DOES OIL PRICE INFLUENCE NSE BANK STOCK INDEX IN NIGERIA?

MUSA D.C;
Babcock University, Nigeria, Ilishan Remo,
Department of Economics
Veronica Adeleke School of Social Sciences (VASSS)
Ogun State, Nigeria

AWOLAJA G.O
Babcock University, Nigeria, Ilishan Remo,
Department of Economics
Veronica Adeleke School of Social Sciences (VASSS)
Ogun State, Nigeria

OKEDINA I.M
Babcock University, Nigeria, Ilishan Remo,
Department of Economics
Veronica Adeleke School of Social Sciences (VASSS)
Ogun State, Nigeria

KWARBAI J.D
Babcock University, Nigeria, Ilishan Remo,
Department of Accounting
School of management Science (SMS)
Ogun State, Nigeria

And

AJIBADE A.T
Babcock University, Nigeria, Ilishan Remo,
Department of Accounting
School of management Science (SMS)
Ogun State, Nigeria

Abstract

The study examined the impact of oil price shocks on NSE Banking stock index of the Nigerian stock market. We specified a symmetric model and an asymmetric model were oil price is decomposed into its positive and negatice shocks using quarterly data from 2009 to 2016. The study further applied the Wald test to investigate if oil price impact is symmetric or asymmetric.the evidence supports an asymmetric impact of oil price shocks on the NSE Banks stock index. Negative oil price shock is found to have a greater impact on the NSE Bank index than positive oil price shocks of the same magnitude. We conclude that Nigerian Banking sector is exposed to oil and gas sector. The management of such institutions should diversify investiments into other nonoil related businesses to guard against systematic risk and positive and negative oil price shocks that may be transmitted into the stock market.

Keywords: Asymmetry, Nonlinear ARDL, Crude oil price shocks, exchange rate Sectoral

Introduction

Nigerian economy has relied heavily on oil revenue accrued from oil production and exports. Fluctuations in oil price will also affect the stability of the economy. USA, China and India are the three buyers of Nigeria's Oil and an unexpected change in oil demand from china and India fall in oil demand from these countries will negatively impact of the economy and can further depress stock prices (Guo and Kliesen, 2015). Some of the sources of oil price volatility includes demand and supply shocks, decisions of OPEC, wars and moany others. Unexpected changes in the economy can affect crude oil markets and generate volatility.

On the other hand, a decline in total world oil reserve can increase oil price and other factors as political unrest similar to those seen in Venezuela, the quota system of the OPEC as well as speculative oil related activities can also affect stock prices as traders of financial instruments will struggle to adjust their investment portfolios so as to reflect the current market realities. (itotenaan, Amadi, Uddin and Dubon 2013).

Based on the Arbitrage Pricing Theory, asset returns are explained by multiple risk factors (Ross, 1976). Although there are many studies that applied that APT to the returns of individual securities, the same is applicable to composite stock market indeces. In this case, Macroeconomic variable constitute systematic risk on future returns.

This means that any macroeconomic variable that impacts on an asset's cash flow will equally impact on its share value. Thus, If oil price fluctuations alters bank performance, it will equally alter the the share value of the Banks listed on the stock market.

Oil price can depress the profitability and cashflow which further impacts on share price of the banking sector.When current prices already reflect all privately and publicly held information, prices will automatically adjust to any new information available in the market(Fama, 1970, p. 383). Although there is a decent number of literatures that examine the impact of oil price on stock markets, they are largely based on composite stock index. If not disaggregated, composite index such as the Nigeria All Share index will mute the response of individual sectoral index to oil price shocks

According to Bouri (2015), Gupta (2016), and Guesmi and Fattoum (2014), the impact of oil price on stock price depends largely on whether a country is an importer or exporter of crude oil. An increase in oil price increases the income of oil-exporting countries and the stock market will respond positively (Jimenez-Rodriguez & Sanchez 2005; and Bjørnland, 2009). In this case, income is transferred from oil-importing countries to oil-exporting countries (Charfeddine & Barkat, 2020). Thus, the higher oil price will mean higher income, expenditure, and investment and which increases national productivity and employment (reduction in unemployment) and subsequently, causing the stock market to respond positively (Bouri 2015; Gupta 2016; Guesmi and Fattoum 2014).

The effect of an increase in oil price in an oil-importing country is an increase in the cost of production, especially where oil is treated as an input in the production process. The oil price increase is bad news, and undesirable for an oil-importing country. This is because rising oil prices add to the cost of energy which will depress earnings and present cash flow. If the oil price is expected by analysts to increase further, then the consequence is a lower expected future cash flow depreciation in stock value (Salisu et al 2020). The expected future cash flow responds differently to positive and negative oil price shocks (Asteriou and Bashmakova, 2013; Jouini, 2013; Soucek and Todorova, 2013; Bouri et al., 2016; Li et al., 2017; Kang et al., 2016).

Although extant literature have examined the impact of oil price in oil importing countries based on the presumption that oil price impact is entirely linear, recent evidence supports a nonlinear-oil price impact. However the examination of nonlinear/asymmetric impact on price shocks, especially on the stock market, is sparse, and recent in developing oil exporting countries (Farzanegan and Markwardt, 2009; Iwayemi and Fowowe, 2011; Jawadi and Ftiti, 2019) Cited in (Charfeddine & Barkat, 2020).

There is therefore need to examined how changes in oil price has affected the oil and gas stock index. This study will fill this gap by applying the Nonlinear Autoregressive Distributed Lags (NARDL) model to examine the short-run and long-run impact of oil price on the oil/gas index of the Nigerian stock exchange (NSE); and further test if the impact of oil price is symmetric or asymmetric on the Oil/gas stock index in Nigeria. The choice of Nigeria and NSE Oil/gas index is motivated by the position of Nigeria as the 3rd largest oil exporting country in the world, and the highly dependence on revenue accrued from oil production and exportation, the Country has paradoxically relies on imported refined oil products.

The Nigeria Banking Industry Report (2016) revealedthat loan exposure of the banks shows considerable exposures to the Oil, Gas and Mining industry. This exposure of Nigerian Banks to the oil and gas sector has made Bank profitability extremely sensitive to the variations in oil prices. According to the Nigeria Deposit Insurance Company, over 23 percent of Bank loans in Nigeria were lent to the Oil and Gas sector. This means that a plunge in crude oil price presents major risk to bank profitability and subsequently on share prices in the banking sector, in Nigeria Stock Exchange.

It is important to note, that the impact of oil price is not entirely linear. Different sectors will respond to positive and negative oil price shocks in an Asymmetric fashion. While numerous empirical studies were based on the presumption of symmetric oil price impact, there is significant evidence that oil price impact is asymmetric.This study investigates if oil price impact on Bank stock index of the Nigerian Stock Market is symmetric or asymmetric.

Literature Review

Gisser and Goodwin (1986) test some of the notions introduced by Hamilton (1983) in this study; they analyze the impact of oil price shocks on the macro economy of the US from 1961 to 1982. Their results indicate that the crude oil price has had a significant impact on several macroeconomic indicators. Further, they find that the relationship between the oil price and the macroeconomic variables has been stable over the whole period.

Sadorsky (1999) applied an unrestricted Vector Auto regressive (VAR) model to examine oil price and stock returns relationship in USA, using monthly data covering 1947 to 1996. The study found evidence of significant negative impact of oil price shocks on the stock returns. The study further found evidence of asymmetric oil price impact, that positive oil price shocks increases stock returns than negative oil price shocks of the same magnitude.

Papaetrou (2001) applied monthly data from 1989 to 1999 to the interrelationship between oil price, emplogyment and economic activities in Greece using a Vector Autoregressive (VAR) model. The study found evidence of negative impact of oil price on stock returns.

Aloui (2008) applied an unrestricted VAR model and a Multivariate GARCH using data from 1989-2007 in USA, France, Japan, Germany and Canada. The evidence from the study showed a negative relationship between oil price and major stock market returns.

Bjornland (2008) applied a Structural VAR using data from 1993 to 2005 in Norway to examine the relationship between oil price shocks and stock returns during boom. The evidence showed a positive relationship between oil price and stock returns.

Odusami (2009) examined the relationship between oil price and stock market returns in USA using GARCH-Jump model, with daily data from 1996Jan. to 2005 Dec. the study found evidence of negative nonlinear relationship.

Rumler and Waschiczek (2010) examined how economic factors impacts on bank profit of 1042 Banks in Austria using a panel approach with data from1995 to 2009. The study concluded with evidence of positive impact of GDP growth, Interest rate and inflation on Bank's Profit.

Ono (2011) Applied a VAR model with monthly data from Jan. 1999 to Spt. 2010 to examine oil price impact on stock returns in Brazil, Russia, China and India. A positive relationship between oil price and stock returns was found in China, india and Russia. The impact of oil price in India was found to be asymmetric while the evidence supports a symmetric impact for Brazil,, Russia and China.

Asaolu and Ilo (2012) applied the VECM model to examine the response of Nigeria stock market performance to oil price shocks. The evidence from the study showed that oil price and the stock market are related in the long run with a positive impact of oil price on returns.

Akomolafe, Jonathan and Danladi, (2014) examined the impact of oil price on stock returns of industries, Banking; oil and Gas; and Construction industries. The evidence from the study showed that the oil price impacts on banking stock index. Although this study conducted a sectoral analysis of the impact of oil price on different sectoralindeces of th Nigeria stock market, the study did not capture oil price shocks and is largely based on the presumption that oil price shock on the stock market is symmetric.

Zhu, Xianfang and Yinghua (2016) examined the impact of oil price shocks on stock returns of the Chinese stock market using quintile impulse response approach. The study found evidence of asymmetric response of the Chinese stock returns to oil price shocks and this effect varies in period of economic boom to period of burst. During the burst, stock returns are reduced by oil price shocks. During boom, stock returns increases.

Methodology:

To examine both symmetric and asymmetric impact of oil price shock, we specified a symmetric Autoregressive Distributed Lags Model (ARDL) and the an Asymmetric Autogressive Distributed Lags (NARDL) Model in equation 1 and 2 respectively.

Model one assumes that the impact of positive and negative oil price is on stock returns symmetric. Where lNSEBNK is the natural log of NSE bank stock index, LEXCH is the log of exchange rate, lOP is log of the symmetric oil price. β_1; β_2; $\beta_3$are the long run impact of one lag period of Stock index, exchange rate and oil price respectively. While α_1; α_2; and $\alpha_3$are the short run impact.

$$\Delta lNSEBNK_t = \alpha_0 + \beta_1 lNSEBNK_{t-1} + \beta_2 lEXCH_t + \beta_3 lOP_t + \sum_{i=1}^{P} \alpha_1 \Delta lNSEBNK_{t-1} + \sum_{i=0}^{q} \alpha_2 l\Delta EXCH_{t-1} + \sum_{i=0}^{s} \alpha_3 \Delta lOP_t + \varepsilon_t \dots\dots\dots (1)$$

$$\Delta lNSEBNK_t = \alpha_0 + \beta_1 lNSEBNK_{t-1} + \beta_2 lEXCH_t + \beta_3 lOP_{t-1}^{+} + \beta_4 lOP_{t-1}^{-} + \sum_{i=1}^{P} \emptyset \Delta lNSEBNK_{t-1} + \sum_{i=0}^{q} \gamma \Delta lEXCH_{t-1} + \sum_{i=0}^{s} (\theta_t^{+} \, l\Delta OP_{t-1}^{+} + \Delta\theta_{t-1}^{-} l\Delta OP_{t-1}^{-}) + \varepsilon_t \dots\dots\dots\dots (2)$$

In model 2 we decomposed oil price into its positive and negative shocks. Where op_t^+ and op_t^- are respectively the decomponsed positive and negative oil price shocks. β_2 and $\beta_4$are respectively the long run impact of positive and negative oil price shocks. θ_t^+ and θ_{t-1}^-areshortrun impact of positive and negative oil price shocks respectively. P, q, and s are the maximum lags to be selected based on Aikaic information Criteria (AIC).

Both ARDL and NARDL are applicable regardless of the order of integration of the variables with exception to the case of variables integrated of order 2. Variables integrated of order 2 will render invalide the F-statistics in testing for cointegration (Mansor, 2015).

Results

We begin discussion of the estimation result by first presenting the descriptive statistics in order to ascertain how adequate the variables.the Descriptive statistics in log form are reported in Table 1A. The Jaque-bera statistics indicates that all the variables are drawn from a normal distribution. Exchange rate is positively skewed while oil price and the stock market index are negatively skewed.

Table 1: Descriptive statistics

	lOP	lOP^+	lOP^-	lNSEBNK	lEXCH
Mean	8.76	1.00	-0.60	5.86	4.38
Median	8.924	1.04	-0.36	5.88	4.35
Maximum	9.29	1.76	0.00	6.09	4.59
Minimum	7.71	0.33	-1.76	5.48	4.15
Std. Dev.	0.40	0.32	0.60	0.16	0.13
Skewness	-0.94	0.14	-0.92	-0.73	0.13
Kurtosis	2.99	3.78	2.49	2.50	1.59
Jarque-Bera	4.49	0.84	4.45	3.02	2.57
Probability	0.10	0.65	0.10	0.22	0.27

In addition to the Descriptive statistics, weapplied the standard Augmented Dickey-Fuller (ADF) and NG-Perron tests without structural breaks with constant and trendreported on table 2A and 2B for symmetric and asymmetric model specifications respectively. For the symmetric model all the variables have unit root problem at level but they become stationary after first difference is taken. Similarly, the ADF unit root test result reported on panel A of Table 2B for the asymmetric model which shows that at level, the variables have unit root problem, but all the variables becomes stationary after first difference. Ng-Perron test is reported on panel B of Table 2A which also reports the same result as the ADF, that all variables are stationary after first difference, *I(1)* but none is stationary at level, implying unit root problem.

Narayan and Pop unit root test statistics are reported on table 3A while the critical values are reported on table 3B.table 3A contains test statistics for Narayan and Pop (2015) for model one (M1) and for model two (M2) at various significance level. M1 represents unit root with 2 break point in intercept only while M2 is results for unit root with 2 break dates in intercept and trend. For M1 the result shows that LNSEBNK and LEXCH cannot be rejected , implying presence of unit root while lop is statically significant only at 10% level of significance meaning there is significant structural breaks in intercept at the 2014 quarter 1 and 2014 three. For M2 with intercept and trend, LNSEBNK has significant structural breaks only at 10% significance level in 2012 quarter one and 2014Quarter one. On the other hand LEXCH and LOP are not significant showing that there is no structural breaks at intercept and trend.

Table 2A

Symmetrical Model
Unit Root Result without Structural Breaks

	PANEL A				**PANEL B**		
	ADF				**NG-PERRON**		
Series	**With Intercept**	**With Intercept & Trend**	**Conclusion**	**Series**	**Intercept**	**Intercept & Trend**	**Conclusion**
LNSEBNK	-1.80	-2.37		LNSEBNK	-1.65	-1.92	
D (LNSEBNK)	-4.94**	-5.10	*I(1)*	D(LNSEBNK)	-2.38**	-3.22**	*I(1)*
LOP	-1.41	-1.76		LOP	-1.41	-1.76	
D (LOP)	-4.51**	-4.97**	*I(1)*	D (LOP)	-2.22**	-4.93**	*I(1)*
LEXCR	-1.03	-2.15		LEXCR	-0.32	-1.83	
D(EXCR)	-4.14**	-3.52**	*I(1)*	D(EXCR)	-2.03**	-2.05	*I(1)*

**** Represents 5% level of significance**

Table 2B

Asymetric model
Unit Root Test Result without Structural Breaks after Transformation of Series to Log

PANEL A		ADF			NG-PERRON		PANEL B
Series	Intercept	Intercept & Trend	Conclusion	Series	Intercept	Intercept & Trend	Conclusion
LNSEBNK	-1.80	-2.37		LNSEBNK	-1.65	-1.92	
D (LNSEBNK)	-4.94**	-5.10	*I(1)*	D (LNSEBNK)	-2.38**	-3.22**	*I(1)*
LOP	-1.41	-1.76		LOP	-1.41	-1.76	
D (LOP)	-4.51**	-4.97**	*I(1)*	D (LOP)	-2.22**	-4.93**	*I(1)*
LOP+	-0.57	-2.34		LOP+	-0.079	-2.57	
D(LOP+)	-0.57	-3.75**	*I(1)*	D(LOP+)	-3.65*	-5.20*	*I(1)*
LOP-	1.11	-1.38		LOP-	-0.49	-1.50	
D(LOP-)	-4.02**	-5.01*	*I(1)*	D(LOP-)	-1.50	-4.33*	*I(1)*
LEXCR	-1.03	-2.15		LEXCR	-0.32	-1.83	
D(EXCR)	-4.14**	-3.52**	*I(1)*	D(EXCR)	-2.03**	-2.05	*I(1)*

Where *, ** Represents 1% and 5% level of significance respectively. LOP+ AND LOP- is same as LOP_Pos and LOP_Neg representing positive and negative crude oil price shocks respectively

Table 3A: Narayan and Pop Unit Unit

	Break in Intercept			Break in Intercept and Trend		
Series	**Test statistics**	**TB1**	**TB2**	**Test statistics**	**TB1**	**TB2**
lnsebnk	-1.80	2011Q1	2014Q1	-4.923	2012q1	2014Q1
lexch	-1.383	2011Q2	2012Q1	-1.446	2011Q3	2013Q1
lop	-5.058	2014Q1	2014Q3	-2.349	2012Q2	2014Q1

Table 3B

Narayan and Pop (2006) Critical Values

	M1			M2		
T	1%	5%	10%	1%	5%	10%
50	-5.259	-4.514	-4.143	-5.949	-5.181	-4.789
100	-4.958	-4.316	-3.980	-5.576	-4937	-4.596
300	-4.731	-4.136	-3.825	-5.318	-4.741	-4.430
500	-4.672	-4.081	-.3772	-5.287	-4.692	-4.396

The unit root test result indicates that all the variables becomes stationary after the first difference is taken. Due to the stationarity of the variables, we implemented the bounds test of cointegration to ascertain if the variables are cointegrated. The bounds F-statistics reportd in Table 4 suggests that cointegration is present in only they asymmetric model.

Co-integration for the asymmetric model.

Bound TestStatistics			
Linear/Symmetric Model Cointegration (ARDL)			
F=Statistics	95%lower bound	95% Upper bound	Conclusion
1.47	4.68	5.98	NO COINTEGRATION

Nonlinear Asymmetric Model (NARDL)			
F=Statistics	95%lower bound	95% lower bound	Conclusion
8.97**	5.55	6.74	COINTEGRATION

NOTE: the critical values are from Narayan (2005), given the small sample size.
* ** *** represents: 1%; 5%; and 10% level of significance respectively.

Discussion Short-run and Long Estimates for Symmetric and Asymmetric Model

In this section, the results from the symmetric and asymmetric model specifications reported in Table 5a and 5b will be discussed. The short run estimates are reported in Panel A and B of Table 5A while the longrun estimates are reported on Table 5b Panel A and B for symmetric and asymmetric model respectively.

Table 5B shows that an increase in positive oil price shocks by 1% will bring about a decrease of 0.60% in NSE Bank Stock index in the longrun while negative oil price shocks will bring about a 0.44 percent increase in NSE Bank stock index. Exchange rate is found to satistically impact on the stock market. If exchange rate should depreciate by 1%, the NSE stock price index will improve by 2.40 percent

In order to examine if the impact of oil price on the stock market is asymmetric, we implemented the Wald test of restriction. The wald F-statistics indicates non rejection of the null hypothesis of symmetry. The result reported in Panel B of Table 5A implies that the impact of oil price on NSE Bank stock index is symmetric and not asymmetric. A symmetric impact of oil price means that NSE Banking stock index will respond to positive and negative oil price shocks in a similar fashion.

On the other hand, the shortrun results from the asymmetric model reported in Panel B of Table 5A shows that an increase in positive oil price shocks will depress the NSE stock index by 0.056 percent. Similarly, the one lag period of positive oil price shocks is also statistically significant with a positive coefficient of 0.67 percent. The result further suggests that an increase in negative oil price shocks by 1 percent will induce a 0.41% increase in NSE Bank stock index in the shortrun. Similarly, a 1 percent decrease in negative oil price will reduce NSE Bank stock index by 0.41 percent in the short run. The wald F-Statistics suggests the non rejection of the null hypothesis of symmetry. The means that positive and negative oil price shocks will impact NSEBank stock index in the same manner.

The result derived from execution of the symmetric model is reported in table 5A. this result shows that the impact of oil price on stock market NSE Bank index is not statistically significant.

The lag of exchange rate is statistically significant but the instantaneous impact of exchange rate is not satistically significant. An depreciation in exchange rate will cause a 0.76% fall in the NSE Bank stock index while a depreciation in exchange rate of the previous period will induce a 1.287 percent increase in the NSE Bank stock index in the short run.

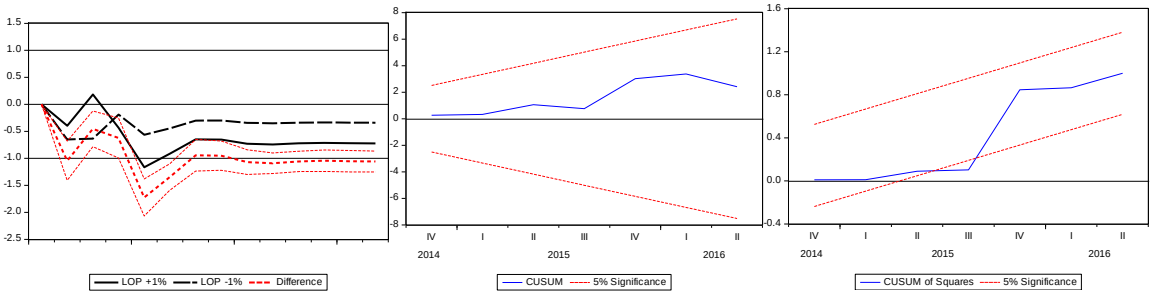
Table 5a
PANEL A PANEL B

PANEL A Linear/ Symmetric Model			**PANEL B: Nonlinear/Asymmetric Model**		
Independent Variable	**Coefficient**	**t-statistics [] P-Value ()**	**Independent Variable**	**Coefficient**	**t-statistics [ ] p-Value ( )**

Constant	1.06**	[1.27] (0.21)	Constant	16.1**	[11.9] (0.00)
Δ(lop)	-0.41**	[3.15] (0.00)	Δ(lnsebnk(-1))	0.29**	[2.57] (0.01)
Δ(lexch)	-0.15	[-8.7] (0.39)	Δ(lop_Pos)	-0.05	[-0.34] (0.73)
lop	0.47	[1.39] (0.17)	Δ(lop_pos(-1))	0.66**	[3.00] (0.00)
lexch	-0.71	[-0.69] (0.49)	Δ(lop_Neg)	0.40**	[7.41] (0.00)
-	-	-	Δ(lexch)	-0.76	[-1.61] (0.12)
-	-	-	Δ(lexch(-1))	1.28**	[2.53] (0.02)
Ect(-1)	-0.22	[-1.50] (0.14)	Ect(-1)	-0.93**	[-7.13] (0.00)
R^2	0.67	-	R^2	0.92	-
Adj. R^2	0.62	-	Adj. R^2	0.88	-
J-B	0.87	(0.40)	J-B	0.09	(0.95)
Lm(1)	0.17	(0.94)	Lm(1)	7.53**	(0.014)
LM(2)	0.13	0.87	LM(2)	7.82**	(0.004)
ARCH(1)	0.71	0.40	ARCH(1)	4.77**	(0.039)
ARCH(2)	0.05	0.94	ARCH(2)	0.48**	(0.62)
			F_{WALD}	5.19**	

Notes: J-B is the Jarque-Bera test for error normally, LM(.) is the LM test for error autocorrelation up to the lag order given in the parenthesis, and ARCH(.) is the ARCH test for autoregressive conditional heteroskedasticity up to the lag order given in the parenthesis.Fwald Null: Symmetry; Alternative: Asymmetry

Table 5B	**PANEL A** Linear/ Symmetric Model		**PANEL B** Nonlinear/Asymmetric Model		
Independent Variable	**Coefficient**	**t-statistics () P-Value ()**	**Independent Variable**	**Coefficient**	**t-statistics [ ] p-Value ( )**
Constant	4.77	[1.39] (0.13)	Constant	17.2	[11.9] (0.00)
Lop	0.47	[1.39] (0.17)	Lop_Pos	-0.60	[-5.54] (0.00)
lexch	-0.71	[-0.69] (0.49)	Lop_Neg	0.43	[8.35] (0.00)
			lexch		



Conclusion

In this study, we examined the impact of oil price shocks on NSE Banking Stock index in Nigeria. We specified and execute two models, a symmetric and an Asymmetric model to investigate if the impact of oil price shock on the stock market is asymmetric or symmetric. In the absence of an asymmetric impact, the estimates from the symmetric model will be taken as more reliable in explaining the impact of oil price shocks on the Nigeria stock maket NSE Bank Index.

Evidence from the symmetric model shows evidence of statistically significant short run impact of oil price shocks in the shortrun only. Positive oil price shocks increases the stock market index while negative oil price shocks reduces the NSE Bank stock market index in the longrun.We found a positive relationship between exchange rate and the stock market index.

The study found evidence of longrun asymmetry. The impact of oil price shocks on NSE Banks stock index in the longrun is Asymmetric.

We conclude that positive and negative oil price shocks impacts the NSE Bank stock market index significantly, however, the impact of negative oil price shocks on the stock market is greater than positive oil price shocks of the same magnitude. Commercial banks should reduce exposure to oil and gas sector as both positive and negative oil prices shocks will have sever implication on the performance of of the stocks of listed companies from the banking sector, however, Negtive oil prices shocks has more severe implication than positive oil price shocks of the same magnitude.

References

Abreu, M. & Mendes, V. (2002). Commercial bank interest margins and profitability: Evidence from E.U countries. Porto Working paper series.

Akomolafe&Danladi (2014) Oil Price Dynamics and the Nigerian Stock Market: An Industry Level Analysis.*International Journal of Economics, Finance and Management*.6 (3).

Asaolu T., &Ilo B., (2012). The Nigerian Stock Market and Oil Price: A Cointegration Analysis; Kuwait Chapter of Arabian Journal of Business and Management Review. 1(6)

Aworinde, O. (2013), Budget Deficits and Economic Performance, A thesis Submitted for the degree of Doctor of Philosophy; University of Bath, Department of Economics.

Chidozie (2017) Macroeconomy and Banks' Profitability in Nigeria; AN INTERNATIONAL MULTI-DISCIPLINARY JOURNAL, ETHIOPIA AFRREV. 11 (2), 46 DOI :http://dx.doi.org/10.4314/afrrev.v11i2.10

Cunado J & deGracia F Perez.,(2003). Do Oil Price Shocks Matter? Evidence for Some European Countries.*Energy Economics*. 25, (2), 137-154.

Cunado, J. &Gracia F.P., (2005) Oil Prices, Economic Activity and Inflation: Evidence from Some Asian Countries, *the Quarterly Review of Economics and Finance;* 45, 65-83.

Ewing, B Rawls College of Business, Texas Tech. University, Lubbock USA and Thompson, M James M. Hull (2007). College of Business, Augusta State University Augusta USA Dynamic Cyclical Comovements of oil prices with industrial production, consumer prices, unemployment and stock prices. Energy Policy.Vol. 35(11) November. PP5535-5540

Gisser, M., and Goodwin, T.H. (1986). 'Crude Oil and the Macroeconomy: Tests of Some Popular Notions', Journal of Money, Credit and Banking, Vol. 18, No.1, pp. 95-103.

Hamilton, J. (1983). Oil and the macro-economy since World War II, Journal of Political Economy, 88: 829-853.

Itotenaan, Amadi,Moshfique. Uddin and Dubon (2014) Oil price & stock market performance in Nigeria: An empirical analysis. American Journal of Social and Management Sciences.

Karantininis K, Kostas K, Persson M (2011b) Price transmission in the Swedish pork chain: Asymmetric nonlinear ARDL., Paper presented at the EAAE 2011 Congress: Challenges and Uncertainty, September 2, 2011, Zurich, Switzerland

Katrakilidis C, Trachanas E (2012) What drives housing price dynamics in Greech: new evidence from asymmetric ARDL cointegration. Econ Model 29,1064–9

Micco, A., Panizza, U., &Yañez, M. (2007).Bank ownership and performance. Does politics matter? Journal of Banking and Finance, 31, 219–241. http://dx.doi.org/10.1016/j.jbankfin.2006.02.007

Molyneux, P., & Thornton, J. (1992). Determinants of European banks profitability: A note. Journal of Banking and Finance, 16, 1176–1178. http://dx.doi.org/10.1016/0378-4266(92)90065-8

Mork, A., (1989). Oil and the Macroeconomy.When Prices Go Up and Down: An Extension of Hamilton's Results; *Journal of Political Economy*, 97, 740-744.

Pasiouras, F. &Kosmidou, K. (2007).Factors influencing the profitability of domestic and foreign commercial banks in the European Union.Research in International Business and Finance 21 (2).222-237.

Pesaran M.H, Shin Y, Smith RJ (2001) Bounds testing approaches to the analysis of level relationship. J *Applied Econometrics* 16:289–326

Pirog, R (2004) 'Natural gas prices and market fundamentals' CRS Report for Congress Congressional Research service.

Sadorsky, P. (2001). Risk factors in stock returns of Canadian oil and gas companies. *Energy Economics*, 6(2), 17-28.

Sair, R., and Soytas, U. (2006). The relationship between stock returns, crude oil prices, interest rates, and output: Evidence from a Developing Economy. The Empirical Economic Letters, 5(4) July.

Schmidbauer, H and Kalaycioglu, E (2008) Crude oil and oil-related Turkish company stocks: A volatility Analysis.IstanbulBilgi University, Istanbul, Turkey.