



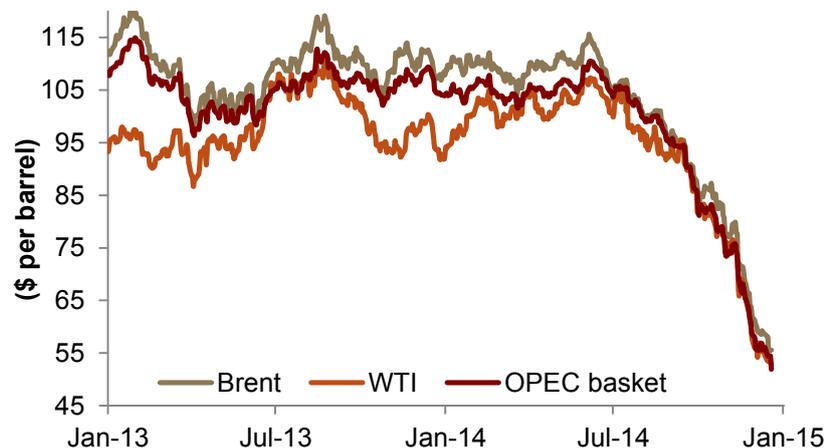
## Summary

- Global oil balances will increase in Q1 2015 as oil demand remains subdued but oil supply continues to expand from the US, Russia and Iraq. All of this will maintain pressure on oil prices in the first quarter.
- Beyond Q1 2015 we see prices recovering, with a sharper rebound in H2 2015, due to i) stockpiling of crude, especially in India and China ii) the occurrence of contango resulting in some surplus leaving the market iii) quicker than projected reduction in US shale oil and iv) a pickup in oil demand due to improvements in global economic growth, partially supported by the windfall gained from lower oil prices.
- Saudi Arabia's strategy is clearly to maintain market share in key export markets and as a result we see production falling only slightly in the next two years. We project full year average production in 2015 at 9.6 mbpd, declining to 9.4 mbpd in 2016.

## Oil Demand

According to OPEC data, global demand in Q4 2014 increased by 1.4 mbpd, year-on-year, with 1.3 mbpd of increases from non-OECD countries and a rise in 0.1 mbpd in OECD countries (Figure 2). Weak economic growth in the EU and Japan will keep consumption amongst OECD countries flat in the first quarter of 2015, while non-OECD demand will ease slightly as the full effects of the lower price environment are not yet fully absorbed. Looking ahead at 2015 as a

Figure 1: Oil prices



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*Only Canada and the US are the contributors to growth in demand from OECD countries....*

*...oil demand growth in the non-OECD countries will be driven by China and India.*

*A growing economy and lower gasoline prices will spur oil demand in Q1 2015 in the US.*

*Eurozone oil demand growth continues to be weak due to the stuttering economy.*

*The Japanese economy slipped into recession in Q3 2014 and this led to a decline in year-on-year demand for crude oil...*

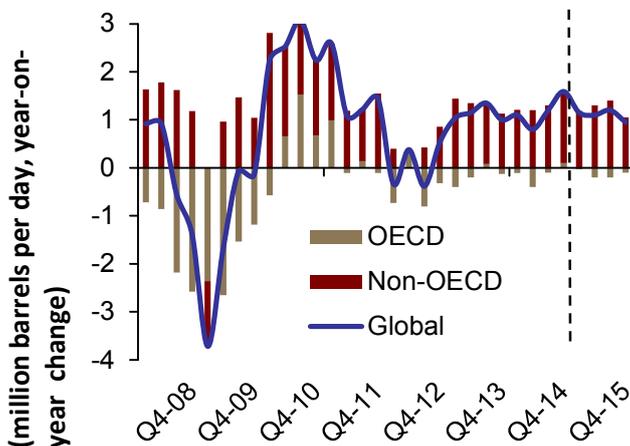
whole, OPEC data shows that world oil demand is expected to grow by 1.1 mbpd (1.2 percent), year-on-year, supported mainly by non-OECD rises. Only Canada and the US are the contributors to growth in demand from OECD countries. Oil demand growth in the non-OECD countries will be driven by China (up 2.95 percent, year-on-year), India (up 2.51 percent, year-on-year), Latin America (up 2.94 percent, year-on-year) and the Middle East (up 3.5 percent, year-on-year). Weak economic growth, especially in the EU and Japan, will continue as a drag on oil consumption amongst OECD countries with European and Asian oil demand declining by a combined 0.2 mbpd, year-on-year, in 2015.

The combination of a growing economy and lower gasoline prices will spur oil demand in Q1 2015 in the US. Lower crude benchmark prices have resulted in US retail gasoline prices dropping dramatically too, with a gallon of gasoline costing consumers \$2.6 now, the lowest in five years, down from \$3.7 in April 2014 (Figure 3). Growth in oil demand throughout 2015 will be sustained by a lower oil price environment plus rising industrial production and improving household income.

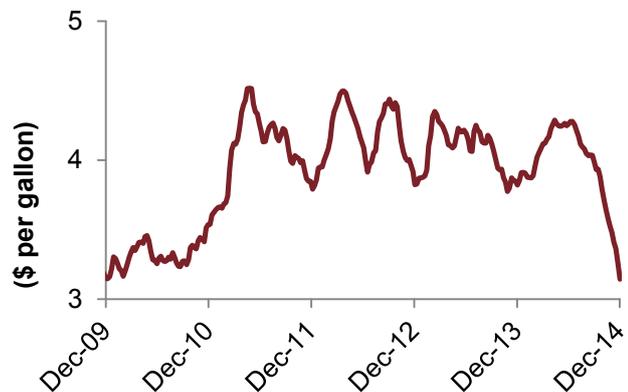
Eurozone oil demand growth continues to be weak due to the stuttering economy, with demand in Q1 2015 expected to be flat, year-on-year. Persistently low inflation remains a problem even with low interest rates and monetary stimulus. Eurozone growth is expected to be uneven in 2015, with countries that have endured the pain of fiscal tightening, such as Spain and Germany, faring better than those that still need to implement more spending cuts, such as Italy and France. Furthermore, the region is continuing to see improvements in fuel economy standards which, together with disparate economic growth, will result in oil demand declining in 2015, year-on-year.

The Japanese economy slipped into recession in Q3 2014 and this led to a decline in year-on-year demand for crude oil. This downward trend is expected to continue in Q1 2015 as refineries cut back on processing crude in line with declining demand. Idemitsu Kosan Co, one of the largest Japanese refiners, plans to process 10 percent less crude in Q1 2015 and reported a fall in refining volumes by 4 percent, year-on-year in Q4 2014. Looking further ahead in 2015,

**Figure 2: OECD and non-OECD oil demand**



**Figure 3: US gasoline prices**





*...this downward trend is expected to continue in Q1 2015.*

*Chinese oil demand grew by 12 percent in Q4 2014 year-on-year, despite the economy facing some economic headwinds...*

*...as a result of China's efforts to boost commercial crude stocks...*

*...downside risks to demand, however, do exist, due to a structural transition in the economy.*

*As oil prices have dropped, Russia's economic problems have mounted.*

*Indian oil demand will grow by around 2-3 percent in Q1 2015 as government reforms pick up momentum...*

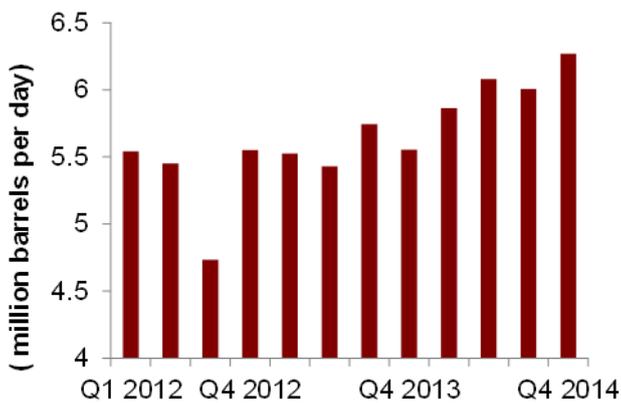
Japanese oil demand will remain lackluster as the economy continues struggle. In addition, the government is also in the process of reactivating nuclear plants, with two reactors given the go-ahead to reopen in 2015.

Chinese oil demand grew by 12 percent in Q4 2014 year-on-year, despite the economy facing some economic headwinds (Figure 4). Manufacturing PMI's in December were down below 50, suggesting contraction in the sector, whilst Chinese GDP growth is expected to reach 7.4 percent in 2014, against a forecasted 7.5 percent, which would be the first since 1999 that the economy has not reached its targeted GDP. We see the rise in oil demand in Q4 2014 as a result of China's efforts to boost commercial crude stocks and, for the same reasons; we see oil demand remaining at current levels in Q1 2015 and for the rest of 2015. Downside risks to demand, however, do exist, due to a structural transition in the economy. As China goes through a period of broader based economic growth and implements stricter fuel emission standards, the use of oil will be less intensive than previous phases of growth. According to the Strategic Action Plan for Energy Development, published by the Chinese government in December 2014, China's share of oil in its energy mix will decline from 18.4 percent in 2014 to 13 percent by 2020, with gas and renewable energy making up the deficit.

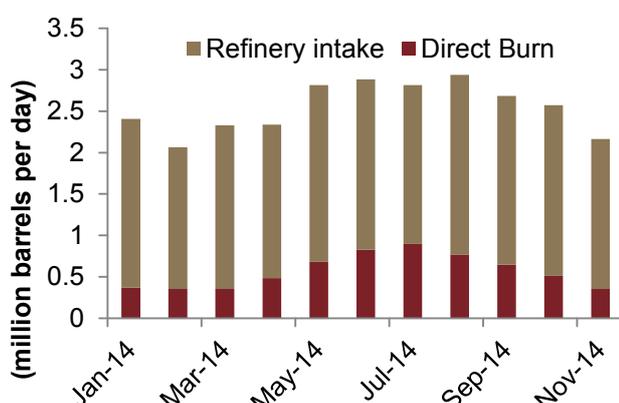
As oil prices have dropped, Russia's economic problems have mounted. In December the Russian central bank had to raise interest rates to 17 percent to stem record losses in the ruble. This followed US and EU sanctions over the conflict with Ukraine in addition to capital outflows from the private sector in Russia, which totaled \$85 billion in the three quarters of 2014. As such we expect oil demand growth will be meagre in Q1 2015 and throughout 2015.

Indian oil demand will grow by around 2-3 percent in Q1 2015 as government reforms pick up momentum, plus de-bottlenecking of stalled investments and rising exports push the economy forward. The IMF has forecasted GDP growth of 6.3 percent for India in 2015 which would translate to healthy oil demand growth too, especially if the government's proposed crude stockpiling goes ahead. Since India's crude production is limited and around 80 percent of oil is

**Figure 4: Chinese oil imports**



**Figure 5: KSA oil demand**





...stockpiling will push up demand too.

Saudi economic growth and the staggered start-up of the 0.4 mbpd Yasref refinery will push up domestic oil demand in 2015.

In Q1 2015 there will be continued output increases from non-OPEC with output led by the US. Supply increases are also expected from Russia and Iraq.

According to latest EIA data total US oil production rose by 16 percent in Q4 2014, year-on-year...

...but the lower prices which will see US crude oil production growth begin to decelerate, especially in the second half of 2015.

imported, any growth in Indian oil demand should lend some support for oil prices.

Saudi Arabia consumption, including both refinery intake and direct crude burn, averaged 2.5 mbpd, year-to-November in 2014, up 25 percent, compared to the same period last year. The sharp rise in oil demand is largely a result of the start-up of the 0.4 mbpd Satorp refinery in Q4 2013, which pushed up refinery intake levels in 2014 (Figure 5). We expect continued economic growth and the staggered start-up of the 0.4 mbpd Yasref refinery, online since late 2014, to push up domestic oil demand in 2015.

### Oil Supply

Non-OPEC supplies grew by 1.5 mbpd in Q4 2014, year-on-year, largely as a result of increased US oil production (Figure 6). In Q1 2015 there will be continued output increases from non-OPEC sources amounting to an increase of 1.7 mbpd, year-on-year, with output led by the US. Supply increases are also expected from Russia and Iraq. Looking further ahead into 2015, OPEC data shows that non-OPEC oil supply will grow by 1.3 mbpd, year-on-year, in 2015, with US shale oil making up the majority of growth. We also see the potential for production increases in OPEC in 2015, regardless of the over supplied market. With many OPEC members unwilling or unable to cut supply, we expect increases in Iraqi production to be at least 0.5 mbpd, geo-political risks notwithstanding.

According to latest EIA data total US oil production rose by 16 percent in Q4 2014, year-on-year, as shale oil output continued regardless of the bearish oil price market. The EIA expects to see comparable growth in Q1 2015, but the lower price environment is likely to increase financial pressure on shale oil companies, especially some smaller and mid-sized one, which will see US crude oil production growth begin to decelerate, especially in the second half of 2015 (Figure 7). Total US crude production averaged 8.59 mbpd in 2014 and this will, according to the EIA, rise to 9.32 mbpd in 2015, resulting in an increase of 0.7 mbpd, year-on-year, in 2015,

Figure 6: OPEC vs. non-OPEC supply

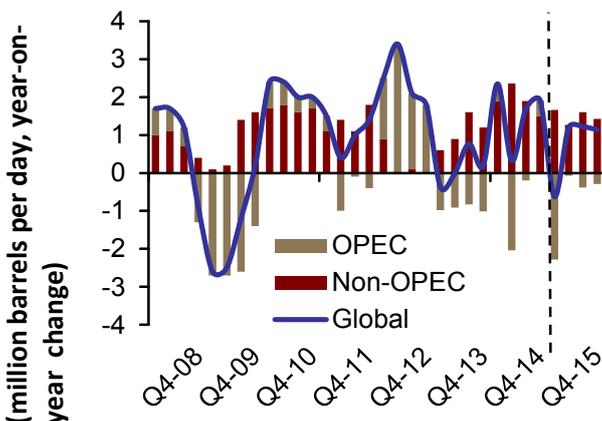
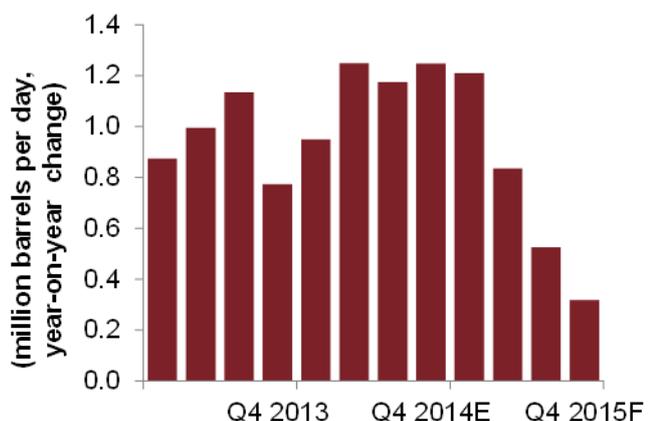


Figure 7: US oil production growth





*We see shale fields having steeper than projected decline in supply growth.*

*Tax changes by the Russian government will push crude oil exports to rise to 5 mbpd in Q1 2015, compared to an average of 4.4 mbpd in 2014.*

*Total output from OPEC changed little in Q4 2014, year-on-year, regardless of the over supplied market.*

*Latest OPEC data shows that Iraqi crude production rose by 8 percent, year-on-year, in Q4 2014, to 3.1 mbpd...*

*... around 3.2 mbpd of exports (and 4 mbpd production) is targeted for 2015 as a whole, although downside risks are significant.*

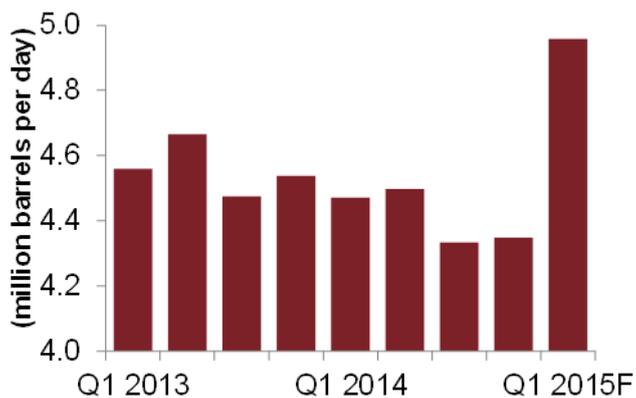
down from 1.1 mbpd in 2014. However, we see the combination of rising shale breakeven costs, due to more expensive finance costs, together with rapid decline rates of shale fields causing a steeper than projected decline in supply growth.

Q4 2014 exports from Russia totaled 4.3 mbpd, down 4 percent year-on-year, but this drop was mainly due to exporters delaying crude shipments to take advantage of the new tax regime introduced in 2015. Tax changes instituted by the Russian government have lowered export duties on crude oil, resulting in almost 40 percent drop in duties compared to 2014. Russian crude oil exports are therefore expected to rise in Q1 2015 to around 5 mbpd, compared to an average of 4.4 mbpd in 2014 (Figure 8) with such levels expected to be sustained throughout 2015.

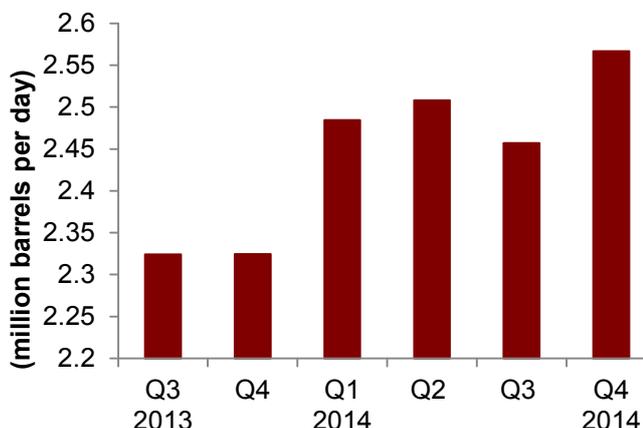
Total output from OPEC changed little in Q4 2014, year-on-year, dropping only slightly by less than 1 percent, regardless of the over supplied market. The OPEC meeting in November 2014 illustrated that there is deep disagreement between OPEC members about how to respond to lower oil prices, with many of the OPEC members either unwilling (Saudi Arabia, UAE, Kuwait) or unable (Nigeria, Algeria, Venezuela, Iran) to cut supply. Q1 2015 will also see no drop in output from OPEC as competition for market share persists. For 2015 we expect to see production rising on the back of supply increases from Iraq, although falls in Libyan supply could cancel out these gains.

Latest OPEC data shows that Iraqi crude production rose by 8 percent, year-on-year, in Q4 2014, to 3.1 mbpd on the back of production of 3.3 mbpd in the month of December. A recent oil export agreement between the Kurdistan Regional Government (KRG) and the central government allowed for a ramp up in exports to 2.9 mbpd in December. Iraqi exports averaged 2.5 mbpd in 2014 (Figure 9) with around 3.2 mbpd (and 4 mbpd production) targeted for 2015 as a whole, although downside risks are significant. The combination of continued fighting in the northern part of the country, infrastructure constraints in the south, and a political resolution between central government and KRG that is not totally concrete, could disrupt production.

**Figure 8: Russian oil exports**



**Figure 9: Iraqi oil exports**





*We do not expect to see any sustained improvement in Libyan production and exports for the remainder of 2015.*

*The US and its allies extended sanctions for a further 7 months which effectively tied Iran to current output levels, at 3 mbpd, and exports to 1 mbpd.*

*Nigerian crude is one of the biggest casualties of the shale oil expansion...*

*...together with theft and sabotage and a worsening security situation all point towards, at best, fluctuating and unpredictable output.*

A drastic deterioration in the security situation in Libya resulted in oil production dropping to 0.5 mbpd in December 2014, compared to 0.7 mbpd in the previous month, which dragged down the Q4 2014 average to 0.7 mbpd, although year-on-year growth was a huge 120 percent. In Q1 2015 we see output remaining at December levels, with further downside risks, as fighting between various political factions is still ongoing. As such, we do not expect to see any sustained improvement in Libyan production and exports for the remainder of 2015.

Iran's crude output decreased 7 percent year-on-year in Q4 2014 as sanctions continued to limit any growth on production. In November 2014 the US and its allies extended sanctions for a further 7 months which effectively tied Iran to current output levels, at 3 mbpd, and exports to 1 mbpd. Looking ahead to Q1 2015, we do not see a significant change in production for Iran and this is likely to be the case for most of 2015. Even if the two sides (Iran and the US and allies) do come to some sort of agreement for the nuclear talks in June 2015, there is likely to be a gradual easing of sanctions on Iran's oil exports, adding a modest 0.1 mbpd increase over a 6-12 month period.

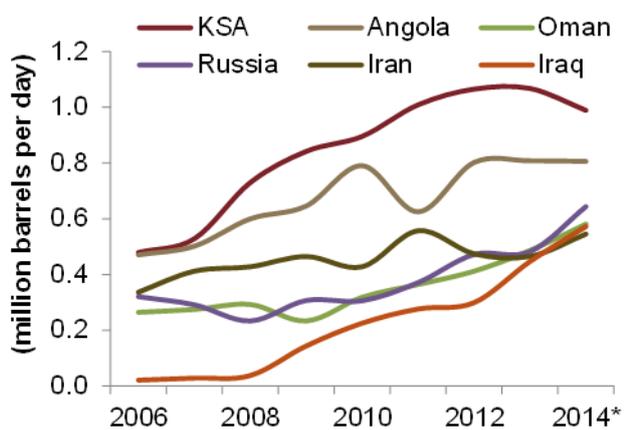
Oil production from Nigeria increased 5 percent during Q4 2014, year-on-year, as a 'force majeure' incident was lifted in the Nigerian Delta. Nigeria's production is frequently affected by theft and sabotage especially in the Niger Delta, the country's main oil-producing region, often leading to a 'force majeure' situation, a legal step that protects oil firms from liability when contracts cannot be fulfilled for reasons beyond their control. On top of this, Nigerian crude is one of the biggest casualties of the shale oil expansion from the US, as exports of Nigeria's main crude variety, light sweet crude, which were previously supplied to the US, are now struggling to find long-term contracts. These challenges together with theft and sabotage and a worsening security situation all point towards, at best, fluctuating and unpredictable output and, at worst, increased downside risk to the country's oil output for 2015.

Saudi Arabian crude production was down only slightly by 1 percent in Q4 2014, year-on-year, to 9.6 mbpd, taking the 2014 average

**Figure 10: Saudi OSP's discount**



**Figure 11: Chinese oil imports**



\* Year-to-November



*Saudi Arabia's response to the fall in prices since H2 2014 has been to decrease its official selling price (OSP), with OSP's cut across all regions.*

*The decision to cut OSP's by Saudi Arabia, rather than production, shows that the expansion, or indeed maintenance, of market share is the primary objective.*

*Full year 2014 prices to an average of \$99.4 per barrel, below our forecasted price of \$102.*

*Despite prices dropping below \$50 per barrel at the beginning of January, we see prices recovering to \$79 per barrel for 2015 as whole due to...*

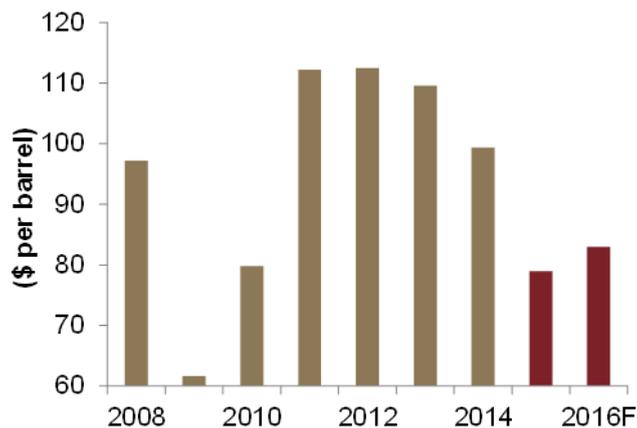
production to 9.7 mbpd, in line with our full year forecasts. Saudi Arabia's response to the fall in prices since H2 2014 has been to decrease its official selling price (OSP), with OSP's cut across all regions (Europe, America and Asia) (Figure 10). In 2014 Saudi Arabia witnessed increased competition in two of its key export markets, the US and China. In the US, Saudi's supply of heavier crude has come under pressure from Canadian imports. Saudi exports to the US were steady around 1.4 mbpd in H1 2014 but dropped to just below 1 mbpd in H2 2014, whilst at the same time, US imports from Canada totaled their largest ever, at 3.5 mbpd in October 2014, up 30 percent from October 2012. Saudi Arabia also faces competition in the Asian market with other Middle Eastern suppliers also cutting OSP's to Asia, underling the trend in discounting prices. A number of countries are vying for market share in this growth region, especially so in China, where Saudi crude has recently lost out to Iraq, Iran and Russia (Figure 11).

The decision to cut OSP's by Saudi Arabia, rather than production, shows that in a very competitive global oil market, with ample supply from non-OPEC sources, prices are not a priority, for now, rather the expansion, or indeed maintenance, of market share is the primary objective. As a result, we do not see Saudi production falling too dramatically in the next two years. We project full year average production in 2015 at 9.6 mbpd, declining slightly to 9.4 mbpd in 2016.

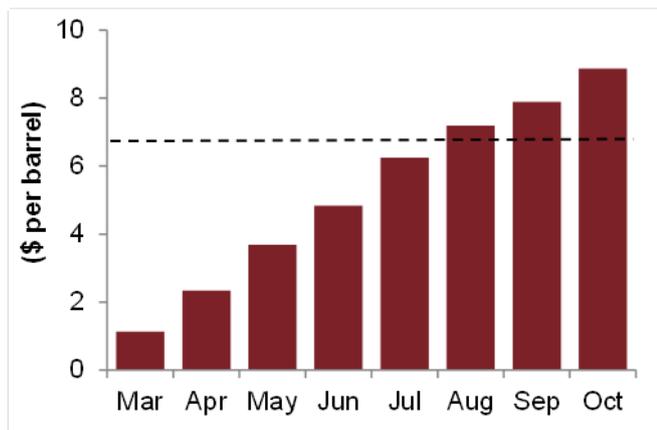
### Oil Prices

Brent prices dropped 25 percent in Q4 2014, to \$77 per barrel, quarter-on-quarter, which pushed full year 2014 prices to an average of \$99.4 per barrel, below our forecasted price of \$102. We foresee current low oil prices persisting into the Q1 2015 as surpluses in global oil balances peak due to no cuts from OPEC, the lower price environment taking time to affect non-OPEC supplies, and demand remaining subdued. Despite prices dropping below \$50 per barrel at the beginning of January, we see prices recovering to \$79 per barrel for 2015 as whole (Figure 12). We see prices being support by i) stockpiling of crude ii) the occurrence of contango resulting in some surplus leaving the market iii) quicker than projected reduction in US

**Figure 12: Brent oil prices**



**Figure 13: Difference in Brent prices for future delivery vs February delivery**





...i) stockpiling of crude in India and China

ii) the occurrence of contango resulting in some surplus leaving the market

iii) quicker than projected reduction in US shale oil as...

shale oil and iv) a pickup in demand due to improvements in global economic growth.

i) Stockpiling:

It has been a long term energy strategy of the Chinese government to buy crude for stocks at a time when prices are low. China currently has around 31 days' worth of crude imports in stock, but has targeted around 100 days by 2020, which would represent around a further 700 million barrels, or 0.4 mbpd. India too has stated that it needs to build up strategic crude stocks with 7.3 million barrels of additions outlined by the government for 2015. We therefore expect the prevalence of lower prices in 2015 leading to China and India accelerating purchases of crude stock and supporting oil demand, to some extent.

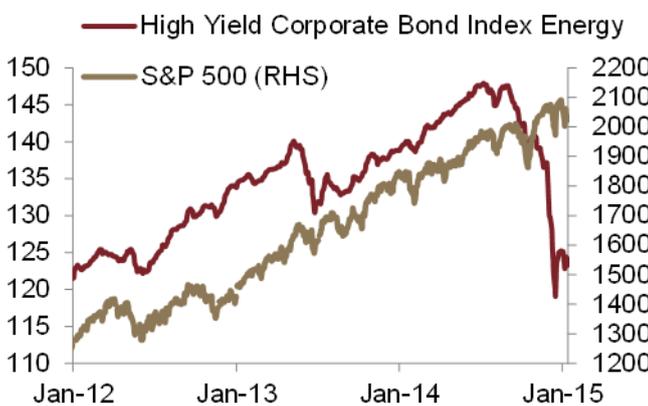
ii) Contango:

Oil prices slipped into contango in early January, that is, a barrel of oil cost more for delivery in the future when compared for delivery immediately. Currently, Brent for delivery in October is trading at a premium of \$8.87 per barrel compared with February (Figure 13). Many industry analysts believe that \$6.5 per barrel is the point at which storing of crude to sell at a future date by traders becomes profitable. Some of the world's largest oil traders have started to hire supertankers that are capable of storing crude at sea. The last time the oil market moved into contango was immediately after the financial crisis, in 2008 and 2009, where traders stored around 100 million barrels at sea. The level of stored crude is likely to be much more now considering that US commercial oil storage has expanded by 30 percent since 2010. We therefore see oil market contango preventing further downward pressure on prices, in the least, in Q1 2015 and throughout 2015 as traders start buying physical crude to stockpile.

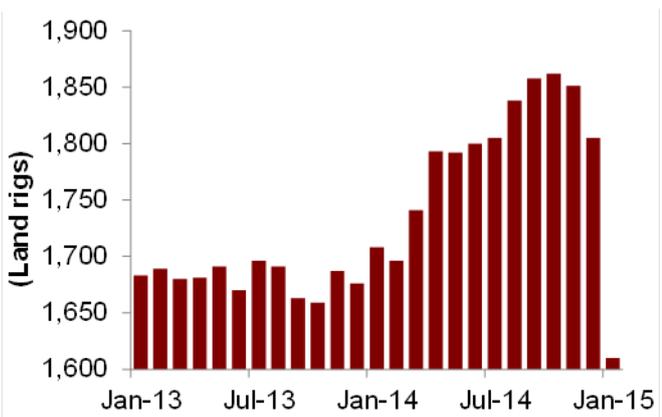
iii) US shale:

The US shale oil industry is made up of numerous small and medium sized companies, most of which have taken advantage of the low interest environment and higher risk appetite in recent years in the US to obtain financing via the high yield corporate bond market. As the price of oil has dropped the fear of defaults has risen

**Figure 14: US energy corporate junk bonds vs S&P 500**



**Figure 15: US land rig count**





...decreased risk appetite in high yield energy corporate bonds making financing more expensive...

...and decline curves (in production) for typical shale wells being steep...

...resulting in US shale production plateauing in our view Q2 2015, and then fall dramatically.

iv) a pickup in demand due to improvements in global economic growth.

We do note that there is a downside risk to the forecasted \$79 per barrel.

resulting in a dramatic sell-off, and drop in value, in these bonds (Figure 14). The consequence for small and medium sized energy companies is that new financing will be very limited and expensive which, in turn, will increase break even costs for shale oil production, ultimately impact drilling in unconventional fields. There are already signs that the slowdown in drilling is taking place with US land rigs decreasing by 14 percent since October (Figure 15). Secondly, as we pointed out in our report titled *The Outlook for Unconventional Oil & Gas Production* (published December 2013), decline curves (in production) for typical shale wells, such as in the Bakken, are steep, with first year declines in production around 69 percent and overall decline in the first five years around 94 percent. The consequence of such steep decline curves is that more and more wells need to be dug to sustain, let alone increase, production, but as financing costs increase and oil prices remain low; this will be very difficult to achieve. It is important to highlight though that in the short term, as we have been witnessing, US oil production will continue rising, since oil is still being produced from a backlog of wells from drilling that occurred during 2014. As these wells are cleared production will plateau, in our view as early as Q2 2015, and then fall dramatically.

iv) Demand:

We expect economic growth to improve gradually throughout 2015, with H2 2015 seeing an acceleration in growth. The main driver of the global economy, and indeed oil demand, will be the US but global economic growth will also be assisted by the prevalence of lower oil prices in 2015. Lower prices will decrease import costs for non-oil producing countries and add disposable income for consumers. A \$20 per barrel decline in oil prices is estimated to bring about 0.25 percent increase in the global economy's GDP over a year, which in turn, will spur demand for oil (Figure 16).

We do note that there is a downside risk to the forecasted \$79 per barrel especially so in an oil market defined by intense competition. More specifically we see downside risks rooted to slower than predicted Eurozone, Japanese and Chinese GDP growth. Finally there is the possibility that US shale oil supply does not respond to lower prices until after H2 2015, resulting in a steeper surplus in global balances than forecasted by OPEC (Figure 17).

Figure 16: Effect of \$20 reduction in oil prices on global GDP

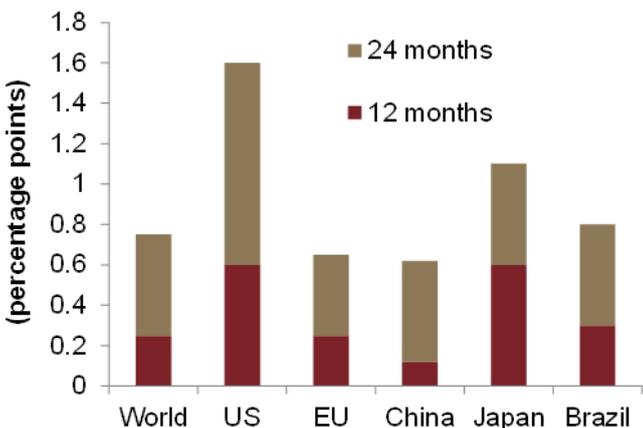
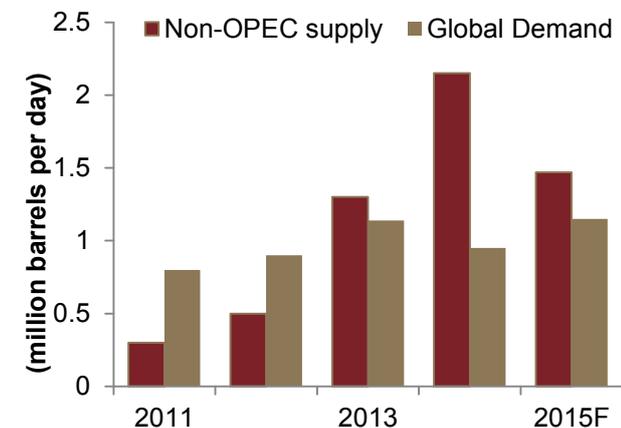


Figure 17: Global oil balances





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