Economy Insight:
Oil Production Agreement by OPEC and Non-OPEC Countries

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Introduction

The Organization of the Petroleum Exporting Countries (OPEC) along with the non-OPEC oil producers have recently reached an agreement, the first such deal since 2001, to a combined oil production cut of around 1.76 million barrels per day (bpd) from January 1, 2017. The proposed output cut amounts to around 1.8% of the global oil output. The countries have agreed to continue with the reduction in the production levels for six months till June 2017, which could further be extended in case the market conditions demand so.

The OPEC countries together have committed to curtail oil production by 1.2 million bpd to bring the production level to 32.5 million bpd. OPEC's production level stood at 33.9 million bpd in November 2016, which is about 35% of the global oil output of 96.8 million bpd. As compared to the production levels achieved in October 2016, the agreed output cut would translate into a 4.6% reduction in their output levels. [Ref. Tab 1]. Saudi Arabia, the largest OPEC producer has agreed to bear the largest cut in production of about 486 thousand bpd and has even promised to take further cuts should the markets warrant steeper reductions. Libya and Nigeria have been exempted from the deal as their oil output levels have already been hampered by the ongoing domestic conflict while Iran has been permitted to raise output as it recovers from nuclear-related sanctions.

Table 1: OPEC: Agreed Crude oil production adjustments and levels * (tb/d)

Country	Reference Production level	Adjustment	Effective production level January 2017
Saudi Arabia	10544	-486	10058
Iraq	4561	-210	4351
UAE	3013	-139	2874
Kuwait	2838	-131	2707
Venezuela	2067	-95	1972
Angola	1751	-78	1673
Algeria	1089	-50	1039
Qatar	648	-30	618
Ecuador	548	-26	522
Gabon	202	-9	193

Source: OPEC

Note: Reference base to crude oil production adjustment is October 2016 levels, except Angola for which September 2016 is used, and the numbers are from secondary sources, which do not represent a quota for each Member Country.

The non-OPEC countries including Azerbaijan, Kingdom of Bahrain, Brunei Darussalam, Equatorial Guinea, Kazakhstan, Malaysia, Mexico, Sultanate of Oman, the Russian Federation, Republic of Sudan, and Republic of South Sudan have also agreed to decrease production by 558 thousand bpd till the market scenario improves. Among these countries, Russia will be reducing production gradually by 300 thousand bpd; by end of March 2017, production will be reduced by 200 thousand bpd as compared to its October 2016 output level which stood at 11.247 million bpd. Mexico has agreed to cut 100 thousand bpd, Azerbaijan by 35 thousand bpd and Oman by 40 thousand bpd.

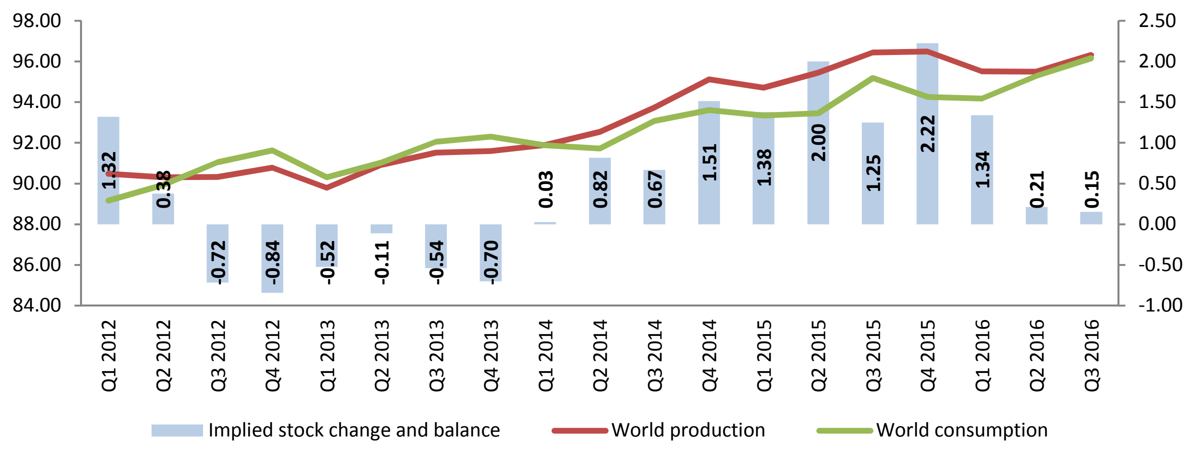
What prompted the decision of production cut?

Over the last two years, the global oil industry has witnessed a glut of oil supply causing prices to crash (hit a low in January 2016), and adversely impacting the crude oil industry and the oil dependent economies. This took the oil producers back to the drawing table to look at output levels and consider possible remedial measures. Higher production by OPEC members and increase in US shale output, have been the major contributing factors for this oversupply scenario.

Unlike the present scenario, during 2011 to middle of 2014, global oil prices hovered within a higher range of around US $ 100 – 110 per barrel. During this period, though there was continuous increase in oil supply resulting from the boom in oil production from US shale and Canadian oil sands, the overall supply of oil remained balanced due to unplanned supply outages from Libya and Iraq, among other places. This supported the oil prices which persistently remained high.

However, the scenario changed in the second half of 2014; unconventional oil production continued to rise significantly, while unplanned outages lessened leading to excess supply of oil, which exerted downward pressure on oil prices. On the other hand, weak demand for oil owing to lower economic activity also resulted in over surplus scenario.

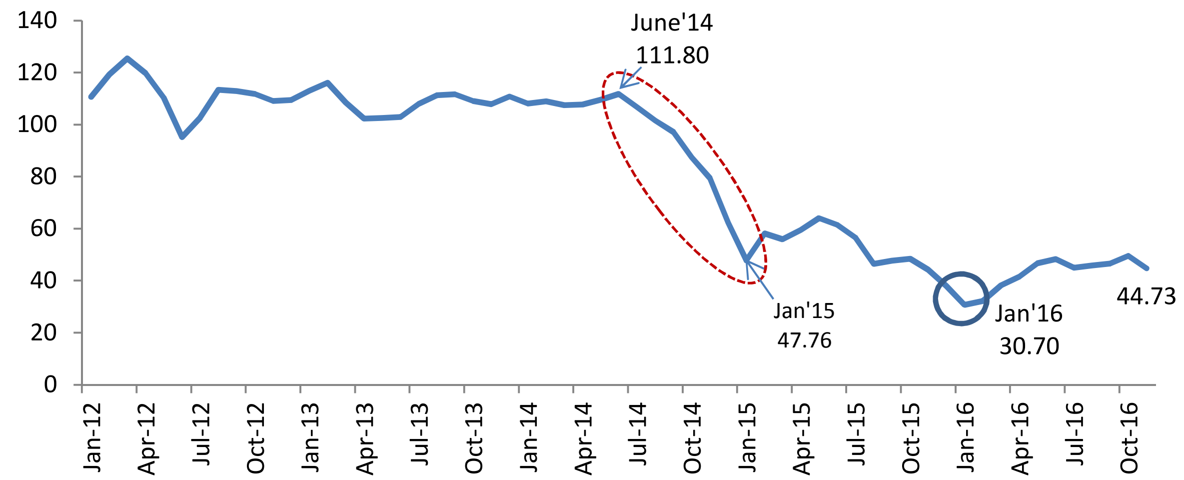
Chart 1: World liquid fuel production and consumption (million barrels per day)



Source: EIA

Thus combination of three factors - high shale oil output, lower OPEC supply outages and low demand for oil led to a sharp drop in oil prices. To add to this, OPEC's decision towards end of 2014 to maintain its output quota which was viewed as a strategy to maintain its market share and squeeze out high cost competitors, exerted further downward pressure on oil prices. As a result, average oil prices crashed from US$ 112 per barrel in June 2014 to US$ 48 per barrel in January 2015, and continued to slide to touch US$ 31 per barrel in January 2016.

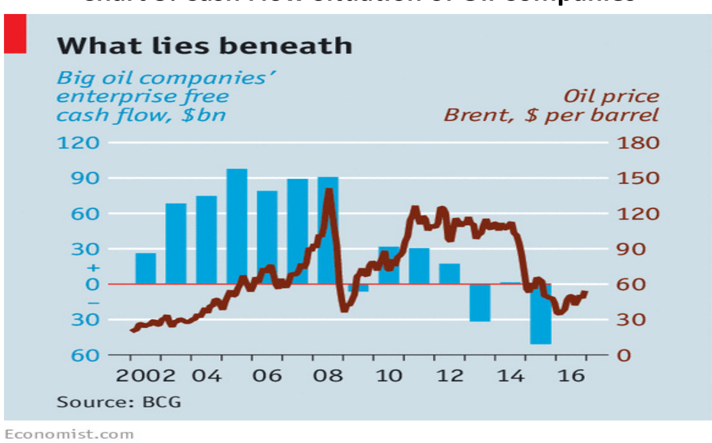
Chart 2: Brent Spot Average Price (US$/bl)



Source: U.S. Energy Information Administration - Short-Term Energy Outlook December 2016

The magnitude and the duration of the fall in oil prices gradually started adversely impacting revenues and investments of oil producing companies. Adverse impact on earnings led to decommissioning of oil rigs (in US) and sharp cut in investments in exploration and production. Oil and gas investments dropped by about US$ 340 billion over the last couple of years since 2014 when it had touched a record high of US$ 780 billion. As a whole, the oil industry has been struggling to cover its investment needs and dividend payments for many years. [Ref to Chart 3] It has been reported that even during the period between 2012 and 2014 when the prices were high, the oil companies found it difficult to break even. The situation further worsened after the sharp dip in oil prices, forcing companies to cut down on their investments. The companies either deferred or cancelled new projects.

Chart 3: Cash Flow Situation of Oil Companies



In September 2016, the oil and gas industry announced a cut of US$ 1 trillion from their planned spending on exploration and development due to the slump in oil prices. This is expected to bring slowdown in oil production, going forward.

OPEC's final decision

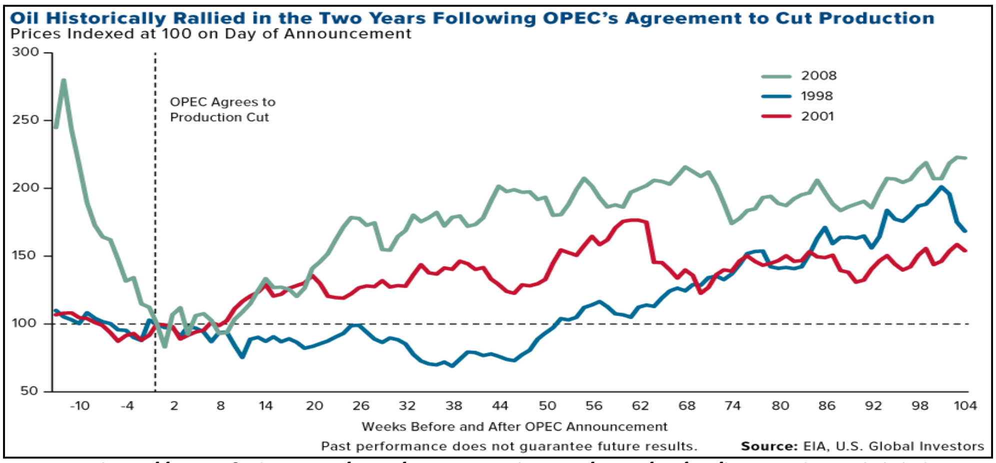
In the wake of the evolving development, OPEC, which refrained from production cut for a long time finally agreed that the current market conditions are counterproductive and damaging to both producers and consumers, as it is neither sustainable nor conducive in the medium to long-term. OPEC in its official statement has acknowledged that *'the present situation threatens the economies of producing nations, hinders critical industry investments, jeopardizes energy security to meet growing world energy demand, and challenges oil market stability as a whole. Continuous collaborative efforts among producers, both OPEC and non-OPEC could aid in drawdown of the stocks overhang and restoring the global oil demand-supply balance'*.

Impact on oil prices post production cut announcement

Following the announcement of the proposed output cut on November 30, 2016, Brent oil prices spiked to over US$ 50 per barrel and further to US$ 55.72 per barrel on 13 December 2016. On similar occasions in the past in years 2008, 2001 and 1998, when OPEC announced production cuts, oil prices had reacted in a similar fashion, rallying in following weeks and months.

In 1998, Asian Economic crisis and higher OPEC production led to a sharp fall in oil prices, following which OPEC curtailed its output level in mid-1998. Though initially prices of oil dropped, they recovered beginning 1999 and with further production cut prices rose to over US$ 20 per barrel. Similarly in 2001, a weakened US economy and increases in non-OPEC production put downward pressure on prices. In response OPEC once again entered into a series of reductions in member quotas cutting 3.5 million barrels by September 1, 2001. However, in the wake of the terror attacks of September 11, 2001 oil prices plummeted. OPEC undertook further production cuts in early 2002, which had the desired impact and oil prices moved into the US $ 25 per barrel range.

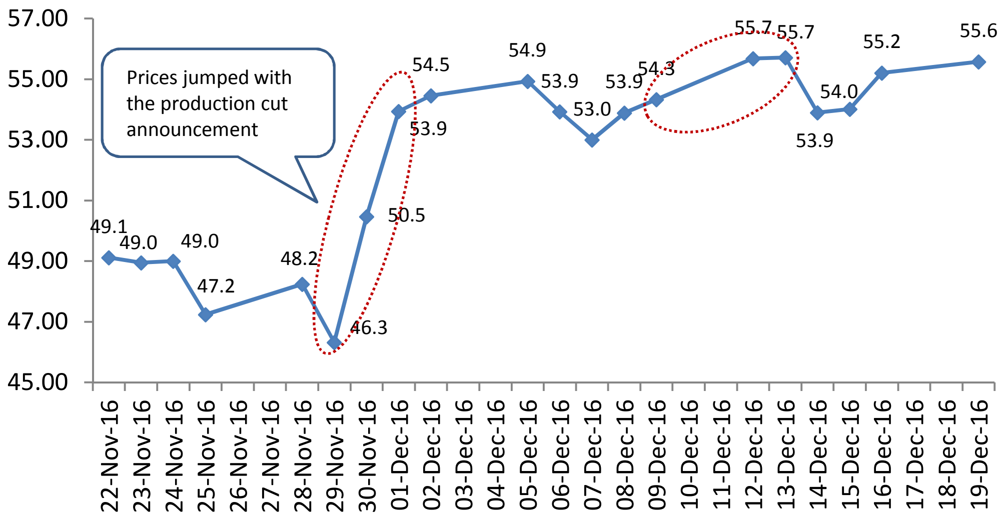
Chart 4: Response of oil prices to earlier production cuts



Source:http://www.forbes.com/sites/greatspeculations/2016/12/05/heres-what-oil-did-the-last-time-opec-cut-production/#705369b1a14f

In 2008, the falling petroleum demand which was an outfall of US recession, hit prices hard with prices dropping to US$ 40 per barrel. OPEC undertook production cuts in January 2009, and prices rose steadily supported with rise in Asian demand for oil. This time around also, prices are expected to go up, once the production cut is implemented in January 2017.

Chart 5: Prices of Brent Crude (CO1:COM) (US$/barrel)



Source: Bloomberg

According to estimates of various financial institutions, crude oil prices will be around US$ 52-60 per barrel in 2017.

Table 2: Crude oil price forecasts by leading FIs

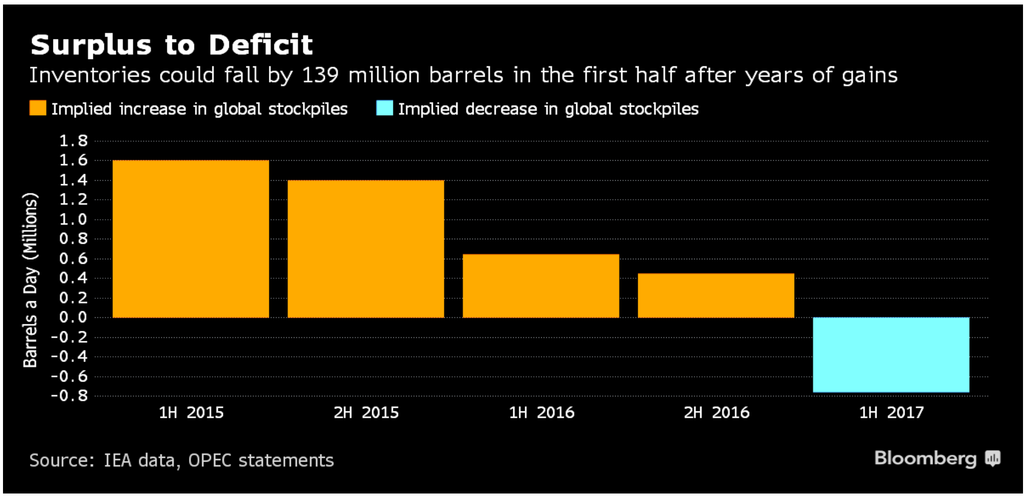
Institution	Brent Oil Price Projections
Goldman Sachs	Average US$ 58 per barrel in 2H'17
Wall Street Journal survey of major banks	US$ 56 per barrel in 2017
U.S. Energy Information Administration	US$ 52 per barrel in 2017
Bank of America Merrill Lynch	Peak of US$ 72 per barrel in 2017

Source: Media reports

Oil surplus to turn into oil deficit scenario

The rise in oil prices is expected to be supported by decline in global oil inventories and a possible deficit scenario in 2017. Demand for oil is expected to be higher than supply pledged by the countries and this is expected to bring down the global stockpiles by the second half of 2017 and aid in rebalancing the oil market. According to estimates by the International Energy Agency (IEA), if the production cuts are adhered to by the OPEC and non-OPEC producers, then the oil market is likely to wipe out stocks and move into deficit in the first half of 2017. This should aid in pushing up prices. The underinvestment in the sector in recent years also possibly adds to the upward potential to prices. However, lack of strong demand drivers for crude oil could undo the impact of the cut. The US Energy Information Administration (EIA) though expects global liquid fuels consumption to increase in 2017 to 96.99 million bpd from an estimated 95.43 million bpd in 2016.

Chart 6: Surplus to deficit



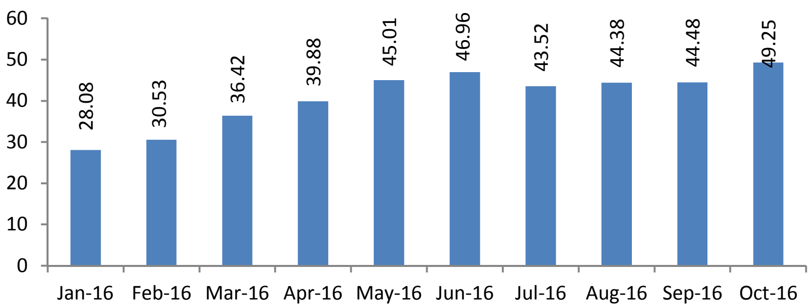
Impact of higher oil prices

The oil exporting countries stand to benefit immensely with an increase in prices, however oil-importing countries, including India, would have to bear the brunt in case international crude oil prices increase substantially.

Impact on India

India is one of the largest importers of crude oil and around 80% of the crude oil requirement of the country is met through imports. India has benefitted immensely from the low oil price regime over the last two years. However, with expected rise in oil prices, India faces a higher oil bill in the immediate future with impact on the fiscal balance and government finances. The international crude oil price of Indian Basket has risen from a low of US$ 28.08 per barrel in January 2016 to US$ 49.25 per barrel as of October 2016. Following the agreement on production curtailment, the crude oil price of the Indian basket has further risen to US$ 52.35 per barrel as of 16 December 2016.

Chart 7: Indian Basket crude oil (US$/bbl)



Source: Petroleum Planning & Analysis Cell

Note: The Indian basket of Crude Oil (for 2016-17) represents a derived basket comprising of Sour grade (Oman & Dubai average) and Sweet grade (Brent Dated) of Crude oil processed in Indian refineries in the ratio of 71.03:28.97 during 2015-16.

In 2015-16, though oil imports in quantity terms rose by 7.7%, the import bill was lower by almost 40% (in Rupee terms) due to the drop in international oil prices. In 2016-17, however, the price of Indian Basket crude has already shot up by around 43% since March 2016, this would definitely lead to massive increase in the oil import bill implying widening external deficits. The import bill would also be strongly influenced by the changes in exchange rate (strengthening of the US Dollar).

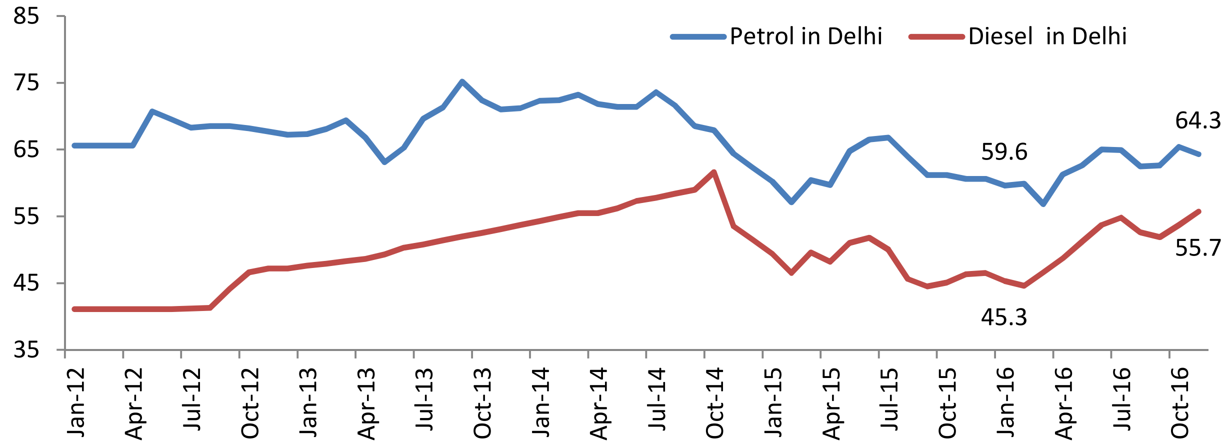
Table 3: India's crude oil imports

	Volume (mn tonnes)	Value (Rs. Billion)	Price (Rs./tonne)
2009-10	153.63	3,659.01	23,817.30
2010-11	153.12	4,216.16	27,535.10
2011-12	165.71	6,436.89	38,843.90
2012-13	185.53	7,856.02	42,342.90
2013-14	189.18	8,696.57	45,970.30
2014-15	187.91	7,093.79	37,750.30
2015-16	↑202.31	↓4,294.00	↓21,224.40

Source: CMIE

Retail fuel prices are also set to rise. Since the beginning of 2016, prices of petrol have risen by around Rs. 5 per litre, while that of diesel have risen by around Rs. 7-10 per litre. Earlier, the entire benefit of the drop in international crude oil prices was not transferred to retail prices of fuels. The impact could be visible in the inflation numbers also. Easing of inflation in recent times was largely due to the correction in the heavily weighted food prices inspite of the upward rise in fuel prices/costs.

Chart 8: Retail prices (Rs./Litre)



Source: CMIE

In addition to government finances, corporate profitability would also reel under pressure as gross margins would be adversely impacted by rising commodity prices. Prices of crude-oil derived products, which serve as intermediates to various industries would also increase adding to cost pressures for companies.

Success of the OPEC deal hinges on compliance

Though the announcement to curtail production of oil has been made public and future price calculations and its likely impact has also been derived, there are still some concerns related to the success of the deal as this would largely depend on the compliance of the OPEC and non-OPEC countries with their agreement. In the past, there have been instances of oil producing nations producing more than their allocated quotas, thereby jeopardizing the results. This time around as well there is skepticism with respect to the extent to which the announced oil output plans would be adhered to by these countries and also how OPEC would enforce the production for a longer period of time.

Russia too in the past has failed to deliver on promises to cut in tandem with OPEC. Additionally, Nigeria and Libya who have been exempted from the deal as their oil industries are in a severely weakened state also could ramp up their production and hence supplies significantly in future, thus neutralizing a portion of the agreed output cut. In earlier instances, some producers even raised output higher than what they were producing before the agreement. However, this time producers may not be able to produce more than their current output, since their run down fields require large amounts of capital investments.

It is worth pointing out that OPEC producers in November 2016 raised output to 33.87 million bpd from 33.72 million bpd in October 2016, which was 1.37 million bpd more than OPEC's agreed/pledged production target of 32.5 million bpd effective January 2017. Within OPEC, Saudi Arabia and Kuwait both reduced output in November as compared to October, while Angola, Nigeria, Libya and Venezuela were among those who raised their output to a great extent.

Iraq, the second largest producer in OPEC has signed new deals with India, China and US refiners, and it remains to be seen how it would honor the deals and its commitment to cut output by 210,000 barrels per day from January 2017. Analysts have also raised questions on whether some non-OPEC producers are attempting to present a scheduled cut or natural decline in output as their contribution to the deal.

Compliance being a major concern, the deal includes the creation of five-country Ministerial Monitoring Committee to closely monitor the implementation of and compliance with the agreement to curtail production. It would comprise of three OPEC members, Algeria, Kuwait, Venezuela, Russian Federation and another non-OPEC producer which would be chaired by Kuwait with Russian Federation as alternate chair and assisted by the OPEC secretariat.

Another major concern is increase in US shale production as US producers could be one of the biggest beneficiaries of the higher prices, which would provide a boost to US energy companies and give them the impetus to bring back online rigs that had been idled during the downturn. Oil rigs had dropped from around 1600 in October 2014 to 316 as of 27 May 2016. A recovery is already evident with drilling rigs back up at 510 as on 16 December 2016. This could threaten the projected rise in crude oil prices and also raises the chances of US oil producers gaining market share.

Today, there are alternatives to fossil fuel energy and world may intensify its drive to adopt them in the event of oil prices shooting up substantially (over US $ 120-140 per barrel). This could impact demand for crude oil. Energy companies are also considering diversifying into renewables and are ready to up production once crude oil prices rise.

While the above mentioned points would remain critical factors towards the success of the deal, the actual picture would be clear only in the first quarter of 2017.