جدوى للإستثمار
Jadwa Investment

April 2016

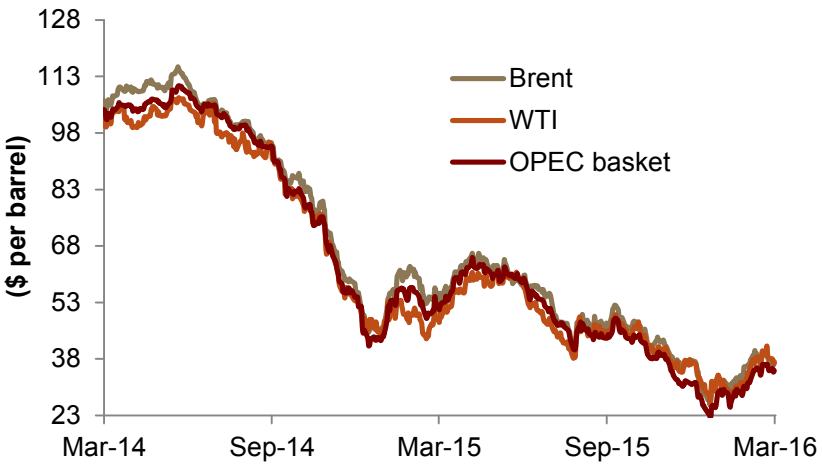
Quarterly Oil Market Update

Production 'freezes' not a big deal

Summary

- In March 2016, Brent oil rose by 19 percent month-on-month, following talks of a potential production 'freeze' amongst major oil producers. Despite this, year-to-date Brent oil prices are still down by 37 percent year-on-year, reflecting persistently high oil supply and rising commercial crude stock levels.
- Lower yearly oil prices are taking their toll on shale oil producers, with Q1 2016 seeing the first year-on-year fall in US production in eight years, but record rises in OPEC and Russian crude production have more than compensated for this drop.
- Oil prices have shown some firmness in the run-up to the production 'freeze' meeting between a number of oil producing countries next week, but we do not see any real progress being made, primarily due to an absence of a commitment by all major OPEC and non-OPEC suppliers.
- Even if output can be capped at January levels, this would still be exceptionally high. OPEC production was at record highs, at 33.4 mbpd, even when excluding Indonesia, and so too was Russian output. The deal, if agreed to, would therefore maintain the excess supply that is currently depressing oil prices, especially since a 'freeze' would not apply to crude oil exports.
- In our view, there are significant risks to either an agreement being reached or a lack of implementation even if there is an agreement. In both instances we would expect the gains of the previous month or so to be lost. As such we maintain our full year 2016 Brent forecast at $33 pb with prices increasing to $44 pb in 2017.

Figure 1: Slight recovery in Brent crude oil prices recently



For comments and queries please contact:

Fahad M. Alturki
Chief Economist and Head of Research
falturki@jadwa.com

Asad Khan
Senior Economist
rkhan@jadwa.com

Head office:
Phone +966 11 279-1111
Fax +966 11 279-1571
P.O. Box 60677, Riyadh 11555
Kingdom of Saudi Arabia
www.jadwa.com

Moderate oil demand

Quarter-on-quarter Brent oil prices down by 23 percent in Q1 2016…

Quarter-on-quarter Brent oil prices were down by 23 percent in Q1 2016, reflecting a continued glut in oil markets (Figure 1). Despite a 19 percent month-on-month rise in March, following talks of a potential 'production 'freeze' amongst major oil producers, oil markets are still suffering from persistently high oil supply and rising commercial crude stock levels. In Q2 2016, we see a lack of agreement and/or limited follow through on production 'freezes' pushing prices back down. Throughout the remainder of 2016 we expect continued competition between major oil producers to keep markets oversupplied. Whilst we see non-OPEC supply beginning to fall in the second half of 2016, a gradual rise in supply from Iran should compensate some of this decline. Meanwhile, whilst demand has ,and will remain, robust, it will not be enough to move oil market balances from surplus to deficit during 2016. Latest OPEC data points to oil demand growing by 1.25 mbpd in 2016, slightly below the average of 1.37 mbpd in the five years between 2010-15 (Figure 2).

...reflecting the existence of a glut in oil markets.

OPEC data shows demand growing by 1.25 mbpd in 2016, below the 1.37 mbpd average from 2010-15.

US year-on-year growth in crude imports positive in 2016.

In the **US** (21 percent of global oil demand)**,** gasoline is the main growth segment and will remain so over the course of the year. According to the US's Energy Information Agency (EIA) gasoline prices are expected to reach a seven-year low of $1.90 per gallon in 2016, which will help spur overall oil demand. Rising oil demand and slowing US shale oil output (see Oil supply section) will result in total year-on-year growth in US crude imports being positive in 2016 (Figure 3).

Europe will not provide a major boost to oil demand in 2016 due to structural factors.

An improved economic environment and lower year-on-year oil prices have not led to large rises in oil demand in **Europe** (14 percent of global oil demand). Oil demand in Q1 2016 was subdued and will likely remain so during the rest of 2016 as structural factors such as a maturing economic base and rising fuel efficiency add to a long-term downward trend in demand.

Preliminary data for Q1 2016 shows Chinese oil imports grew by 9 percent year-on-year...

Although **Chinese** economic growth is likely to be weaker than forecasted, we do not see this adversely impacting its oil demand in 2016 (12 percent of global oil demand). Preliminary data for Q1 2016 shows that oil imports grew by 9 percent year-on-year despite

Figure 2: Global oil demand growth in 2016 robust but lower than 2010-15 average

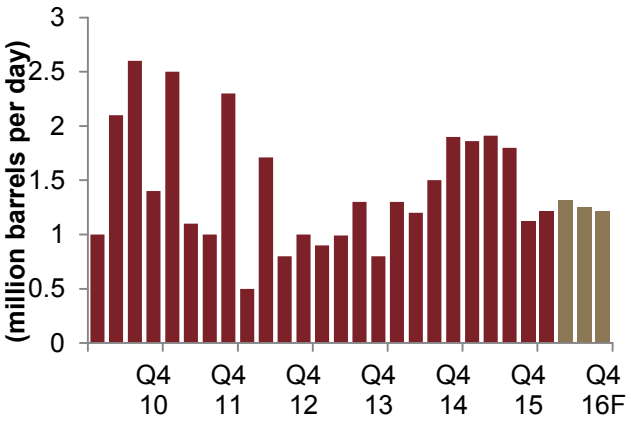
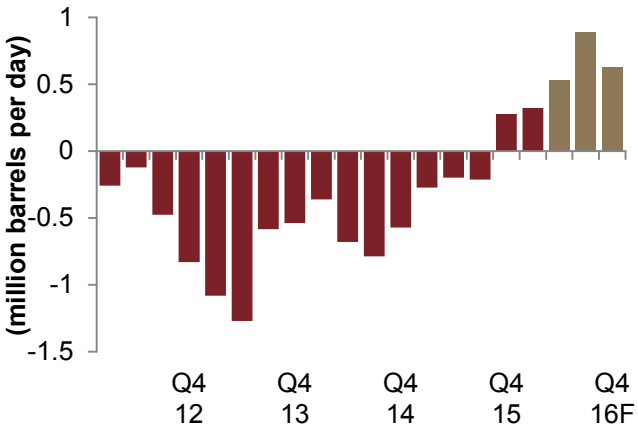


Figure 3: Year-on-year US crude oil imports turning positive in 2016



...and crude demand in 2016 will be supported by lower gasoline prices, commercial crude stock and crude import quotas for teapot refineries.

seasonal factors related to new year festivities which usually affects demand. Looking ahead into the second half of 2016, we see China's crude imports being supported by lower retail pump prices, rising vehicles sales, and ongoing efforts to boost commercial crude stocks. Additionally, imports are expected to be boosted by small, independent (teapot) refineries. The Chinese government granted crude import quotas to teapot refineries at the end of 2015 in a bid to reform the refining industry, boost competition and attract private investment. Currently, ten teapot refineries have been granted quotas to import 800 thousand barrels per day (tbpd) of crude oil but this could double by mid-2016 as a further eight refineries are pending approval for quotas.

Japanese demand has been affected by sluggish economic growth and a steady closure of refinery capacity.

Preliminary Q1 2016 data shows that crude oil imports were down 5 percent year-on-year in **Japan** (4 percent of global oil demand). We see limited prospect of positive oil demand growth in Q2 2016 and beyond despite a decision to cancel the reactivation of two nuclear reactors scheduled for the forthcoming quarter. Sluggish economic growth and a steady closure of some refinery capacity will keep crude oil demand in the negative territory for the whole of 2016.

The drop in oil prices has acted as a windfall for India which imports 80 percent of its crude oil requirement.

Indian (4 percent of global oil demand) crude oil imports increased by 7 percent in Q1 2016 year-on-year. The drop in oil prices has acted as an economic windfall for a country which imports 80 percent of its crude oil requirements. Growth in gasoline consumption in India has become one of the key drivers of domestic oil demand but strong industrial output, rising petrochemical feedstock demand and further stockpiling of strategic crude will also lift oil demand growth in Q2 2016 and the rest of the year. India has recently overtaken Japan as the third largest global importer and oil producers will be vying for a larger share of this growing market, which is currently dominated by Middle Eastern suppliers (Figure 5).

Preliminary data shows that Saudi Arabia's total crude consumption rose by 4 percent year-on-year.

Preliminary data shows that **Saudi Arabia's** (3 percent of global oil demand) total crude consumption is expected to have risen by 4 percent year-on-year. The rise in oil demand is largely a result of the start up of the 400 tbpd Yasref refinery which hit full capacity in mid-2015. Latest data shows that 2015 crude demand was up 7 percent year-on-year, to 2.8 mbpd, compared to an average growth of 4 percent from 2010-14. We expect some rise in year-on-year

Figure 4: Chinese oil imports continue to rise

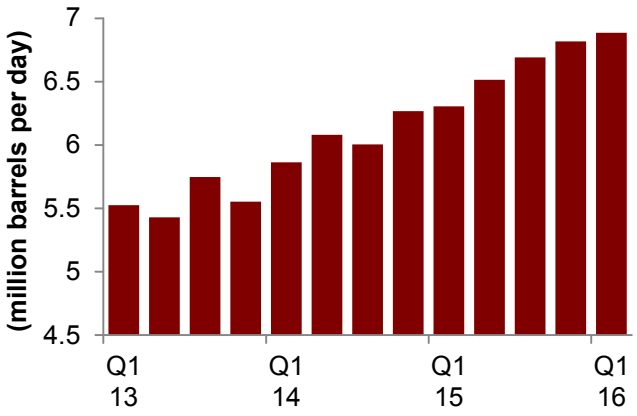
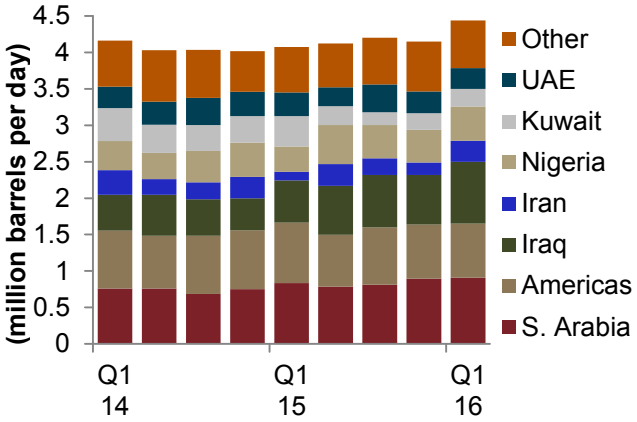


Figure 5: Middle Eastern countries are the main suppliers of Indian crude oil



Higher domestic energy prices and increases in gas output will help curb the surge in crude burn during the summer.

consumption in Q2 2016 but the combination of higher domestic energy prices and increases in gas output will help curb the seasonal surge in crude burn during the summer. During Q1 2016, Saudi Aramco reported that the Hasbah-Arabiyah gas fields had been commissioned. We see the gas from these fields replacing the use of some expensive industry diesel and crude oil in generating electricity.

Over-supplied oil markets persist

Year-on-year increases in non-OPEC being outweighed by OPEC rises .

Non-OPEC production grew by its slowest annual rate in five years in Q1 2016 but this was more than compensated by OPEC output, which increased by 2.4 mbpd, over the same period. Further declines are expected in non-OPEC supply in Q2 2016, and the rest of the year, with the US seeing the lion's share of declines.

US oil production saw its first year-on-year decline in eight years in Q1 2016.

US oil production saw its first year-on-year decline in eight years in Q1 2016, as low oil prices took their toll on beleaguered shale oil companies (Figure 6). Heavy cost-cutting measures, technological improvement and hedging had allowed production to remain positive in 2015, even as oil prices declined, but with banks rolling back credit lines and high yield energy debt markets at distressed levels, this will be more difficult to repeat going forward. According to the latest EIA estimates, US production will decline in Q2 2016, dropping by 7 percent year-on-year, with declines continuing throughout 2016, resulting in total US oil production declining by 8 percent in 2016, compared to an average growth of 14 percent between 2012-15.

Total US oil production will decline by 8 percent in 2016 as a whole.

Russian crude oil production rose to record post-Soviet production in Q1 2016.

Russian oil output in Q1 2016 broke a post-Soviet record for a second consecutive quarter in a row, with year-on-year growth at 2.4 percent (Figure 7). Specifically, March saw record output which questioned Russia's commitment to 'freezing' production at January 2016 levels (See Box 1: Oil production 'freeze'). Despite this record output, the combination of natural decline rates at very mature oil fields and a drop in capital expenditure by Russian oil companies, due to double whammy of lower oil prices and sanctions limiting access to international financial markets, will mean Russia cannot sustain production at current levels during 2016 as a whole, but some year-on-year rises are nevertheless expected.

Figure 6: Q1 2016 first year-on-year decline in US crude oil production since 2008

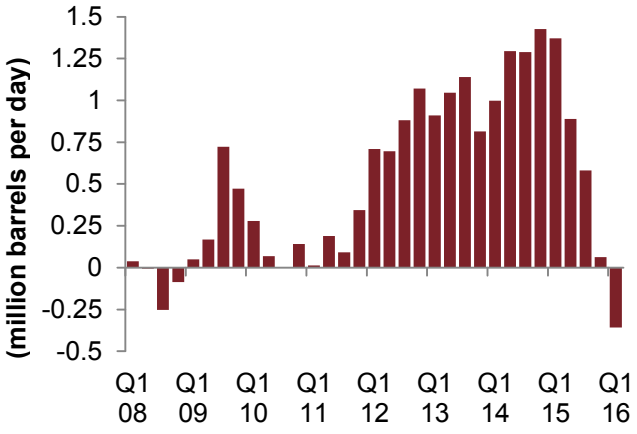
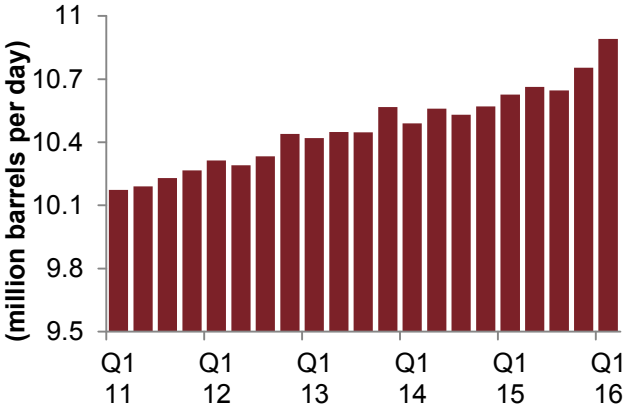


Figure 7: Russian oil production hit post-Soviet record in Q1 2016



We expect to see OPEC production up by around 300 tbpd by Q4 2016 year-on-year…

...with most of the rises coming from increased Iranian supply.

Total oil output from OPEC was up by 8 percent in Q1 2016, year-on-year, as a result of huge increases from Iraq (up 55 percent) and Iran (up 12 percent), which pushed the organization's quarterly average to a record 33.1 mbpd. We expect to see slower rises in OPEC production with further increases of around 300 tbpd by Q4 2016 year-on-year with most of the rises coming from increased Iranian production. Downside risks to production in OPEC are apparent through the 'fragile five': Nigeria, Libya, Algeria, Iraq and Venezuela. These countries have all been hit exceptionally hard, both financially and economically, by oil price declines and are the most at risk of not being able to sustain production at current levels. According to the Global Petroleum Survey, the 'fragile five' are amongst the least attractive countries, out of 14 of the largest oil reserve holding countries globally, for investment in oil and gas exploration and production (E&P) (Figure 8).

Nigerian production could be affected by reform in the petroleum sector…

...whilst the use of dwindling oil revenues on social spending in Venezuela will leave very little for oil investment.

Nigeria's oil industry has been plagued for decades by accusations of large scale corruption and has suffered from consistent and sizable theft of oil. In addition, 2015 financial results revealed the Nigerian National Petroleum Company (NNPC) suffered full year losses of $1.24 billion and is in dire need of investment by international oil companies (IOCs). This investment could be delayed if the implementation of a recently announced restructuring of the NNPC is stalled. In **Venezuela,** a majority of government oil revenue has been diverted to social spending as the country is in the midst of an economic emergency. This has happened as the national oil company, Petroleos de Venezuela (PDVSA), has been struggling to halt a gradual decline in output which began at the start of 2014. Since oil revenues form a major source of government revenue, very little cash will be left for capital expenditure to reverse PDVSA's decline in output, in the year ahead. Meanwhile, **Algeria**, which has seen volatile oil production over the past two years, is trying to formulate a new economic plan as foreign reserves dropped by 20 percent in 2015. Added to this, the country has seen renewed terrorist activity directed at energy facilities, one recent incident prompted two IOCs to ship out their Algerian based staff. Whilst **Libya** has seen relative stability in output in the last few months, it still only represents a third of the 1.5 mbpd it produced in 2012. Civil conflict and a rise in terrorist incidents make a recovery to 2012 production levels highly unlikely.

Algeria has seen an uptick in terrorist activity directed at energy facilities…

...whilst Libya is still bogged down by civil strife.

Figure 8: The 'fragile five' all exhibit high global barriers to investment in oil & gas E&P*

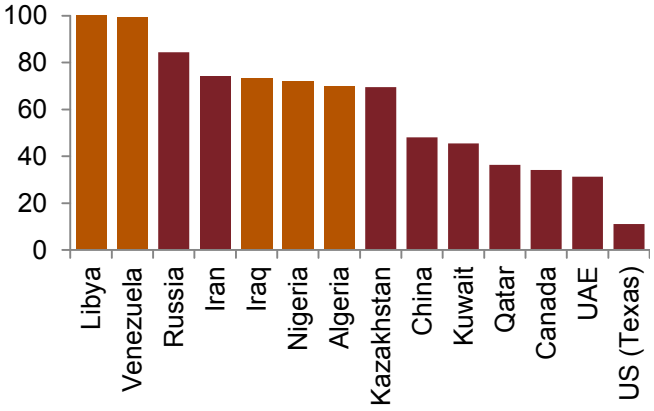
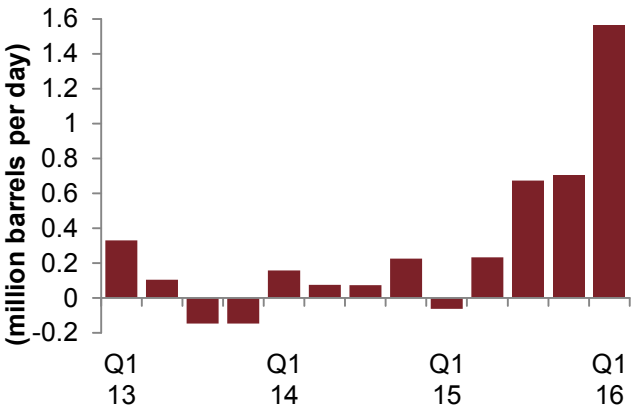


Figure 9: Huge growth in year-on-year Iraqi crude oil production in Q1 2016



*Note: Highest barrier to investment = 100

Although Iraqi crude production was up a substantial 55 percent, year-on-year, in Q1 2016…

Iraqi crude production was up a substantial 55 percent, year-on-year, in Q1 2016, to 4.6 mbpd, with most of the rises coming from the southern part of the country, which produced roughly 4 mbpd (Figure 9). Additional production rises for the remainder of 2016 will be more difficult to achieve as the country hits capacity restraints. Also, the country's fiscal situation has deteriorated since 2013 due to lower oil prices, higher military spending, and costs associated with civil conflict. Although all efforts will be made to pump crude oil production to full capacity going forward, we do not see Iraqi production consistently reaching 4.6 mbpd. Continued fighting in the northern part of the country, infrastructure constraints in the south, and a delicate political resolution between the central government and the Kurdish Regional Government (KRG) will keep production between 4 to 4.5 mbpd during in 2016.

...additional production rises during Q2 2016 and in 2016 will be more difficult to achieve.

Iran's crude output increased by 12 percent year-on-year in Q1 2016…

The EIA estimated that **Iranian** crude production would increase to around 3.3 mbpd in 2016, with a variation of 250 tbpd either up or down. Since Iran's crude production increased by 12 percent year-on-year in Q1 2016, to 3.4 mbpd, after lifting of sanctions in mid-January 2016, it would imply that EIA's higher end estimate, of 3.5 mbpd, is probably more accurate for 2016. As a result, Iran will be the main contributor to OPEC increases from now until the end of the year. Jadwa Investment's estimates, based on preliminary data, suggests that exports have grown at a more rapid pace than production, at 30 percent year-on-year in Q1 2016. This growth in exports has not come from Europe, a market in which Iran saw its largest drop in exports after sanctions in 2011, but from India and South Korea (Figure 10). Although agreements to buy Iranian crude have been signed by some European refineries, it seems the lack of clarity over sanctions relating to dollar payments and shipping insurance has resulted in a slow take-up of crude purchases in a region that is already well supplied.

...with exports up 30 percent due to growth in shipments to India and South Korea.

Box 1: Oil production 'freeze'

A number of oil producing countries will meet in mid-April to discuss the potential 'freezing' of output.

A number of oil producing countries including Venezuela, Russia, Saudi Arabia, Iraq and Qatar will meet in mid-April to discuss the potential 'freezing' of output at January and/or February 2016 levels. These talks have come about because a number of these countries are suffering considerable fiscal pressure. Venezuela is suffering the most, to underline the extent of the problem, the IMF is predicting a staggering 720 percent inflation in 2016. Oil export revenue is expected to drop by 64 percent in 2016, compared to two years ago, at $27 billion. Iraq's fiscal situation has deteriorated since 2013 due to lower oil prices, higher military spending, and costs associated with civil conflict. Meanwhile, Russia is still subject to international sanctions and faces oil price volatility and increased geopolitical tension, with the IMF predicting GDP to fall by -1 percent in 2016.

Despite the announcement of talks, we do not see any real progress being made due to...:

Despite the announcement of talks, we do not see any real progress being made and, even if there is an agreement, the direct impact on oil markets is questionable. The key issues are:

...no Iranian participation...

1) Iran's stance from the outset has been to state that it would only 'freeze' output once it regains pre-sanction market share, which would imply a further 300 tbpd of crude coming online in the next year or two. Iranian production in January 2016 was 3.4 mbpd but the pre-sanction total was 3.7 mbpd.

...skepticism whether Russia can follow through...

2) The success of the deal would also depend on Russia playing its part. There is skepticism whether Russia can follow through. Firstly, most Russian oil companies are private-owned so they are not necessarily compelled to cut back production at the government's request. Secondly, when Russia previously proposed to cut back production, in a deal back in 2001, they did not follow up on it, so there is a legacy of mistrust.

... capped January production still exceptionally high….

3) Thirdly, even if output can be capped at January levels, this would still be exceptionally high. OPEC production was at record highs, at 33.4 mbpd, even when excluding Indonesia, and so too was Russian output. The deal, if agreed to, would therefore maintain the excess supply that is currently depressing oil prices, especially since a 'freeze' would not apply to crude oil exports.

...no real effect since only Saudi Arabia has the capacity to increase output.

4) Lastly, as the International Energy Agency (IEA) pointed out, talks of a production 'freeze' are misleading since only Saudi Arabia, out of the participating countries, has the capacity to increase output, with other suppliers at maximum capacity. When this point is considered, we see production 'freeze' talks not really being about capping production, but more an exercise in improving communication and trust amongst key producers and potentially paving the way towards more ambitious and significant cuts in production at an more opportune moment in the future.

Possibility that prices lose some of the recent gains as a production 'freeze' is either not agreed or is not acted upon.

Talks of a 'freeze' have pushed prices up to $40 pb in the last month despite fundamentals in the oil market not improving since the start of the year. We therefore see a distinct possibility that prices could lose some of these gains as a production 'freeze' is either not agreed or is not acted upon by producers even if agreed.

Saudi Arabian crude production was up 4 percent year-on-year in Q1 2016.

Saudi Arabian crude production was up 4 percent in Q1 2016 year-on-year, to 10.2 mbpd. We expect some modest rises in crude production in Q2 2016 but this will not dramatically affect 2016 production as a whole, which we forecast will average 10.2 mbpd. Full year data for 2015 shows that Saudi crude exports were also up 4 percent year-on-year to 7.4 mbpd. Whilst exports to the US suffered by declining 14 percent year-on-year, this was compensated by increases to India (up 12 percent) and China (up 2 percent). Aggregated data for Africa, Europe and the Middle East

Figure 10: Year-on-year change in Iranian exports by destination

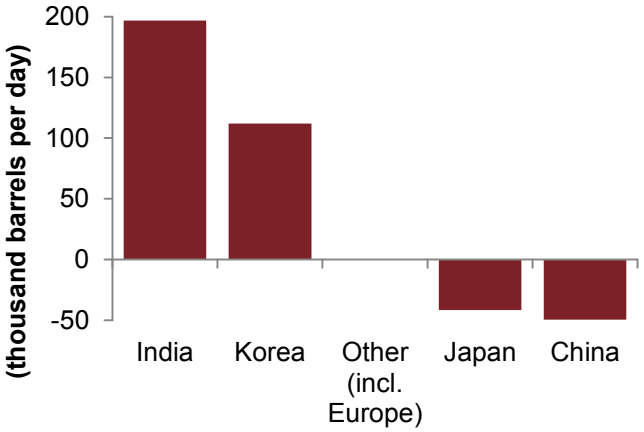
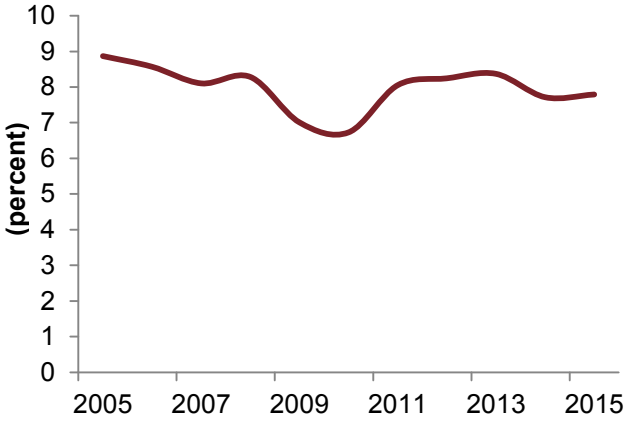


Figure 11: Saudi Arabia maintained global market share in 2015



Exports were up 4 percent too as the Kingdom maintained global market share.

shows exports were up by a sizable 31 percent in 2015. Despite intense competition in oversupplied markets Saudi Arabia managed to maintain its global market share in 2015. The Kingdom's reputation as a reliable supplier coupled with its expanding global downstream portfolio ensured stable demand for its crude during 2015 (Figure 11). Saudi Arabia is currently the only major oil producer with spare oil capacity and this makes it well placed to benefit from any unexpected uplift in global demand during the year ahead.

Global oil balancing set back to 2017

Gobal oil surpluses will remain around 2 mbpd in Q2 2016, hitting 1 mbpd in H2 2016…

The combination of higher OPEC output and subdued global demand will mean the surplus in global oil balances will remain sizable at 2 mbpd in Q2 2016 but trend downwards in H2 2016, to just under 1 mbpd (Figure 12). In the background, not only does the glut in global oil markets continue to add to record OECD commercial crude stocks, currently at 300 million barrels more than the long term average (Figure 13), but a strong dollar will continue to erode the purchasing power of oil importers. The US dollar is still expected to continue strengthening throughout 2016 despite more dovish signals about future interest rate hikes from the US Federal Reserve, as central banks in Europe, Japan, and possibly China, pursue monetary easing policies. In addition, we see a distinct possibility that prices could lose some of the previous months gains as a production 'freeze' is either not agreed or is not acted upon by producers even if agreed. We have therefore maintained our full year 2016 Brent forecast at $33 pb with prices rising to $44 pb in 2017.

...plus rising oil stocks, a strong dollar means no real upside for Brent oil prices.

Figure 12: Global oil balances to remain in surplus during 2016

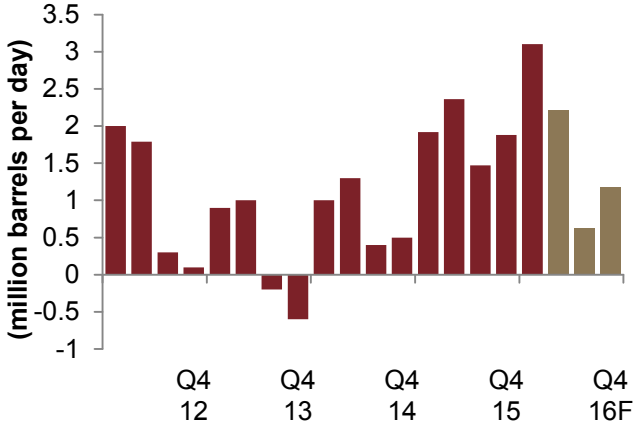
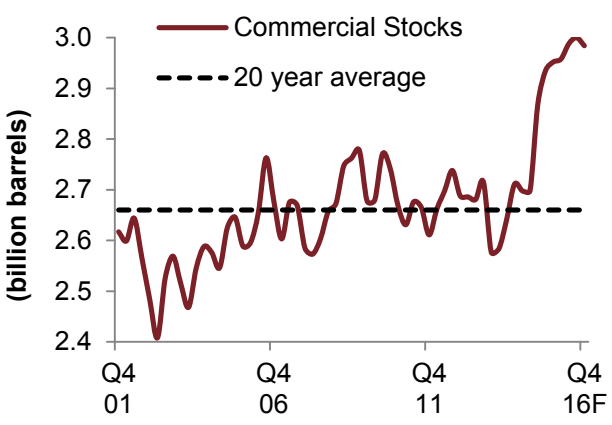


Figure 13: Commercial crude stocks still at record highs and expected to rise



Disclaimer of Liability

The data contained in this research is sourced from Reuters, Bloomberg, EIA, OPEC, and Fraser Institute unless otherwise stated.

Jadwa Investment makes its best effort to ensure that the content in the Publication is accurate and up to date at all times. Jadwa Investment makes no warranty, representation or undertaking whether expressed or implied, nor does it assume any legal liability, whether direct or indirect, or responsibility for the accuracy, completeness, or usefulness of any information that contain in the Publication. It is not the intention of the publication to be used or deemed as recommendation, option or advice for any action(s) that may take place in future.