OPEC announces first production cut in 8 years

The Organization of Petroleum Exporting Countries (OPEC) concluded their formal meeting on Wednesday 30th November 2016 with an agreement to cut production levels. This ratifies the 'Algiers Accord' which took place on 28th September, when planned cuts were first announced. The announced cut is a clear positive for near term oil prices and will tighten the oil market in 2017.

What has been announced?

OPEC have opted for a new production limit of 32.5million (m) barrels per day (b/day), representing the first action from the group since November 2014 and the first quota cut since 2008/09. The 'referenced' OPEC production, for October 2016, and used as a starting point for the cuts, was around 33.7m b/day, so the announcement represents a cut of 1.2m b/day (all numbers for OPEC-14 including Gabon). This ratifies the 'Algiers Accord' which took place on 28th September, when planned cuts were first announced. There is also an understanding that non-OPEC, including Russia, will cut production by 0.6m b/day, which would bring the total reduction to 1.8m b/day – well in excess of most expectations in the lead up to the meeting.

The OPEC production cuts agreed by each member country can be seen in the table below:

(m b/day)	Oct 2016*	Adjustment	Jan 2017	% adjustment
Saudi	10.54	-0.49	**10.05**	-5%
Iran	3.70	0.09	**3.79**	2%
Iraq	4.56	-0.21	**4.35**	-5%
UAE	3.01	-0.14	**2.87**	-5%
Kuwait	2.84	-0.13	**2.71**	-5%
Nigeria	1.60	*exempt*	**1.60**	*n/a*
Venezuela	2.07	-0.10	**1.97**	-5%
Angola	1.75	-0.09	**1.66**	-5%
Libya	0.42	*exempt*	**0.42**	*n/a*
Algeria	1.09	-0.05	**1.04**	-5%
Qatar	0.65	-0.03	**0.62**	-5%
Indonesia	0.74	*suspended*	**0.74**	*n/a*
Gabon	0.20	-0.01	**0.19**	-5%
Ecuador	0.55	-0.03	**0.52**	-5%
OPEC-14	**33.72**	**-1.19**	**32.53**	**-4%**

*For most member countries, the 'reference' point for the cut is October 2016 production, except Angola where Sept 2016 production is used. Source: OPEC; Guinness Atkinson Asset Management

The announcement amounts then to a 5% cut for all members except for 1) Libya and Nigeria, recognising their unusually depressed levels of production due to unrest, and 2) Iran, recognising its journey back to normalised production post the lifting of sanctions in January 2016. Indonesia has been suspended from the group since, as a net importer of oil, it chose not to participate.

The agreed cuts are effective from 1st January 2017, and will be kept in place initially for six months, extendable for another six months depending on how the oil market evolves.

Unexpectedly, the OPEC agreement also contains official reference to non-OPEC production: "This agreement has been reached following extensive consultations and understanding reached with key non-OPEC countries, including the Russian Federation that they contribute by a reduction of 600k b/day production". It is understood that Russia has agreed to shoulder 300k b/day of cuts, whilst other unnamed non-OPEC countries will share the other 300,000 b/day.

OPEC have also taken the unusual step of establishing a 'Ministerial Monitoring Committee", including OPEC and non-OPEC members, to monitor implementation and compliance with the agreement. We think this gives an indication of strong intent to see the cuts through.

Reasons for the announcement

OPEC's 30th November statement, which accompanies the announcement of cuts, builds on the comments they made when announcing provisional cuts at the end of September.

OPEC's 28th September statement said *"In the last two years… Oil-exporting countries' and oil companies' revenues have dramatically declined, putting strains on their fiscal position and hindering their economic growth. The oil industry faced deep cuts in investment and massive layoffs, leading to a potential risk that oil supply may not meet demand in the future, with a detrimental effect on security of supply."*

The 30th November statement said *"market rebalancing is underway, but the Conference stressed that OECD and non-OECD inventories still stand well above the five-year average. The Conference said it was vital that stock levels were drawn down to normal levels. The Conference also noted the drop off in investment levels in both 2015 and 2016, as well as the huge layoffs the industry has witnessed in recent years. It emphasized the importance of continued investments for an industry that needs regular and predictable investments to provide the necessary supply in the medium- and longer-terms."*

Clearly, OPEC economies are under significant stress, which is the near-term driver for the decision to cut. There is also the growing concern that the oil industry will be unable to supply enough in the future, leading to the next oil price spike, though that is probably a secondary concern to OPEC at present.

There had been intense negotiations in the lead up to the meeting, sparked by the imbalance in current production levels of key OPEC members versus recent history. In particular, pressure had been mounting on Saudi, Kuwait and UAE to shoulder the lion's share of the cut, since they have increased their market share significantly versus other OPEC members over the past three years (currently standing at nearly 60% of OPEC production versus the 25 year average of around 50%). It is something of a coup, therefore, for Saudi to have negotiated the same 5% production cut as most other OPEC members (Iran exempted), which is a testament to the strength of their bargaining position versus other poorer member countries.

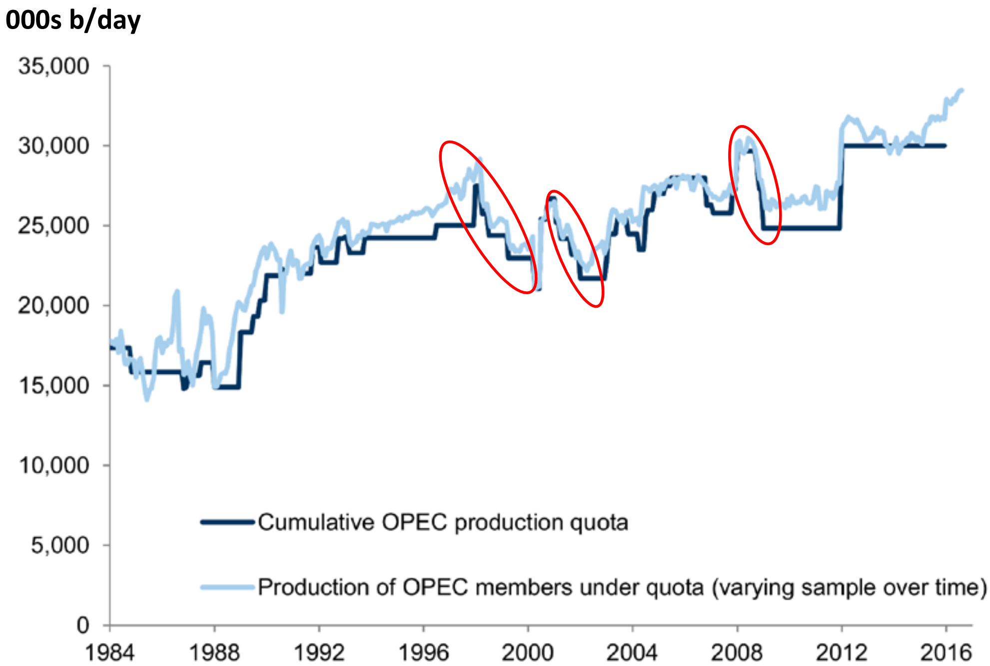
Notwithstanding Saudi's successful negotiation, we believe that Deputy Crown Prince bin Salman (the architect of Saudi's oil policy) has come under sustained pressure to put a firmer floor under the oil price, for the sake of Saudi's fiscal budget. In September, Saudi announced 20% cuts to ministers' salaries, and curbs to state allowances, as part of their response to running the highest budget deficit among the world's 20 biggest economies. With this in mind, Saudi's actions at the head of OPEC appear designed to achieve an oil price that to some extent closes their fiscal deficit (though

$80/barrel (bbl) is needed to close the gap fully), whilst not spiking the oil price too high and over-stimulating non-OPEC supply. We must also acknowledge that with the planned initial public offering (IPO) of Saudi Aramco, Saudi has a tactical desire to see prices higher through that process.

Overall, we believe that Saudi's long-term objective remains to maintain an oil price that is suitable for all market participants, which we believe is significantly higher than current levels, and yesterday's action was another key step on that journey.

Will OPEC comply with the agreement?

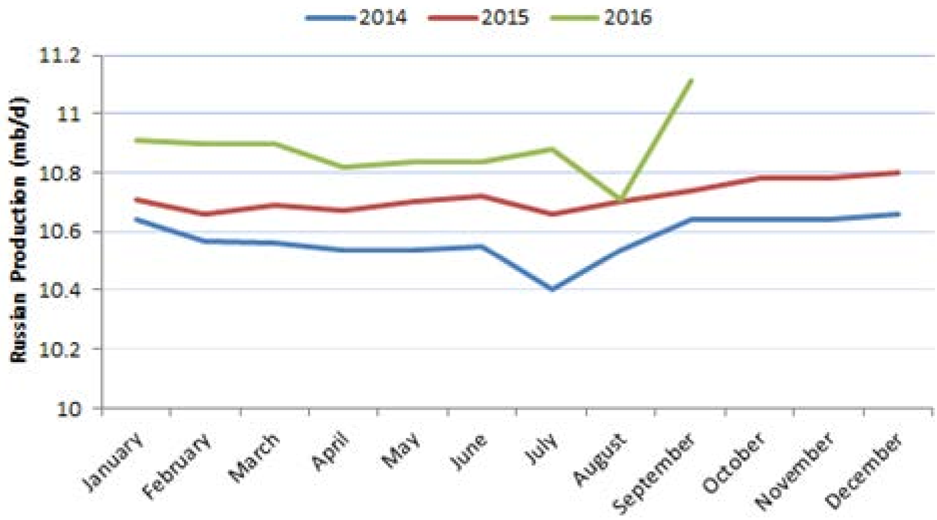
Our observation is that when OPEC agree to reduce production to tighten the oil market, adherence to that agreement is good. The following chart shows the three episodes of OPEC quota cuts over the last 20 years, in 1998, 2002 and 2008:



Source: Goldman Sachs; Guinness Atkinson Asset Management (as at September 30 2016)

In each case, the production of OPEC members under quota was cut close to new quota levels, albeit the cut in 2008 was around 75% of what had been announcement, though still 3m b/day in absolute terms. In this instance, we would expect that OPEC will adhere to the targets set, since failure to do so would ultimately show up in elevated inventories and a lower price, which is what OPEC cannot afford.

There is less precedent to assess whether non-OPEC cuts will be adhered to, though we note that historic promises by Russia (e.g. in 1998) to cut production were not followed through.
On this occasion, we observe that Russia's production spiked by around 400k b/day going into these negotiations, therefore a 300k b/day cut is palatable in that it merely pushes Russia back to July 2016 production levels.



Source: Russian oil ministry (as at October 31 2016)

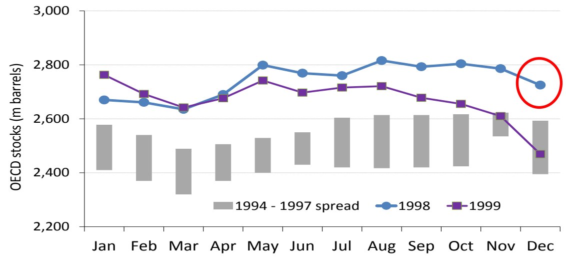
Implications of the OPEC cut

We estimate that the world oil market started 2016 around 1m b/day oversupplied. This has moved close to balance, as nearly a year of global oil demand growth and non-OPEC supply declines have more than compensated for higher OPEC production from Iran. However, over the past 2-3 months, the market has loosened, led by partial recoveries in Libyan and Nigerian supply, plus tactical increases in Russian and Iranian production as key market participants positioned themselves into the latest round of OPEC negotiations.

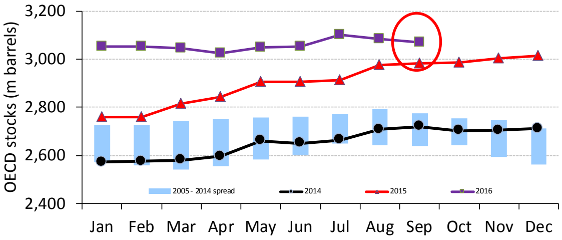
A reduction in OPEC and non-OPEC production of up to 1.8m b/day now provides a clear path to a tightening oil market in 2017. OECD oil inventories currently sit at 3.07bn barrels, around 300m higher than normal for this time of year. A cut of 1.8m b/day for 6 months equates to around 320m barrels, so there is logic in the numbers that have been agreed from the perspective of returning inventories to within the normal range.

There is precedent for this, looking back to 1998/99. In early 1998, OPEC announced its intention to cut its production quota by 1.25m b/day to reduce oversupply which had caused global oil inventories to swell by around 300m barrels (as shown in the chart below). Oil prices troughed in late 1998 at around $10/bbl (some time lag after the initial announcement) and then recovered as the market tightened with global oil inventories returning to their normal operating levels by the end of 1999. The oil price subsequently averaged just under $30/bbl in 2000.

OECD oil inventories 1998-1999 (million bbls)



OECD oil inventories – current (million bbls)



Source: IEA Oil Market Reports; Guinness Atkinson Asset Management

In this cycle, we also expect oil prices to respond positively to declining OECD inventories.

Assuming the oil price moves above $50/bbl in 2017, there will be a supply response from the US, with onshore shale oil production likely to return to modest growth. But more than offsetting this will be a further year of global oil demand, currently forecast by the International Energy Agency (IEA) at 1.2m b/day.

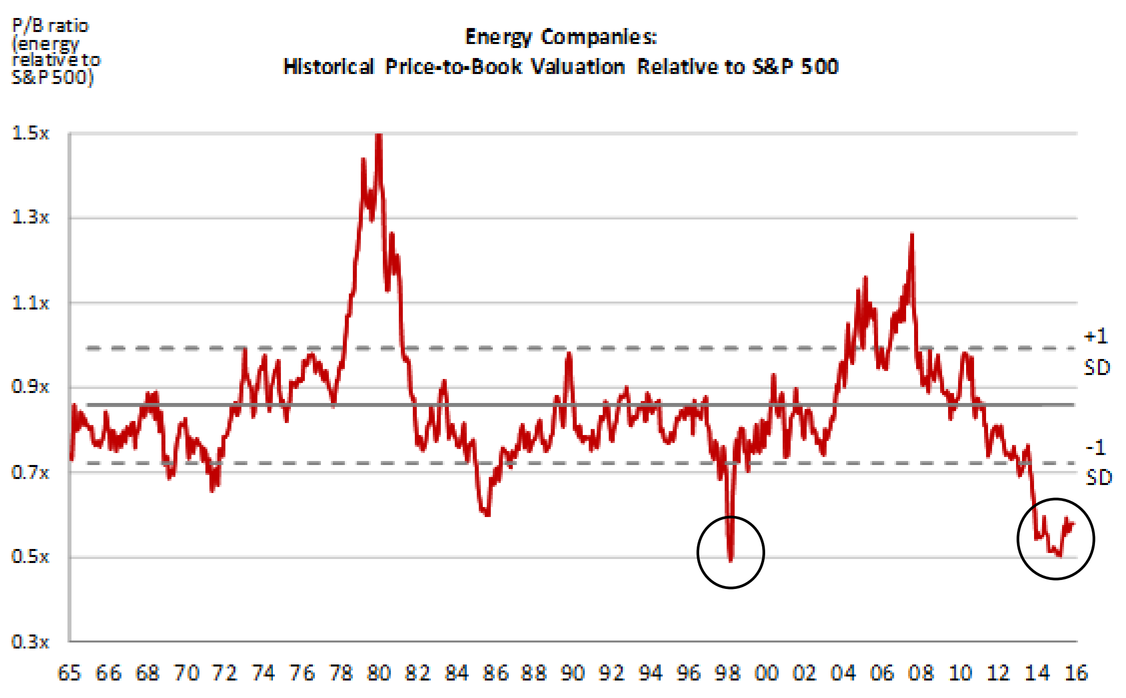
Through 2017 and beyond, we expect oil prices to find a happy medium where OPEC economics are better satisfied, the world economy is stable and US oil production grows in a controlled manner. We think that the oil price which achieves this is around $70 per barrel.

How will energy equities be affected?

We believe that this announcement effectively removes the downside risk in crude oil prices and therefore forms a significant positive for sentiment towards energy equities.

Today, the weight of energy equities within the S&P 500 still close to multi-decade lows and relative price/book valuation versus the S&P 500 is still close to 65 year lows, shown below, is bouncing off a similar level to 1998/99.

Energy companies: historic price to book valuation relative to S&P 500 to September 30, 2016



Source: Bernstein; Guinness Atkinson Asset Management, SD = Standard Deviation
Past performance is not a guarantee of future results

If you believe, as we do, that yesterday's news helps on the path to a recovery in the oil price to $70+/bbl, the case for accumulating energy equities at this level looks strong, with upside across the energy complex of around 40-50%.

GUINNESS ATKINSON FUNDS

The Guinness Atkinson Global Energy Fund has a bias in its current positioning towards oil-levered producers and service companies and we believe it is well placed to capture the upside described here.

Mutual fund investing involves risk and loss of principal is possible. The Fund invests in foreign securities which will involve greater volatility, political, economic and currency risks and differences in accounting methods. The Fund is non-diversified meaning it concentrates its assets in fewer individual holdings than a diversified fund. Therefore, the Fund is more exposed to individual stock volatility than a diversified fund. The Fund also invests in smaller companies, which involve additional risks such as limited liquidity and greater volatility. The Fund's focus on the energy sector to the exclusion of other sectors exposes the Fund to greater market risk and potential monetary losses than if the Fund's assets were diversified among various sectors. The decline in the prices of energy (oil, gas, electricity) or alternative energy supplies would likely have a negative effect on the fund's holdings.

MSCI World Energy Index is the energy sector of the MSCI World Index (an unmanaged index composed of more than 1400 stocks listed in the US, Europe, Canada, Australia, New Zealand, and the Far East) and as such can be used as a broad measurement of the performance of energy stocks.

MSCI World Index is a free float-adjusted market capitalization weighted index that is designed to measure the
equity market performance of developed markets.

The S&P 500 Index is a broad based unmanaged index of 500 stocks, which is widely recognized as representative of the equity market in general.

One cannot invest directly in an index.

Price to book ratio (P/B Ratio) is a ratio used to compare a stock's market value to its book value. It is calculated by dividing the current closing price of the stock by the latest quarter's book value per share.

Standard Deviation (SD) is applied to the annual rate of return of an investment to measure the investment's volatility. Standard deviation is also known as historical volatility and is used by investors as a gauge for the amount of expected volatility.

The Fund's investment objectives, risks, charges and expenses must be considered carefully before investing. The statutory and summary prospectus contains this and other important information about the investment company, and it may be obtained by calling 800-915-6566 or visiting gafunds.com. Read it carefully before investing.

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