more give, less take

# Oil Market Update – June 2015

by NAB Group Economics

## Key points

- Oil prices rebounded sharply in April and May, benefiting from a confluence of factors: a stall in the USD rally, signs of slowing inventory build-up in the US, as well as unabated geopolitical volatility in the Middle East marked by Yemen civil unrests. In May, Brent and West Texas Intermediate (WTI) indices both rose by 9%, while Tapis charted an increase of 8% to average at US$65, US$59 and US$67 a barrel.

- In the first week of June, oil prices have lost some momentum ahead of the OPEC meeting held on the 5th June. In line with market expectations, OPEC decided to keep its output quota of 30 million barrels a day unchanged during the meeting. This, combined with a weak Chinese crude import data for May, weighed down on oil prices at the start of this week.

- US weekly field production of crude started to slow in late March, with the 60% fall in rig count since December finally showing some effects on the overall crude production. However, a remarkable rebound in oil prices in April and May appeared to encourage a pick-up in crude production towards the second half of May, with the weekly production rates for the two weeks spiking to around 9.6 million barrels a day, the highest weekly rate since 1970. This suggests that there was plenty of latent production capacity in the US still which can respond very quickly to price changes.

- Evidence from secondary sources suggests that US oil producers are working through a large backlog of drilled but uncompleted wells, which have a significantly lower cost hurdle to achieve production, and an estimated number of these wells from Bloomberg Intelligence points to a figure as large as 4,500 in Q1. This estimate, if credible, constitutes some upside risks to our expectations that US oil supply will come off notably more quickly in H2 of 2015. Combined with sustained strength in OPEC production, the current glut situation is expected to persist for longer than previously expected, thus limiting the upward mobility in prices for the rest of 2015 and 2016. As such, we expect oil prices to stay around current levels in the coming months before embarking on a more sustainable, albeit still gradual, upward trajectory in 2016.

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## Recent market movements

- Oil prices rebounded sharply in April and May, benefiting from a confluence of factors: a stall in the USD rally, signs of slowing inventory build-up in the US due to robust demand, as well as unabated geopolitical volatility in the Middle East marked by Yemen civil unrests.

- In May, Brent and West Texas Intermediate (WTI) indices both rose by 9%, while Tapis charted an increase of 8% to average at US$65, US$59 and US$67 a barrel.

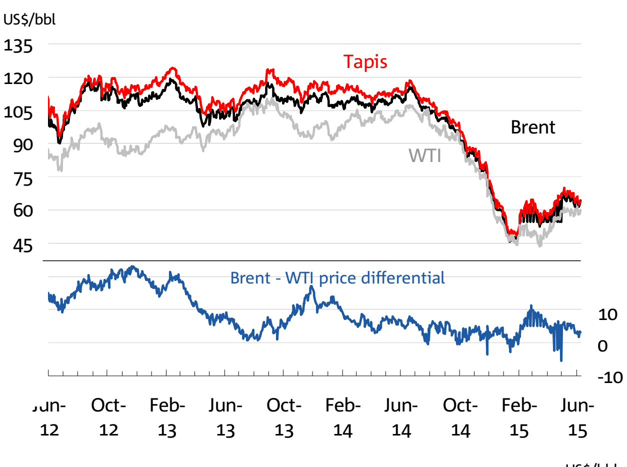
- Since peaking in mid-March, the USD index had faltered on slower-than-expected US growth since the start of the year. Initially the slowdown was attributed to the winter lull, but more recent data pointed to underlying weakness in fundamentals such as retail spending, industrial production and consumer confidence. This pushes out market expectations for the first rate hike by the US Federal Reserve to September, which serves to weigh on USD in the short term. More recently, however, sturdy US manufacturing and home sales data fuelled optimism of a rebound in US economic performance in Q2. Consequently, the USD index has also picked up from its recent trough in the second week of May.

- The inverse correlation between USD and oil prices, which was partly channelled through the futures' market, played out quite prominently over the last two months. Managed fund managers cut back their bearish bets on oil prices significantly over the period, while maintaining a gradual increase in their bullish bets up till the first week of May. As a result, the long-to-short ratios for oil futures ( Brent and NYMEX) ratios lifted notably in the two months.

- In the first week of June, oil prices have lost some momentum ahead of the OPEC meeting held on the 5th June. In line with market expectations, OPEC decided to keep its output quota of 30 million barrels a day (mb/d) unchanged during the meeting. This, combined with a weak Chinese crude import data for May, weighed down on oil prices at the start of this week.

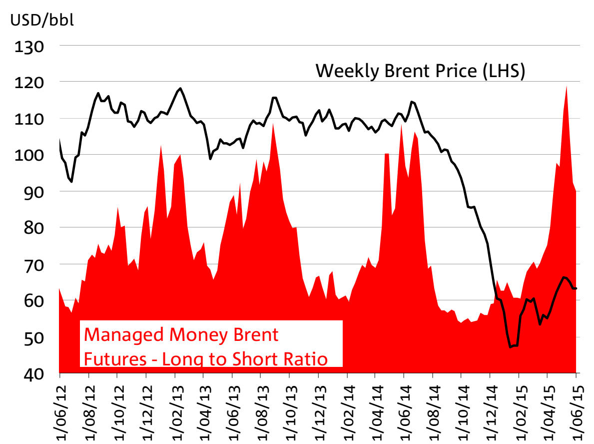
- Persistently strong production from OPEC members in an already oversupplied global market, exceeding the organisation's output quota for the 11th month to April, is likely to perpetuate the global oil glut for the rest of 2015 and possibly in 2016. This suggests very limited upward price mobility for oil prices for the coming months, despite our view that the bottoms have already probably been reached.

**Figure 1: Oil Price Indexes**



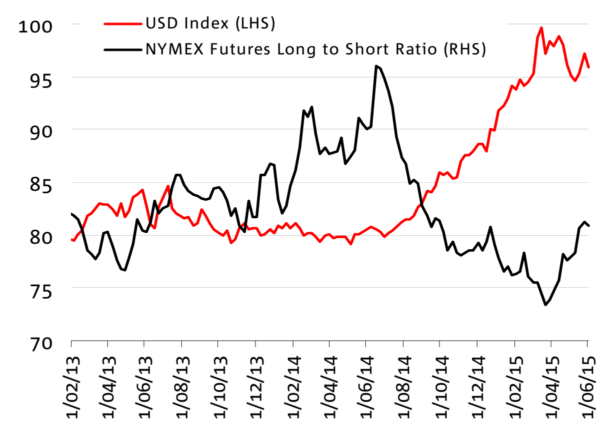

Source: Thomson Datastream

**Figure 2: Brent Prices and Long-to-short Ratios**




Source: Bloomberg and NAB Group Economics

**Figure 3: USD Index and NYMEC Futures' Long-to-short Ratios**

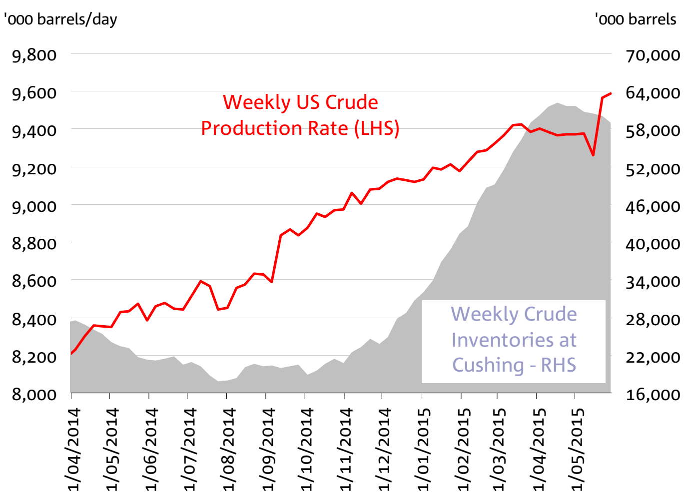



Source: Bloomberg and NAB Group Economics

# Supply conditions: US

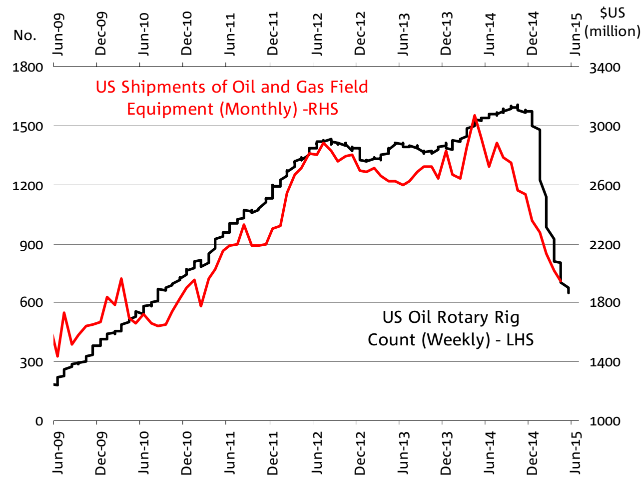
- In the US, the daily crude production rate commenced slowing in late March, with the 60% fall in rig count finally showing some effects on the overall crude production. Combined with a higher refinery demand, this eventually led to a decline in the stock levels at the main delivery hub of Cushing, which have risen dramatically since December last year and fast approaching the storage capacity limit of the hub estimated to be around 70mb.
- However, two months of strong price rallies in April and May have encouraged a pick-up in crude production towards the second half of May, with the weekly production rates for the weeks ending 22nd and 29th May spiking to around 9.6 million barrels a day, the highest weekly rate since 1970. The effects of the recent oil price rebound can also be seen in the slowing of rig count falls in the last few weeks. The total reduction in rig count in May was 33 rigs compared to 123 in April to an overall level of 649 rigs, representing about 40% of the recent peak in October last year. Since late last year, there has also been a steady decline in the demand for oil and gas field equipment.
- In an environment where prices have fallen sharply within a short time, the rig count is a poor predictor for future production if there is a large existing backlog of drilled but yet-to-be completed wells. A rig is essentially a vertical structure with equipment to drill a well but not produce oil. While it gives an indication of how many new wells are being drilled currently, it does not paint a full picture of the amount of latent oil production capacity due to drilled but idled wells. These uncompleted wells can be turned into producing assets for approximately 65% of the costs of a new drill, which suggests a lower financial hurdle to production, according to a report by IHS Inc. Hence, a sustained period of WTI prices above US$55 a barrel could provide sufficient incentives for producers to reduce their backlog without changing the rig count.
- According to Bloomberg's estimate, US horizontal oil wells' backlog rose to a record of 4,500 in Q1, which is equivalent to 8 months of drilling activity and a sizeable production capacity on stand-by. The decision to reduce the backlog is said to be dependent on the steepness of the futures curve, servicing cost expectations and producers' cash flow needs.

**Figure 4: US Weekly Crude Production and Inventories at Cushing**




Source: EIA, NAB Group Economics

**Figure 5: US Rig Count and Shipments of Gas Field Equipment**




Source: Datastream, NAB Group Economics

# Supply conditions : OPEC and others

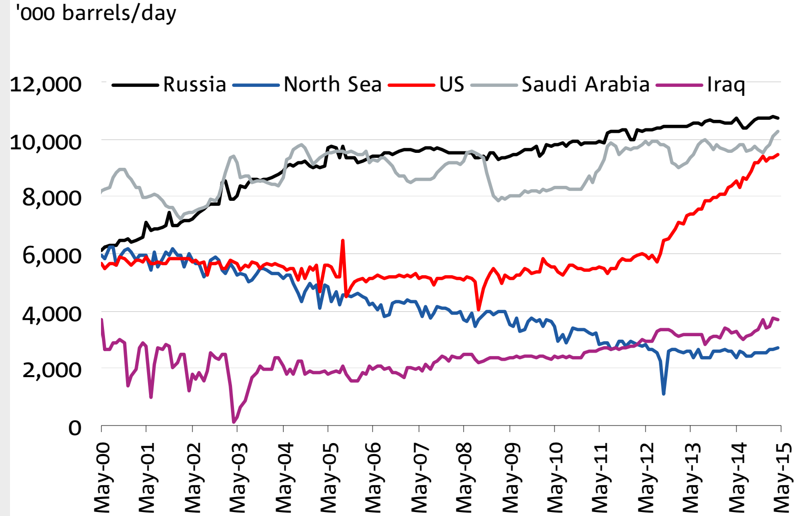
- Global production of crude oil was robust in April from strong Saudi Arabian and Iraqi output amidst signs of slowing US and Canadian production. According to secondary sources, Saudi Arabia's output exceeded 10 million barrels a day for the second consecutive month in April, to be at the highest level in at least three decades. Despite some increases in oil demand globally from the low prices to-date, the frenetic pace of output expansion from some OPEC members has continued to fuel the existing supply glut. OPEC production has exceeded its 30mb/day quota for the 11th consecutive month in April, and some preliminary data for May suggests this is also the case for the month.

- According to the latest estimates by the International Energy Agency, average global production for Q1 2015 reached 95.07mb/day, which exceeded Q1 2014 by 2.88 mb/day. Meanwhile, global demand for the March quarter this year was only 93.12 mb/day, pointing to excess production of around 2mb/day.

- Oil market developments in recent months, to some extent, have vindicated OPEC's strategy not to cut its production quota back in November last year. Notwithstanding the oil revenue losses experienced by its members to date, OPEC has successfully defended its market share while oil Brent prices have recovered by around 40% from its trough in mid-January. On the contrary, the US benchmark of WTI has only risen by 26% since then. This has boosted OPEC's confidence that its strategy is working which led to its decision to maintain the current quota 30mb/day at the OPEC meeting last Friday.

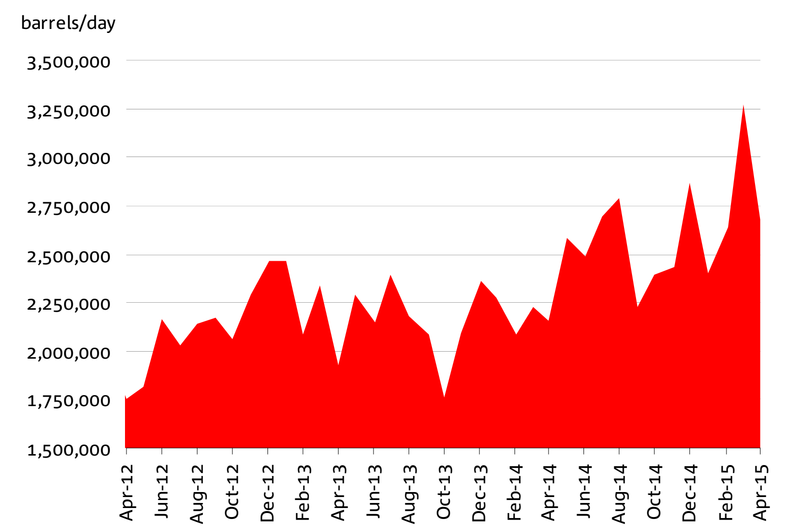
- The rapid rate of crude output growth by OPEC just when US production is slowing highlights the organisation's priority to defend its market share, or even increase it. Iran is very close to having the economic and trade sanctions imposed on it by the US and major world powers lifted in conjunction with an imminent nuclear deal, and is likely to expand its oil output sharply in light of this. Meanwhile Iraq, which is exempt from any production quota due its fragile geopolitical and economic conditions and ongoing war with ISIS, is expected to keep its crude output elevated to finance its government's expenditure.

**Figure 6: Monthly Production by Major Global Producers**




Source: Bloomberg, NAB Group Economics

**Figure 7: Monthly Crude Export Volume from Basrah, Iraq**




Source: Bloomberg, NAB Group Economics

# Demand conditions

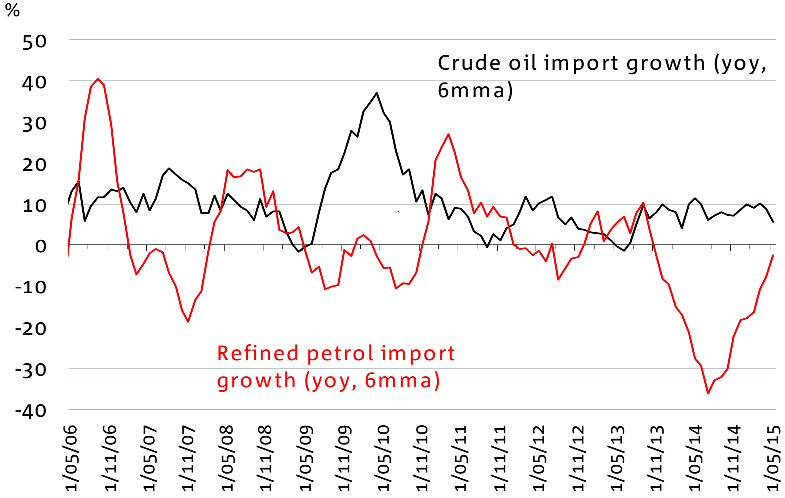
- Chinese crude and refined oil imports slowed sharply in the month of May, falling by 23% and 6% respectively. Relative to the same time last year, Chinese crude exports was around 11% below for the month but refined oil imports was higher by 28%, although the volume of the latter (2.32 million tonnes), is only around 10% of imported crude volumes for the month.

- The significantly lower Chinese crude imports for the month partly reflected the refinery maintenance and the large build-up of crude stockpiles. Since mid-2013, Chinese demand for refined petroleum products had fallen in favour of crude imports as it ramps up its refining capacity steadily, and the oil price crash in H2 2014 has also stocked an aggressive restocking of strategic crude reserves by state-owned Chinese oil companies. Based on our simplistic calculations of Chinese crude stock flows using Chinese implied crude demand ( crude production + net imports) net of refinery throughput ( production of refined crude oil), it is apparent that the pace of accumulation of Chinese crude stockpile has picked up sharply since mid-2013, and was maintained at a strong pace since then. In the year to April 2015, Chinese crude stockpile has increased by close to 18 million barrels, and since the beginning 1996, the figure is closer to 255.5mb which is equivalent to approximately 24 days of China's usage.

- In the US, demand for oil products has gained significant traction since November 2014, as lower pump prices, combined with tractable improvements in the US economy: a pick-up in employment as well as an expansion of manufacturing activity and foreign trade had encouraged more usage of gasoline, distillates and jet fuel. Monthly fuel consumption data for March and preliminary weekly data for April and May point to a sizeable growth in US fuel consumption this year, estimated to be around 2% to 19.41 million barrels a day by the US Energy Information Administration.

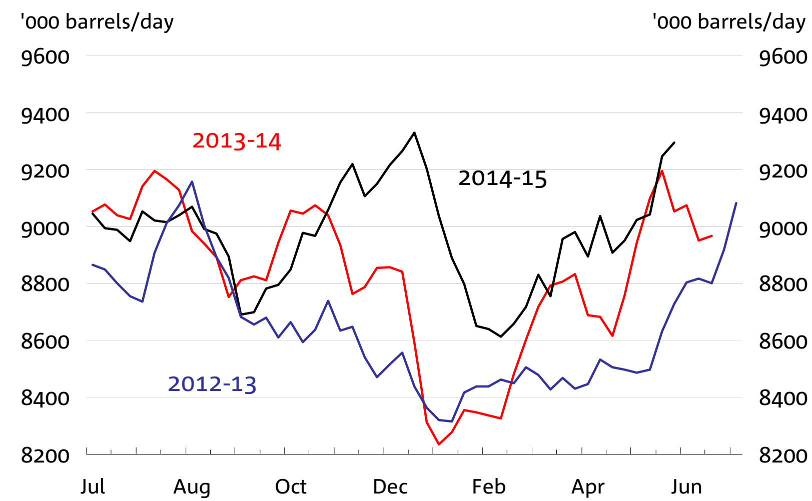
- India's fuel consumption has also gained notable momentum in 2014 and has managed to keep up pace in the first few months of 2015, largely supported by the usage of gasoline, LPG and diesel. In volume terms, domestic sales of refined oil products rose by 9% year-on-year in April, when the average for the month in the last 5 years had been around 3%.

**Figure 8: Chinese Imports of Crude Oil and Refined Oil, 6-month Moving Average Growth (y-o-y)**




Source: CEIC Database, NAB Group Economics

**Figure 9: Weekly US Apparent Gasoline Demand**




Source: US Energy Information Administration, NAB Group Economics

## NAB quarterly oil price forecasts

- As we approach the one-year anniversary since the advent of the bearish cycle in the oil market (the first signs of oil price declines started in early July 2014), oil fundamentals remain staunchly mired in a glut situation: the reluctance by OPEC to pare back production and sustained strength in US production, partly driven by efficiency gains of new wells and starting-up of back-logged wells, continue to contribute to global supplies at a pace that exceeds demand growth.
- US field production of crude oil, which appeared to have eased from late March to mid-May, staged a remarkable surge in the second half of May on the back of higher oil prices in April and May. This illustrates the high responsiveness of US production to price signals, given the large amount of latent production capacity in the form of drilled but uncompleted oil wells which have a lower cost hurdle to reach the production stage. If the data from Bloomberg Intelligence is to be believed, the 4,500 drilled but idled wells ( as of Q1) in the US suggests that US production is likely to be ramped up rather easily as long as oil prices stay above US$55 a barrel for a meaningful period of time. This constitutes some upside risks to our expectations that US oil supply will come off significantly more rapidly in H2 of 2015 should WTI remain range-bound between the US$55 and US$60 a barrel marks.
- Meanwhile, further expected appreciation in the US dollar in line with the normalisation of US monetary settings, although likely to be much more gradual and limited compared to the remarkable rallying cycle in 2014, is also expected to weigh on oil prices in the coming months. As such, we are of the view that the rising streak in oil prices in April and May are not likely to be repeated in the coming months, and by leaving our forecasts largely unchanged for September quarter onwards, we expect a mild deterioration in oil prices in the September quarter relative to the current quarter before resuming a gradual rising track given a more sustainable decline in US shale production.

**Figure 10: NAB Oil Price Forecasts (Quarterly Average)**

| | Current | Actual | Forecasts | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 11/06/2015 | Mar-15 | *Jun 15* | *Sep 15* | *Dec 15* | *Mar 16* | *Jun 16* | *Sep 16* | *Dec 16* | *Mar 17* |
| WTI (US$/bbl) | 60.7 | 48.6 | 58 | 55 | 60 | 63 | 65 | 68 | 70 | 70 |
| Brent (US$/bbl) | 65.1 | 54.5 | 63 | 60 | 63 | 66 | 68 | 70 | 72 | 72 |
| Singapore Gasoil (Auc/L) | 0.62 | 0.55 | 0.61 | 0.60 | 0.63 | 0.65 | 0.67 | 0.68 | 0.70 | 0.70 |
| Tapis (US$/bbl) | 66.9 | 56.6 | 65 | 62 | 65 | 68 | 70 | 72 | 75 | 75 |
| Australian Retail Unleaded Petrol (AUc/L)* | NA | 119 | 133 | 130 | 136 | 140 | 142 | 145 | 150 | 150 |

Sources: NAB Economics; RACQ; Thomson Datastream

* Denotes 5-capital average **Estimate

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