

25 / Oil is still susceptible to a last decline/setback in August-September but this will be followed by sharp gains during the rest of H2 2017

The first half of the year has pushed back on the bulls in the oil market, and the time window for oil to take off may not be in August. The next tactical move may still be a last sell-off that we have been flagging for some time, a last decline toward the lower part of this year range, which we have always said will happen in late Q3 2017. It should act some kind of reset -- and a new upcycle should commence thereafter. This may be a spoiler for the bullish surge which has been going in the past 4 weeks in the back of favorable oil news flow. Just last week (July 19), oil prices were significantly higher on news of an OPEC/non-OPEC in Russia this coming Monday. The price bid was based on talks of production caps on Libya and/or Nigeria, and or a unilateral cut by Saudi Arabia coming (which we believe is a non-starter). The news flow has been friendly to oil prices in the past month, as we saw the following developments:

(1) IEA publish its July oil market report on Thursday where the agency raised 2017 global oil demand growth forecast from 1.28 million b/d to 1.41 million b/d. The IEA upwards revision suggests global demand will expand this year by 1.5 million barrels per day (mb/d), or a jump of 0.1 mb/d from the agency's estimate in the previous month. The agency says demand is rising faster than expected, particularly in Q2 relative to Q1, which suggests the H2 2017 may lead to stronger inventory declines (all other things remaining the same). The demand figures from the IEA were backed up by recently released data from China showing that refinery demand in June was the second strongest on record. And because China's domestic production has contracted substantially over the last few years, it has had to step up imports.

(2) The US rig count, while still increasing, is expanding at a slower pace. Last week the rig count only increased by 2, a minuscule number in the context of the 14-month-long expansion since the spring of 2016. In the past three weeks, the oil rig count has only increased by 7; in the prior three-week period the rig count jumped by 25. Lower oil prices have started to deter shale drillers from jumping back into the field too aggressively.

(3) US oil inventories posted two consecutive weeks of strong declines. The EIA reported inventory drawdowns of 7.5 and 6.3 million barrels in the past two weeks, respectively, after several weeks of remaining flat. This two-week sequence was actually the largest drop in 10 months. There was a similarly significant drop in total product inventories, of -3.8 million barrels, above the 5-year average build for the week of 2.4 million barrels.

(4) OECD inventories (of which the U.S. comprises ~17% of excluding SPR), are also trending down. OECD inventories have fallen relative to the 5-year average since January. They are currently 240 million barrels above the 5-year average. Most of this decline in OECD inventories has ended up in China, which has been experiencing significant storage builds. As Chinese Teapot refineries have recently been granted further import quotas, this

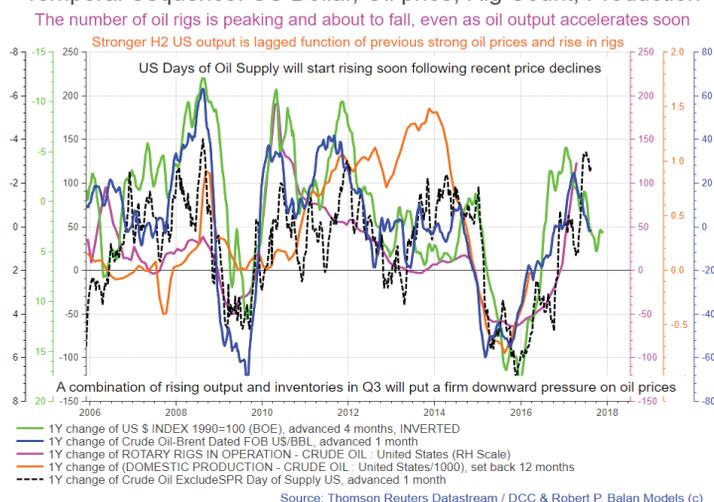
transfer of stocks should continue, leading to a decline in visible US and OECD inventories.

(5) Hedge funds and other money managers, having built up an extraordinary level of short positions in June, began liquidating two weeks ago (couple of weeks after the price bottomed in mid-June). Large investors staked out more bullish positioning in each of the last two weeks as price continued to rise.

Unfortunately, we believe that this run of good fortune is ending soon. We start with US-based oil fundamentals. We begin by showing the temporal sequence among the US Dollar, the price of oil, the US rig count and production, as illustrated in *the graph above*.

The US Dollar has an impact on the crude oil prices, which in turn, has tremendous impact on the oil rig count and US oil production, both on a lagged basis. We now have evidence that the US rig count rise has significantly slowed, and will soon peak or take a pause after a frenetic one-year rise, as the recent decline in oil prices made shale drillers more cautious. But even if get an actual slowdown in the number of rigs, it is highly likely that US oil production will continue to accelerate for some time, at least for the rest of the 3rd quarter.

Temporal Sequence: US Dollar, Oil price, Rig Count, Production



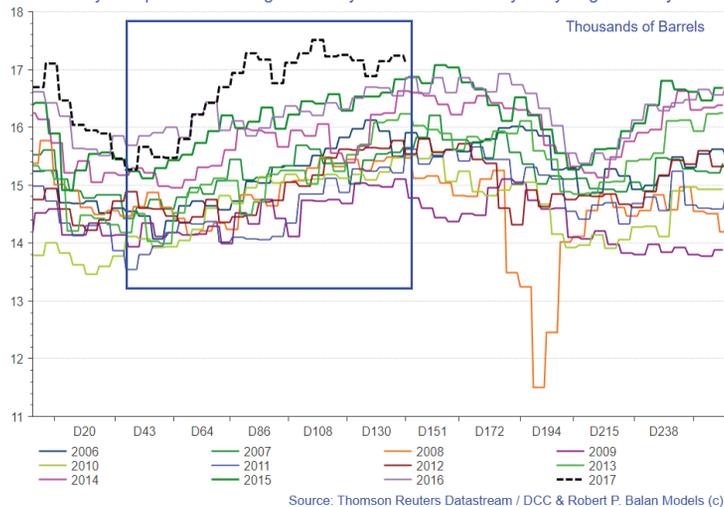
This sequence of events is dictated by the temporal ordering among these variables: oil prices lead changes in the rig count by 4 months, and changes in the oil rig count leads oil production by 8 months. **Put another way: sustained fall in oil price will negatively impact the oil rig count 4 months later, and oil production will slow down only 8 months later.** We therefore forecast domestic production to continue climbing to record highs, which could cast a dark shadow over continued inventory draws and the effectiveness of OPEC cuts. U.S. oil production is forecast to increase 373,000 bpd year-on-year in 2017 despite lower crude prices in the last month. Production increases are expected to continue beyond this year.

U.S. oil inventories also respond to lower oil prices by building (after a 2-month lag), and so it is just at this time that inventories should start rising soon due to this factor. Oil inventories continue to draw however, as demand from refineries enabled some spectacular weekly drawdowns in recent weeks. However, although the inventory decreases paint a seemingly bullish picture, several of the contributing variables are not necessarily indicative of global supply and demand rebalancing, and will likely be confronted by increasing U.S. production. Moreover, by early August, the seasonal demand from refineries will start to taper, removing the biggest single factor that would prevent inventories from building up again (*see 1st & 2nd graph on this page*)

There is also a distinct comovement among global oil data, especially among consumption, supply, and net inventory withdrawals. Aligning or synchronizing the quarterly changes among these variables is not particularly difficult. The point is that there are periods when these variables align so that oil prices get the benefit or the ill effects of such alignment. One such alignment will occur in late Q3 when global consumption and net inventory withdrawals are forecast to fall, at a time that global supply is expected

US Refinery Crude Oil Input Seasonality (Jan to Dec. year by year)

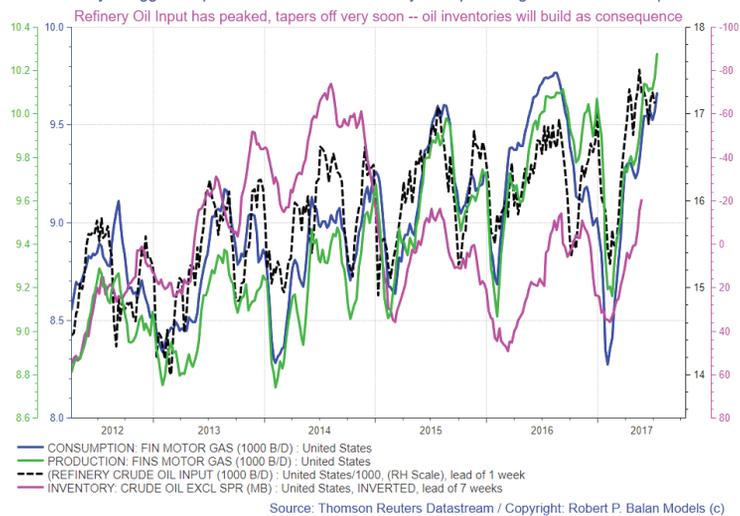
Refinery oil inputs starts rising from early March until late July-early Aug in most years



Source: Thomson Reuters Datastream / DCC & Robert P. Balan Models (c)

Gasoline Consumption and Output, Refinery Oil Input and Oil Inventory (inverted)

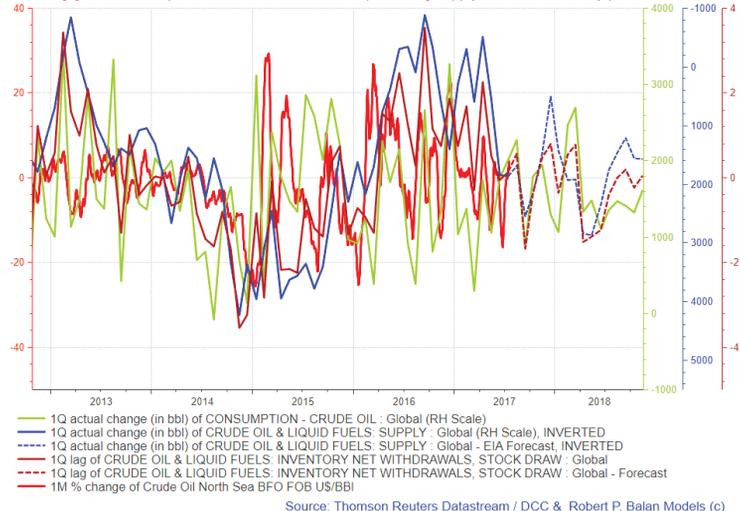
Oil inventory is lagged response to the scale of Refinery Oil Input that goes into Gasoline production



Source: Thomson Reuters Datastream / Copyright: Robert P. Balan Models (c)

Comovements: Global Oil Demand vs Inventory Withdrawals vs Price

Falling global consumption, lower stock withdrawals plus rising supply make late Q3 risky period for oil bulls



Source: Thomson Reuters Datastream / DCC & Robert P. Balan Models (c)

to increase. **This is the confluence of events which we believe could trigger a last sharp decline in oil towards the \$45/40 level. However, the adverse situation should not last long. All those factors would quickly realign so that global production will decline, supply will fall and inventory withdrawals**

will accelerate during the last quarter of the year. That would be extremely price-friendly and we expect a surge in oil prices which should challenge the \$60.00 level by year-end. The entire sequence of the down-and-then-up movement is illustrated in the last graph above.