BLACK GOLD & FLUCTUATION: A CRONIC EFFECT ANALYSIS ON OIL IMPORTER AND EXPORTER ECONOMIES (1973-2009)

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ABSTRACT

This paper studies the macro-economic dynamics in oil exporting economies and oil importing economies using Panel VAR approach. This learning in divergent with the majority other researches which center of attention is only developing net oil exporters –instead of importers and exporters economies and in accumulation to explore macro-economic fluctuations, formulate accessible fresh approaching into the collision of oil shocks on macroeconomic variables. Instability on the supply side of the oil market give explanation the largest part of the observed oil price unpredictability and are mainly caused and effect on the oil exporting economies. The oil shocks are due to demand and supply desired difference by the developing economies and developed economies. These shocks also negative effect oil importing economies (Pakistan, India & Bangladesh) GDP meanwhile these shocks also create impact and un-stability on oil exporting economies (Kuwait, Iran and Saudia) GDP.

Keywords: Macroeconomic fluctuations, Oil importing and exporting economies, Panel data, VAR model

INTRODUCTION

Price of oil (crude) increases from $28 per barrell in the year 1947 to a high of $122.77/bbl in March 2012. While the price fell slightly after July 2008 when it is at $94.45 and reached in November 2009 at $61.06/bbl, it resumed its upward trend in early 2010 and reaching a record high of $122.77/bbl on March 23, 2012. Analysts characteristic fall in:

i. Easing geopolitical tensions
ii. The end of the summer driving season
iii. A mild hurricane season.

However, the crude price is not predictable to decrease to reach at any minimum levels because the increases prices of oil are primarily obsessed by the increasing demand by East Asia, mainly China and that trend is increasing day by day.

If the positive aspects are viewed, the increasing prices of crude oil represent exclusive new job opportunities for oil-producing countries. They are anticipated to keep their growth rate at high, and if the oil prices increasing trend continue, they could significantly boost their standard of living. However, oil-exporting countries that are heavily dependent on its exports can become at risk by the Dutch disease. When the other aspect are viewed, the increasing price trends of oil constitutes, a big challenge for net oil-importing countries, especially in developing countries and African countries, as it may affect the economic growth and escort to congested budgetary constraints. The impact of this prices increasing trend is very dangerous and in effect they are exaggeratedly reliant on oil and which cause them heavily debt-burdened, and cause as a negative impact on their growth.

The study quantifies the impact of oil prices on importing and exporting economies. The analysis is based on a VAR model. The model is strictly micro-founded in the wisdom that factors are fully optimizing and form their prospect in a rational manner. This modeling approach has many advantages.

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a. The inter-temporal character of the model allows studying the effects of transitory as well as persistent oil price shocks in the economies.
b. The time conduit of aggregate variables is determined by the optimizing behavior of economic factors, the model is strong to the *Lucas critique*, and therefore, this is appropriate for the policy analysis.
c. This approach allows proper benefit analysis as it provides an unambiguous account of households' preferences.
d. The model viewpoint ensures inner steadiness and the main aspect of that approach allows evaluating effect of oil prices without making illogical assumptions like what is exogenous and what is not.

Due to above mention advantages, the projected model supersedes existing static computable VAR models, naïve data-based models and reduced-form models. These models are mainly use to describe the statistical associations between economic variables and to establish relevant stylized facts but the above mentioned models are not well defined the economic effects and do not make known the mechanisms through which shocks propagate. Some models are very easy to solve but they are well define the aggregate relationship and also not define the policy regimes.

The projected model consisting to the category of new open-economy macroeconomic models, which have become the general device used in recent increasingly sought by international organizations and international macroeconomics and Central Banks in all over the world. The model is very elastic that it can capture the complex realities of economies. The first natural division is between oil importing and exporting countries. The second characteristic is the scope to which economies permit changes in the oil prices of the world price, to be approved through to domestic consumers and firms.

A BRIEF LITERATURE REVIEW

There are some studies which are trying to analyze the effects of oil price and its shocks and also try to cover all its effects and factors for analysis and provided for the new policies.

Lutz Kilian (23 June 2007) the effect of changes in oil price on nations' outside imbalances is highly reliant on the original cause of this factor. Policy-makers must recognize these shocks's source before they can evaluate their probable consequences.

Ayadi (2005) is used VAR model in Nigeria at the period of 1980-2004 to analyze the oil prices shock in the Nigeria. This process also involves some aspects and the set of variables which is previously used by Ayadi, Chatterjee and Obi (2000) that the oil production variable is changed by oil prices but unfortunately the responses are not reported. However, it is expected that output, inflation and real exchange rate are have an effect on oil price shock. These factors have small contribution which can be deduced from the oil prices shocks. It is also defined that this impact due to output is 1 percent now and 7 percent after 1 year. Inflation have less the 1 percent impact after one year and the impact of exchange rate is nil at now and have 5 percent after one year. In contrast, when the contributions of the oil-price shock are observed on itself, it is found 100 percent impact now and about 97 percent after a year.

Ayadi, Chatterjee and Obi (2000) also describe the effects of oil production shocks as a exporter of Nigeria. In their study they use Vector Auto-Regression (VAR) model on the variable of oil production and exports, exchange rate, Money supply, net foreign assets, interest rate, inflation and output between the periods of 1975 to 1992. It is observed that after a positive shock the output is positive but the rate of responsiveness is 20 percent of the production shock and it is increasing and larger than the production shock after one year. The response of inflation is negative after that shock and it is also insignificant and highly neglect able but it is double then the production shock after one year. The real exchange gives a positive impact after that production shock but it is also insignificance but the responsiveness after one is same like inflation. At the end it is evaluate that oil price raise leads to increase in oil production, increase in output, decrease in inflation, and the currency of the nation depreciates after positive shock in oil price.

Semboja (1994) Studies the oil prices shock and the effect of prices change in Kenya, a importer of oil. VAR model is used to find the impact responses rather the General equilibrium model. The responses conclude that after increase in oil effect increase in trade balance, decrease in output and price index and weakening the trade.

As defined in the introduction, there is relationship proof that the main reasons for the existing high price of oil are dissimilar from the previous high price of oil factors. Therefore, it is more recommended to use a parsimonious structural model which is not based enough on previous data to find the fact how economies will be affected.

Typical Responses of an Oil-Importing Economy

The following responses are determined in typical oil-importing countries.

I. When there is any change in crude oil price in market, this thing cause as a raise the crude oil prices which consequently effect the trade balance into deficit of the importing economy. The effect of that deficit is totally correlated with the timing and magnitude of that source of oil price shock. . A positive type of aggregate demand shock of crude oil price, for example, some delay cause the tends to make an oil trade deficit. With respect to this, unexpected increases in the protective demand for oil and its supply disruptions cause an instant trade deficit in oil, the previous being sustained and it would be larger than the latter.

II. These same type shocks also create association to a non-oil trade surplus that to some extent offsets the trade deficit of oil, giving increase on the whole trade deficit (by the delay in some case of collective demand shocks, and instantly impact for positive preventive oil demand and negative oil supply shocks).

III. In this extent to which the ensuing the deficits of trade and current account decode into a weakening the position of net-foreign-asset depends on the capital gain response. The demand shocks of oil may cause a huge and organized (if not always statistically significant) valuation effects. better international financial incorporation, this may help moderate the impact of future conflict in universal crude oil markets for oil importers in which there whole assets are widely held abroad (as in the case of the US), while thee other cases are potentially amplified.

Typical Responses of an Oil Exporter

There response of oil exporter is as same as the oil importer economies. The increasing trend of oil demand and the decreasing supply of oil create the oil trade surplus, while positive cumulative demand shock can create oil trade surplus after some time. The surplus in oil trade deficit is related to the deficit of the non-oil trade. In comparison the current account balance and the trade account balance of the oil exporter economies are improved. The positive cumulative demand or the precautionary demand shock is dampened in the experience as a capital losses for the oil exporter economies which change the positive response of net-foreign-asset as insignificant.

To define the international financial incorporation acting two separate roles in the transmission of oil shocks.

I. It defines the risk sharing among oil exporting and oil importing economies. The people of oil importing economies have the ownership of oil assets which provide them some insurance at the time of increases in oil prices and also help them to diversify the risk of these oil prices shocks in the global oil market. In contrast the ownership of the assets which are situated in foreign also give some insurance to fall down of oil prices of oil exporting economies.

II. International financial incorporation also define the affects that how the load of alteration is circulated across oil importing economies. This integration does not increased benefits for all countries. The US is the main example which cater as an improvement as response of positive demand shock of global crude oil market when the other oil importing economies experience as a losses of net-foreign-assets from the same shock.

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III. The widening disparity in the current account of US (as a share of real gross domestic production) is explained as a large extent by the combine effect of the supply and the demand shock in the oil market. The data describe a significant effect in the recent year in the appearance of these imbalances are due to aggregate demand shock.

OVERVIEW OF THE MODEL

Vector auto regression is a model or a statistical tool which is used to detain the linear inter-dependencies between multiple time series. The model simplifies the uni-variate *auto regression* the (AR) models. The variables are treated symmetrically in Vector auto regression ; every variable has its equation which explaining its evolution depends on its lags and the lags of all the other variables contain in the model. Vector auto regression modeling does not need specialist knowledge, which was commonly used in previously structural models and its simultaneous equations.

The Vector auto regression model has established to describe the dynamic performance of economic, financial time series and for better forecasting. The model is so much flexible due to conditional on the probable future path of the specific variable. The Vector auto regression is also used for policy making and structural inference.

In the structural investigation, some certain assumptions of the causal structure about the define data are imposed and which is resulting as a causal impacts of unforeseen shocks on all variables among in this model are abridge. These summarized causal impacts are usually with impulse response functions and forecast error variance decompositions.

Tazhibayeva *et al.,* (2008) define the research on oil-exporting economies and discover that that oil price shock directly affect the economic cycle. Through Vector auto regression on the panel of oil exporting economies, it is easy to find the impulse pulses and the effect.

Test of Unit Roots Hypothesis

Unit root test is used for the stationary. The data contain stationary on the levels, at first difference and at second difference of all seven variables. Augmented Dickey-Fuller (ADF) unit root test is used for analysis of stationary because an ADF unit-root test gives the most reliable results. The ADF test contains three type of situation for every time series. First, random process includes intercept (c) and trend (t). Second, random process includes intercept (c) but no trend (0). Third, random process includes no intercept (0) and trend (t). One practical approach advice that illustration surveillance is the best way to observance for the time series data. The graph shows different characteristics such as variation in variables over the time (increase and decrease) and no clear step trend. In this view we have generated graph of all the time series variables data in our model. Figure demonstrates time series graph of all the seven selected variables.

Subsequent to observing the graphs of all the variables in the model, we find that There is a trend in oil importing economies (Pakistan, India, Bangladesh), oil exporting economies (Saudia, Iran , Kuwait) and oil price shock. Therefore, we apply a model intercept (c) and trend (t). As we have taken annual data sets, we will use the lag (n = 1). Therefore, we chose (c, t, n) = (c, 0, 1) for without trend and (c, t, n) = (c, t, 1) for with trend in the ADF test.

Table 1

The test result indicates that the entire variables Bangladesh Gross Domestic Product, Pakistan Gross Domestic Product, Saudia Gross Domestic Product, Iran Gross Domestic Product and oil price have a unit root in their levels and are stationary in their first differences but India Gross Domestic Product is stationary at second difference.. Table -1 demonstrate the results. The test discarded the null hypothesis that the data is stationary at first and second difference of all variable at a 1 % significant level. The Durbin-Watson figures also sustain the value of each variable as significant.

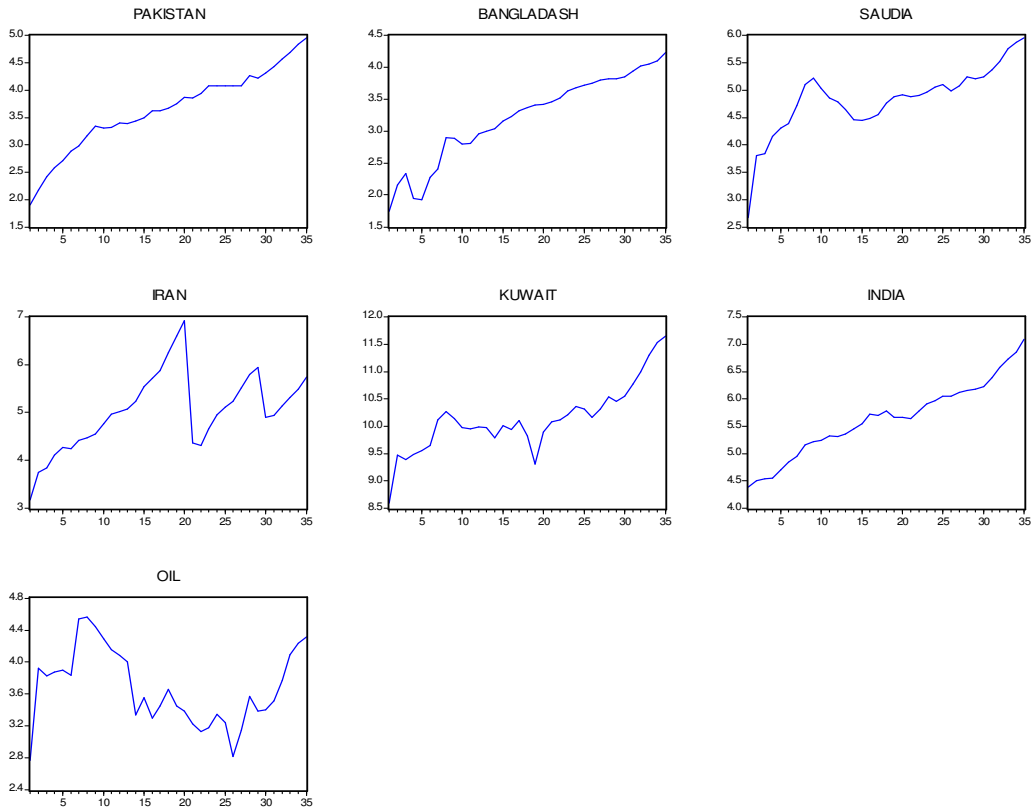

Figure 1. Time series graphs of different countries and oil price shock (Billion USA$)

Table 1.

Variables	Types of test (c, t , n)	ADF test Statistics	D-W Statistics	Probability
Bangladesh GDP	C 0 1	-3.236218	1.523931	0.0945
Δ Bangladesh GDP	C 0 1	-5.624874*	2.037615	0.0003
Pakistan GDP	C 0 1	-4.201874	1.597190	0.0113
Δ Pakistan GDP	C 0 1	-4.379043	2.206928	0.0075
Saudia GDP	C 0 1	-4.822013	0.954212	0.0024
Iran GDP	C 0 1	-2.779519	1.757288	0.2140
Δ Iran GDP	C 0 1	-5.522341	1.992142	0.0004
Kuwait GDP	C 0 1	-2.376381	1.441874	0.3845
Δ Kuwait GDP	C 0 1	-6.921341	1.938252	0.0000
India GDP	C 0 1	-0.709186	1.307097	0.9642
Δ India GDP	C 0 1	-3.842849	1.993375	0.0266
Δ ΔIndia GDP	C 0 1	-9.090457	2.036811	0.0000
Oil Prices	C 0 1	-2.576581	1.416987	0.2925
Δ Oil Prices	C 0 1	-7.328384	2.011891	0.0000

Note:
* rejected null hypothesis at 1% significant level
** rejected null hypothesis at 5% significant level
*** rejected null hypothesis at 10 % significant level
Term c, t, and n represent intercept, trend, and lags respectively.
Probability means MacKinnon (1996) one-sided p-values.
Δ Indicate the first differential of variable.
Δ Δ Indicate the second differential of variable.

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Johansen Co-integration Test

Co-integration test is used for long-term stability statistic of non-stationary of the economic variables. The long-term stability relation presented in non-stationary economic variables is describing as co-integration relation. We will perform the Johansen co-integration test to measure co-integration.

Statistic for VAR Lag Order Selection

Table 2. Statistics for VAR Lag Order Selection

Lag	FPE	AIC	SC	HQ
0	3.33e-10	-1.958880	-1.638250	-1.852600
1	2.41e-13	-9.264532	-6.699494	-8.414294
2	7.56e-14	-10.90440	-6.094954	-9.310205
3	3.76e-15*	-15.52907*	-8.475219*	-13.19092*

* indicates lag order selected by the criterion

We found that all the series of the six variables (Bangladesh Gross Domestic Product, Pakistan Gross Domestic Product, Saudia Gross Domestic Product, Iran Gross Domestic Product, India Gross Domestic Product and oil price) are incorporated of order one *I* (1) pre-processes. Now it is determined whether any combinations between these variable have a co-integrated relationship exist or not. It is compulsory before applying the co-integration test; we first identify the appropriate order of Lag (p) of the VAR model. To incorporate this factor we use Final Prediction Error (FPE), Akaike Information Criterion (AIC), Schwarz Information Criterion (SIC), and Hannan-Quinn Information Criterion (HQ).Table 2 explain the results of the best possible lag Selection. According to the outcome of these tests, we chosen lag 3 in the VAR model.

VAR Co-integration Test Statistic

The result acquire from the Johansen Co-integration technique are existing in table 3.The first line demonstrate Ho, where (none, at most 1, at most 2, at most 3, at most 4, and at most) denote 7 co-integration relationships.

Table 3. VAR Co-integration test Statistics

Hypothesized		Trace	0.05	
No. of CE(s)	Eigen-value	Statistic	Critical Value	Prob.**
None *	0.976428	338.1132	125.6154	0.0000
At most 1 *	0.894242	218.1875	95.75366	0.0000
At most 2 *	0.873501	146.2962	69.81889	0.0000
At most 3 *	0.652755	80.13545	47.85613	0.0000
At most 4 *	0.584039	46.28827	29.79707	0.0003
At most 5 *	0.317638	18.21904	15.49471	0.0190
At most 6 *	0.170680	5.988783	3.841466	0.0144

Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigen-value	Statistic	Critical Value	Prob.**
None *	0.976428	119.9258	46.23142	0.0000
At most 1 *	0.894242	71.89125	40.07757	0.0000
At most 2 *	0.873501	66.16075	33.87687	0.0000
At most 3 *	0.652755	33.84718	27.58434	0.0069
At most 4 *	0.584039	28.06923	21.13162	0.0045
At most 5	0.317638	12.23025	14.26460	0.1023
At most 6 *	0.170680	5.988783	3.841466	0.0144

Trace test point out 5 co-integration equation(s) at both 1% and 2 co-integration equation(s) at 5% levels. Max-Eigen-value test indicates 1 co-integration equation(s) at the 10% level Max-Eigen-value test indicates 1 co-integration equation(s) at the 5% level and Max-Eigen-value test indicates 5 co-integration equation(s) at the 1% level. Therefore, yearly variable data for last 35 years from 1973 to 2007 emerge to sustain our intention that there is a long-run relationship exist between the Bangladesh Gross Domestic Product, Pakistan Gross Domestic Product, Saudia Gross Domestic Product, Iran Gross Domestic Product, India Gross Domestic Product and oil price . Evaluation of the Long-run co-integration Vector is given in the table 4.

Estimation of Cointegration and Adjustment Coefficient

Table 4. Estimation of Cointegration and Adjustment Coefficient

Normalized Co integrating Coefficients

2 Cointegrating Equation(s):	Log likelihood	329.3171				
Normalized cointegrating coefficients (standard error in parentheses)						
Bangladash	**India**	**Iran**	**Kuwait**	**Oil**	**Pakistan**	**Saudia**
1.000000	0.000000	-0.097184	0.580307	0.573989	-0.677612	-0.877450
		(0.03564)	(0.11747)	(0.08642)	(0.15442)	(0.11658)
0.000000	1.000000	-0.126152	-0.508956	0.098850	-0.593162	1.15E-05
		(0.01622)	(0.05347)	(0.03934)	(0.07029)	(0.05307)

Adjustment Coefficient

D (BANGLADASH GDP)	-0.081625	-0.007559
	(0.17122)	(0.44516)
D (INDIA GDP)	0.150334	-0.022603
	(0.08146)	(0.21180)
D (IRAN GDP)	0.740621	1.739573
	(0.33304)	(0.86590)
D (KUWAIT GDP)	-0.543100	1.566322
	(0.23419)	(0.60891)
D (OIL GDP)	-0.523253	1.855993
	(0.33247)	(0.86442)
D (PAKISTAN GDP)	0.171008	0.413131
	(0.07408)	(0.19261)
D(SAUDIA GDP)	-0.139157	1.523164
	(0.13567)	(0.35275)

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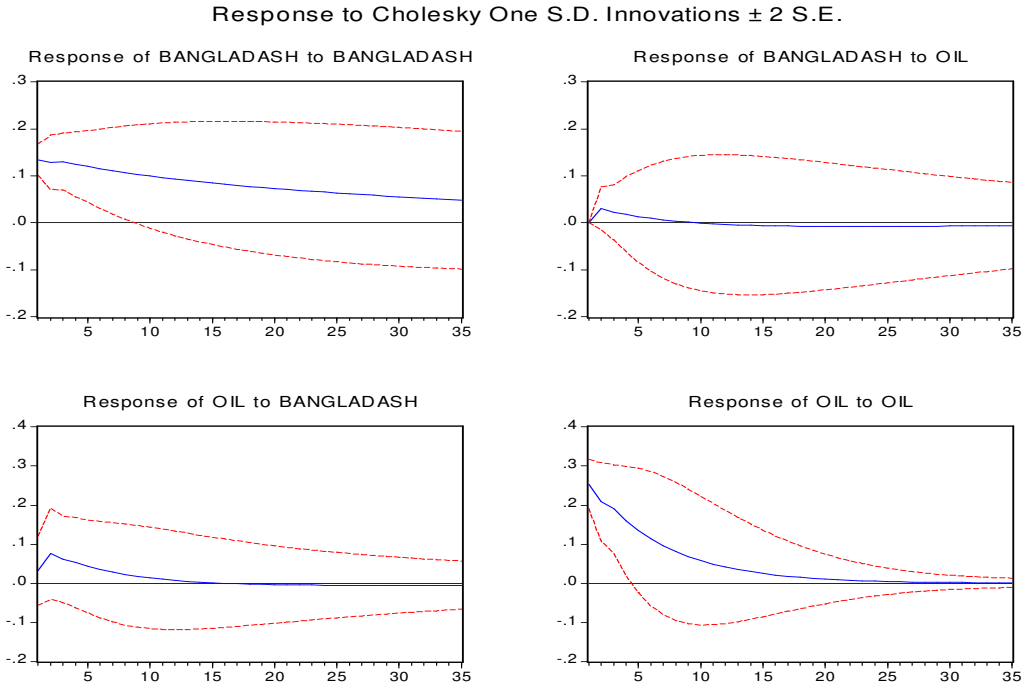
Vector Auto Regression

(i) Bangladesh & oil

	BANGLADASH	OIL
BANGLADASH(-1)	0.928955	0.373159
	(0.17890)	(0.34030)
	[5.19270]	[1.09655]
BANGLADASH(-2)	0.042288	-0.374691
	(0.17248)	(0.32809)
	[0.24518]	[-1.14202]
OIL(-1)	0.121123	0.821737
	(0.08863)	(0.16860)
	[1.36654]	[4.87375]
OIL(-2)	-0.125886	0.030442
	(0.08099)	(0.15406)
	[-1.55436]	[0.19760]
C	0.170534	0.536382
	(0.31933)	(0.60744)
	[0.53404]	[0.88302]
R-squared	0.959499	0.729352
Adj. R-squared	0.953713	0.690688
Sum sq. resids	0.505497	1.829152
S.E. equation	0.134363	0.255591
F-statistic	165.8349	18.86383
Log likelihood	22.12391	0.903837
Akaike AIC	-1.037812	0.248252
Schwarz SC	-0.811069	0.474996
Mean dependent	3.290146	3.697360
S.D. dependent	0.624527	0.459565
Determinant resid covariance (dof adj.)		0.001161
Determinant resid covariance		0.000836
Log likelihood		23.28677
Akaike information criterion		-0.805259
Schwarz criterion		-0.351772



The Vector auto regression between Bangladesh and oil describe a highly significant relationship between Bangladesh on Bangladesh and significant relationship between Bangladesh on oil at lag (1). But there is significant relationship between oil on Bangladesh and highly significant relationship between oil on oil at lag (1). The impulse factor show describe the shock is not constant on Bangladesh on Bangladesh even after 35 years but it is diminishing. It's also described that the response of shock is finished after 9 year on Bangladesh to oil and after 5 year a new shock interrupt its stability. Response of shock on oil and Bangladesh finished after 13 year and then it remain stable. The response of shock on oil and oil finished after 28 year and then it remain constant.

(ii) India & oil

	OIL	INDIA
OIL(-1)	0.795182	0.048120
	(0.16114)	(0.05039)
	[4.93460]	[0.95504]
OIL(-2)	0.036705	-0.014597
	(0.14531)	(0.04544)
	[0.25259]	[-0.32126]
INDIA(-1)	1.205366	1.228673
	(0.63927)	(0.19988)
	[1.88553]	[6.14692]
INDIA(-2)	-1.200151	-0.202040
	(0.65090)	(0.20352)
	[-1.84382]	[-0.99272]

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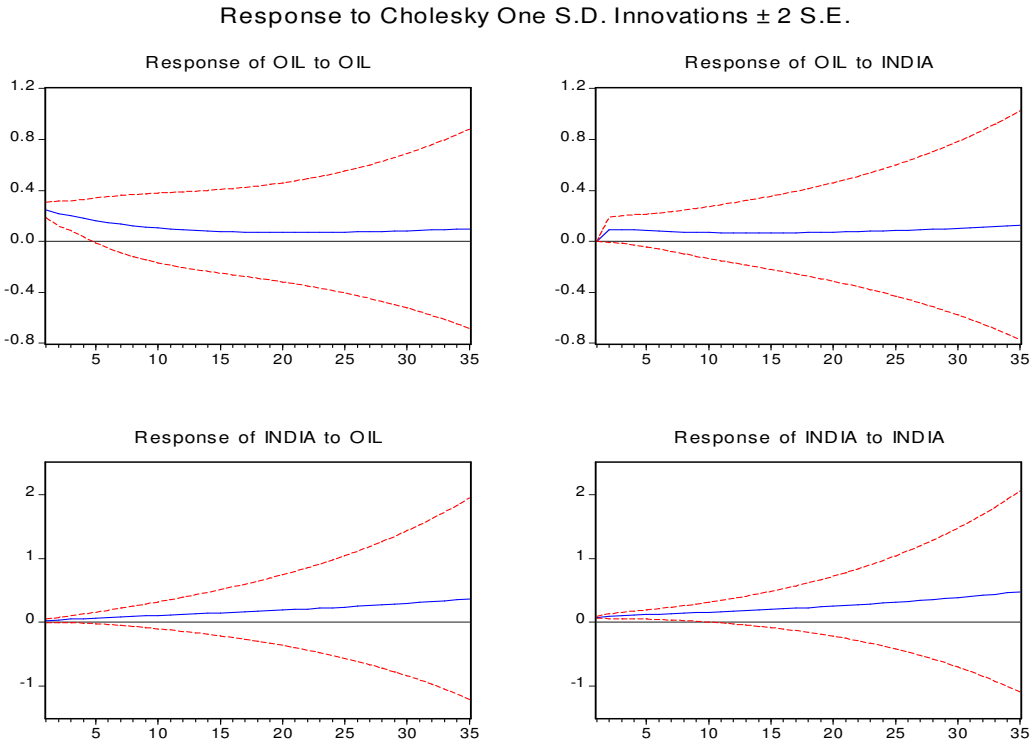
C	0.513973	-0.210782
	(0.70311)	(0.21984)
	[0.73100]	[-0.95878]
R-squared	0.749096	0.987253
Adj. R-squared	0.713252	0.985432
Sum sq. resids	1.695713	0.165783
S.E. equation	0.246092	0.076947
F-statistic	20.89910	542.1580
Log likelihood	2.153696	40.51915
Akaike AIC	0.172503	-2.152676
Schwarz SC	0.399247	-1.925932
Mean dependent	3.697360	5.709301
S.D. dependent	0.459565	0.637521
Determinant resid covariance (dof adj.)		0.000338
Determinant resid covariance		0.000244
Log likelihood		43.62517
Akaike information criterion		-2.037889
Schwarz criterion		-1.584402



The Vector auto regression between oil and India describe a highly significant relationship between oil on oil and significant relationship between oil on India at lag (1). But when it there is significant relationship between India on oil and highly significant relationship between India on India at lag (1). The impulse factor show describe the shock is not constant on oil to oil, oil to India, India to oil and India to India even after 35 years .

(iii) Iran & oil

	OIL	IRAN
OIL(-1)	0.797090	-0.137475
	(0.17066)	(0.34113)
	[4.67069]	[-0.40300]
OIL(-2)	0.019630	0.042741
	(0.15245)	(0.30473)
	[0.12876]	[0.14026]
IRAN(-1)	-0.027236	0.805498
	(0.09468)	(0.18926)
	[-0.28765]	[4.25604]
IRAN(-2)	-0.053889	-0.131672
	(0.09265)	(0.18521)
	[-0.58161]	[-0.71094]
C	1.095803	2.055729
	(0.62024)	(1.23980)
	[1.76674]	[1.65811]
R-squared	0.730970	0.566790
Adj. R-squared	0.692537	0.504903
Sum sq. resids	1.818215	7.264871
S.E. equation	0.254826	0.509372
F-statistic	19.01941	9.158443
Log likelihood	1.002792	-21.85293
Akaike AIC	0.242255	1.627450
Schwarz SC	0.468999	1.854194
Mean dependent	3.697360	5.129906
S.D. dependent	0.459565	0.723919
Determinant resid covariance (dof adj.)		0.016652
Determinant resid covariance		0.011988
Log likelihood		-20.65688
Akaike information criterion		1.857993
Schwarz criterion		2.311480

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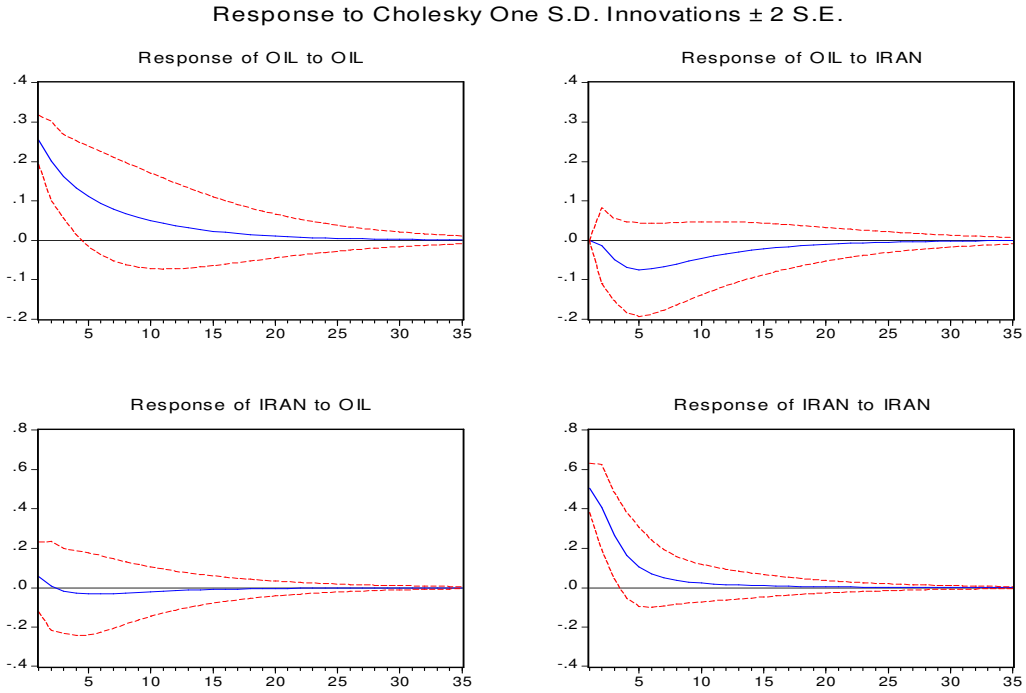
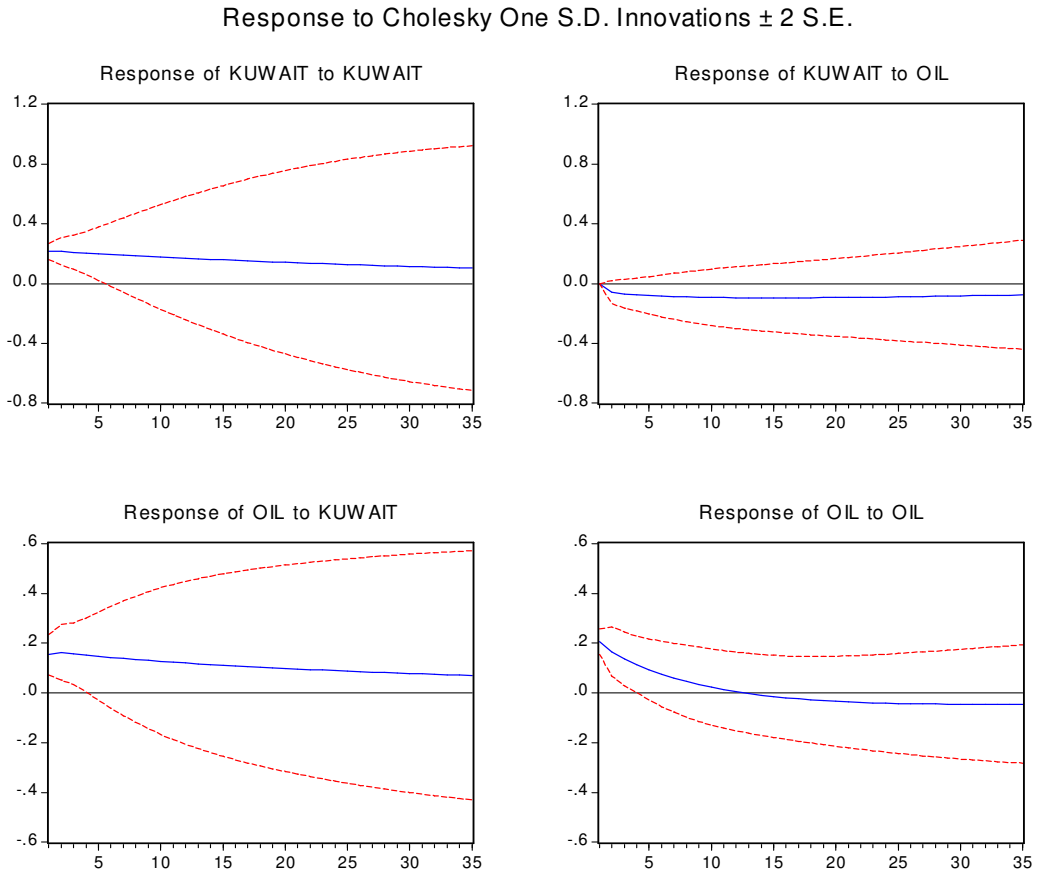


The Vector auto regression between oil and Iran describe a highly significant relationship between oil on oil and weak relationship between oil on Iran at lag (1). But there is weak relationship between Iran on oil and highly significant relationship between Iran on Iran at lag (1). The impulse factor show describe the shock is diminishing on oil on oil and constant after 25 years. It's also described that the response of shock is finished after 25 year on oil to Iran. Response of shock on Iran to oil finished after 15 year and then it remain stable. The response of shock on Iran and Iran finished after 18 year and then it remain constant.

(iv) Kuwait & oil

	KUWAIT	OIL
KUWAIT(-1)	1.198847	0.182147
	(0.22839)	(0.27257)
	[5.24906]	[0.66825]
KUWAIT(-2)	-0.178351	-0.105746
	(0.22882)	(0.27308)
	[-0.77944]	[-0.38723]
OIL(-1)	-0.272331	0.803654
	(0.18158)	(0.21670)
	[-1.49979]	[3.70856]
OIL(-2)	0.212199	0.064230
	(0.18422)	(0.21986)
	[1.15188]	[0.29214]
C	0.073408	-0.282164
	(0.84484)	(1.00827)

	[0.08689]	[-0.27985]
R-squared	0.867836	0.726216
Adj. R-squared	0.848955	0.687104
Sum sq. resids	1.299134	1.850345
S.E. equation	0.215401	0.257068
F-statistic	45.96443	18.56759
Log likelihood	6.549391	0.713762
Akaike AIC	-0.093902	0.259772
Schwarz SC	0.132841	0.486516
Mean dependent	10.20370	3.697360
S.D. dependent	0.554236	0.459565
Determinant resid covariance (dof adj.)		0.001975
Determinant resid covariance		0.001422
Log likelihood		14.51951
Akaike information criterion		-0.273910
Schwarz criterion		0.179577



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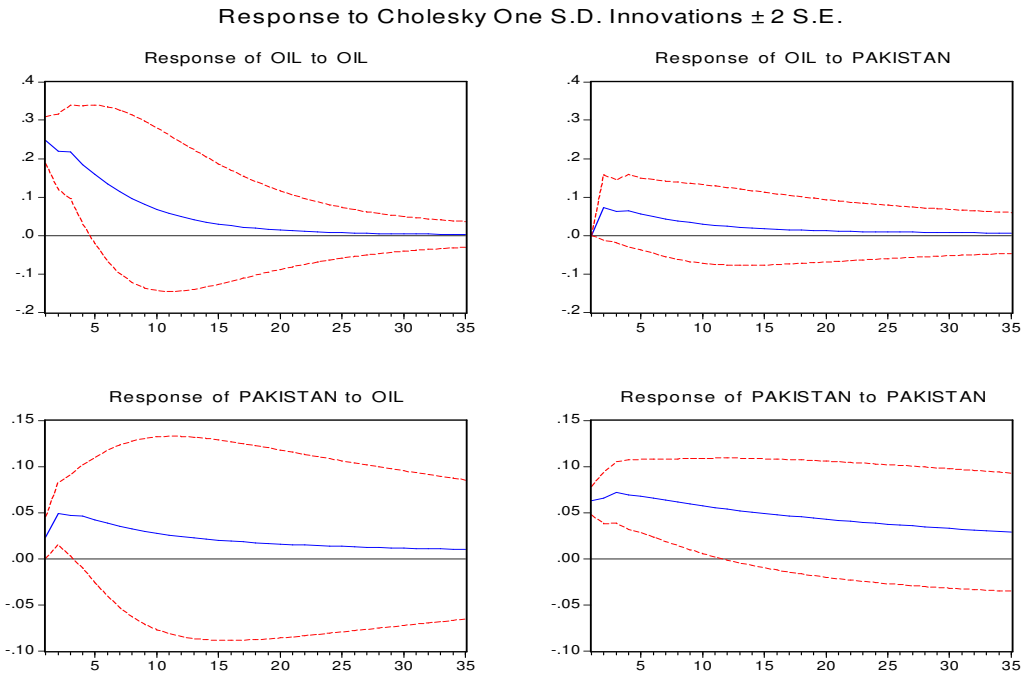
The Vector auto regression between Kuwait and oil describe a highly significant relationship between Kuwait on Kuwait and moderating relationship between Kuwait on oil at lag (1). But there is significant relationship between oil on Kuwait and highly significant relationship between oil on oil at lag (1). The impulse factor show describe the shock is not constant on Kuwait to Kuwait, Kuwait to oil, oil to Kuwait and oil to oil even after 35 years .

(v) Pakistan & oil

	OIL	PAKISTAN
OIL(-1)	0.771736	0.099526
	(0.17104)	(0.04629)
	[4.51209]	[2.14994]
OIL(-2)	0.072511	-0.097742
	(0.15324)	(0.04148)
	[0.47319]	[-2.35663]
PAKISTAN(-1)	1.152641	1.045298
	(0.66217)	(0.17922)
	[1.74070]	[5.83241]
PAKISTAN(-2)	-1.096507	-0.068672
	(0.63864)	(0.17285)
	[-1.71693]	[-0.39728]
C	0.286323	0.152951
	(0.56474)	(0.15285)
	[0.50700]	[1.00065]
R-squared	0.744501	0.990279
Adj. R-squared	0.708001	0.988891
Sum sq. resids	1.726765	0.126496
S.E. equation	0.248335	0.067214
F-statistic	20.39740	713.1146
Log likelihood	1.854281	44.98188
Akaike AIC	0.190650	-2.423144
Schwarz SC	0.417393	-2.196401
Mean dependent	3.697360	3.741037
S.D. dependent	0.459565	0.637698
Determinant resid covariance (dof adj.)		0.000245
Determinant resid covariance		0.000177
Log likelihood		48.94059
Akaike information criterion		-2.360036
Schwarz criterion		-1.906549



The Vector auto regression between Pakistan and oil describe a highly significant relationship between oil on oil and significant relationship between oil on Pakistan at lag (1). But there is significant relationship between Pakistan on oil and highly significant relationship between oil on oil at lag (1). The impulse factor show describe the shock is diminishing on oil to oil and finished after 27 year. It's also described that the response of shock is finished after 25 year on oil to Pakistan. Response of shock on Pakistan to oil is diminishing but not finished even after 35 year. The response of shock on Pakistan to Pakistan also has the same state as previous.

(vi) Saudia & oil

	OIL	SAUDIA
	0.745100	0.084225
OIL(-1)	(0.26018)	(0.14025)
	[2.86378]	[0.60053]
	0.112798	-0.128599
OIL(-2)	(0.25148)	(0.13556)
	[0.44853]	[-0.94863]
	0.297412	0.997780
SAUDIA(-1)	(0.40025)	(0.21576)
	[0.74306]	[4.62456]
	-0.235921	-0.035954
SAUDIA(-2)	(0.35356)	(0.19059)
	[-0.66727]	[-0.18865]

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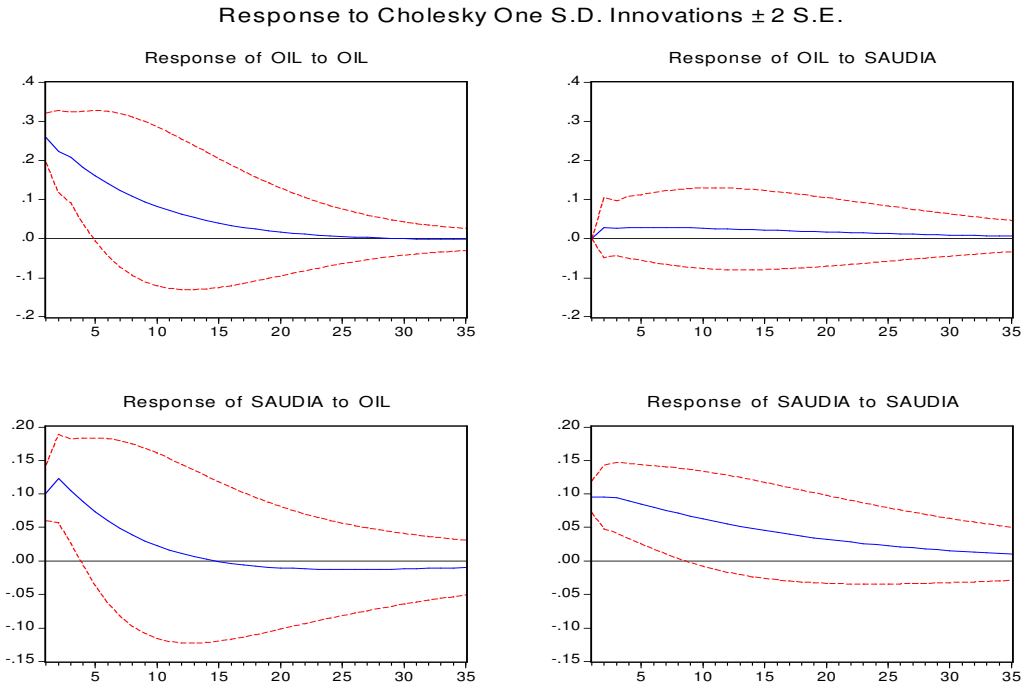
	0.218721	0.405024
C	(0.62461)	(0.33670)
	[0.35017]	[1.20292]
R-squared	0.722673	0.923161
Adj. R-squared	0.683054	0.912184
Sum sq. resids	1.874293	0.544628
S.E. equation	0.258726	0.139467
F-statistic	18.24092	84.10000
Log likelihood	0.501588	20.89368
Akaike AIC	0.272631	-0.963253
Schwarz SC	0.499375	-0.736510
Mean dependent	3.697360	4.929034
S.D. dependent	0.459565	0.470636
Determinant resid covariance (dof adj.)		0.000613
Determinant resid covariance		0.000442
Log likelihood		33.81731
Akaike information criterion		-1.443473
Schwarz criterion		-0.989986



The Vector auto regression between Saudia and oil describe a significant relationship between oil on oil and moderating relationship between oil on Saudia at lag (1). But there is moderating relationship between Saudia on oil and highly significant relationship between Saudia on Saudia at lag (1). The impulse factor show describe the shock is diminishing on oil to oil and finished after 25 year. It's also

described that the response of shock is finished after 30 year on oil to Saudia. Response of shock on Saudia to oil is diminishing but not finished even after 35 year. The response of shock on Saudia to Saudia also has the same state as previous.

CONCLUSION

Continuously Increases in worldwide oil prices over the past many years, give explanation to a certain extent that strong growth in large talented and developing economies, have elevate their concerns that increasing oil prices could cause danger to the unstable improvement in highly developed economies and effect on oil-importing and oil-exporting economies.

Ever since from the 1970s, oil price instability (oil price shocks) is additional considerable in its consequence on economic activity and the GDP of the country than the oil price height. A unstable and unpredictable environment deteriorate the consequence of price level change while it diminish the "surprise." It is observed that increasing volatility generate market reservations that encourage companies and foreign investor to push back their investments.

Controlling for international economic circumstances, and consequently abstracting from our research that oil price increases and its shocks usually emerge to be demand-driven, formulate the collision of higher oil prices shock stand out more undoubtedly. For a given level of oil-exporting economies and oil-importing economies GDP, we do discover that oil prices shocks have an unconstructive consequence on oil-importing countries and moreover that cross-country dissimilarity in the enormity of the collision depend to a large extent on the comparative magnitude of oil imports economies. The outcome is still not predominantly large, conversely, with our approximation symptomatic of that a 25% boost in oil prices shock will characteristically cause a huge impact of actual GDP in oil-importing economies of less than half of 1%, spread over 2 to 3 years.

Hamilton (2000) over and done with in his learning on diverse models for forecasting GDP growth progression in contrast with variable of oil price changes and oil price volatility. He defined it that there is not sufficient historical knowledge to articulate this affiliation in one comprehensible model in direct to make clear forecasting. Moreover, there's no hesitation about the unconstructive impact of oil price volatility and oil price increases on economic development during the last decades.

Hooker, Hamilton and Rotemberg/Woodford envisages a turn down the GDP of the economies due to oil price shocks. The degrees of the deliberated slow down, nevertheless, diverge among these authors: if 10 % increase in oil prices, Hooker forecast a send regrets the GDP by 0.6 %, Hamilton forecast it as 1.4% turn down and Rotemberg/Woodford forecast its as much as 2.5%.

These result recommend that the very high import demand in oil-exporting economies resultant from oil price shocks increases has an significant simultaneous offsetting consequence on economic activities in the rest of the world, and that the adverse effect are mostly comparatively mild and occur with its lag.

The results describe that the oil price shock give a huge impact on oil importing economies and oil exporting economies GDP and even they are not stable after 35 year. The shocks impacts on GDP due to high dependence of oil products. Like if we see the developing economies which are the main customer of oil imports have so much relay on oil product and the oil price shocks effect their planning and achievement and meanwhile if we see toward the oil exporting the also relay on oil products to export and their GDP main ingredient are the oil exports income, so these shocks also impact on their planning and goals.

The information that the unconstructive collision of higher oil prices shocks has usually been relatively miniature does not represent that the consequence can be overlooked. Some economies have undoubtedly been unconstructively pretentious by high oil prices shocks. Furthermore, our outcome do not statute out more unfavorable belongings from future oil prices shocks that is determined more by worse oil provided than the demand-driven enhance in oil prices that have been the standard more than last three decades. In expressions of strategy instruction, our findings recommend that efforts to condense reliance on oil could facilitate to diminish the exposure to oil price shocks and its effects on GDP. Meanwhile, specified a certain altitude of oil imports, intensification macro-economic linkages

to oil exporting economies could also effort as a expected shock absorber. Our outcome should be of Awareness for market participants, researchers and regulators.

REFERENCES

African Development Bank. (2006). *High Oil Prices and the African Economy.* Research Paper.

Ayadi, O.F. (2005). Oil Price Fluctuations and the Nigerian Economy, *OPEC Review*, pp. 199–217.

Ayadi, O.F., Chatterjee, A. and Obi, C.P. (2000). A Vector Autoregressive Analysis of an Oil-Dependent Emerging Economy — Nigeria, *OPEC Review*, pp. 330–349.

Barsky, Robert, B. and Kilian, L. (2004). Oil and the Macroeconomy since the 1970s, *Journal of Economic Perspectives*, 18(4):115-134.

Bergin, P. (2003). Putting the New Open Economy Macroeconomics to a Test, *Journal of International Economics* 60: 3-34.

Bernanke, B.S., Mark, G. and Mark, W. (1997). Systematic Monetary Policy and the Effects of Oil Price Shocks, *Brookings Papers on Economic Activity*, 28(1):91-157.

Blanchard, O.J. and Jordi, G. (2007). The Macroeconomic Effects of Oil Price Shocks: Why are the 2000s so different from the 1970s?, NBER Working Paper No. 13368.

Bouakez, H. and Rebei, N. (2005). Has Exchange Rate Pass-Through Really Declined in Canada? Bank of Canada Working Paper No. 2005–29.

Hamilton, J.D. (1996). This is what happened to the oil price-macroeconomy relationship, *Journal of Monetary Economics* 38, 215-220

Hamilton, J.D. (2000). What is an oil shock?, NBER Working Paper 7755

Hamilton, J.D. (1983). Oil and the Macroeconomy since World War II, *Journal of Political Economy*, 91(2):228-248.

Hamilton, J.D. (1996). This is What Happened to the Oil Price-Macroeconomy Relationship, *Journal of Monetary Economics*, 38(2):215-220.

Hamilton, J.D. (2003). What is an Oil Shock? *Journal of Econometrics*, 113(2): 363-398.

Hamilton, J.D. (2005). Oil and the Macroeconomy in S Durlaf and L Blume(eds.), *The New Palgrave Dictionary of Economics*, MacMillan, 2nd ed.

Hamilton, J.D. (2009). The Causes and Consequences of the Oil Shock of 2007-08, NBER Working Paper No. 15002.

Hooker, M.A. (1996). What happened to the oil price-macroeconomy relationship?, *Journal of Monetary Economics* 38, 195-213

International Monetary Fund. (2006). Oil Prices and Global Imbalances?, World Economic Outlook, Chapter II.

Kollmann, R. (2001). The Exchange Rate in a Dynamic Optimizing Current Account Model with Nominal Rigidities: a Quantitative Investigation, *Journal of International Economics* 55, 243–262.

Rotemberg, J.J., Woodford, M. (1996). Imperfect Competition and the Effects of Energy Price Increases on Economic Activity, *Journal of Money, Credit, and Banking*, Volume 28, Issue 4, Part 1 Nov., 550-577

Semboja, H.H.H. (1994). The Effects of Energy Taxes on the Kenyan Economy, *Energy Economics* 3, pp. 205–215.