Oil Prices to Stay Low Material Support for Aviation Credit

Oil prices will remain low for the foreseeable future. The result is reduced credit risk for aviation investors as cheap oil translates to record industry profits and higher values, even for second-tier aircraft.

We expect oil prices to stay low going forward, with a little fluctuation in and around the OPEC's desirable range of USD 55-60/barrel. It appears that the days when oil prices were above USD 100/barrel will not be back anytime soon. As a consequence, credit risk for aviation investors is diminished.

Airlines are benefiting greatly from cheap oil. A low, stable USD interest rate combined with modest oil prices translate to bumper industry profits. Net profit margins in 2015 and 2016 were some of the highest in the history of the industry, at 5% and 4.9%, respectively. The IATA forecasts that this trend will continue in 2017, albeit with a slightly reduced estimated net profit margin of 4.2%.

Scope believes that aviation investor concerns about an end to this relatively benign credit environment are not justified. The fear is that an increase in oil prices would, in turn, raise credit risk and, eventually, expected loss. However, we consider this increase to be unlikely.

Cheap oil will continue to support the aviation industry

Scope expects oil prices to remain low in the short to medium term, lessening the credit risk of the aviation industry as a whole. Our assumption is based on three main factors: i) the availability of US shale oil; ii) oil production in Libya and Nigeria; and iii) the undermined efficiency of OPEC price-control measures.

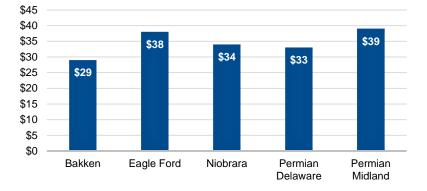
US shale oil - a blessing for the airlines

US shale oil acts as a cap to oil prices. While shale oil is expensive, reserves are abundant. As oil prices rise above the break-even point to make shale oil profitable, an ample supply at such prices prevents oil prices from increasing further.

Even though the summer season has arrived, boosting demand for transportation fuel and stepping up oil consumption in Saudi Arabia, we believe this will be offset by the expected surge in supply.

The US Energy Information Administration expects US shale oil production to exceed 10 million barrels a day (mb/d) in 2018. The last time production reached similar levels (at 9.6 mb/d) was back in 1970. This factor should continue to hold prices down through 2018.

Figure 1: Break-even prices for key US shale oil producers



Source: Rystad Energy



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OPEC price increases make shale oil competitive

The market no longer believes OPEC has the power to increase oil prices

OPEC between a rock and a hard place

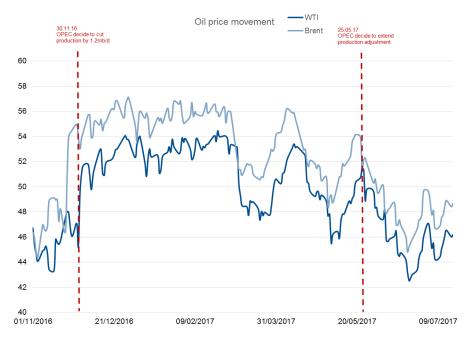
The only way for OPEC and non-OPEC countries to keep US shale out of the market is to ensure that prices are below the shale producers' break-even point. They cannot, however, push prices down arbitrarily.

The margin for the average oil producer is only high enough if prices stand at around USD 55-60/barrel. Prices must be at this level to allow for margins which make investment in new future production possible (i.e. a minimum sustainable price). OPEC and non-OPEC countries are therefore obliged to prevent prices from falling to levels which are 'too low'.

OPEC did exactly that in late November 2016, when member countries agreed with other non-OPEC countries to cut production by 1.2 mb/d. Prices jumped from around USD 45/barrel to USD 50/barrel. However, as a result of this price rise, the extraction of US shale oil became profitable and total oil supply grew, forestalling further price increases. Prices today are back at early November levels.

The 172nd OPEC meeting held on 25 May 2017 in Vienna resulted in the decision to extend the production cuts for another nine months. Oil prices actually declined after the meeting, in contrast to the effect created by the November agreement. This implies that the market does not believe OPEC has the power to increase oil prices. On 24 May, WTI and Brent closed at USD 51.36 and USD 52.15 respectively, and WTI only USD 48.9 and Brent USD 52.29 on the 25 May, the day of the meeting. Since 1 June 2017, oil prices have closed at below USD 50/barrel every day.

Figure 2: Oil price movements since 1 November 2016



Source: Bloomberg

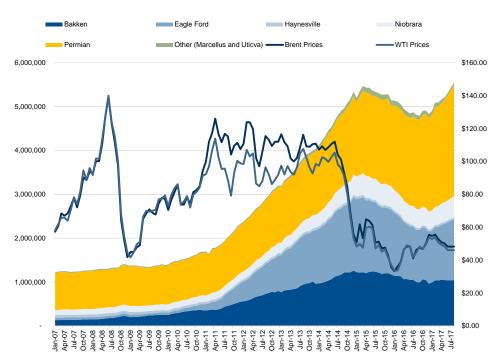
We believe that forecasts of oil prices in the USD 70/barrel range at the end of 2017 do not take the dumping effect of US shale oil production into account. Figure 3 below shows that US shale oil output has reacted as expected to oil price movements in the past, picking up in January 2011.

We are confident that this trend will continue to govern oil prices in the near future, thus resulting in stability and a healthy financial performance for the aviation industry.



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Figure 3: US shale oil production



Source: EIA (Drilling Productivity Report)

President Trump's politically-incorrect stance provides stability for aviation US president Donald Trump's backing of fossil fuels reinforces the trend described above, which we expect to persist until 2020 at the least. The president's support for

above, which we expect to persist until 2020 at the least. The president's support for fossil fuels is at odds with the prevailing, politically-correct sentiment in Europe. The supply power of the US is, however, large enough to have a global impact.

President Trump signed an executive order in March 2017 requiring every federal agency to loosen the regulatory restrictions on fossil fuel industries. Mr Trump requested all departments to identify and target for elimination any rules that restrict the US production of energy. In addition, he also made the enforcement of future regulation of the coal, oil and natural gas industries more difficult.

It is highly unlikely that US shale oil output will decrease due to other reasons than prices below the break-even level for as long as Mr Trump remains president. The next elections are not due until 2020.

Libya and Nigeria - poised to make a production comeback

Libya and Nigeria are potentially big oil producers whose production has been subdued. Should their production increase, it would offset the target OPEC decrease (and this assuming 100% compliance of member countries). Both Libya and Nigeria's local circumstances create strong incentives for these two countries to expand their oil production and thus counter any OPEC measure to up oil prices. Libya and Nigeria simply cannot afford to cut the production of oil – a further factor underpinning oil price stability.

Both Libya and Nigeria have been exempted from the production cuts agreed between OPEC and non-OPEC members. Due to the strained geopolitical environment in both countries, production levels have been low and the allocated production targets have not been met.

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Libya and Nigeria have strong incentives to expand their oil production



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Libya was able to sustain increased production levels through June

The competitive environment forces cartelised oil producers to play a prisoner's dilemma strategic game

Increased output from Nigeria and Libya must be discouraging for the other members However, according to the International Energy Agency, both countries appear to be making a production comeback. Although Libya and Nigeria's joint oil output remained low between January and April 2017, totalling only 60 kb/d on average, Libya made a remarkable recovery in mid-May and was able to sustain increased production levels through June. Nigeria could also boost its output further following the restart of one of its key export terminals. Bloomberg has published Libya's intention of raising its pumping rate to 1.1 mb/d by August 2017.

OPEC compliance - a prisoner's dilemma benefiting aviation

Competition between producers disincentivises compliance with production cuts and pushes prices down. Lower degrees of OPEC and non-OPEC member compliance with production-cut agreements will result in higher oil production levels. The competitive environment forces cartelised oil producers to play a prisoner's dilemma strategic game in which non-compliance could result in greater gains and an increased market share for the producer that breaks the agreement.

Lack of compliance further undermines the efficacy of any measure aimed at raising oil prices. The compliance rate has dropped to 78% since June. This is the lowest rate of the year, with non-OPEC producers actually showing the highest degree of compliance at 82%. Levels of OPEC and non-OPEC member compliance had been unusually high since the decision to cut production was made in November 2016. Both the OPEC and non-OPEC countries clearly took the matter of low oil prices seriously: the average compliance rate from January to May 2017 had been 96%, compared to 60-70% in the past. The competitive environment is, however, driving production up again.

Any new agreement on further production cuts is likely to suffer from very low compliance. Patience may be running low amongst those OPEC and non-OPEC members which are still compliant, as suggested by the June figures. Furthermore, seeing the increased output from Nigeria and Libya diluting the effect of the pre-agreed production cuts must be discouraging for the other members.

Countries which are not a part of the OPEC agreement, such as Norway and Egypt, could potentially take advantage of lower supply levels and, together with US shale oil, fill the gap created by OPEC. Any production cut frees market share which can then be captured by other producers ready to occupy the market.



Political instability and higher interest rates - unlikely threats

We believe that the incentive to ensure that the production of oil and gas generates solid revenues is high during times of insecurity. Consequently, concerns regarding political instability, for example in the Middle East, may not justify the expectation of higher oil prices in the near future. Today, oil production is more globally diversified than ever before. Furthermore, there is little evidence that oil production has been interrupted by political issues of this nature in the past.

Political instability could raise prices only in very remote scenarios (i.e. if the production of US shale oil were not enough to cover for production lost due to conflicts). Scope takes such scenarios into account by applying stress tests when analysing aviation finance transactions.

The factor most likely to increase oil prices in the short run is a sharp rise in borrowing costs in the US. Interest rates determine the financial costs for US shale oil producers. Consequently, higher interest rates mean higher costs, and thus a higher break-even price, which is the ceiling that acts as a price cap to global oil prices.

The combination of steeper interest rates and supply cuts promoted by OPEC would lead to a rise in oil prices. The monetary policies in place safeguard against this scenario and make the prospect of sharp interest rate increases unlikely.

US shale producers have been depending on corporate bonds and bank lending for capital. This sector is capital-intensive and is currently highly leveraged. Shale oil producers spent approximately 70% of their operating cash flow on debt servicing payments up to the end of 2016.

Political instability could raise prices only in very remote scenarios



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Material Support for Aviation Credit

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