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CUT IN CRUDE OIL PRICES AND ITS IMPACT ON SELECTED MACRO-ECONOMIC VARIABLES: A CASE BASED UP ON TRADE RELATIONSHIP BETWEEN INDIA AND U.A.E

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Abstract: *Cut in the crude oil prices at the international market is a rare phenomenon. Usually World has witnessed hike in crude oil prices in the recent past. But from year 2014 onwards we have observed a decline in the prices of crude oil at the international level.*

Our research objective is to study the impact of the changes (especially decline) in the crude oil prices on the economic interest of the developing country like India. To conduct the research we selected U.A.E a Middle East country, as U.A.E not only has good trade relations with India but also it is a crude oil exporter to India. Later FDI from U.A.E to India and export from India to U.A.E are considered as dependent variables and crude oil prices are considered as independent variable. Results reveal that there is a significant relationship between crude oil prices and export from India to U.A.E and FDI in India by U.A.E. Further decline in the crude oil prices would reduce the export from India to U.A.E.

Study bank upon the bilateral relationship between selected countries, few more oil exporting countries should be considered for the study. Numbers of macroeconomic variables considered are very few and hence it leaves a scope for the introduction of some more variables. Timeline considered for the study includes majority of years which are showing an increase in crude oil prices.

Keywords: *Crude oil, exports, foreign direct investment*

JEL Classification: *Codes: G34, G32.*

1. INTRODUCTION

Crude oil is an essential commodity; no country can progress without sufficient supply of the crude oil. USA, China, Japan, India, Germany and Netherlands are among top five importers of crude oil (Indexmundi.com). These countries are either developed one or they are developing at a healthy economic rate. Recently it has been seen that USA has increased its

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production of crude oil, it has resulted in the reduction of its imports of crude oil. Also, due to sluggish rate of economic growth in Europe and China demand of crude oil is reduced in these countries. On the other hand OPEC (Oil and Petroleum Exporting Countries) has decided not to cut down the production of the crude oil. This decision of OPEC was influenced by the dominating status of Saudi Arab, which do not want to decrease its crude oil production at any cost. Arab has its own logic based upon its learning from the past. During 1980s Arab reduced its production to get high prices for its crude oil but unfortunately small oil producing countries increased their cost of production of oil, resulting in the decline of the profits of Saudi Arab in short run and compel it to restore its original production level. Also, cut down in oil production might bring economic slowdown in Arab countries.

This has resulted in the excess crude oil supply in the international market, because of which prices of crude oil is decreasing day by day. This is quite an unusual phenomenon as with the economic progress demand of energy increases. Therefore whether this price cut would continue or crude oil price would restore its earlier status is a matter of debate. Past data shows a cyclic trend in the prices of crude oil at the international level and a fad in the form of drop in price is a quite usual phenomenon. We could expect that prices of crude oil would restore its original level in near future. Objective of our research paper is to find out the impact of drop in crude oil prices on the macroeconomic variables like FDI inflows and exports. Therefore we could divide our study into two parts:

1. To find out impact of crude oil price cut on FDI inflows in the Indian economy from U.A.E.
2. To find out the impact of crude oil price cut on the exports from India to U.A.E.

2. REVIEW OF LITERATURE

It is a well known fact that crude oil plays a very crucial role on the economy of any country. The consequence of declining crude oil prices has to be taken in relation with different domestic economic indicators to draw a more realistic picture of India's economic position.

The oil and gas industry is part of India's six core industries. India was the fourth largest consumer of crude oil and petroleum products in the world. (Jain AS, Patil NS, 2015)

Price of crude oil is the critical importance to today's Indian economy and given that oil is the largest traded well, both in volume and value terms. (Sharma A et al., 2012)

India spends a huge amount of its foreign exchange on import of crude oil. 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. (Aparna A., 2013)

For the oil importing countries, oil price increase and economic growth are negatively correlated while all things being equal, the relation is positively correlated for oil exporting countries. (Anandam M et al., 2013)

So, a consecutive decline in the crude oil price may result in to low spending on imports hence enhanced foreign exchange reserves in India.

Low oil prices help tame inflation, repair fiscal books and lower the current account deficit, providing comfort to the Reserve Bank of India (RBI) to kick start the rate cutting cycle. (Rao R., 2015)

A report of IMF says that, Oil importing countries should use this period as an opportunity to strengthen their monetary policy frameworks. (IMF Staff Discussion Note, 2015)

The same report also says that the low oil prices provide a window of opportunity to undertake serious fuel pricing and taxation reform in both oil-importing and oil-exporting countries. The resulting stronger fiscal balances would create space for increasing priority expenditures and/or cutting distortionary taxes, thereby imparting a sustained boost to growth. (IMF Staff Discussion Note, 2015)

But if we talk about Indian exports to UAE than falling crude oil prices are quite unfavorable for Indian exporters.

Few Indian economists says that, if falling crude oil prices have given the country enough elbow room to manage its finances better, it has also hit the Indian economy hard in terms of exports. A fifth of India's exports go to OPEC countries. Shipments to the bloc fell 3.3% y-o-y in the April-November 2015 period, compared to growth of 5% the year before. In particular, exports are down 10% y-o-y to the UAE and 48% to Saudi Arabia. (www.ibtimes.co.in)

And of course to set UAE at priority is very important for India as with respect to bilateral investments, total FDI from UAE to India is estimated to be $3.01 billion (January 2015) and ranked as 10th biggest investor in India. (www.indianexpress.com)

If we consider the indirect impact of this on Indian economy than it must be noted that India is heavily dependent upon foreign institutional investors (FIIs) and foreign direct investment (FDI) inflows and when bank funding of such a high magnitude and budgets of oil exploring companies in UAE go haywire, Indian markets would also feel the pinch. (www.zeenews.india.com)

3. RESEARCH METHODOLOGY

We divide our research on the bases of above objectives into two parts. Part one emphasis on the short run impact of cut in crude oil prices on Indian economy. Initially we explored various reports of World Bank, WTO and OPEC, along with the news agencies reports and articles to identify the economic areas where this price cut going to affect in short run. Some immediate effects have been identified on major economic factors and they were analyzed further with the help of economic theories.

Analysis of short-run affects of crude oil price cuts

Let us understand the mechanism through which crude oil price cut put an impact on the major economic indicator. India import two third of its oil requirement, which consist of 30 percent of its total imports. Fall in price of crude oil by 10 USD per barrel would reduce current account deficit and fiscal deficit by 0.5 percent and 0.1 percent of GDP of India respectively. Reduced current account deficit and fiscal deficit would improve balance of payment and budgetary deficit of India respectively. This means that government will have more money for its expansionary policies. In India price cut benefits has been gained by the government as government has increased taxes on the petroleum products. If government increases its spending, production and income would increase with decrease in interest rate. Hence capital inflows increases in India. But an overall improvement in balance of payments would be seen for India. This might increase the money supply in the economy and hence could improve the state of employment.

Also, a recent research report says that a 10 percent decline in oil prices could reduce retail inflation (Consumer Price Index-based inflation) by around 0.2 percent and push up the gross domestic product (GDP) growth by 0.3 percent (zeenews.india.com). This is known as favourable supply shock which should increase economic growth rate while decreasing inflation rate.

But there is a possibility that the benefits of the favourable supply shock might not decrease the inflation rate as government has increased its duties on the petroleum products.

Since India follows managed floating rate exchange system therefore expansion in money supply would lead to depreciate domestic currency and boost exports.

American bond price and Indian economy- Almost all countries of the world accumulate dollars by purchasing American Bonds. Oil producing countries also purchase American Bonds, with the fall in the prices of crude oil economic growth of oil producing countries would suffer and hence they would purchase less American Bonds than before resulting in the fall of American economic growth rate. As India's economy largely depends up on the economy of U.S.A therefore Indian economy would also suffer from cut in the oil prices. Because of weak dollar circulation global economy would become weak.

Jobs in Middle East- More than 5 million Indians are working in Middle East countries. With this oil price cut there would be fall in the employment opportunities available in these countries. Moreover these oil extraction companies might go for retrenchment of their employees.

It is difficult to find out the long run effects of this oil price cut in the economy as we do not know whether this price cut would persist in long run or not. Therefore we further take two objectives, first whether this price cut would be continued or not and secondly if yes, what would be its impact on the Indian economy? In order to accomplish this task data is collected in both forms quantitative and qualitative. We explored main factors of our research objectives through qualitative research and later collected quantitative data from secondary sources. We applied statistical tools like correlation, linear regression, and multiple regressions with the help of SPSS 16.0.

Analysis of long-run affects of crude oil price cuts

Reduction in foreign investments from oil producing countries in India- Oil exporting countries invest heavily in India in the form of Foreign Direct Investment (FDI). Especially U.A.E, its cumulative investment in India form 2000 to 2014 is 12,713 crores (http://dipp.nic.in, January 2014). Impact of reduction in crude oil prices would reduce the profit of oil producing countries leading to less FDI in countries like India. But this is an assumption based on deductive reasoning. We would try to find out a quantitative relationship between FDI and crude oil price by taking data of U.A.E. We would apply regression analysis on the data taken from the secondary sources taking period of 2000-2014.

Chances of poor exports from India- U.A.E and Saudi Arabia are among the top five export destinations of India, with share in export 7.5% and 5.8% respectively (atlas.media.mit.edu, 2014). With the reduction in crude oil prices there would be drop in the import of these countries. Henceforth exports from India could suffer significantly due to drop in crude oil prices.

Hypotheses

H_1: There is a strong relationship between FDI inflows in India from U.A.E and crude oil prices in the international market.

H_2: There is a strong positive relationship between exports from India to U.A.E and crude oil prices in the international market.

Table I

Years	*Average Crude Price US$/barrel*	*FDI equity inflow from UAE (in crores)*	*Export from India to UAE (in crores)*
2000	27.6	3.21	2,597.52
2001	23.12	103.26	2,491.79
2002	24.36	60.12	3,327.48
2003	28.1	82.72	5,125.58
2004	36.05	134.61	7,347.88
2005	50.59	210.47	8,591.79
2006	61	1097.21	12,021.77
2007	69	884.22	15,636.91
2008	94.1	1241.66	24,477.48
2009	60.8	3014.80	23,970.40
2010	77.38	1673.21	33,822.39
2011	107.46	1041.81	35,925.52
2012	109.45	1431.09	36,316.65
2013	105.87	1695.52	30,520.42
2014	96.29	NA	33,028.08

Compiled by Researcher

4. FINDINGS

Calculated significance value is 0.014 which is greater than 0.05 therefore there is a strong relationship between FDI inflows in India from U.A.E and crude oil prices at the international market. R square is .405, it means 40% variance in FDI from UAE to India is because of crude oil price prices in the international market.

Table II.
ANOVA[a]

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	4067795.061	1	4067795.061	8.181	.014[b]
1	Residual	5966583.992	12	497215.333		
	Total	10034379.052	13			

(a) Dependent Variable: fdi

(b) Predictors: (Constant), crprice

From Table III we find that calculated significant value is 0.00 which is less than 0.05 therefore there is a strong positive relationship between exports from India to U.A.E and crude oil prices in the international market. Value of R square is .888 which explains 88% variations in exports from India to UAE depend upon crude oil price in the international market. Standardized coefficient or Beta value is .942 which is very high.

Table III
ANOVA[a]

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	2191159846.963	1	2191159846.963	103.022	.000b
1	Residual	276495829.052	13	21268909.927		
	Total	2467655676.015	14			

(a) Dependent Variable: exuae

(b) Predictors: (Constant), crprice

Further it is found that export from India to UAE highly influenced by the FDI from UAE to India and crude oil prices if taken together as predictors, as 91.7% of variation in export from India to UAE is explained by crude oil price and FDI from UAE to India. However significant crude oil price plays a significant role in this model while FDI from UAE has shown a weak and insignificant relationship in this model.

5. CONCLUSION

Since there is a significant and direct relationship between crude oil price and exports from India to UAE and FDI in India by UAE therefore cut in crude oil prices in long run might not be favourable for the Indian economy.

However we could assume that cut in crude oil prices would not sustain for longer duration. Current phenomenon is the result of the less demand of crude oil by USA from OPEC. In future OPEC would search new market and regain its lost demand of crude oil.

Trade relations of India and Middle East countries are as old as civilization therefore any downfall in the economy of the Middle East countries would definitely harm Indian economy n long rum. On one hand we have reasons to smile at the cut in the crude oil prices at the international market while on the other hand we could see fall in export from India to UAE.

References

Aparna A. (2013). "Impact of oil Prices on the Indian Economy." NMIMS Management Review, ISSN: 0971-1023, Volume XXIII.

Anandam M., Ramaswami S. & Sridhar S. (2013). "Crude Oil Price Behavior and Its Impact on Macroeconomic Variable: A Case of Inflation." Language in India www.languageinindia.com ISSN 1930-2940 Vol. 13:6.

IMF Staff Discussion Note (2015). "Global implications of Lower Oil Prices." International Monetary Fund. SDN/15/15.

Jain AS, Patil NS. (2015) "Crude Oil Prices and Its Impact on Indian Economy." International Journal of Social Science and Humanities Research ISSN 2348-3164 (online) Vol. 3, Issue 2, pp: (562-572), April - June.

Sharma A, Singh G, Sharma M & Gupta P. (2012). "Impact of Crude Oil Price on Indian Economy." International Journal of Social Sciences & Interdisciplinary Research, Vol.1 No. 4, Issn 2277 3630.

Rao R., (2015). "India: Falling oil prices – good or bad?" DBS Group Research.