Ilkogretim Online - Elementary Education Online, 2021; Vol 20 (Issue 1): pp. 7502-7515
http://ilkogretim-online.org
doi: 10.17051/ilkonline.2021.01.775

Pre And Post-Election Affect On Petrol Prices, Evidence From Pakistan

Farkhanda Ilmas Ph.D. Scholar, School of Economics and International Relations, Liaoning University, Liaoning, 110000, China, E-mail address: faree_chaudary@yahoo.com

Akash Khan Ph.D Scholar, School of International Economics and International Relations, Liaoning University, Liaoning, 110000, China**,** E-mail address: akashkhanndu@gmail.com

Raj Muhammad Khan Hired Lecturer in Pakistan Studies, Department of Pakistan Studies, Govt. Superior Science College Peshawar, KP, Pakistan, rajmuhammadraj1991@gmail.com

Abstract

Purpose: The aim of this paper is to identify the general understanding on the price formation of crude oil in the short and the long run relationship.

Design/methodology/approach: The data has been collected from secondary sources on domestic oil prices foreign oil prices and exchange rate from 1981 to 2017 and analyzed the data in Eviews, first checked the normality of the data through augmented dickey fuller test and then applied the Johansen co-integration Test and generate the dummy for capturing the outliers.

Findings: Through the empirics of the study, it is analyzed that foreign oil prices, exchange rate, inflation, import, export and balance of payment influence the oil prices in short as well as in the long run.

Research limitations/implications: A major limitation of the study was the constraint related to the availability of data, so data was taken since 1981 to 2017.

Practical implications: It is suggested that governments should pay attention to macro variables and controlled them so that in the future we could save us from a big threat of economic loss in the form of high oil prices.

Social implications: High oil prices, with its kinds of impacts, affect the society and its activities and therefore must be controlled it in a better way if an economy needs to prosper.

Keywords – domestic oil prices, international oil prices, exchange rate, co-integration, unit root test.

Introduction

Oil prices have been very unpredictable in recent years. Instability in oil prices does harm in many ways. Both drawing up and developed countries are affected. Oil prices are always controversial and remain an important inconsistent in determining the economic activity of any country. Since 1961 oil prices are controlled by the Government directly and indirectly, thus it is an occasion for the Government to take advantage during and after the election periods for the purpose of re-election. Peltzman's (1976) formalizes the thought that a politically concerned regulator determines a regulated price in trying to maximize his or her political hold.

The impact of international oil prices and exchange rate on domestic petrol prices can be seen between pre-election and post-election from 1981 to 2017.It is checked to report that there is a statistically significant influence upon the existence of a federal election. In Pakistan, falling foreign exchange reserves have created an immediate problem of oil import. Primary causes of the sudden fall in oil prices deeply concerns with energy demand that was shrinking because of an US-led global economic slowdown. As a matter of fact among all major developing countries. According to the economic survey 2009 Pakistan during 2008 had the worst levels of foreign deficit and inflation of GDP of about 8.5% and 17% respectively; it was the weakest and most vulnerable situation for Pakistan's economy.

Pierre-Richard, et al., (1997) reports on their studies the interactions between electoral considerations and the imposition of price controls by opportunistic policymakers. The analysis demonstrates that a policy cycle emerges in which price controls are tightened in periods leading to the election, and stress-free immediately afterwards. Oil price shocks contributed a lot at least in part to the recession of the 1970s and 1980s. It is well known that real exchange rate fluctuations can be attributed primarily to non-monetary shocks. Diverse sources of genuine shocks have been studied in Zhou (1995). Among many sources of actual disturbances, such as oil prices, fiscal policy, and productivity shocks, it has been shown that oil price fluctuations play a major role in explaining real exchange rate movements.

Kausik Chaudhuria (1998) investigates 16 OECD countries and finds that the non-stationary behavior of the US dollar real exchange rates is due to the non-stationary behavior of real oil prices. Similar results are obtained by Amano and Norden (1998). By using data on real effective exchange rates for Germany, Japan, and the US, they find that the real oil price is the primary factor determining real exchange rates in the long run. Claudio et al., (2006) investigates the political price hypothesis for Brazil 1969-1982 by using an autoregressive integrated moving average model (ARIMA) with international petrol prices growth based on

the ordinary least square method. Econometric results prove during 1969-1982 that the Brazilian gasoline market practiced electoral price cycle the paper also tried to estimate the structural relationship among gasoline prices, exchange rate and global oil price resulting from purchasing power parity.

Moita, et al., (2013) investigate in the paper that the early work of Stigler (1971) treats the regulatory process as the settlement of conflicting economic and political interests rather than a pure welfare-maximizing effort. This paper generates on these ideas and models the regulatory process as a game where the industry-lobby, consumers-voters, and a regulator-politician interact to define the regulated price, in alternating electoral and non-electoral periods. The equilibrium that emerges consists of a fully rational political price cycle in a regulated industry. Ibraheem, et al., (2013) the oil is one of the most major factors affecting the economy of the world that is why any change in the oil prices brings change in all the economic variables. For this purpose the researcher first checked the stationarity of the data through augmented dickey fuller test and then applied the Johansen co-integration Test and the co-integration results showed that there is a positive relationship among oil price, CPI and the KSE-100 Index.

Though found results don't show the very strong relationship but it helps in concluding that oil prices have an effect on CPI and the KSE-100 Index. Fernando (2014) in their paper they examine the impact of oil price shocks on stock returns in 12 oil importing European economies using Vector Autoregressive (VAR) and Vector Error Correction Models (VECM) for the period 1973:02–2011:12. Stéphane, et al., (2008) explains the sharp rise in oil prices includes the lack of sufficient extra production capacity and a non-linear relationship between oil prices and supplyY. Finally, expectations of shortages in the long-run may also influence the oil priceS. Mukhriz Izraf, (2009) Paper finds a positive and statistically significant impact of the real oil price on the real exchange rate for net oil importing countries, implying that increase in oil price leads to a real exchange rate depreciateson.

Problem Statement

Despite these facts, still there is no work on this issue in Pakistan for understanding the electoral cycle with the business cycle of the petrol industry so there is need to study the impact of macro variables on oil prices.

Research Questions

Be here any relationship of domestic petrol prices in the international oil prices?
Be here any relationship of domestic petrol prices with the exchange rate?
Be there any relationship of domestic petrol prices in the import?
Be there any relationship of domestic petrol prices for the expert?
Be here any relationship of domestic petrol prices on the balance of payment?

Be here any relationship of domestic petrol prices in the pre-election time period?
Be here any relationship of domestic petrol prices in the post-election time period?

Objective

To determine the historical global oil prices has a causal relationship with domestic oil prices in the presence of national elections.
To determine the historical exchange rate has a causal relationship with domestic oil prices in the presence of national elections.
To determine historical import has a causal relationship with domestic oil prices in the presence of federal elections.
To determine historical expert has a causal relationship with domestic oil prices in the presence of national elections.
To determine the historical balance of payment has a causal relationship with domestic oil prices in the presence of national elections.

Literature Review

Peltzman, (1976) formalizes the thought that a politically concerned regulator determines a regulated price in trying to maximize his or her political hold. This paper elaborates a modified version of Peltzman's model incorporating the notion that the regulator's behavior changes with the proximity of elections. The addition of a time dimension to the model yields a drastic price cycle in regulated industries. The regulator has incentives to enforce higher prices when elections are relatively far ahead and lower (real) prices in periods that immediately lead an important election. Claudio, et al., (2006) investigates the political price hypothesis for Brazil 1969-1982 by operating an autoregressive integrated moving average model (ARIMA) with international petrol prices growth founded on the ordinary least square method. Econometric results prove during 1969-1982 that the Brazilian gasoline market practiced electoral price cycle the paper also was attempting to estimate the structural relationship among gasoline prices. Exchange rate and international oil price resulting from purchasing power parity theory.

Pierre-Richard, et al., (1997) studies the interactions between electoral considerations and the imposition of price controls by opportunistic policymakers. The analysis demonstrates that a policy cycle emerges in which price controls are tightened in periods leading to the election, and stress-free immediately afterwards. Besley, et al., (2000a) investigates that in a non-electoral year; the present government-regulator decides the price that maximizes welfare and lobby contributions. In an election year, however, the present government may lower the regulated price to increase its chance of being chosen. Voters do not meet the shock that determines whether the present government- regulator is pro-consumer or pro-industry until after the election.

Jacc.C, (2001) draw up a model where economies agents face uncertainty regarding the timing of elections and which party will emerge victorious should an election occur. This electoral uncertainty affects the macro economy, where the size and direction of the impact are a function of the party in power in the current and previous period; time elapsed since the last election and party popularity. Claudio, et al., (2006) develops a model of political regulation in which politicians set the regulated price in order to maximize electoral support by signaling to voters a pro-consumer behavior. Political incentives and welfare restraints act together in the model, yielding an equilibrium in which the real price in a regulated industry may fall in periods immediately preceding an election.
Moita, et al., (2013) investigates in his paper that the early work of Stigler (1971) treats the regulatory process as the settlement of conflicting economic and political interests rather than a pure welfare-maximizing effort. This paper generates on these ideas and models the regulatory process as a game where the industry-lobby, consumers-voters, and a regulator-politician interact to define the regulated price, in alternating electoral and non-electoral periods.

Relationship between Oil Price and Exchange Rate

Consistent with theoretical clarification regarding the oil price and exchange rate relationship mentioned above, the empirical literature has investigated mutual influences between the price of oil, exchange rate and international oil prices. By means of a four dimensional structural vector auto-regression model, Rautava (2004) in his paper discussed the impact of international oil prices and the real exchange rate on the Russian economy and its fiscal policy are analyzed using vector autoregressive (VAR) modeling and co-integration techniques. The outcome implies that the Russian economy is influenced significantly by fluctuations in oil prices and the real exchange rate through both long-run equilibrium circumstances and short-run direct impacts.

Hamilton, et al., (1983) study initiated a well-known line of research in economics focusing on the macroeconomic impact of oil price shocks. He noted that at that time, 7 out of 8 postwar US recessions had been preceded by a sharp increase in the price of crude petroleum. In a recent new study. Hamilton (2011) pointed out that 10 out of the 11 postwar US recessions had been preceded by a rise in oil prices. Huang et al., (1996) focus on the relationship between daily oil futures returns and daily U.S. stock returns. Using a vector auto-regression (VAR) approach, they find that oil futures returns do lead some individual oil company stock returns but oil futures returns do not get a lot of influence on broad based market indices like the S&P 500.

Evidence of the role of oil prices in clearing up the real exchange rate was reported by Amano, et al., (1998a) who used co-integration theory Sadorsky, et al., (1999), estimates a vector auto-regression model with monthly data to study the relationship between oil prices

changes and real stock returns in the United States. In his analysis, he finds that oil price changes and oil price volatility both play an important part in affecting real stock returns. There is proven that oil price dynamics have changed. After 1986, oil price movements explain a larger fraction of the forecast error variance in actual stock returns than do interest rates. Tilak, (2001) measures the direct and indirect effects of oil prices on GDP growth of 12 economies. Because of the oblique effect, which transmits via a trade matrix, even the net oil exporters like Indonesia and Malaysia cannot escape the negative influence of high oil prices.

Evangelia, (2001) use the multivariate vector-auto regression VAR approach, this paper attempts to shed light into the vibrant relationship among oil prices, real stock prices, interest rates, real economic activity and employment for Greece. Ayoub, et al., (2003) examines the effects of changes in the exchange rate of the US dollar on the trade balances of the three oil-exporting countries, namely Iran, Venezuela and Saudi Arabia. Their present study examined the effects of changes in the exchange rate of the US dollar which serves as the third-country currency, on the trade balances of the three oil-exporting countries, namely Iran, Venezuela and Saudi Arabia.

Cunado, et al., (2005) explain the oil prices–macro-economic relationship by means of studying the impact of oil price shocks on both economic activity and consumer price indexes for six Asian countries over the period 1975Q1–2002Q2. The results recommend that oil prices have a significant effect on both economic activity and price indexes, although the impact is limited to the short run and more significant when oil price shocks are defined in local currencies. Chen, et al., (2007) examines the long-run relationship between real oil prices and real exchange rates by using a monthly panel of G7 countries from 1972:1 to 2005:10. Mukhriz Izraf, (2009) states his objective of estimating the long run effects of the real oil price and the real interest rate differential on the real exchange rate for a monthly panel of 8 countries from 1980 to 2008. The modeling exercise follows three stepss.

Using co-integration analysis for a monetary approach to exchange rate determination, Lizardo, et al., (2010) showed the significant contribution of oil prices to explain long-term USD movements, supporting a negative relationship between oil prices and the USD. Syed Abul Basher, (2012) worked on two different streams of literature exist investigating 1) the relationship between oil prices and emerging market stock prices and 2) the relationship between oil prices and exchange rates, relatively little is known about the dynamic relationship between oil prices, exchange rates and emerging market stock prices. This paper proposes and estimates a structural vector auto-regression model to investigate the dynamic relationship between these variables.

Ibraheem, et al., (2013) the oil is one of the most major factors affecting the economy of the world that is why any change in the oil prices brings change in all the economic variables.

For this purpose the researcher first checked the stationarity of the data through augmented dickey fuller test and then applied the Johansen co-integration Test and the co-integration results showed that there is a positive relationship between oil price, CPI and the KSE-100 Index. Though found results don't show the very strong relationship, but it helps in concluding that oil prices have an effect on CPI and the KSE-100 Index. Fernando (2014) in their paper they examine the impact of oil price shocks on stock returns in 12 oil importing European economies using Vector Autoregressive (VAR) and Vector Error Correction models (VECM) for the period 1973:02–2011:12.

Methodology and Data Issues

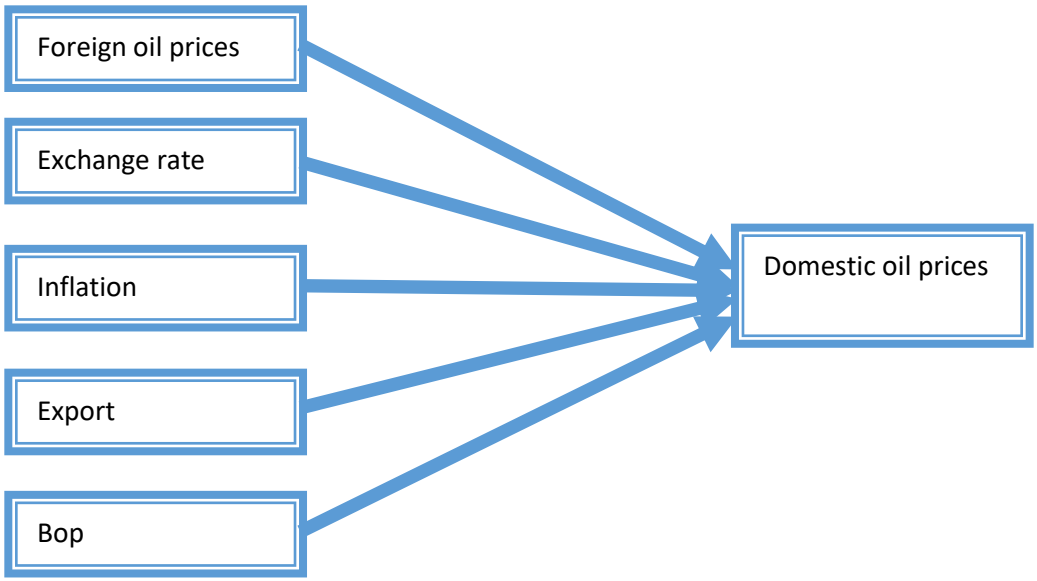
The purpose of this research is intended to support the factors which are affecting the high oil prices with reference to OIL GAS Regulatory Authority. During 1997, the Government initiated an economic reform package and deregulation reforms initiated in 2000 are continuation of these reforms. The election of 1988 took place over a long period of dictatorship and is not considered to be truly free. As a part of it to the government again initiated an ambitious pro-market reform program in the oil price department by giving way to the printing and regulatory responsibilities of an independent supervisory authority. Government imports major portion of the petrol from Saudi Arabia at a discount under the contract.

In 1990 prices changed during the month of June and July, while in 2001 Government authorized the Oil Companies Advisory Committee (OCAC) to set the prices of oil. Therefore the pre-election dummy variable is defined as "1" in the election year and "0" in other respect while post dummy is also generated due to having political influence. OCAC to regulate the price Fortnightly of motor spirit (gasoline), kerosene and light diesel between July 1, 2001 to April1, 2006. Since April 16 2006 OGRA is regulatory authority of price setting.

Research Hypothesis

H0= There is no impact of international oil prices and exchange rate on the domestic oil prices in the presence of election.
H1= There is an impact of global oil prices on the domestic petrol prices.
H2= There is an impact of exchange rate on the domestic oil prices in the presence of election.
H3= There is an impact of inflation on the domestic oil prices in the presence of election.
H4= There is an influence of export on the domestic oil prices in the presence of election.
H5= There is an impact of balance of payment on domestic oil prices in the presence of election.

Theoretical framework



Election Dates and Electoral Variables:

There are total 6 elections held in this period. After deregulation act of 2000, the election of 2002, 2008 and 2013 is held under the changed scenario.

Table 1: Election Dates and Regulating Authority

Election	Dates	Budget Fiscal Year	Pricing Authority
General Election 1985	28 Feb,1985	1985-1986	GOP
General Election 1988	29 May, 1988	1988-89	GOP
General Election 1990	29th October,1990	1990-91	GOP
General Election 1993	6th October,1993	1993-94	GOP
General Election 1997	3rd February, 1997	1996-97	GOP
General Election 2002	10 October, 2002	2002-03	OCAC and GOP
General Election 2008	18th February, 2008	2007-08	OGRA and GOP
General Election 2013	11th May,2013	2012-13	OGRA and GOP

Pre-election dummy variable is developed as "1" for the election year. Likewise post election dummy variable is defined as "1" for the upcoming year and "0" otherwise.

We have used data from 1981 - 2017 on a yearly basis. It is taken from numerous sources including Oil and Gas Regulatory Authority (OGRA) Pakistan State Oil (PSO), Hydrocarbon Development Institute of Pakistan (HDIP), U.S Energy Information Administration (EIA), International Monetary fund (IMF), Oil Company Advisory Committee (OCAC). Important consideration was given to determinants in this case. Our independent variable is the international oil prices and exchange rate. Given the dynamics of our country and past literature, we have estimated the following equation:-

$$\log (DPPt) = \beta 0 + \beta 1 \log(FOPt) + \beta 2 \log(ER_t) + \beta 2 \log(INF_t) + \beta 2 \log(EXP_t) + \beta 2 \log(BOP_t) + \mu_t$$

DOP = Domestic Petrol prices (as per litre/Rs)

F.O.P = Foreign Oil Prices (as per litre/Rs)

E.R = Exchange Rate (Rs)

INF = Inflation

IMP= Import

EXP = Export

BOP = Balance of Payment

μt = Stochastic Error Term

Table 2: Unit Root Results

Variables	specification	Lag	First difference
Δlog(domestic petrol prices)	c,t	0	-7.131301***
Δlog (export)	c,t	0	-5.212008***
Δ log (exchange rate)	c,t	0	-12.04338***
Δ log (import)	c,t	0	-4.625658***
Δ log (international oil prices)	c,t	0	-14.4747***
Δ log (inflation)	c,t	0	-6.604947***
***denotes rejection at 1 level of significance c,t denote constant and trend included in the unit root equation			

The data taken from 1881 to 2017 have been tested for stationary using Augmented Dickey-Fuller (ADF) unit root test with its first difference value of -7.131301, -5.212008, -12.04338, -4.625658 and -14.4747 at the 1%, 5% and 10% levels, respectively. All variables are

stationary at first difference at the 1% level of significance. It denotes that this study can reject our null hypothesis that the variables have no relationship by using the Johansen test.

Table 3: Co-integrating Test

Co-integration test		Trace		Maximum-Eigen value Statistics	
H0	H1	Trace Statistics	95% critical value	Max-Eigen Statistic	95% Critical Value
r=0	r=1	126.8076	95.75366	41.69406	40.07757
r=1	r=2	85.11358	69.81889	30.72079	33.87687
r=2	r=3	54.39280	47.85613	30.72079	27.58434
r=3	r=4	25.69368	29.79707	19.27391	21.13162
r=4	r=5	6.419769	15.49471	6.376966	14.26460
r=5	r=6	0.042803	3.841466	0.042803	3.841466

Indicates that 1 co-integrating equation at .05 significance level

The alternative hypothesis for the Max-Eigen value test is given by r=1, r=2, r=3, r=4, r=5.To test for the existence of a co-integration relationship we used Johansen's and Juselious (1990) method of co-integration. The results of this test are reported in Table 2 and indicate the existence of 1 co-integrating equation at 5% significance level.

Table 4: Long Run Relationship

Dependent Variable: Domestic oil Prices		likelihood -446.8937	
Variables	Coefficient value	Standard Error	t-statistics
ΔLog inf(inflation)	-4.088210	0.41118	9.943
ΔLog imp(import)	0.397741	0.09760	4.075
ΔLog exp(export)	-1.306424	0.08647	-15.108
ΔLog exchange(exchange rate)	0.799438	0.11572	6.908

ΔLog BOP(balance of payment)	12.81376	0.50096	25.578

ECT = log oil-prices$_{t-1}$ + log imp$_{t-1}$ + log exp$_{t-1}$ + log exchange$_{t-1}$ + logbop$_{-1}$ +ϵt

The estimated co-integrating vector shows that domestic oil prices get the positive long run relationship with the international oil prices. Similarly, country real exchange rate has also positive one to one relationship with the domestic petrol prices means that a1 % depreciation in the real exchange rate result in a 1% increase in domestic petrol prices. However, the coefficient of the international oil price is 39 showing that 100% change in the transnational oil price cause a 82% change in the domestic oil prices.

Table: 4 Error Correction Models

Since the electoral manipulation is a short term phenomenon, there for the electoral dummy do not form part of the co-integration mechanism, but included in the short run dynamic model of error correction. For this we have used the general to specific approach to estimate the parsimonious error correction model proposed by David Hendry. In the error correction model changes in the dependent variable are a function of changes in the explanatory variables, lagged explanatory variables as well as error correction terms (ECT) derived from the co-integrated vector. Error correction term has been derived from the estimated long run relationship, is as follows

It was already predictable and estimated globally that the oil demand is expected to grow to 98 million barrels/ day in the next four years (2015) and 118 million barrels / day during the next twenty years (by 2030).The fuel prices are inclined to increase further till the demand growth is restrained that is why there is need to introduce new technologies which reduce dependency on oil. In Pakistan, the justification for this increase is indicated by the Oil and Gas Regulatory Authority (OGRA) on various grounds. Huge rise in world oil price shifted the burden to the consumers as the government is already running severe losses and equally shifted this burden to households.

Table 5: Error Correction Model 1

Variable	Coefficient value	Standard errors	Probability
constant	-12.64216	(0.18178)	[0.70545]
Loginf(-1)	-0.198365	0.05691	-16.0870
Logimp(-1)	1.292059	0.15337	8.42457
Logexp01(-1)	-1.502210	0.08750	-17.1686

Logeer(-1)	-0.312278	0.09454	-3.30312
Logbop(-1)	4.615425	0.13194	34.9819
D(logoilp(-1))	-0.062023	(0.36150)	[-0.17157]
D(logoilp(-2))	-0.250638	(0.32851)	[-0.76295]
D(loginf(-1))	0.319357	0.319357	[1.01269]
D(loginf(-2))	0.48328	0.26438	[1.82800]
D(logimp(-1))	-1.325878	(1.32269)	[-1.00241]
D(logimp(-2))	-2.606669	(1.28653)	[-2.02613]
D(logexp01(-1))	0.272909	(1.01288)	[0.26944]
D(logexp01(-2))	0.526800	(0.73050)	[0.72115]
D(logeer(-1))	-2.326499	(0.96868)	-2.40171]
D(logeer(-2))	2.503025	(2.39674)	[1.04435]
D(logbop(-2))	-1.997751	(1.30896)	[-1.52621]
D(POSTDUMMY(-1))	0.100071	(0.13985)	[0.71555]
D(POSTDUMMY(-2))	-0.124494	0.11196)	[-1.11193]
D(PREDUMMY(-1))	-1.316878	0.18874)	[-6.97722]
D(PREDUMMY(-2))	-0.491093	(0.17183)	[-2.85797]

Oil price=329.4858-41.12709(inflation)- 3.328118(import)+ 6.839959(export)-9.396716(exchange)+ 10.78642(bop)

Conclusion

Petroleum industry play very important role in growing an economy, so there is a need to work on it and need to understand that which factors and time periods affect it positively and negatively. It directly affects prices of the products. Pakistan government regulates and exerts its influence on price determination so this paper helps to the literature in two distinctive ways. First, we consider different measures of oil prices, including domestic petrol prices, international price of oil and the exchange rate in the presence of election. Second, we pool the data and apply tests for series unit roots for removing the non-

stationarity in the data and then apply the Johansen's cointegration test, which may help improve the power of the tests. As additional countries Pakistan petroleum industry is also not free from the election periods effects and we conclude that politician are more pro-consumer and try to control the petrol prices for gaining the chance of being re-elected. In contrast, when election period ends they become more pro-industry at approximately .08 percent rise in domestic petrol prices has been estimated in the next election month and next upcoming budget month.

References

OCAC,2008, Oil Companies Advisory Committee.www.ocac.org.pk

OGRA,2006, Annual report of 2005-06. Oil and Gas Regulatory Authority,Islamabad

Pakistan Energy Yearbook (various issues), Hydrocarbon Developmant Institution of Pakistan ,Ministry of petroleum and Natural Resources, Government of Pakistan.

U.S. Energy International Adminstration

World Bank 2003, World Bak report 26072-PK, Pakistan-Oil and Gas Sector Review.

[Journal] / auth. Jacc.C Heckleman // Journal of Macroeconomics. - 2001. - 1 : Vol. 23. - pp. 261-275.

Elected Versus Appointed Regulators:Theory and Evidence [Report] / auth. Besley Timothy and Stephen Coate. - 2000a. - pp. NBER Working Paper, No.7579.

Estimation of Direct and Indirect Impact of Oil Price on Growth [Journal] / auth. Tilak Abeysinghe // Economics Letters. - 2001. - Vol. 73. - pp. 147-153.

Exchange rate of the US dollar and the J curve:the case of oil exporting countries [Journal] / auth. Ayoub Yousefia and Tony S. Wirjanto // Energy Economics. - 2003. - Vol. 25. - pp. 741-765.

Long-run equilibrium real exchange rates and oil prices [Journal] / auth. Kausik Chaudhuria Betty C. Daniel. - 1998. - Vol. 58. - pp. 231-238.

Oil and the Macroeconomy since World War II [Journal] / auth. Hamilton and D James. // Journal of Political Economy. - 1983. - 2 : Vol. 91. - pp. 228-48.

Oil Price & Exchange Rate: A Comparative Study between Net Oil Exporting and Net Oil Importing Countries [Journal] / auth. Mukhriz Izraf Azman Aziz. - 2009.

Oil price fluctuations and U.S. dollar exchange rates [Journal] / auth. Lizardo Radhamés A. and Mollick André V. // Energy Economics. - 2010. - Vol. 32. - pp. 399-408.

Oil price shocks and stock market activity [Journal] / auth. Sadorsky and Perry. - October 1999. - 5 : Vol. 21.

Oil price shocks and stock market returns: Evidence for some European countrie [Journal] / auth. Fernando Perez de Gracia // Energy Economics. - 2014. - Vol. 42. - pp. 365-377.

Oil price shocks, stock market, economic activity and employment in Greece [Journal] / auth. Evangelia Papapetrou // Energy Economics. - 2001. - Vol. 23. - pp. 511-532.

Oil prices and real exchange rates [Journal] / auth. Chen Shiu-Sheng and Chen Hung-Chyn // Energy Economics. - 2007. - Vol. 29. - pp. 390-404.

Oil prices and the rise and fall of the US real exchange rate [Journal] / auth. Amano, Norden R.A and and S.V. // Journal of International Monetory Fund. - 1998a. - 2 : Vol. 17. - pp. 299-316.

Oil prices and the stock prices of alternative energy companies [Journal] / auth. Sadorsky Perry and Henriques Irene // Energy Economics. - 2008. - Vol. 30. - pp. 998-1010.

Oil prices, economic activity and inflation: evidence for some Asian countries [Journal] / auth. Cunado J. and Gracia F. Perez de // The Quarterly Review of Economics and Finance. - 2005. - Vol. 45. - pp. 65-83.

Oil prices, exchange rates and emerging stock markets [Journal] / auth. Syed Abul Basher Alfred A. Haug // Energy Economics. - 2012. - Vol. 34. - pp. 227-240.

Political Price Cycles in Regulated Industries: Theory and Evidence [Journal] / auth. Moita, M.S. Rodrige and Paiva. Claudio // American Economics Journal:Economic Policy. - 2013. - 1 : Vol. 5. - pp. 94-121.

Political Price Cycles in Regulated Industrious:Theory and Evidence [Report] / auth. Claudio Paiva and Rodrigo Moita / International Monetry Fund. - 2006.

Political Price Cycles in Regulated Indutries [Report] / auth. Claudio Paiva and Rodrigo Moita. - [s.l.] : Trevor S.Alleyne, 2006.

Price Controls and electoral Cycles [Report] / auth. Pierre-Richard Age'nor and Carlos M.Asilis / International Monetary Fund. - Washington DC 20431,USA : [s.n.], 1997.

The impact of oil prices on stock exchange and CPI in Pakistan [Journal] / auth. Ibraheem Ansar, and Mis Nadia Asghar. - jan Feb 2013. - 6 : Vol. 7. - pp. 32-36.

The role of oil prices and the real exchange rate in Russia’s economy—a cointegration approach [Journal] / auth. Rautava Jouko // Journal of Comparative Economics. - 2004. - Vol. 32. - pp. 315-327.