5.10. Pacific (OECD) oil products stocks, mln bbl**



Source: IEA

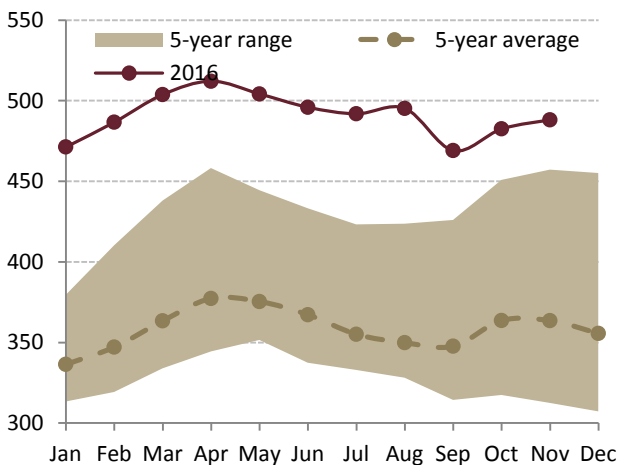
**USA**

According to DOE's weekly data total commercial crude oil stocks in the USA in November increased by 5.6 mln bbl or 1.2% comparing to the previous month, so November became the second month of commercial stocks increasing in a row after five months of decline. Crude oil inventories fell by 24 mln bbl from its peak value of 512 mln bbl printed in April 2016.

Crude oil stocks in November were 30.9 mln bbl (or +6.8%) higher than they were a year ago. As for crude oil inventories in Cushing oil storage in Oklahoma, they added in November 3.1 mln bbl or 5.2% mom, but were 2.5 mln bbl or 4.2% higher than a year ago. So the oil glut still has a place in the USA, although the negative impact of excessive stocks has been weakening for some recent months.

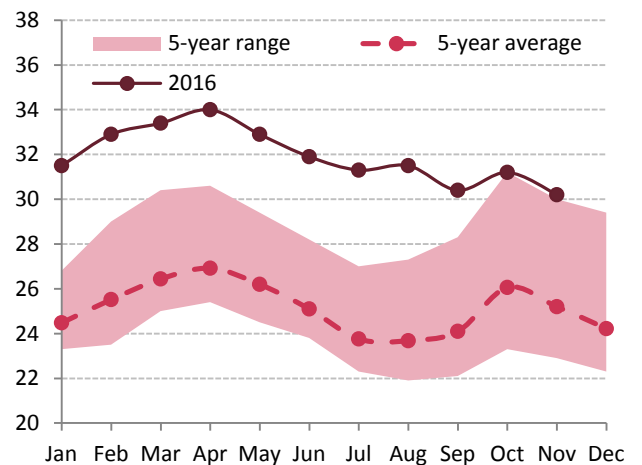
US gasoline inventories in November increased by 2.3 mln bbl or 1.0% mom, while inventories of distillates grew by 3.6 mln bbl or 2.4% mom. In comparison with the figures a year ago gasoline stocks in the USA rose on 9.4 mln bbl or 4.3% yoy and distillates stocks climbed by 9.8 mln bbl or 6.8% yoy.

**Chart 5.11. US commercial crude oil stocks, mln bbl**



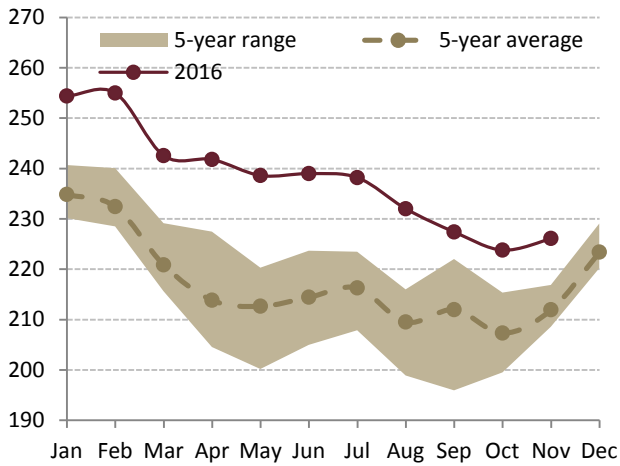
Source: DOE

**Chart 5.12. US commercial crude oil stocks, days of supply**



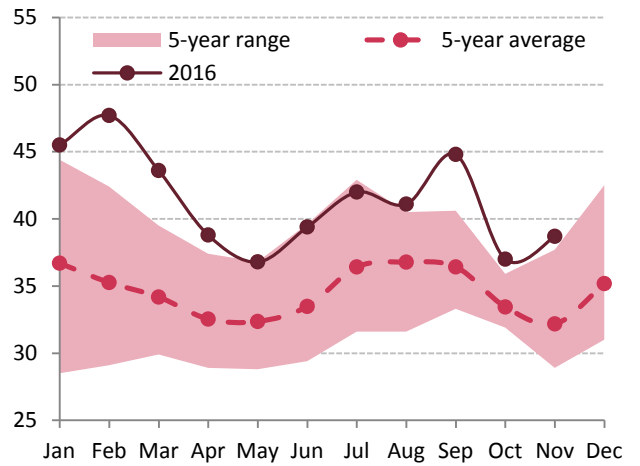
Source: DOE

**Chart 5.13. US gasoline stocks, mln bbl**



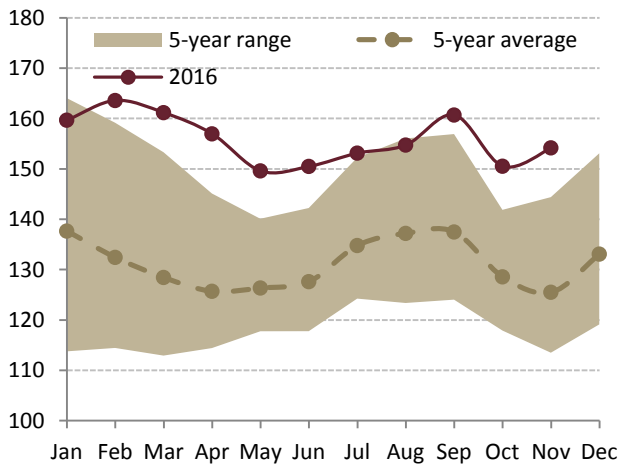
Source: DOE

**Chart 5.14. US gasoline stocks, days of supply**



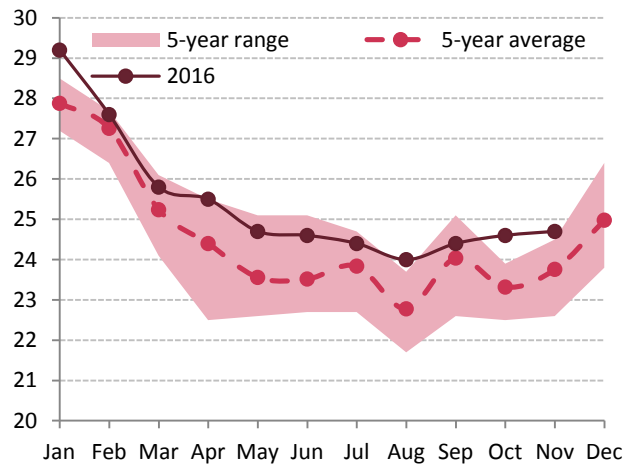
Source: DOE

**Chart 5.15. US distillate fuel stocks, mln bbl**



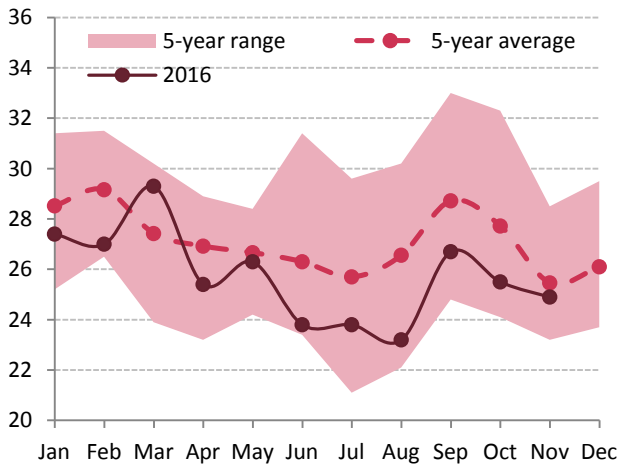
Source: DOE

**Chart 5.16. US distillate fuel stocks, days of supply**



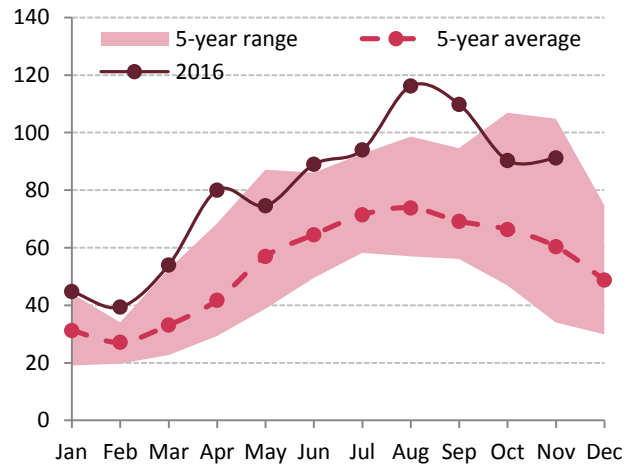
Source: DOE

**Chart 5.17. US kerosene stocks, days of supply**



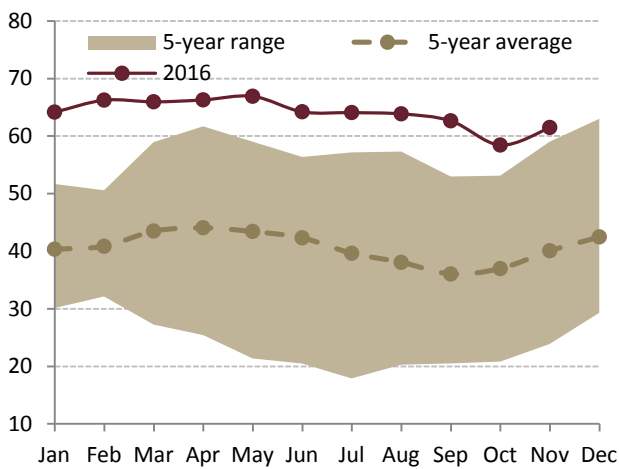
Source: DOE

**Chart 5.18. US propane stocks, days of supply**



Source: DOE

**Chart 5.19. Cushing Oklahoma crude oil stocks, mln bbl**

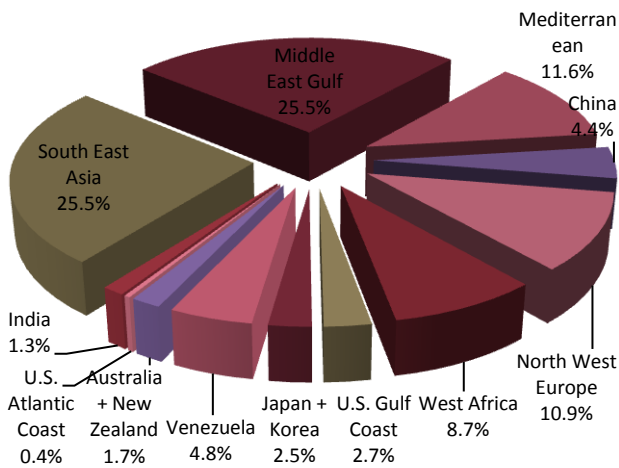


Source: DOE

**FLOATING STORAGE**

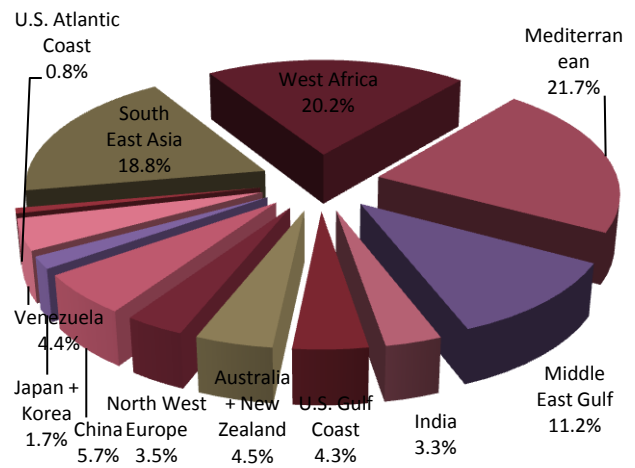
According to Bloomberg Energy assessments in November 2016 total crude oil stocks stored on floating storages (including oil in transportation) was equal to 148.6 mln bbl, 37.3 mln bbl less than in October 2016 (-20.1% mom) and 7.8 mln bbl above the level a year ago (+5.5% yoy). The most significant decline on the month-to-month basis took place in Middle East Gulf (-20.6 mln bbl or -35.2%), South East Asia (-9.3 mln bbl or -19.8%), Japan + Korea (-3.6 mln bbl or -49.0%). From the year-on-year basis the most dramatic drop was observed in South East Asia (-7.5 mln bbl or 16.5%), while floating storages inventories in Middle East Gulf and North West Europe increased on more than 10 mln bbl each (+57.2% and +182.0% respectively). The same time total stocks of refined oil products stored on floating storages (including oil products in transportation) in November climbed to 71.9 mln bbl, 0.5 mln bbl more than in the previous month (+0.7% mom) and 7.0 mln bbl more than a year ago (+10.8%). West Africa (+1.3 mln bbl) and South East Asia (3.4 mln bbl) were the regions where refined oil stocks grew the most relative to October figures.

**Chart 5.20. Crude oil stocks held on floating storages structure, by country**



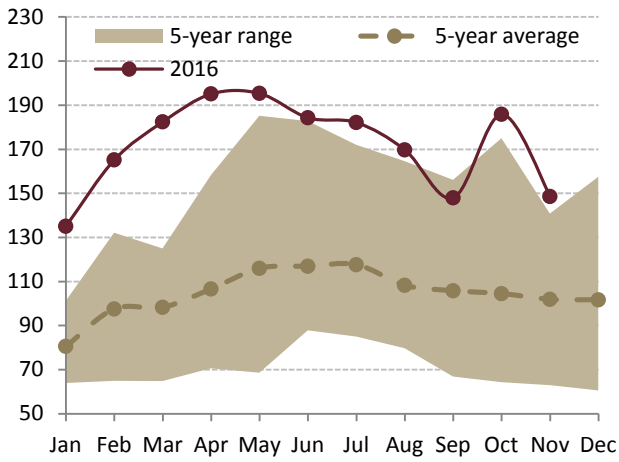
Source: Bloomberg Energy

**Chart 5.21. Refined oil products stocks held on floating storages structure, by country**



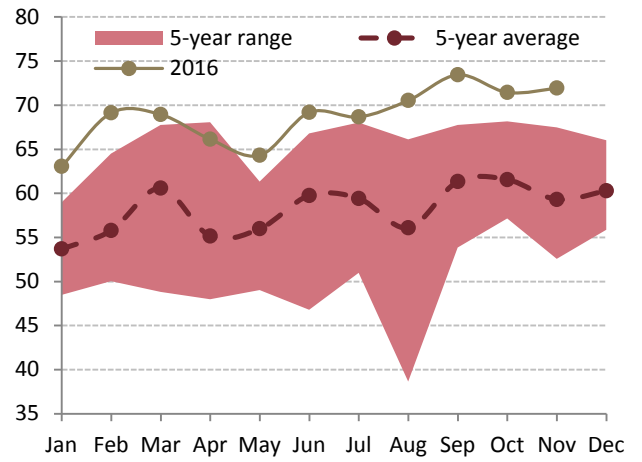
Source: Bloomberg Energy

**Chart 5.22. Global crude oil floating storage, mln bbl**



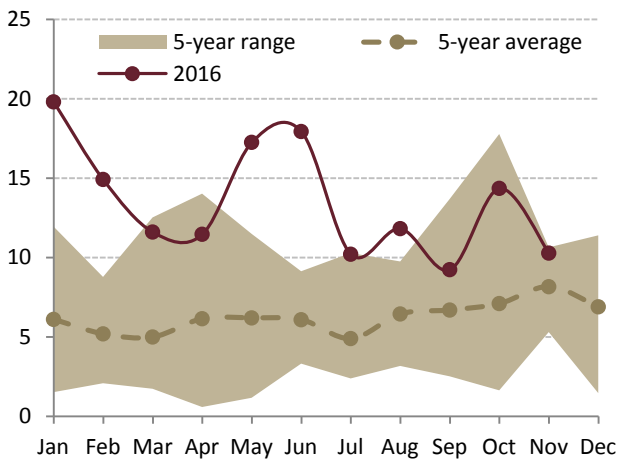
Source: Bloomberg Energy

**Chart 5.23. Global refined oil floating storage, mln bbl**



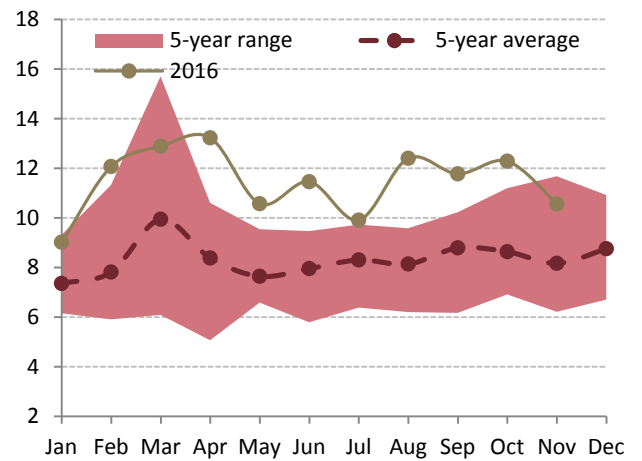
Source: Bloomberg Energy

**Chart 5.24. China + Japan + Korea crude oil floating storage, mln bbl**



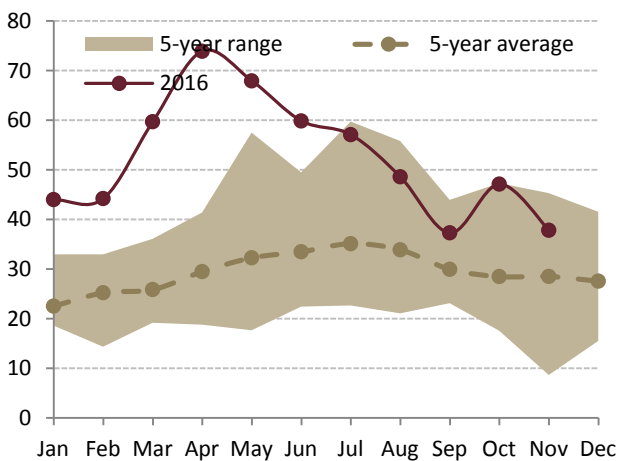
Source: Bloomberg Energy

**Chart 5.25. China + Japan + Korea refined oil floating storage, mln bbl**



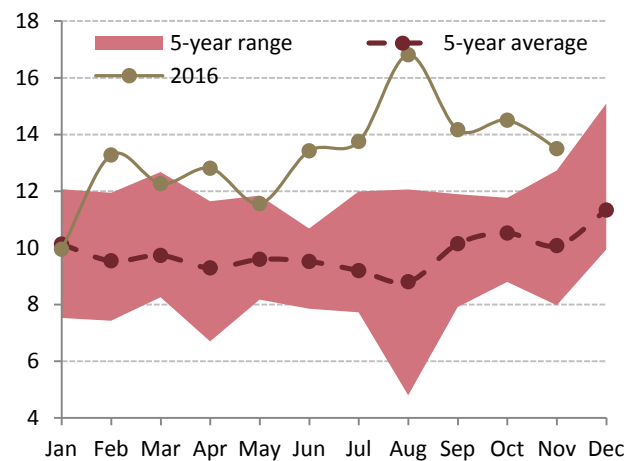
Source: Bloomberg Energy

**Chart 5.26. South East Asia crude oil floating storage, mln bbl**



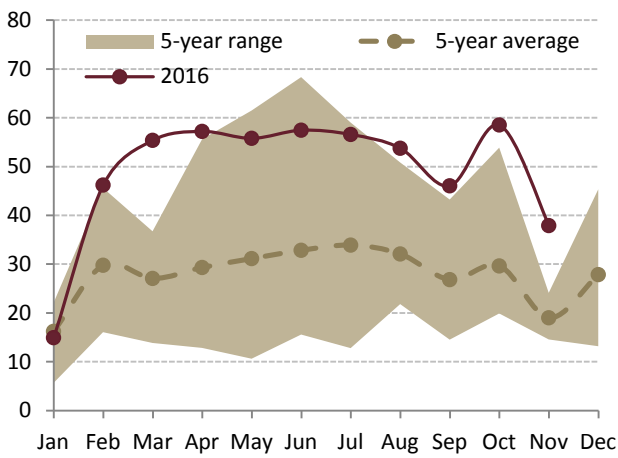
Source: Bloomberg Energy

**Chart 5.27. South East Asia refined oil floating storage, mln bbl**



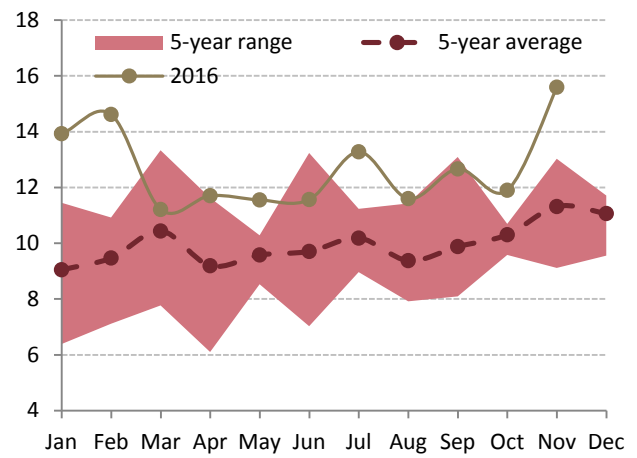
Source: Bloomberg Energy

**Chart 5.28. Middle East crude oil floating storage, mln bbl**



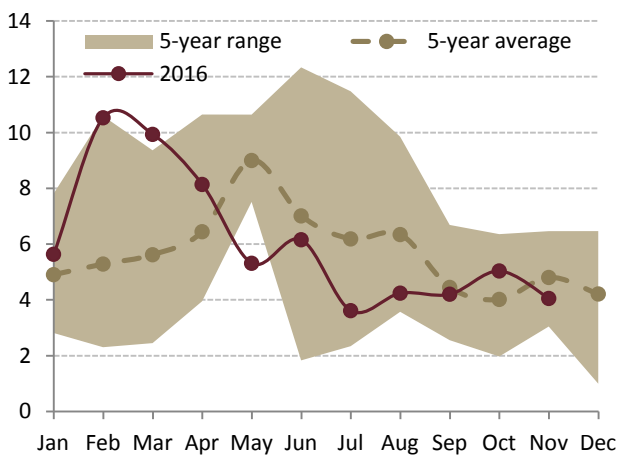
Source: Bloomberg Energy

**Chart 5.29. Middle East refined oil floating storage, mln bbl**



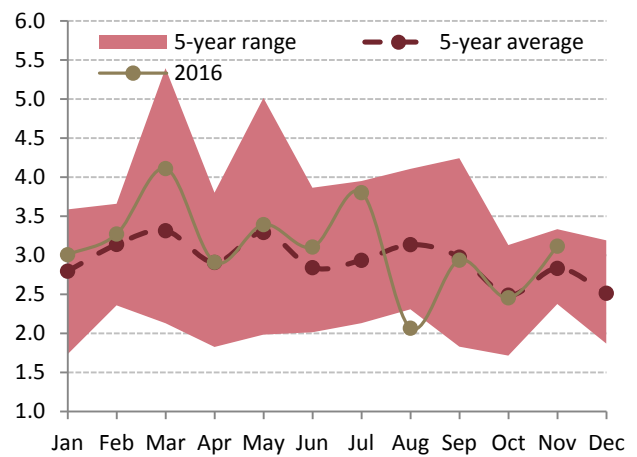
Source: Bloomberg Energy

**Chart 5.30. US Gulf Coast crude oil floating storage, mln bbl**



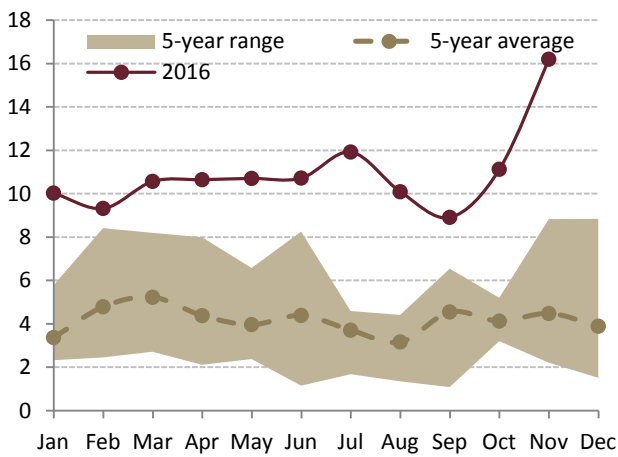
Source: Bloomberg Energy

**Chart 5.31. US Gulf Coast refined oil floating storage, mln bbl**



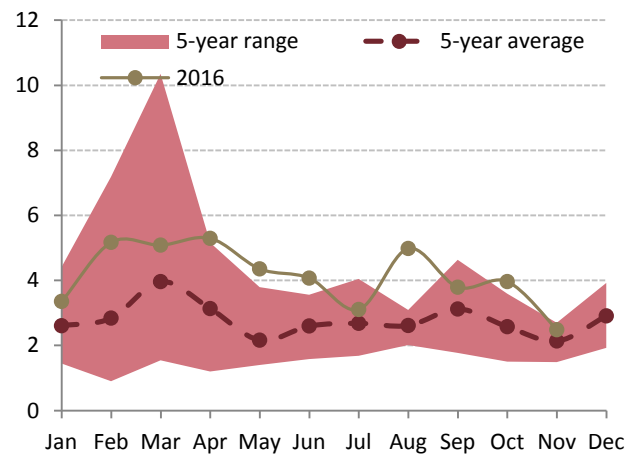
Source: Bloomberg Energy

**Chart 5.32. North West Europe crude oil floating storage, mln bbl**



Source: Bloomberg Energy

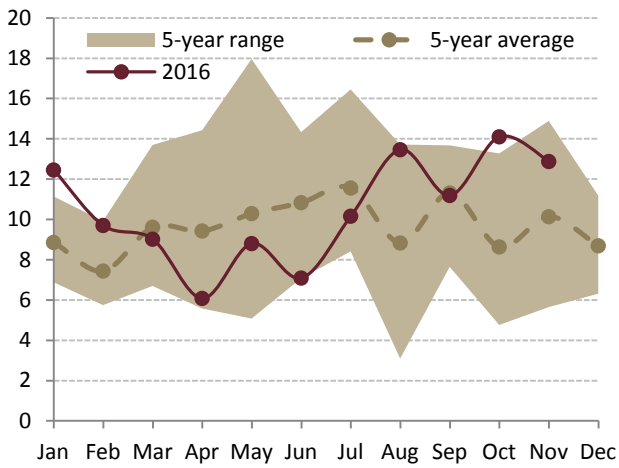
**Chart 5.33. North West Europe refined oil floating storage, mln bbl**



Source: Bloomberg Energy

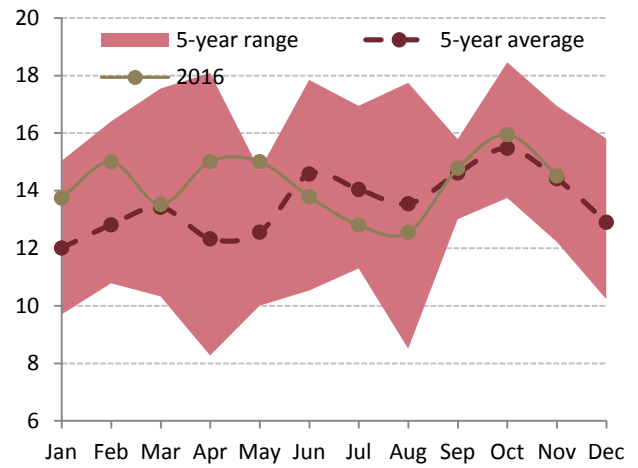


**Chart 5.34. West Africa crude oil floating storage, mln bbl**



Source: Bloomberg Energy

**Chart 5.35. West Africa refined oil floating storage, mln bbl**



Source: Bloomberg Energy

## APPENDIX

Table 1. Global oil demand, mln bbl / d (quarterly data)

	Q2-2015	Q3-2015	Q4-2015	Q1-2016	Q2-2016	Q3-2016	Q4-2016	Q1-2017	Q2-2017	Q3-2017	Q4-2017	Q1-2018	2015	2016	2017	Δ 2015	Δ 2016	Δ 2017
USA	19.47	19.83	19.42	19.45	19.43	19.76	19.90	19.61	19.52	19.59	19.92	19.69	19.45	19.61	19.69	0.04	0.16	0.08
Canada	2.33	2.45	2.40	2.39	2.37	2.49	2.43	2.37	2.37	2.31	2.43	2.34	2.39	2.37	2.34	-0.04	-0.02	-0.03
Mexico	1.97	2.07	2.05	1.98	1.94	1.93	1.94	1.98	1.95	1.97	1.94	1.98	1.98	1.98	1.98	0.04	0.00	0.00
North America	24.41	24.98	24.53	24.49	24.39	24.84	24.91	24.62	24.52	24.51	24.94	24.67	24.49	24.62	24.67	0.04	0.13	0.05
Brazil	3.17	3.22	3.20	3.02	3.07	3.14	3.14	3.17	3.02	3.05	3.14	3.18	3.02	3.17	3.18	-0.15	0.15	0.01
Other LatAm ex. Mexico	3.60	3.64	3.59	3.45	3.58	3.64	3.69	3.63	3.47	3.62	3.67	3.62	3.45	3.63	3.62	0.00	0.18	-0.01
LatAm ex. Mexico	6.77	6.86	6.79	6.47	6.65	6.78	6.83	6.80	6.49	6.67	6.81	6.80	6.47	6.80	6.80	-0.15	0.33	0.00
Total Europe	13.57	14.17	13.70	13.64	13.93	14.34	14.07	13.65	13.59	13.85	14.10	13.65	13.64	13.65	13.65	0.18	0.01	0.00
Japan	3.80	3.85	4.14	4.43	3.66	3.75	3.71	4.02	4.34	3.52	3.63	3.99	4.43	4.02	3.99	-0.27	-0.41	-0.03
Korea	2.29	2.36	2.52	2.59	2.48	2.53	2.48	2.59	2.68	2.56	2.56	2.63	2.59	2.59	2.63	0.13	0.00	0.04
Australia, New Zealand, Israel	1.49	1.50	1.52	1.53	1.50	1.50	1.52	1.51	1.53	1.51	1.51	1.52	1.53	1.51	1.52	0.01	-0.02	0.01
OECD Asia Pacific	7.58	7.71	8.18	8.55	7.64	7.78	7.71	8.12	8.55	7.59	7.70	8.14	8.55	8.12	8.14	-0.13	-0.43	0.02
China	11.46	11.55	11.59	11.65	11.83	11.56	11.52	11.84	11.70	11.82	11.90	12.01	11.65	11.84	12.01	0.32	0.19	0.17
India	4.04	3.85	4.10	4.36	4.32	4.04	4.06	4.33	4.57	4.60	4.38	4.60	4.36	4.33	4.60	0.39	-0.03	0.27
Other non-OECD Asia	8.56	8.45	8.70	8.74	8.78	8.76	8.74	9.07	9.03	9.10	9.02	9.30	8.74	9.07	9.30	0.41	0.33	0.23
Total Asia	24.06	23.85	24.39	24.75	24.93	24.36	24.32	25.24	25.30	25.52	25.30	25.91	24.75	25.24	25.91	1.12	0.49	0.67
FSU	4.89	5.05	4.96	4.86	4.85	5.23	5.21	5.11	4.95	5.07	5.24	5.18	4.86	5.11	5.18	0.22	0.25	0.07
Total Middle East	8.49	8.78	8.28	7.86	8.36	8.79	8.76	8.36	8.07	8.47	8.87	8.49	7.86	8.36	8.49	0.07	0.50	0.13
Total Africa	4.06	3.97	4.12	4.16	4.21	4.10	4.16	4.31	4.34	4.40	4.28	4.43	4.16	4.31	4.43	0.08	0.15	0.12
OECD demand	45.56	46.86	46.41	46.68	45.97	46.96	46.68	46.39	46.66	45.95	46.75	46.46	46.68	46.39	46.46	0.09	-0.29	0.07
Non-OECD demand	48.91	49.18	49.23	48.77	49.75	49.95	49.97	50.47	49.86	50.81	51.23	51.53	48.77	50.47	51.53	1.35	1.70	1.06
<b>World demand</b>	<b>94.47</b>	<b>96.05</b>	<b>95.64</b>	<b>95.45</b>	<b>95.72</b>	<b>96.91</b>	<b>96.65</b>	<b>96.85</b>	<b>96.51</b>	<b>96.76</b>	<b>97.98</b>	<b>97.99</b>	<b>95.45</b>	<b>96.85</b>	<b>97.99</b>	<b>1.44</b>	<b>1.40</b>	<b>1.14</b>

Source: IEA, Bloomberg

Table 2. Global oil production, mln bbl / d (quarterly data)

	Q2-2015	Q3-2015	Q4-2015	Q1-2016	Q2-2016	Q3-2016	Q4-2016	Q1-2017	Q2-2017	Q3-2017	Q4-2017	Q1-2018	2015	2016	2017	Δ 2015	Δ 2016	Δ 2017
OPEC Crude*	32.50	32.70	32.70	32.80	33.10	33.50	33.10	32.80	32.90	32.80	33.60	33.60	32.70	32.80	33.60	1.20	0.10	0.80
OPEC NGLs	6.70	6.80	6.80	6.80	6.90	6.90	6.90	7.10	7.00	7.00	7.10	7.10	6.80	6.90	7.10	0.30	0.10	0.20
OPEC production	39.10	39.50	39.40	39.60	39.90	40.40	40.00	39.90	39.90	39.80	40.70	40.70	39.40	39.70	40.70	1.40	0.30	1.00
Americas	19.70	20.10	20.10	19.90	19.00	19.30	19.10	19.30	19.40	19.30	19.40	19.50	20.10	19.10	19.40	0.00	-1.00	0.30
Europe	3.50	3.40	3.60	3.60	3.40	3.30	3.40	3.50	3.50	3.40	3.30	3.40	3.60	3.40	3.30	0.20	-0.20	-0.10
Pacific	0.40	0.50	0.50	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.50	0.50	0.40	0.40	0.10	-0.10	0.00
OECD	23.60	24.00	24.20	24.00	22.80	23.10	22.90	23.30	23.30	23.20	23.10	23.30	24.20	22.90	23.10	0.30	-1.30	0.20
FSU	14.00	13.90	14.10	14.20	14.00	14.00	13.90	14.10	14.20	14.20	14.20	14.40	14.10	13.90	14.20	0.10	-0.20	0.30
Europe	3.50	3.40	3.60	3.60	3.40	3.30	3.40	3.50	3.50	3.40	3.30	3.40	3.60	3.40	3.30	0.20	-0.20	-0.10
China	4.40	4.30	4.30	4.20	4.10	3.90	4.00	4.00	4.00	4.00	3.90	3.90	4.30	4.00	3.90	0.00	-0.30	-0.10
Other Asia	2.80	2.70	2.80	2.80	2.70	2.70	2.70	2.70	2.60	2.60	2.70	2.60	2.80	2.70	2.70	0.00	-0.10	0.00
Latin America	4.60	4.60	4.60	4.40	4.40	4.60	4.60	4.70	4.70	4.70	4.80	4.80	4.60	4.60	4.80	0.00	0.00	0.20
Middle East	1.30	1.20	1.20	1.30	1.30	1.30	1.30	1.30	1.30	1.20	1.20	1.20	1.20	1.30	1.20	-0.10	0.10	-0.10
Africa	2.10	2.00	2.00	2.00	1.90	2.00	2.00	2.10	2.10	2.10	2.10	2.10	2.00	2.00	2.10	-0.10	0.00	0.10
Non-OECD	29.20	29.00	29.10	28.90	28.50	28.60	28.70	29.00	29.00	29.00	29.00	29.20	29.10	28.70	29.00	-0.20	-0.40	0.30
Non-OPEC Crude	52.80	53.00	53.30	52.90	51.30	51.70	51.60	52.30	52.30	52.20	52.10	52.50	53.30	51.60	52.10	0.10	-1.70	0.50
Processing Gains	2.20	2.20	2.20	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.20	2.30	2.30	0.00	0.10	0.00
Global Biofuels	2.40	2.60	2.30	1.90	2.40	2.80	2.80	2.40	2.00	2.50	2.90	2.50	2.30	2.80	2.90	0.50	0.50	0.10
Non-OPEC production	57.30	57.70	57.90	57.00	56.00	56.70	56.60	57.00	56.60	57.00	57.30	57.30	57.90	56.60	57.30	0.70	-1.30	0.70
<b>World production</b>	<b>96.40</b>	<b>97.20</b>	<b>97.30</b>	<b>96.60</b>	<b>95.90</b>	<b>97.10</b>	<b>96.60</b>	<b>96.90</b>	<b>96.50</b>	<b>96.80</b>	<b>98.00</b>	<b>98.00</b>	<b>97.30</b>	<b>96.30</b>	<b>98.00</b>	<b>2.10</b>	<b>-1.00</b>	<b>1.70</b>

\* IEA Call on OPEC as OPEC Crude forecast

Source: IEA, Bloomberg

## APPENDIX

Table 3. Global crude oil production, mln bbl / d (monthly data)

	Oct-2015	Nov-2015	Dec-2015	Jan-2016	Feb-2016	Mar-2016	Apr-2016	May-2016	Jun-2016	Jul-2016	Aug-2016	Sep-2016	Oct-2016	2014	2015	2016 (YTD)	Δ 2014	Δ 2015	Δ 2016 (YTD)
Algeria	1.12	1.12	1.12	1.11	1.07	1.07	1.06	1.05	1.05	1.07	1.05	1.04	1.05	1.17	1.12	1.05	-0.01	-0.05	-0.07
Angola	1.75	1.89	1.81	1.77	1.84	1.80	1.73	1.73	1.86	1.77	1.84	1.79	1.89	1.61	1.81	1.89	-0.20	0.20	0.08
Ecuador	0.54	0.54	0.53	0.53	0.56	0.55	0.55	0.56	0.55	0.55	0.55	0.56	0.54	0.56	0.53	0.54	0.01	-0.03	0.01
Gabon	0.22	0.23	0.24	0.27	0.28	0.25	0.23	0.23	0.23	0.23	0.23	0.22	0.23	0.24	0.24	0.23	0.00	0.01	-0.02
Indonesia	0.76	0.75	0.75	0.79	0.81	0.81	0.79	0.80	0.81	0.81	0.81	0.81	0.80	0.73	0.75	0.80	-0.03	0.02	0.06
Iran	2.92	2.93	2.94	3.01	3.27	3.37	3.50	3.60	3.61	3.65	3.68	3.71	3.84	2.58	2.94	3.84	0.17	0.36	0.91
Iraq	4.01	4.56	4.44	4.53	4.25	4.26	4.33	4.22	4.32	4.35	4.48	4.49	4.59	3.76	4.44	4.59	0.61	0.67	0.16
Kuwait	2.80	2.90	2.93	3.00	3.00	3.00	2.90	2.95	2.95	2.95	2.99	2.97	3.00	2.71	2.93	3.00	0.02	0.22	0.07
Libya	0.47	0.40	0.43	0.45	0.45	0.36	0.38	0.32	0.34	0.35	0.29	0.45	0.55	0.53	0.43	0.55	0.30	-0.10	0.12
Nigeria	1.84	1.79	1.56	1.48	1.69	1.74	1.58	1.24	1.35	1.06	1.17	1.24	1.44	1.81	1.56	1.44	0.09	-0.25	-0.12
Qatar	0.66	0.68	0.63	0.64	0.69	0.70	0.63	0.67	0.66	0.68	0.64	0.61	0.64	0.68	0.63	0.64	-0.05	-0.05	0.01
Saudi Arabia	10.28	10.19	10.14	10.23	10.22	10.22	10.26	10.27	10.55	10.67	10.63	10.65	10.63	9.54	10.14	10.63	-0.03	0.60	0.48
U.A.E.	2.97	3.03	2.99	3.13	2.78	2.91	2.87	3.11	3.17	3.18	3.15	3.19	3.19	3.16	2.99	3.19	0.18	-0.16	0.20
Venezuela	2.01	2.00	1.99	1.99	1.99	1.96	1.96	1.98	2.00	2.00	1.97	1.91	1.90	2.08	1.99	1.90	-0.41	-0.09	-0.09
<b>OPEC Crude</b>	<b>32.34</b>	<b>33.01</b>	<b>32.50</b>	<b>32.92</b>	<b>32.90</b>	<b>33.00</b>	<b>32.76</b>	<b>32.71</b>	<b>33.45</b>	<b>33.32</b>	<b>33.49</b>	<b>33.63</b>	<b>34.29</b>	<b>31.34</b>	<b>32.50</b>	<b>34.29</b>	<b>0.33</b>	<b>1.16</b>	<b>1.78</b>
<b>OPEC NGLs</b>	<b>6.79</b>	<b>6.80</b>	<b>6.70</b>	<b>6.75</b>	<b>6.66</b>	<b>6.73</b>	<b>6.70</b>	<b>6.70</b>	<b>6.77</b>	<b>6.77</b>	<b>6.80</b>	<b>6.88</b>	<b>6.95</b>	<b>6.69</b>	<b>6.70</b>	<b>6.95</b>	<b>0.26</b>	<b>0.02</b>	<b>0.24</b>
<b>OPEC production</b>	<b>39.13</b>	<b>39.81</b>	<b>39.21</b>	<b>39.67</b>	<b>39.56</b>	<b>39.73</b>	<b>39.45</b>	<b>39.41</b>	<b>40.22</b>	<b>40.09</b>	<b>40.29</b>	<b>40.51</b>	<b>41.23</b>	<b>38.03</b>	<b>39.21</b>	<b>41.23</b>	<b>0.59</b>	<b>1.18</b>	<b>2.03</b>
USA	9.34	9.28	9.15	9.11	9.04	9.25	9.02	8.97	8.67	8.65	8.64	8.67	8.81	9.69	9.15	8.81	1.63	-0.55	-0.34
Canada	3.40	3.80	3.75	3.90	3.89	3.63	3.44	3.07	3.05	3.38	3.70	3.69	3.69	3.54	3.75	3.69	0.01	0.21	-0.05
Mexico	2.28	2.28	2.27	2.26	2.21	2.22	2.18	2.17	2.18	2.16	2.14	2.11	2.12	2.35	2.27	2.12	-0.16	-0.08	-0.15
<b>North America</b>	<b>15.02</b>	<b>15.35</b>	<b>15.17</b>	<b>15.27</b>	<b>15.14</b>	<b>15.10</b>	<b>14.64</b>	<b>14.21</b>	<b>13.90</b>	<b>14.19</b>	<b>14.48</b>	<b>14.47</b>	<b>14.62</b>	<b>15.59</b>	<b>15.17</b>	<b>14.62</b>	<b>1.48</b>	<b>-0.42</b>	<b>-0.55</b>
Brazil	2.41	2.38	2.53	2.35	2.34	2.26	2.29	2.49	2.56	2.58	2.61	2.64	2.66	2.50	2.53	2.66	0.39	0.04	0.13
Argentina	0.50	0.50	0.49	0.48	0.45	0.47	0.45	0.46	0.45	0.47	0.48	0.47	0.48	0.50	0.49	0.48	-0.02	0.00	-0.01
Colombia	1.00	0.99	1.00	0.98	0.95	0.86	0.88	0.91	0.90	0.95	0.97	1.01	1.01	1.01	1.00	1.01	0.01	-0.01	0.01
Other Latin America	0.26	0.26	0.26	0.25	0.23	0.24	0.23	0.24	0.22	0.23	0.23	0.23	0.23	0.29	0.26	0.23	0.01	-0.03	-0.03
<b>Non-OPEC Latin America ex. Mexico</b>	<b>4.16</b>	<b>4.13</b>	<b>4.28</b>	<b>4.06</b>	<b>3.97</b>	<b>3.84</b>	<b>3.85</b>	<b>4.09</b>	<b>4.13</b>	<b>4.23</b>	<b>4.29</b>	<b>4.34</b>	<b>4.38</b>	<b>4.29</b>	<b>4.28</b>	<b>4.38</b>	<b>0.39</b>	<b>-0.01</b>	<b>0.10</b>
United Kingdom	0.97	1.00	1.03	1.04	1.00	1.02	1.02	1.03	0.92	0.99	1.05	0.96	0.93	0.93	1.03	0.93	0.03	0.11	-0.11
Norway	1.69	1.66	1.69	1.67	1.67	1.64	1.67	1.60	1.49	1.78	1.71	1.65	1.81	1.61	1.69	1.81	0.00	0.08	0.12
Other Europe	0.60	0.61	0.58	0.58	0.58	0.60	0.53	0.52	0.51	0.50	0.51	0.52	0.56	0.64	0.58	0.56	0.02	-0.06	-0.02
<b>Europe</b>	<b>3.27</b>	<b>3.26</b>	<b>3.30</b>	<b>3.28</b>	<b>3.25</b>	<b>3.26</b>	<b>3.22</b>	<b>3.14</b>	<b>2.92</b>	<b>3.27</b>	<b>3.27</b>	<b>3.12</b>	<b>3.29</b>	<b>3.18</b>	<b>3.30</b>	<b>3.29</b>	<b>0.05</b>	<b>0.12</b>	<b>-0.01</b>
Russia	10.80	10.81	10.90	11.01	11.01	11.00	10.92	10.94	10.96	10.95	10.78	11.16	11.29	10.73	10.90	11.29	0.04	0.17	0.38
Other Ex-USSR	2.19	2.31	2.27	2.30	2.31	2.28	2.25	2.24	2.22	2.26	1.99	2.22	2.26	2.36	2.27	2.26	-0.07	-0.09	0.00
<b>FSU</b>	<b>12.99</b>	<b>13.12</b>	<b>13.17</b>	<b>13.31</b>	<b>13.32</b>	<b>13.29</b>	<b>13.17</b>	<b>13.18</b>	<b>13.18</b>	<b>13.21</b>	<b>12.77</b>	<b>13.38</b>	<b>13.55</b>	<b>13.09</b>	<b>13.17</b>	<b>13.55</b>	<b>-0.04</b>	<b>0.08</b>	<b>0.38</b>
China	4.26	4.24	4.37	4.28	4.19	4.07	4.07	3.98	3.91	3.92	3.94	3.91	3.89	4.32	4.37	3.89	0.05	0.05	-0.48
India	0.76	0.75	0.74	0.73	0.74	0.74	0.73	0.75	0.75	0.75	0.76	0.74	0.75	0.77	0.74	0.75	-0.01	-0.03	0.02
Malaysia	0.56	0.63	0.62	0.64	0.66	0.66	0.66	0.65	0.65	0.64	0.60	0.66	0.64	0.60	0.62	0.64	0.10	0.02	0.02
Australia	0.34	0.36	0.35	0.31	0.33	0.36	0.36	0.31	0.36	0.38	0.36	0.36	0.36	0.36	0.35	0.36	0.01	-0.01	0.01
Other Non-OPEC Asia Pacific	0.85	0.89	0.87	0.94	0.94	0.93	0.92	0.89	0.90	0.91	0.90	0.93	0.88	0.84	0.87	0.88	0.02	0.02	0.01
<b>Non-OPEC Asia Pacific</b>	<b>6.77</b>	<b>6.87</b>	<b>6.94</b>	<b>6.90</b>	<b>6.86</b>	<b>6.75</b>	<b>6.74</b>	<b>6.58</b>	<b>6.58</b>	<b>6.60</b>	<b>6.55</b>	<b>6.60</b>	<b>6.52</b>	<b>6.89</b>	<b>6.94</b>	<b>6.52</b>	<b>0.18</b>	<b>0.05</b>	<b>-0.42</b>
Egypt	0.60	0.62	0.62	0.61	0.60	0.60	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.60	0.62	0.61	0.01	0.02	-0.01
Oman	0.99	1.00	1.01	1.02	1.01	0.98	1.00	1.01	1.00	1.01	1.01	0.97	0.97	0.93	1.01	0.97	-0.01	0.07	-0.03
<b>Non-OPEC Africa/Mid East</b>	<b>2.89</b>	<b>2.91</b>	<b>2.90</b>	<b>2.90</b>	<b>2.90</b>	<b>2.85</b>	<b>2.90</b>	<b>2.93</b>	<b>2.95</b>	<b>2.95</b>	<b>2.97</b>	<b>2.92</b>	<b>2.92</b>	<b>2.96</b>	<b>2.90</b>	<b>2.92</b>	<b>-0.04</b>	<b>-0.06</b>	<b>0.02</b>
<b>Non-OPEC Crude</b>	<b>48.42</b>	<b>48.73</b>	<b>48.59</b>	<b>48.41</b>	<b>48.07</b>	<b>47.82</b>	<b>47.60</b>	<b>47.40</b>	<b>46.92</b>	<b>47.87</b>	<b>47.34</b>	<b>48.21</b>	<b>48.68</b>	<b>48.82</b>	<b>48.59</b>	<b>48.68</b>	<b>1.92</b>	<b>-0.23</b>	<b>0.09</b>
<b>Non-OPEC NGLs</b>	<b>7.39</b>	<b>7.49</b>	<b>7.48</b>	<b>7.38</b>	<b>7.42</b>	<b>7.50</b>	<b>7.39</b>	<b>7.41</b>	<b>7.60</b>	<b>7.61</b>	<b>7.40</b>	<b>7.62</b>	<b>7.74</b>	<b>7.16</b>	<b>7.48</b>	<b>7.74</b>	<b>0.75</b>	<b>0.32</b>	<b>0.26</b>
<b>Non-OPEC production</b>	<b>55.81</b>	<b>56.22</b>	<b>56.08</b>	<b>55.79</b>	<b>55.49</b>	<b>55.32</b>	<b>54.99</b>	<b>54.82</b>	<b>54.52</b>	<b>55.48</b>	<b>54.74</b>	<b>55.83</b>	<b>56.42</b>	<b>55.98</b>	<b>56.08</b>	<b>56.42</b>	<b>2.67</b>	<b>0.09</b>	<b>0.34</b>
<b>World production</b>	<b>94.94</b>	<b>96.03</b>	<b>95.28</b>	<b>95.46</b>	<b>95.05</b>	<b>95.04</b>	<b>94.44</b>	<b>94.23</b>	<b>94.74</b>	<b>95.57</b>	<b>95.02</b>	<b>96.34</b>	<b>97.65</b>	<b>94.01</b>	<b>95.28</b>	<b>97.65</b>	<b>3.26</b>	<b>1.27</b>	<b>2.37</b>

Source: IEG

## APPENDIX

Table 4. OECD commercial oil inventories, mln bbl (monthly data)

	Sep-2015	Oct-2015	Nov-2015	Dec-2015	Jan-2016	Feb-2016	Mar-2016	Apr-2016	May-2016	Jun-2016	Jul-2016	Aug-2016	Sep-2016	2014	2015	2016 (YTD)	Δ 2014	Δ 2015	Δ 2016 (YTD)
<b>Americas</b>	1,542	1,575	1,593	1,590	1,614	1,611	1,620	1,599	1,602	1,609	1,636	1,634	1,619	1,446	1,590	1,619	130	144	29
Crude	585	642	647	641	661	676	689	661	656	650	646	638	623	552	641	623	53	89	-18
Products	766	745	762	773	780	765	758	762	764	773	795	801	804	730	773	804	59	43	31
<b>Europe</b>	967	971	980	990	1,015	1,019	1,004	1,006	1,014	1,005	1,024	1,008	999	886	990	999	5	104	9
Crude	340	347	346	361	358	353	349	352	357	357	364	354	356	319	361	356	3	42	-6
Products	557	554	568	563	589	593	586	584	589	581	592	584	574	502	563	574	5	61	10
<b>Asia Pacific</b>	445	439	428	435	425	422	421	420	434	438	442	444	450	405	435	450	13	30	16
Crude	202	205	191	206	192	196	196	194	203	202	197	189	200	173	206	200	18	33	-6
Products	176	169	170	166	167	163	166	164	171	175	184	193	189	169	166	189	-1	-3	23
<b>OECD</b>	2,954	2,985	3,001	3,015	3,054	3,052	3,046	3,025	3,050	3,052	3,102	3,085	3,068	2,738	3,015	3,068	148	278	53
Crude	1,127	1,195	1,184	1,208	1,210	1,225	1,235	1,207	1,215	1,208	1,206	1,181	1,179	1,045	1,208	1,179	73	164	-29
Products	1,499	1,467	1,500	1,502	1,536	1,522	1,509	1,510	1,525	1,529	1,571	1,578	1,566	1,401	1,502	1,566	63	101	63

Source: IEA

Table 5. OECD oil inventories, mln bbl (quarterly data)

	Q3-2013	Q4-2013	Q1-2014	Q2-2014	Q3-2014	Q4-2014	Q1-2015	Q2-2015	Q3-2015	Q4-2015	Q1-2016	Q2-2016	Q3-2016	2014	2015	2016 (YTD)	Δ 2014	Δ 2015	Δ 2016 (YTD)
Canada	183	170	174	179	186	193	183	176	183	188	184	175	-	193	188	-	23	-5	-
Mexico	50	49	48	47	49	53	50	50	50	50	46	49	-	53	50	-	4	-3	-
USA	1,834	1,762	1,754	1,820	1,841	1,862	1,910	1,943	1,973	1,987	2,024	2,049	-	1,862	1,987	-	99	125	-
<b>Americas</b>	2,101	2,013	2,008	2,079	2,108	2,139	2,176	2,203	2,240	2,258	2,286	2,306	2,316	2,139	2,258	2,316	126	119	58
Australia	37	37	37	36	39	36	34	36	36	34	37	38	-	36	34	-	-1	-3	-
Japan	591	575	590	589	608	581	568	578	590	582	560	574	-	581	582	-	5	1	-
Korea	191	178	193	188	197	197	201	225	226	228	236	238	-	197	228	-	19	31	-
New Zealand	8	8	8	10	9	8	9	9	9	8	8	9	-	8	8	-	0	-1	-
<b>Pacific</b>	826	809	828	823	853	822	812	848	860	851	841	859	871	822	851	871	13	29	20
Germany	286	290	288	290	283	284	284	286	281	285	289	288	-	284	285	-	-6	1	-
France	166	168	167	168	171	168	173	170	167	168	166	168	-	168	168	-	0	0	-
Italy	131	125	123	122	123	119	121	117	117	117	120	121	-	119	117	-	-6	-2	-
Spain	120	112	117	118	123	121	132	133	139	131	140	134	-	121	131	-	10	10	-
UK	82	78	76	75	75	78	76	77	79	81	80	83	-	78	81	-	0	3	-
Turkey	63	62	63	62	63	62	65	66	71	75	76	78	-	62	75	-	0	12	-
Sweden	26	28	28	27	28	29	32	31	33	35	35	33	-	29	35	-	1	6	-
Other Europe	482	489	492	496	501	494	525	531	546	571	576	574	-	494	571	-	5	77	-
<b>Europe</b>	1,356	1,351	1,354	1,358	1,366	1,356	1,409	1,411	1,434	1,463	1,481	1,479	1,475	1,356	1,463	1,475	5	107	12
<b>OECD</b>	4,282	4,174	4,189	4,260	4,327	4,318	4,397	4,462	4,533	4,572	4,608	4,643	4,663	4,318	4,572	4,663	144	254	91

Source: IEA

## APPENDIX

Table 6. Global oil stocks on floating storages, mln bbl

	Nov-2015	Dec-2015	Jan-2016	Feb-2016	Mar-2016	Apr-2016	May-2016	Jun-2016	Jul-2016	Aug-2016	Sep-2016	Oct-2016	Nov-2016	2014	2015	2016 (YTD)	Δ 2014	Δ 2015	Δ 2016 (YTD)
<b>South East Asia</b>	55.4	52.0	54.0	57.5	72.0	86.7	79.5	73.3	70.9	65.4	51.5	61.6	51.3	47.9	52.0	51.3	13.2	4.1	-0.7
Crude	45.3	41.5	44.0	44.2	59.7	73.9	67.9	59.9	57.1	48.6	37.3	47.1	37.8	32.8	41.5	37.8	8.7	8.7	-3.7
Products	10.1	10.5	9.9	13.3	12.3	12.8	11.6	13.4	13.8	16.8	14.2	14.5	13.5	15.1	10.5	13.5	4.5	-4.6	3.0
<b>Middle East</b>	33.1	52.3	20.6	53.1	63.2	65.1	62.0	64.8	63.4	61.2	54.0	66.9	46.0	36.6	52.3	46.0	5.5	15.7	-6.3
Crude	24.1	45.3	14.9	46.2	55.4	57.2	55.8	57.5	56.6	53.7	46.1	58.5	37.9	31.8	45.3	37.9	8.5	13.5	-7.4
Products	9.0	7.0	5.7	6.9	7.8	7.9	6.2	7.4	6.8	7.4	8.0	8.3	8.1	4.8	7.0	8.1	-3.0	2.2	1.1
<b>Mediterranean</b>	32.4	32.3	32.8	31.4	29.3	28.4	27.3	27.3	31.1	27.9	31.4	30.5	32.8	28.9	32.3	32.8	7.4	3.4	0.4
Crude	20.2	20.9	18.8	16.8	18.1	16.7	15.8	15.7	17.9	16.2	18.7	18.6	17.2	17.9	20.9	17.2	5.9	3.0	-3.7
Products	12.3	11.4	13.9	14.6	11.2	11.7	11.6	11.6	13.3	11.6	12.7	11.9	15.6	11.0	11.4	15.6	1.4	0.4	4.2
<b>North West Europe</b>	8.4	12.8	13.4	14.5	15.6	15.9	15.1	14.8	15.0	15.1	12.7	15.1	18.7	4.1	12.8	18.7	-0.1	8.6	5.9
Crude	5.7	8.8	10.0	9.3	10.6	10.6	10.7	10.7	11.9	10.1	8.9	11.1	16.2	2.2	8.8	16.2	0.7	6.7	7.4
Products	2.7	3.9	3.4	5.2	5.1	5.3	4.4	4.1	3.1	5.0	3.8	4.0	2.5	1.9	3.9	2.5	-0.8	2.0	-1.4
<b>West Africa</b>	28.1	25.9	26.2	24.7	22.5	21.1	23.8	20.9	23.0	26.0	26.0	30.0	27.4	25.0	25.9	27.4	6.2	0.9	1.5
Crude	14.9	11.2	12.5	9.7	9.0	6.1	8.8	7.1	10.2	13.5	11.2	14.1	12.9	9.2	11.2	12.9	1.0	2.0	1.7
Products	13.2	14.7	13.7	15.0	13.5	15.0	15.0	13.8	12.8	12.6	14.8	15.9	14.5	15.8	14.7	14.5	5.2	-1.1	-0.2
<b>China + Korea + Japan</b>	21.3	22.8	39.6	29.8	23.2	22.9	34.5	35.9	20.4	23.6	18.5	28.7	20.6	14.2	22.8	20.6	-8.5	8.6	-2.2
Crude	10.6	11.4	19.8	14.9	11.6	11.5	17.3	17.9	10.2	11.8	9.2	14.4	10.3	7.1	11.4	10.3	-4.2	4.3	-1.1
Products	10.6	11.4	19.8	14.9	11.6	11.5	17.3	17.9	10.2	11.8	9.2	14.4	10.3	7.1	11.4	10.3	-4.2	4.3	-1.1
<b>US Gulf Coast</b>	9.2	9.4	8.6	13.8	14.0	11.1	8.7	9.3	7.4	6.3	7.1	7.5	7.2	8.7	9.4	7.2	5.8	0.8	-2.3
Crude	6.5	6.5	5.6	10.5	9.9	8.1	5.3	6.2	3.6	4.2	4.2	5.0	4.1	6.0	6.5	4.1	5.0	0.4	-2.4
Products	2.7	3.0	3.0	3.3	4.1	2.9	3.4	3.1	3.8	2.1	2.9	2.5	3.1	2.6	3.0	3.1	0.7	0.3	0.1
<b>India</b>	6.7	4.5	3.6	6.7	5.6	5.5	7.8	7.8	9.9	5.5	8.7	4.3	4.3	4.3	4.5	4.3	1.5	0.2	-0.2
Crude	3.3	0.2	0.3	4.0	2.7	3.1	4.3	3.2	5.5	1.3	3.7	1.0	2.0	0.5	0.2	2.0	0.0	-0.4	1.8
Products	3.5	4.3	3.3	2.7	2.9	2.3	3.6	4.6	4.4	4.2	4.9	3.2	2.4	3.7	4.3	2.4	1.5	0.6	-2.0
<b>World</b>	205.7	223.5	198.1	234.3	251.4	261.3	259.7	253.5	250.8	240.2	221.4	257.3	220.5	177.0	223.5	220.5	30.8	46.5	-3.0
Crude	140.8	157.5	135.0	165.2	182.4	195.1	195.4	184.3	182.1	169.7	147.9	185.9	148.6	112.2	157.5	148.6	21.9	45.3	-8.9
Products	65.0	66.0	63.1	69.1	68.9	66.1	64.3	69.2	68.7	70.5	73.5	71.5	71.9	64.8	66.0	71.9	8.9	1.2	5.9

Source: Bloomberg Energy

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