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## IMPACT OF CRUDE OIL PRICE ON BOMBAY STOCK EXCHANGE

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### Abstract:

The objective of this paper is to examine the effects of oil price on stock market in India from January 2015 to December 2015. During this period there has been drastic fall in oil price to nearly 45 \$/per Barrel, which was more than 100 \$/Barrel in 2008. The oil imports thus became a substantial source of demand for dollar in India's foreign exchange market. The decrease in oil price leads to decrease in demand of money, decrease in inflation rate, increase in investment and this has direct impact on Indian stock market.

**Key Words:** Oil price, Exchange rate, Imports of crude oil.

### Introduction:

The recent fall in the prices of crude oil has drawn everyone's attention towards the crucial role that oil plays in the economy of any nation. Crude oil is one of the most necessitated commodities in the world and India imports around 100 million tons of crude oil and other petroleum products. This in turn, results in spending huge amounts of foreign exchange. The increasing quantum of imports of petroleum products has a significant impact on the Indian stock market. Crude oil not only serves as a source of energy but also as a major raw material to various industries. Also, the high volatility in the prices of oil breaching the \$100/barrel mark and rising to a high of \$147/barrel and currently nearly to \$ 40 /barrel could be attributed to the fact that in the recent years, many index funds have taken positions in commodities considering oil to be an asset stock in their portfolios

The fall in global oil prices may be beneficial to India, but it also has its downsides. Directly, it affects the exporters of petroleum producers in the country. India is the sixth largest exporter of petroleum products in the world, according to media reports. This helps it earn \$60 billion annually. Any fall in oil prices negatively impacts exports. At a time when India is running a trade deficit - high imports and low exports, any fall in exports is bad news. Moreover, a lot of India's trade partners and buyers of its exports are net oil exporters. A fall in oil

price may impact their economy, and hamper demand for Indian products. This would indirectly affect India and its companies. For example, the share prices of Bharti Airtel and Bajaj Auto fell because of the devaluation of the Nigerian currency - Naira. Both the companies have a significant presence in the African country

It has been usually observed that s, whereas from medium to long run it is influenced by the fundamentals of demand and supply which thus results into self price correction mechanism. The crude oil price is buffeted by many factors mainly like production, natural gas, inventory, demand and supply. Many experts stated that oil price changes and shocks have direct or indirect effect on the economic activity. Mehmet (2009) states an increase in oil prices leads to an increase of cost of production which decreases the growth of output and productivity. The increase in oil price leads to increase in demand of money, increase in inflation rate, decrease in investment and decline in GDP.

### **Limitation Of The Study**

Oil prices are strictly treated as exogenous with respect to the global economy so it makes difficult to separate cause and effect in studying the relationship between crude oil prices and different market indices. In this study data of crude oil price from January 2015 to December 2015 is compare with stock price of Bombay stock exchange index sensex.

### **International Impact**

Oil is one of the most important commodities in recent times. Much of the economy depends on oil. This is why prices of oil matter to almost every economy. Global crude oil prices are down nearly 30% this year to \$36 per barrel-levels from \$47/barrel at the start of the year. This has caused a crisis in Gulf countries and Russia, which depends on oil exports.

### **Impact On India**

India is one of the largest importers of oil in the world. It imports nearly 80% of its total oil needs. This accounts for one third of its total imports. For this reason, the price of oil affects India a lot. A fall in price would drive down the value of its imports. This helps narrow India's current account deficit - the amount India owes to the world in foreign currency. A fall in oil prices by \$10 per barrel helps reduce the current account deficit by \$9.2 billion, according to a report by Livemint. This amounts to nearly 0.43% of the Gross Domestic Product - a measure of the size of the economy. In India, the pricing scheme is designed in such a way that it offers a system to moderate the soaring international oil prices and thereby study the impact on growth, inflation, etc. Price of crude oil is influenced by many factors like socio and political events, status of financial market.

**Table 1:- Crude Oil Price from 2001 To 2015 In Us \$ / Barrel**

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Price	23.12	24.36	28.1	36.05	50.59	61	69.07	94.1	60.86	77.38	107.46	109.45	105.87	96.29	49.51

\*Source:- statista-The Statistics Portal

### Summary of data

#### 2001 To 2007

In this period there is steady increase in crude oil price.

#### 2008

In this year crude oil price was highest of all time crossed 100 \$/barrel.

#### 2009 To 2010

During this period there was fall in crude oil price with compare to 2008.

#### 2011 To 2014

In this period oil price almost remain same.

#### 2015

This year is consider to be very important in study of crude oil prices .During this year crude oil price has fallen down drastically from nearly 100 \$ /Barrel to nearly 45 \$/Barrel approximately 55%fall in crude oil price within period of last 12 months.

**Table 2: Calculation Of Coefficient Of Correlation For Year 2015**

Date	Crude Oil Petroleum price (US Dollars/barrel)	Value of Sensex	Return on Crude Oil Price (ROC)	Return on Sensex (ROS)
January 2015	47.11	27,485.77		
February 2015	54.79	29,143.63	16.302	6.0317
March 2015	52.83	29,533.42	-3.577	1.337
April 2015	57.54	27,954.86	8.915	-5.348
May 2015	62.51	27,204.63	8.637	-2.683
June 2015	61.31	27,770.79	-1.919	2.081
July 2015	54.38	27,823.65	-11.303	0.190
August 2015	45.69	28,089.09	-15.980	-0.954
September 2015	46.28	26,127.04	1.291	6.985
October 2015	46.96	26,344.19	1.469	0.831
November 2015	43.11	26,641.69	-8.198	1.129
December 2015	36.57	26,201.27	-15.170	-1.653

### Descriptive Statistics

	Mean	Standard Deviation	N
ROC	2027	4.38481	11
ROS	-6841	6.23266	11

### Correlations

		ROC	ROS
ROC	Pearson Correlation sign (2-tailed)	1	0.148
			0.663
	N	11	11
ROS	Pearson Correlation sign (2-tailed)	0.148	1
		0.663	
	N	11	11

### Interpretation

From the above table it is inferred that the monthly changes of crude oil from January 2015 to December 2015 and its impact on value of Sensex during that time. As per the analysis, price of the crude oil has decrease from \$ 47.11 to \$ 36.57 and Sensex has also decreased from 27,485.77 to 26,201.27. Here, the correlation is 0.148 which shows that there is partial positive relationship.

P-value (0.537) is greater than 0.05, so there is no significant correlation between Return on crude oil price and Return on Sensex.

### CONCLUSION

Crude oil is important as a lifeline to the world's economy in general and to some of the nation's economy in specific. Crude oil is the most actively traded commodity in the world. It acts as a nutritious diet so that its world economy can be healthy. Decrease or Increased oil prices have definite impact on world economy through employment, inflation, Exchange rate of dollar value all of which combine to effect stock market. Oil prices occur for many different reasons and do not necessarily affect the economy in the same way every time. The crude oil prices though have declined recently, but it is likely to increasing as the world demand is increasing day by day and more importantly Asian counties, China and India, most developing economies of the world, need it vigorously .It can be assumed that the stock prices of alternative energy companies do not effect which is beneficial to the investors. The study says that variation in the crude oil prices have negligible impact on the Sensex. According to the study, fall in oil prices have partial positive impact on stock market.

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