Study of Crude Oil Trading and Its Effect on Indian Market

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Abstract: The Trade of Oil can make or break a nation. It is a trade of choice, deceit and influence. As for India, it imports about 5 M.Barrels per day, hence every dollar counts for this developing economy. The paper discusses the major factors which account for Oil Trading influence over the Indian Economy including Asian Premium, Instability and Sanctions on OPEC, non-OPEC imports and India's stand as a Leader in Asia in Buyer Bargain of Oil Trade. The paper also highlights the section of unknown supplier section in Indian Imports and the risk that Indian economy takes while deciding its oil suppliers.

Keywords* —*Oil Trade, India, OPEC, Asian Premium, Economy, Strategic Alliance

I. INTRODUCTION

India's projected import for FY 2018-19 is 5 million barrels of crude oil per day. This is a huge quantity of crude oil import. India relies upon imports to meet its more than 80 percent of oil needs. Hence, crude oil price is one of the significant macroeconomic variables which affects the cost of production directly or indirectly, thereby affecting the future cash flows and profits of major companies.

In recent years, especially after The Gulf War (1990-91) and Iraq War (2003), there have been sharp swings in oil prices, with oil price reaching as high as $148/bbl, followed by an equal dramatic fall in prices as low as $28/bbl in the international market[1]. Instability among OPEC members, proxy wars, international sanctions and various international bureaucratic and political moves lend a further swing to the fluctuation in the oil trade.

India is the world's third-largest crude oil consumer. Its oil imports had hit a record in the year 2017. India's crude oil imports rose by 1.8% to 4.3 MMbpd (million barrels per day) in 2017, according to Reuters. India is a net importer of crude oil, making its economy highly sensitive to oil price shocks in the international crude oil market[2].

According to the recent World Economic Outlook (WEO) by the International Monetary Fund (IMF), roughly 80% of the recent oil price increase was caused by deterioration in supply conditions (a major factor being from deterioration of Venezuelan output). Also, the Federal Reserve Bank of New York finds that less than two-fifth of the rise in oil prices since the beginning of 2018 was on account of supply-side factors. According to the London Centre for Global Energy Studies, the OPEC countries that are well-equipped to pump more oil, such as Saudi Arabia and Kuwait, aren't doing enough to help ease prices, while OPEC, in its official reports claim that the world is well-equipped with oil.

OPEC has lost various production units, including that of Libyan and Nigerian, however, no speedy recovery was noted to keep up with supply. The direct implication of this is hiked pricing to keep up the revenues of the cartel.

When combined, these studies along with a couple of government reports, implies an uncertainty and unsustainability of crude oil prices.

Nonetheless, the oil prices due to the previous and recent factors have been ever increasing. The effect of this nature of instability on Indian market can be roughly evaluated using simple math[3]. An increase of $10 per barrel in crude oil prices will lead to an adverse impact of $10-11 billion (or 0.4% of GDP) on current account deficit. Higher oil prices will push the import bill higher.

Strategically, India obtains oil not from one source but about 20 other sources. This includes Russia, USA, Self-Production, Africa along with other Arab Countries and OPEC.

When the oil prices rise, fall or fluctuate more often, this becomes a section of detailed study. Unlike stocks, there's

[1] Virendra Pratap Rai And Palash Bairagi, *Impact of changes in Oil Price on Indian Stock Market*, National Conference On Changing Trends in Management, IT & Social Sciences, Srinivas Institute Of Management Studies, Mangalore, Volume: Manegma, 2014, 204, 204-208

[2] Gordon Kristopher, *India's Crude Oil Imports Hit a Record in 2017*, Market Realist, Jan 18 2018

[3] Aseem Thapliyal, *How The Rise In Crude Oil Price Will Affect Indian Economy*, Business Today, May 25, 2018

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no helium to it, but there's always a grounded secret which fluctuates the price as the Pareto Effect.

II. Research Questions

1) What is Asian Premium and India's stand against it?

2) What is the effect of instability and sanctions on major OPEC members?

3) Is rise of import of oil from non-OPEC countries as a consequence of OPEC's instability and inefficient supply a benefit to India and the world?

III. Research Methodology

For this research, the method employed is that of secondary mode, done via research papers, government reports, international oil data books, journals, OPEC and OECD supply and production reports, ANI reports, articles and reputed online material available.

The research began by conducting an extensive literature review. The review included, but was not limited to, relevant analytical literature, various research papers, international market experts' statements (quotations), reports, and various reviews of tacticians, experts and analysts of international politics. Internet has provided with major contribution to explore into the various dimensions of the topic by providing with latest and relevant information. Efforts have been made to be as descriptive as possible while conducting the research.

The data, reports and relations were taken right from the source, that is government and OPEC reports along with globally trusted media/diplomat media sources. The analysis was done combining the facts, numbers and news altogether to give stronghold to this study.

IV. Review Of Literature

➔**Virendra Pratap Rai and Palash Bairagi, *Impact of changes in Oil Price on Indian Stock Market*, National Conference On Changing Trends In Management, IT & Social Sciences, Srinivas Institute Of Management Studies, Mangalore, Volume: Manegma, 2014, 204, 204-208**

The researcher in this paper analyzed the effect of stock markets and energy prices by studying the impact of oil price changes on Indian stock market returns. The aim of this study was to analyze the influence of the oil price movements on the stock markets and also to evaluate the possible causes behind oil price fluctuations over a period.

The researcher's analysis and conclusions on the basis of various statistical tools like trend analysis, correlation analysis and regression-based modelling that helped in drawing the relationship between Crude Oil Prices and Indian Market based on available past data.

➔**Gordon Kristopher, *India's Crude Oil Imports Hit a Record in 2017*, Market Realist, Jan 18 2018**

The newspaper article provided insights about India's crude oil imports from various sources for the year 2017. Also, the article helped in analyzing the impact of oil prices parallelly observing India's oil consumption for 2017.

➔**Aseem Thapliyal, *How the rise in crude oil price will affect Indian economy*, Business Today, May 25, 2018**

The newspaper article helped in understanding the effects of increase in prices of crude oil on the Indian economy over the factors of India's import bill, fiscal math for estimations, inflation concerns, comparative fuel prices and corporate profit margins in the Indian market.

➔**Nader AlKathiri; Yazeed Al-Rashed; Tilak K. Doshi; Frederic H. Murphy, *"Asian premium" Or "North Atlantic discount": Does Geographical Diversification In Oil Trade Always Impose Costs?* 66 Energy Economics, 411, 411-420**

The researcher examines the impact of exports diversification on regional price differentials and studied the behavior of large exporters by which they use geographical diversification to increase revenues. It threw light on the fact that there is a trade-off between diversification and revenue maximization in OPEC's cartel-like trade behavior.

➔**Fahed M. Al-Ajmi, *The Determinants of OPEC Market Share Stability*, (1990). Dissertations and Theses Paper 1189.**

The researcher shares some instances where the oil productions and pricing were heavily and directly influenced by socio-political and economic factors in the country. The researcher also explains the production behavior of OPEC's member countries from 1971 to 1987 to determine whether there was any structural shift in OPEC's production behavior after the organization attempted to assign a quota to each member.

V. Chapter 1: Asian Premium And India

To understand the Asian premium, we need to know the basics of OPEC, i.e., Organization of Petroleum Exporting countries. OPEC is an intergovernmental organization of 14 countries, constituting of 6 countries of middle east, 6 of Africa and 2 of South America, accounting for 44% of global oil production, and Saudi Arabia is no doubt the de facto leader of it.

OPEC's stated mission is "to coordinate and unify the petroleum policies of its member countries and ensure the stabilization of oil markets, in order to secure an efficient, economic and regular supply of petroleum to consumers, a steady income to producers, and a fair return on capital for those investing in the petroleum industry."

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With an understanding of how the marketing works, we know that when market conditions are right, large suppliers can influence the supply/demand balance of crude oil and also the associated regional price differentials. The choice of labels like 'Asian Premium' is really a question on the motives of these large suppliers. One of the motives is diversifying the customers to stabilize revenues. However, can producers diversify customers and increase revenues? Also, would it be ethical to engage in strategic sales / alliance on the part of the producer in order to lower the prices for importers?

Asian Premium (dates back to practices beginning in the 1960s) is extra charge being collected by OPEC countries from Asian countries when selling oil in comparison to western countries (US and EU). The discriminatory Asian Premium is mainly used by OPEC countries to subsidize western buyers at cost of Asian buyers. In the simple terms, being in the Asian region, India gets to buy oil at a higher rate from any of the OPEC countries.

According to the numbers, "the top crude oil importers are China, U.S., India, Japan and South Korea", in order of import volume. So, if 70% of [OPEC's] consumers belong to the Asian countries why pay more in comparison to the other 30%?

Apart from this issue being raised in the International Energy Forum by India for the entire Asian group, it also invited various strategic alliance and import opportunities for India. Some of these includes possible strategic alliance with China, which could give India dominant bargaining power over oil trade, Saudi Arabia's investments in the country and expanding business in non-OPEC crude oil imports including trade from West Africa that provides marginal barrel to Asian Countries hence becoming rising competitor to OPEC.

The actions to stand against Asian Premium was also backed by India's growing alternative energy market. When it comes to Liquefied Natural Gas (LNG) import, India is the fourth-largest after Japan, South Korea, and China, and accounts for 5.8 percent of the total global trade. Domestic LNG demand is expected to grow at a CAGR (Compound Annual Growth Rate) of 16.89 percent to 306.54 MMSCMD (Million Metric Standard Cubic meter per Day) by 2021 from 64 MMSCMD in 2015.

The country's gas production is expected to touch 90 Billion Cubic Meters (BCM) in 2040 from 21.3 BCM in 2017-2018 (Apr-Nov). Gas pipeline infrastructure in the country stood at 16,470 km in September, 2017.

Asia is becoming a dominant buyer's market, whether it's oil or natural gas, and consumers are finding a new impetus to push for sweeter deals as their options for suppliers grow, like, on March 30, 2018, India got is first U.S. LNG shipment at Dabhol. Buyers aren't just looking to break from oil-linked contracts, they're also pushing for the right to re-sell the gas they import, an important step towards spot pricing. If this grows to a significant scale, OPEC countries will have to strive higher to stand profitable at low supplies and depleting demand.

VI. Chapter 2: Effect Of Instability And Sanctions On Major OPEC Members

➢History of OPEC instability from the 70's:

With all the members in OPEC having only one thing in common, crude oil constituting of 90% of imports, instability is bound to occur. While production behavior and pricing at OPEC is known to be decided on non-economic factors, it is evident that their internal relations account for the policies significantly.

OPEC's production behavior is a complex issue because it relates to the political, economic, and social conditions of each OPEC member. In his paper 'The Determinants of OPEC Market Share Stability', Fahed M. Al-Ajmi[4] from Portland University shares some instances where the oil productions and pricing were heavily and directly influenced by socio-political and economic factors in the country.

The oil embargo of 1973, the Iranian revolution of 1979, and the Iran-Iraq war of 1980 disrupted the oil supply and raised oil prices. All of these political events testified that political instability existed in this region. This political instability could influence OPEC governments' decisions even in the absence of political crises. Socio-political pressure was evident in some of the OPEC countries. For example, in 1985, there was a military coup against the Nigerian government; this coup was caused partially by a decline in the oil revenues (The Middle East Journal, 1986). Venezuela faced political and social unrest through the 1980s, and these activities were intensified by the reduction in world oil prices after 1983 (Blank, 1984). Some activities reflecting internal unrest were evident in the Algerian situation in 1979; they increased through the 1980s when oil revenues started to decline.

In another situation, Saudi Arabia abandoned its role as residual supplier during the same period, not only because non-OPEC countries did not cooperate and some OPEC members cheated on their quotas, but because Saudi Arabia found out that it could not meet its society's needs when its production was declining to a level that was too low to generate enough revenues (The Middle East, 1986). Nonetheless, the side-lined reasons of OPEC members cheating caused unrest within the organization, hence influencing SA's decision to serve its own people at priority.

[4] Fahed M. Al-Ajmi, *The Determinants of OPEC Market Share Stability*, (1990). Dissertations and Theses Paper 1189.

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OPEC governments can secure their economic interests only if they know about their surrounding environments. Otherwise, the stability of member governments--and therefore the cartel-will be threatened[5].

➢IRAN Sanctions:

According to OPEC, "India's total import for crude for fiscal year 2018-19 from Iran were 0.45m B/day (till Dec,2018) that accounts for 10% of total crude import of India, which is the 3rd largest country after Saudi Arabia (0.72 m B/day i.e. 15% of total oil import by India) and Iraq (0.91 m B/day i.e. 20% of total oil import by India), adding IOC has a deal to buy 180,000 barrels per day of Iranian crude this financial year." (*OPEC's Feb'19 Monthly Report)*

With the New US Sanction in 2018 under CAATSA ACT (Countering America's Adversaries Through Sanctions Act) which has some features such as,

- Buying from or selling to Iranian oil firms and the sale of any petro-based products from Iran.
- Insuring Iranian organisations or individual.
- Transactions by foreign finance organizations with 50 Iranian banks, including the Central Bank of Iran.
- A list of over 700 individuals, organizations, aircraft and vessels - 300 more than were named before the sanctions were lifted in 2015 - bringing the total number to 900.
- And anyone found to 'engage in certain transactions with any of the above.

Various countries like China, Italy, Greece, South Korea, Japan, Turkey Taiwan as well as India were given waivers and a capped Iranian import to 1.25 million MT per month i.e. 30.54 TB/day.

U.S. sanctions have cut Iran's exports by roughly a third, with shipments shrinking to roughly 1.7 million to 1.9 million barrels per day by the end of September 18, according to estimates from several sources[6].

Theoretically, this move was meant to break Iranian economy, however, this led to further hike in oil prices, reduced production and surplus for OPEC members. Hence, waivers acted as measures of destabilizing the oil-export system. OPEC's cartel-like operations made it possible for them to create a chain of reactions post sanctions, and this applies every time a sanction is imposed.

[5] Bruce Yandle and Roger Meiners,*Oil Price Instability And Policy Uncertainty In An OPEC World*, Cayman Financial Review, October 7, 2015

[6] Philip Whiteside,*What are the US sanctions on Iran?*, SkyNews, 6 December, 2018

Iran waited like a vulture to seek the right opportunity. With the sanctions on, the entire OPEC was suffering and this was bad for the global economy. With cartel like working within the OPEC, Iran's sanctions led to destabilization in half the OPEC. Although Saudi made through the cut, its oil was equally expensive to purchase.

With this pricing of Saudi, there was an opportunity for Iran to sway away the market. Finally, in 2015, Iran's wishes were granted and sanctions were lifted.

With the sanctions lifted from Iran in 2015 until 2018, Iran announced its intention to "hike sales by 500,000 barrels the day after sanctions are lifted and increase total exports to around 2.5 million barrels [per day] within 2016. Likewise, as Saudi Arabia feared, oil prices dropped up to $28/barrel."

➢Instability Due To Saudi Arabia And Iran Proxy Wars:

Back in 1960s-70s, tensions between Iran and Saudi Arabia triggered doubts about the success of OPEC as a profitable organization. There was no end in sight for the proxy war that Saudi Arabia and Iran were fighting in Yemen, and it could spell the end of various OPEC & non-OPEC deals. It gave a predictable figure of (about 10%) annual loss in business for all OPEC countries throughout.

Historically, both countries were highly valued allies of the United States in the 1970s, under the US Twin Pillar Policy, and both were amongst the five founding members of the Organization of Petroleum Exporting Countries (OPEC), established in 1960. Disagreement about whether to increase oil prices in 1979 started the rift again between the two nations. In the Hollywood style, we can name it as the fight to show others, *Who's the boss?* The rift soon became a drift, with two parties forming within the OPEC. Some who support SA, while others who had to support Iran.

Saudi Arabia and Iran never liked each other[7]. This statement is rather described by various policy makers and columnists. The conflict between Iran and Saudi Arabia is widely described as rooted in a primordial and intractable hatred that goes back to the seventh-century struggle over who is the rightful heir to the Prophet Muhammad — Shiites or Sunnis.

While, Iran was accused of the Khobar Tower Bombings, Saudi's support for Saddam Hussain during Iran-Iraq war wasn't much appreciated. Recently, the execution of Shiite preacher Nimr al-Nimr in January 2016 sparked tensions which led Saudi Arabia to break off diplomatic relations with Iran[8].

[7] Holly Ellayatt, *Saudi Arabia and Iran don't like each other in real life — so what happens at OPEC meetings?*, CNBC, 6 December, 2018

[8] *Saudi-Iranian Tensions — Economic Effects and Political Consequences*, Fanack Newsletter, 8 November, 2018

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In a line, if anyone wanted to summarize this war, it started over a refurbished perception of their history, led to aggressive rift in opinion and then turned into violence. Politically supported violence has always been bad for business.

Oil prices have been hovering around $31-33 a barrel since 1 March 2016. While still far from the 2015 highest selling price of $62 a barrel in May, the dramatic consequences to the nuclear deal as expected by Saudi Arabia have not yet materialized, months after Iran reestablished a full presence in the market. Iran has not 'flooded the market', selling only about 4 million barrels to Europe from mid-January to mid-March 2016. Though there seem to be legal complications, the lack of buyers flocking to Iran to buy oil is due mainly to its inflexibility in terms and pricing.

Even so, Saudi Arabia felt it necessary to take steps to further slow Iran's oil exports. Iranian oil vessels are reportedly not allowed to enter ports through Saudi Arabia or Bahrain. Saudi Arabia, with support from Bahrain, UAE and other Sunni states have been trying to make Iran an outlier, but Iran's flooding and oil price break have taken a toll on Saudi and its supports.

A further escalation in the proxy war would push prices lower, which Iran and Saudi Arabia cannot afford with the current rate of exports. This proxy war could lead to the breakup of the cartel and the cancellation of the production cut deal, which would weigh on prices, offsetting the negative price effect of the political escalation.

If this instability is taken at a wider perspective, who were the only states involved? – Saudi and Iran. Who supported? – their 'allies' namely UAE, Bahrain, Yemen etc. Why did they support? – Saudi has had a history of being really 'rough' on almost anyone who turned against them. Not to mention, terror environment and heavy infiltration that led the neighbors to put down their knee. In case of OPEC, this strategy led the entire cartel down. Not only did the world turned to Iran, also OPEC couldn't fix the instability today (2019). This acted to be that one strong burst of Anova right at the crust of the OPEC wave.

Compromise seemed to be the only solution. The only way to prevent a further drop in oil prices would be for OPEC to intervene, pushing through the "output freeze," with Saudi Arabia and Iran seeing eye to eye. This would not only be economically beneficial to the antagonists but would also assist in reaching a long-term solution to the Syrian and Yemeni conflicts.

VII. Chapter 3: A Rise Of Oil Supply From Non-OPEC Countries

The instability within OPEC costed the cartel their market. With increasing supply of oil from non OPEC countries and OECD which used to be only 25% of world supply is now jumped to 65% of world oil supply in 2018 that's 66m B/ day (source OECD world oil book 2018) it's been a tough time for OPEC countries to keep the price in check and in control of world oil supply.

The effect of rising abundant supply of oil has resulted in negative oil pricing i.e. 56.03 per barrel according to the monthly oil report February 2019 issued by OPEC.

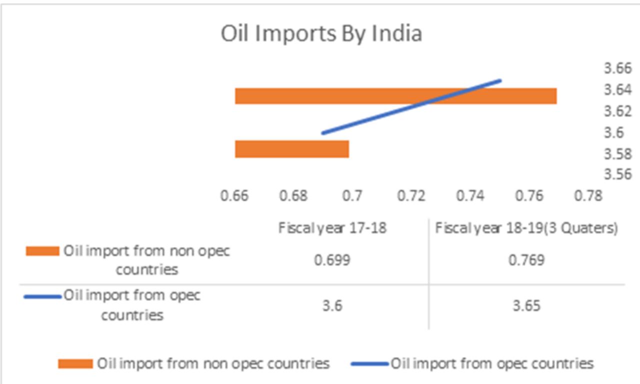
In recent years, it has been noticed that there is a significant rise in the production of oil from non-OPEC countries, which have been providing oil at very competitive prices than OPEC, as a result of which the rise in demand and export of crude oil from USA, thereby India's import of crude oil from USA jumped by 76% i.e. 28.9 tB/day in year 2017-18 to 122.7 tB/day.

India has seen a significant rise of 20 -25% in imports from other non-OPEC countries and OECD nations i.e. 06 mB/day in FY 2017-118 to 0.8 mB/day in FY 2018-19(3 quarters).

This significant increase is due to the competitive price offered by the OECD and non-OPEC countries, sanction imposed on major oil exporter, Iran and instability in OPEC members like Venezuela, Libya and Nigeria.

The data depicts that OPEC might have failed India and the world, while aiming to regulate and monitor oil supply, OPEC was drifted away by its internal issues and made way to other exporters to enter and regulate the market.

Cost-wise, for India it is more efficient to purchase US exports alongside Iran exports of oil. This has also initiated an India-China oil-buying alliance, with South Korea and Japan along with other major buyers. While OPEC countries are still the dominant suppliers to Asia, almost all big importers in the region have increasingly turned to US crude. Diversification of supply sources will benefit both India and China by increasing competition among oil producers.



The above graph shows the significant increase India's imports from non-OPEC and OECD countries based on EXIM DGCI's data FY17-18 and 18-19.

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VIII. Conclusion

Crude oil prices play a very significant role in the economy of any country. India's growth story hovers around the import of oil as India imports 80% of its crude requirements. Hence, crude oil prices affect the Indian Market very immediately. In this attempt to study crude oil trading and factor that affect this trade internationally, we could unfold various ambiguities that influence this trade. India has justified the importance of Oil trade by being on an open stand for solutions against all ambiguities which falsely escalate oil prices. Citing some here, for Asian premium, India openly speaks for the Asian Oil importers at OPEC conferences on Oil Market Stability parallel to playing a key role in moving the community to alternative energy, Also, as OPEC grows more unstable, due to reason including US Sanctions, Venezuela's deteriorating condition, Saudi-Iran's proxy war and consistent but volatile support of other OPEC members in lieu of monopoly, India has been in lead to shake hands with China, to bring US Oil imports into Asia to counter the OPEC effect in the oil market. The potential collaboration between the two major oil buyers would present another challenge for OPEC, which is facing competition for market share in Asia from the flood of crude pumped in the Gulf of Mexico and shale fields of Texas. As far as Iran's sanctions and Proxy war is considered, there are only a couple of ways out. For importers of Iran, would have two choices: breach the sanctions and risk Washington's wrath or switch to costlier crude, which will be even costlier at the time because the end of the waivers will definitely have an impact on prices. For Saudi Arabia and Iran proxy war, in absence of direct communication of two major OPEC member, this might simply lead to the end of OPEC.

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