



Impact of deregulation in petroleum product prices on stock price of petroleum PSUs in India

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Abstract

On 26 June 2010 government of India took historical step of eliminating control of state on market retail prices of petrol and after some time in 2014 diesel prices were also deregulated. Main objective behind implementation of oil price deregulation is to reduce the loss of companies due to rise in crude oil price and subsidy provided by the government to the public. This Study examines the impact of price deregulation on the market price of share of selected public sector companies engaged in oil and gas. Five companies namely, BPCL, GAIL, HPCL, IOCL and ONGC are selected and data regarding daily share prices from 1997 to 2018 is collected from the website of National stock exchange. To examine the impact of deregulation and to test the hypothesis paired sample t-test is used.

Keywords: share price, oil and gas companies, deregulation

Introduction

Prior to June 2010 Indian government was providing subsidy on oil and gas product to the citizen of country. On 26 June 2010 government eliminated control of state on oil and gas. In this process in 2010 petrol prices were deregulated and later in 2014 diesel prices were also deregulated and now the prices are influenced by the global price of crude oil and exchange rate of currency. Before deregulation oil and gas producing companies were in loss and their earning capacity was very low but after deregulation they got freedom to change the prices according to the international crude oil prices. After implementation of deregulation companies are now making profits and the reserve of foreign currency in India also increased significantly. Prices of petroleum products are fixed by the producing company to the market demand and supply forces. OPEC is the supreme authority around the world who control the production & supply of crude oil. OPEC nations determines the prices of crude oil in the world market on the basis of demand and supply. Prices are now depending upon three factors namely, crude oil basket, exchange rate and demand for petroleum products. Around 75% of crude oil is imported from the OPEC countries which is used to produce Petrol, Diesel and other petroleum product and rest demand of 25% is met by the domestic companies comprises of private and public companies. All the selected companies are listed in NSE India and public companies in nature. The market prices of any company are influenced by company specific information like report regarding profitability, project, expenditure. 57% amount from total prices of one litre petrol goes in the form of taxes, duties and in dealer's margin. There are few companies which are called oil marketing companies, which are responsible for the marketing of petroleum product. They handle crude oil from the origin and perform duties till distribution to dealers. Three companies namely, BPCL, IOCL

and HPCL have 95% market share of petrol & diesel, remaining 5% is of RIL and Essar limited while GAIL and ONGC are the companies who are mainly engaged in the business of Gas distribution.

Review of Literature

Rajiv D. Banker (1997) evaluated the impact of legislative change on the shareholder's wealth. He found that political and legislative change in the country effect positively and negatively on the wealth of shareholder in country.

ACCC (2001) presented a study and in his study they concluded that deregulation of milk prices in Australia lead to increase in the prices of Dairy product. Government of Australia removed control of state from the prices of milk gradually due to that prices of milk increased by handsome amount.

Marianne Bertrand (2005) discussed the importance of banking deregulation in French market. he concluded that deregulation in banking industry of France will help in increasing competition, reducing interest rates, elimination of bank subsidies and thereby will affect the share price of the bank in stock market.

Akinlo (2014) examined the impact of crude oil prices on stock prices of different companies. He used VAR model to check his hypothesis and concluded that there is temporary impact of crude oil price on stock prices.

Objective of the study

The main objective of this article is to examine the impact of petroleum price deregulation on the share price of the selected petroleum companies.

Scope of the study

This analysis is limited to the impact of price deregulation on

selected companies during pre and post period of 1997-2010 and 2010-18. Further, the researchers can examine the impact of price deregulation on subsidiaries and ancillary's companies. The result of this analysis will also help the investor to take the decision regarding the investment in oil and gas sector.

Research Methodology

Data collection

Data regarding share prices on the daily basis from 1997 to 2018 is collected from the NSE website. Data is converted in two groups, first group consists the daily prices from April 1997 to June 2010 and second group contain the prices from July 2010 to March 2018 on the basis of price deregulation implementation.

Selection of Companies

Five companies are selected for the purpose of study i.e. BPCL, GAIL, HPCL, ONGC and IOCL. These companies are public sector units and have large market share.

Hypothesis

- Ho: there is no significant effect of deregulation on stock prices of selected companies.
- H1: there is significant effect of deregulation on stock prices of selected companies.

Data Analysis and Interpretation

Table 1: Share prices of ONGC, BPCL, GAIL, HPCL and IOCL

	03-04-1997	25-06-2010	28-03-2018
ONGC	24.6056	210.567001	177.800003
BPCL	32.208302	103.449997	427.450012
GAIL	39.9375	272.334015	328.549988
HPCL	57.044399	89.3778	344.850006
IOCL	26.0417	94.487503	176.600006

Source: (NSE data)

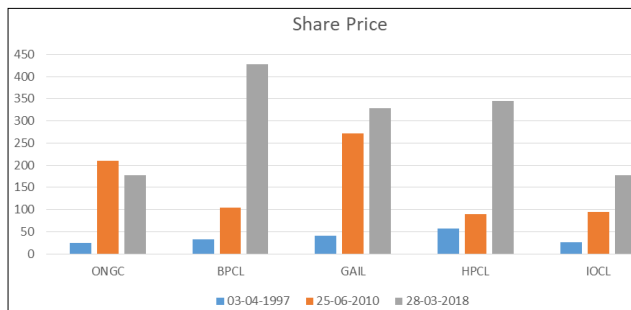


Fig 2

Above table showing share prices of selected companies. Share price of ONGC was 24.60 in 1997 and increased to 210.56 in 2010 but decreased to 177.80 in 2018. In case of other companies, share price increased significantly from 1997 to 2018.

Table 1: Paired Samples Statistics

=	Mean	N	Std. Deviation	Std. Error Mean	
Pair 1	PRE_ONGC	37.1604	1914	25.43636	.58141
	POST_ONGC	192.9069	1914	31.65161	.72348
Pair 2	PRE_BPCL	37.1264	1914	17.65396	.40353
	POST_BPCL	232.3750	1914	139.66257	3.19234
Pair 3	PRE_GAIL	35.4068	1914	25.19132	.57581
	POST_GAIL	233.5943	1914	46.22421	1.05657
Pair 4	PRE_HPCL	53.9291	1914	21.72223	.49652
	POST_HPCL	157.4800	1914	118.77059	2.71480
Pair 5	PRE_IOCL	25.7747	1914	15.91811	.36385
	POST_IOCL	103.4143	1914	47.09390	1.07645

Source: Computed Data

Table 1 shows the no. of sample of market prices are 1914 and showing the difference in mean prices of selected companies during pre and post deregulation. The difference in mean price of ONGC (155.75), BPCL (195.25), GAIL (198.19), HPCL

(103.56) and IOCL (77.64). it shows that there is significant impact of price deregulation of oil and gas on stock prices of the selected companies.

Table 2: Paired Samples Correlations

	N	Correlation	Sig.	
Pair 1	PRE_ONGC & POST_ONGC	1914	-.320	.000
Pair 2	PRE_BPCL & POST_BPCL	1914	.881	.000
Pair 3	PRE_GAIL & POST_GAIL	1914	.792	.000
Pair 4	PRE_HPCL & POST_HPCL	1914	.766	.000
Pair 5	PRE_IOCL & POST_IOCL	1914	.916	.000

Table 2 shows that the share prices of the ONGC are having negative correlated (-.320) during pre and post deregulation. Other companies namely, BPCL (.881), GAIL (.792), HPCL

(.766) and IOCL (.916) has significantly positive correlated to each other during pre and post deregulation.

Table 3: Paired Samples Test

		Paired Differences					t	df	Sig. (2-T)
		Mean	SD	SEM	Difference at 95%				
					Lower	Upper			
Pair 1	PRE_ONGC - POST_ONGC	-155.74652	46.51129	1.06313	-157.83154	-153.66150	-146.498	1913	.000
Pair 2	PRE_BPCL - POST_BPCL	-195.24861	124.38355	2.84310	-200.82451	-189.67271	-68.675	1913	.000
Pair 3	PRE_GAIL - POST_GAIL	-198.18741	30.43108	.69558	-199.55159	-196.82324	-284.924	1913	.000
Pair 4	PRE_HPCL - POST_HPCL	-103.55088	103.08729	2.35632	-108.17211	-98.92966	-43.946	1913	.000
Pair 5	PRE_IOCL - POST_IOCL	-77.63962	33.13152	.75730	-79.12485	-76.15439	-102.521	1913	.000

Source: Computed Data

Table 3. show that there is significant impact of price deregulation on stock price of the selected companies. Null hypothesis for all the five companies is rejected. *For ONGC* $t(1913) = -146.498$, $p = 0.00$, *BPCL* $t(1913) = -68.675$, $p = 0.00$, *GAIL* $t(1913) = -284.924$, $p = 0.00$, *HPCL* $t(1913) = -43.946$, $p = 0.00$ and *IOCL* $t(1913) = -102.521$, $p = 0.00$.

Conclusion

It can be concluded that there is significant impact of price deregulation on the share price of all the five selected companies and due to that the worth of the companies also increased by handsome percentage in last eight years from deregulation to now. Increase in the share prices of oil and gas companies will also motivate the investors to invest their savings in this sector.

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