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RESEARCH ARTICLE

A STUDY ON PRICE FLUCTUATION OF CRUDE OIL

¹*Dr. Varsha Agarawal, ²Piyush Kumar Tulsyan, ²Jeenendra Kothari and ²Bhavik Jain

¹Assistant Professor, Center for Management Studies, Jain University, Bengaluru, Karnataka

²Student, Center for Management Studies, Jain University, Bengaluru, Karnataka

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*Corresponding author:

Dr. Varsha Agarawal

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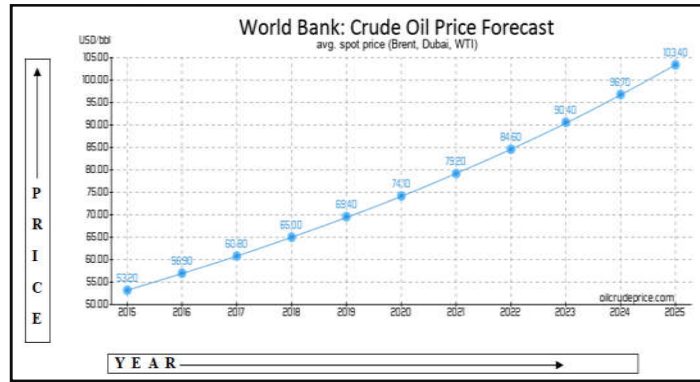
ABSTRACT

Oil is a significant vitality asset. Change in global raw petroleum costs influences all parts of the economy. The conversion standard is one of the significant channels at the global unrefined petroleum cost stun to go to the genuine economy and monetary markets. The effect of universal raw petroleum value change on the swapping scale of oil-bringing in nations has pulled in increasingly more consideration. The US dollar is the primary receipt and settlement cash of the global oil showcase. The difference in the US dollar conversion scale will unavoidably influence the worldwide raw petroleum cost. By brushing the pertinent exemplary writing and ongoing writing, the connection between global unrefined petroleum costs and the swapping scale of oil-bringing in nations is examined.

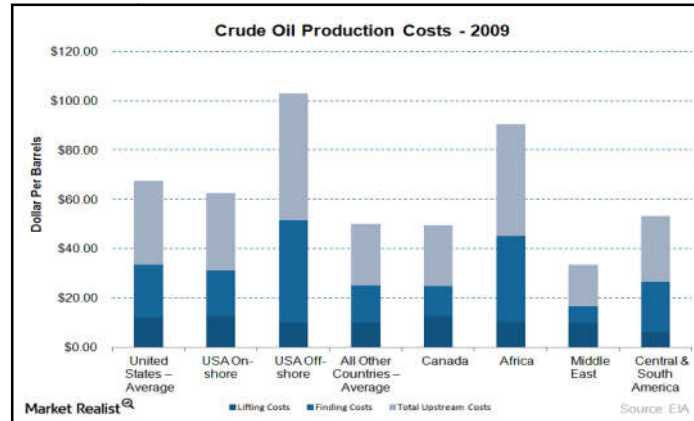
INTRODUCTION

The first oil deposits in India have been decided in 1889 shut to the metropolis of Digboi in the nation of Assam. The natural gasoline enterprise in India started in 1889 with the discovery of gas fields in Assam and Gujarat. Natural fuel gained in addition significance after the discovery of massive reserves in the South Basin fields by way of the usage of ONGC in the 1970s. The country's crude oil manufacturing fell over 4 per cent in the financial year 2018-19 after getting older fields of state-owned Oil and Natural Gas Corporation NSE -1.05 percent (ONGC) and Oil India NSE -0.06 % Ltd (OIL). Two Natural gas production, however, edged up to 32.9 billion cubic meter (BCM) in 2018-19, from 32.6 BCM in the previous yr as ONGC produced 5.3 per cent more gas at 24.67 BCM (Mint. 2019-06-04. Retrieved 2019-06-05.). Fluctuation of crude oil price happens as domestic crude oil production declines whereas the home crude oil consumption is rocketing. It creates a big hole between the demand and supply. Import is the totally answer for bridging this gap. With the increment of Indian basket crude oil price, the import will be more expensive for India. Hence, a upward jostle in the worldwide crude oil charge of Indian basket has emerge as the depend of concern, and it may additionally have a devastating influence on Indian economy. Few constructs have been pointed out by way of the researchers that have sizeable have an impact on on crude oil price. The first construct is the demand which is the aggregate of consumption and inventory. The 2nd assemble is the composition of 'access to the resources' and operation of National Oil Companies (NOCs).

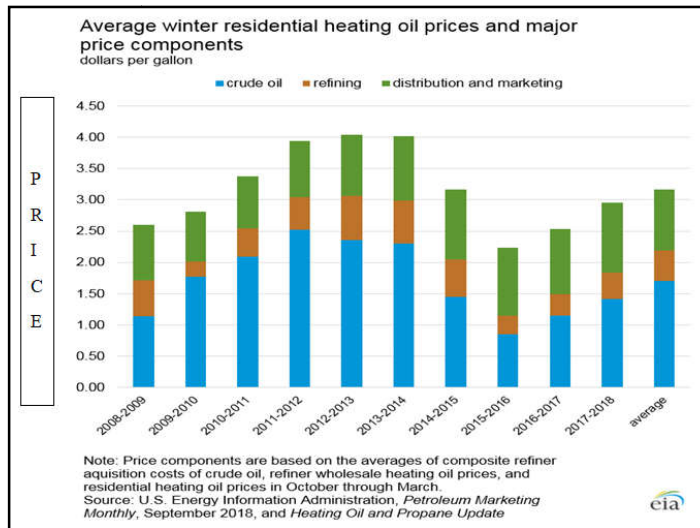
Natural activities contain the severe local weather match that disrupts offshore manufacturing and adjustments in temperature. In this segment, quite a few breakdowns of constructs have been depicted in the form of the elements affecting crude oil prices. (Bidisha Sarkar Jain Mathew and, September 2018). Import Volume of crude oil of India keeps on increasing drastically year by year. In the year 2012 import volume in million metric tons was 171.73, it increases in F.Y. 2013 to 184.73 million metric tons, in the F.Y. 2014 it went up-to 189.24 million metric tons, again it went to 189.44 million metric tons in the F.Y. 2015 and it keeps on increasing and went till 217.08 million metric tons in the F.Y. 2018. (STATISTA, June 2019). OPEC World Oil Outlook 2040, posted in the previous this month, tasks long-term international oil demand to extend to 117 million barrels per day (mb/d) in 2040 from 97.2 mb/d in 2017. OPEC's file estimates India's oil demand to reach 9.9 thousand barrel of oil equal per day (mboe/d) in 2040, from 3.9 mboe/d in 2015. The document estimates oil to proceed to proceed to be the 2nd biggest source of fuel for the country, with its share increasing from 23.2 per cent in 2016 to 25.2 per cent in 2040. Coal will proceed to remain the greatest supply of electricity for India thru 2040, with its share increasing to 46.4 per cent in 2040 from 44.9 per cent in 2015. The expected oil growth rate from the year 2015-2040 is 3.7%, the expected coal growth rate from the year 2015-2040 is 3.5%, the expected gas growth rate from the year 2015-2040 is 4.9%, the expected nuclear growth rate from the



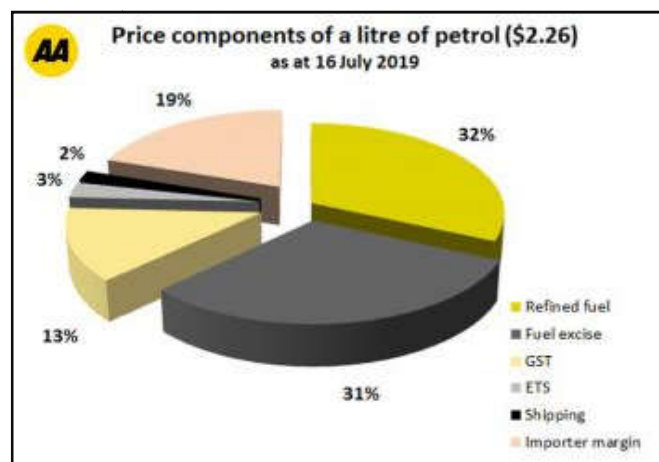
Source: oilcrudeprice.com



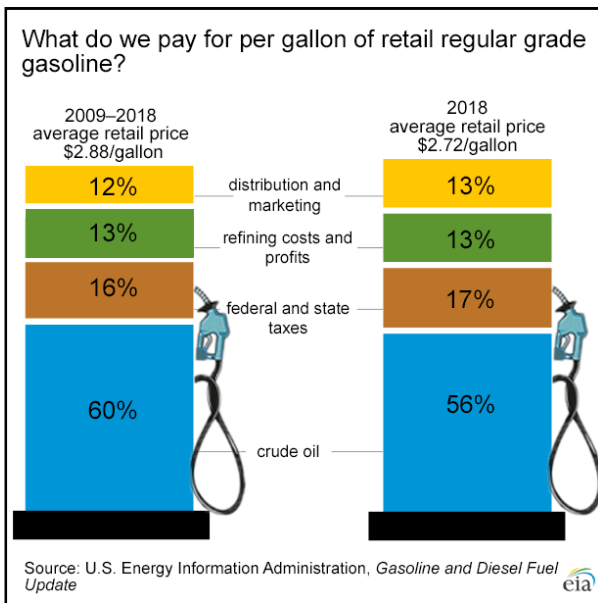
Source: Eia



Source: U.S. Energy information administration, petroleum marketing monthly, september2018,and heating oil and propane update.



Source: aa_co.nz



year 2015-2040 is 7.4%, the expected Hydro growth rate from the year 2015-2040 is 3.6% and the other renewable expected growth rate from the year 2015-2040 is 11.3%. (ETEnergyworld from The Economic Times, September 2018)

LITERATURE REVIEW: The crude oil prices and its impact on Indian economy in which they told that how even reduction of 1 dollar in price of crude impacts three-fold effect in the economy and also how Gross Domestic Product, Consumer Price Index and Crude Oil Price impact on Indian economy. (Dr. K. Soundarapandian and Dr. M Ganesh, 2017) The study says that determinants of crude oil prices in India, it says that how it's the import duties which makes the crude oil costlier for a common man. The study has also made an attempt to find out the major determinants of crude oil prices. (Narendra Punati and Raghavender Rajun, October 2017). How fluctuation of oil price effect Ukrainian Economy it also says that how oil price fluctuation affects Ukrainian GDP and inflation but have no effect on unemployment. (Artem Myronovych's, 2002).

The effects of oil price fluctuation on growth of Indian economy and how production, internal issues, cartel of OPEC member, inventory and demand affects the price of crude oil. It also shows the relationship between oil prices and inflation. (Mr. Kali Charan and Ms. Pallabi, January 2015). The factors responsible for changes in crude oil price, the research also shows the statistical predictability, future markets, future demand and supply and future risks and challenges. (James D. Hamilton, December 2008). The study says the relationship between the oil price and the exchange rate for Nigeria. He used time series and structural analysis. He also says that how positive oil price shocks were found to depreciate the exchange rate and how negative oil price shocks on the real exchange rate (Musibau Adetunji Babatunde, 2015). The study investigates on whether including oil volatility index (OVX) in the realized volatility models improve the accuracy of prediction or not. The findings recommend that the information content of oil implied volatilities should be taken into account when modelling the US oil market volatility. (Anupam Dutta, 17 April, 2017). Review on factors determining crude oil prices in which he says that the impact of the price changes was broad and altered industrial activity,

consumer behaviour and political power globally. The research paper aims at explaining recent events and describing main reason for future price development. (Janne Happonen, 2009). The determinants of global pricing of crude oil, it gives a general understanding of the crude oil market. It also says that how crude oil prices changes over time to time and cannot be attributed to one single market factor as it has laid on a highly complicated market system dependent on several different factors. (Gyagri, Amarfio and Marfoanalyzed, July 2017).

The research tells on the rise and impact of crude oil price in India tells that as crude oil being very indispensable it greatly affects the prices of commodities, particularly the transport sector. It also says that how in India the change in price of crude oil has been a major cause for the rise in inflation rate as it greatly affects the prices of essential commodities adversely affecting the common man. (Swadimath, Dr. Anilkumar, Prasanna B joshi, 1 January, 2013)

OBJECTIVES OF THE STUDY: The main objective of the study is to analyze the various elements that affect the price of the crude oil and why the price of crude oil increase or decrease.

STATEMENT OF PROBLEM: The problem that is being addressed by this study is that how and why the fluctuation in the price of crude oil happens. This study aims to provide information on the key areas through where the price change happens.

RESEARCH METHODOLOGY

In this study secondary data has been used. Data published by various institutions, various articles and websites such as the Statista, ETEnergy world from The Economic Times, Mint and Research paper of Bidisha Sarkar and Jain Mathew which talk about how or why the price fluctuation happens.

Data analysis and interpretation: The above graph shows the forecast of crude oil price done by World Bank where it is shown that how the spot price of crude oil will increase and will reach 103.40 USD/bbl till 2025. In the above graph the forecast has been done of the crude oil price of Brent, Dubai and WTI it shows the average spot price of crude oil. The above graph tells us about the Crude Oil Production Cost of different countries that how they are distributed and what are the variation in price of different countries. It shows three steps Lifting Cost, Finding Cost and Total Upstream Cost. It also shows that which steps cost how much.

The above graph shows the cost that occur after production of crude oil, it shows the total price including the price of crude oil, refining and distribution and marketing price. It gives us the data from 2008 to 2018 that how the heating oil price have been distributed. The above pie chart shows that how the price of petrol is divided and tells us that how much percentage each component share in the price of petrol per litre. That gives us a clear picture of how the price of petrol gets increased after applying Fuel excise, GST, ETS, Shipping charges and import margin. The above diagram shows what actually we pay for per gallon of regular grade gasoline, how actually the cost is divided into Crude oil, Federal and state taxes, refining costs and profits and distribution and marketing. The diagram show us the price distribution of the gasoline.

Conclusion

Commitment of this thesis to the oil value economy writing for the most part lies in two perspectives. To start with, it supplements the current oil value stock decay theory by utilizing the gold cost to catch a more extensive scope of theory. While in the current writing the theory proxied by oil futures cost or oil stock information principally catches the hypothesis on the oil advertise, the utilization of gold value intermediaries hypothesis that has a more extensive territory including, for instance, theories on future financial prospects. Contemplating a more extensive scope of theory is essential to all the more likely comprehend the oil value economy relationship, since the significance of unrefined petroleum isn't constrained on the oil advertise, yet has a wide ramifications on various parts of monetary exercises. The outcomes affirm that hypothesis has a basic job in driving the progressions of the oil cost and additionally, the theoretical segment of an oil value stock negatively affects macroeconomic development. Be that as it may, the effect on swelling does not appear to be as significant.

This outcome likewise have arrangement suggestions, as we talked about, that if the theory can be better directed, the monetary development might be increasingly steady during the oil cost vacillations. Second, the exposition examines the oil value securities exchange relationship in a contrast end edge. We utilize a GARCH-M VAR model to catch the instability overflow between the oil showcase and the financial exchange and the potential effect of oil value unpredictability on the stock returns level. We identified a huge basic break among May and June 1987. Prior to the break, there was a unidirectional instability overflow from the securities exchange to the oil showcase, yet oil value unpredictability does not discourage stock returns. Oil value instability turns out to be progressively significant after the break, demonstrating a huge negative effect on stock returns level. In any case, the instability overflow between the two markets disappeared after the break. We additionally talked about the potential reasons for the break, contending that three noteworthy occasions could have added to the basic change. They are the OPEC breakdown in late 1985, yet with an all-inclusive effect to 1987; the Expense Change Act in 1986 that discouraged the inspiration for financial specialists; and, to a lesser degree, the securities exchange crash in October 1987. This examination comprehends the advancement of the oil value securities exchange relationship by taking a gander at a more drawn out time allotment than existing writing, and the outcomes can likewise shed lights on resource evaluating and other related regions.

Limitations

Much of the oil has to be imported and it is becoming more and more expensive as reserves reduce and imports increase. Producing electricity from crude oil is expensive as compared to fossil fuels such as coal or gas.

As is it a non renewable source the prices keeps fluctuating so that it does not run out of stock very soon. It pollutes the environment by disrupting the eco-system and killing animals. It contributes to green house effect as it releases gases such as carbon dioxide, methane and nitrous oxides.

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