



# Corporate Performance in Nigeria: The Effect of Oil Price and Exchange Rate Fluctuations

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## ABSTRACT

Discussions on the separate effect of oil price and exchange rate fluctuations on economic activity and corporate performance in Nigeria are inconclusive. This study investigates the simultaneous influence of oil price and exchange rate and the impact of the different exchange rate regimes adopted in Nigeria on corporate performance, using the structural vector autoregressive/historical decomposition framework. The literature in these areas is sparse. Result from this study suggests that oil price shocks have negative influence on corporate performance with a very short-term positive influence. Exchange rate shocks have positive impact on corporate performance with an instantaneous negative effect. Also, fixed exchange regimes are associated with a downturn in corporate performance, while flexible regimes are associated with improved corporate performance. This result support diversification and flexible exchange rate policies, while corporate managers should adopt risk-hedging strategies to cushion the adverse combined effect of oil price and exchange rate shocks.

**Keywords:** Corporate Performance, Oil Price, Exchange Rate, Structural Vector Autoregressive, Historical Decomposition, Nigeria

**JEL Classifications:** F38, G3, Q43

## 1. INTRODUCTION

Oil price and exchange rate are among the most important global economic factors that constitute major external shocks to business cycles and economic stability. Oil as an internationally traded commodity is an important driver of foreign exchange accumulation, foreign reserves and invariably influence exchange rate movement (Osigwe, 2015; Darko and Kruger, 2017; Kayalar et al., 2017). The literature has provided evidence of the importance of oil and its related shocks to economic activity (Mordi and Adebisi, 2010; Aremo et al., 2012), as well as that of exchange rate and its pass-through effect on oil price to productive sectors. Movements in these variables pose great policy challenge for economic and business managers given their associated economic uncertainty and instability (Daddikar and Rajgopal, 2016).

The adverse effects of oil price fluctuations can be direct on the economy or affecting the economy through exchange rate

movements and government policy reactions (Bacon and Kojima, 2011; Darko and Kruger, 2017). The availability or non-availability of oil products affect corporate performance as inputs in production processes and major source of energy, due for example to increased cost of production, and is also pivotal to the performance of other factor inputs by making them more or less productive (Dadashi et al., 2015; Kayalar et al., 2017; Liu and Klinkowska, 2017). Therefore, the implication of exogenous shortage of energy and oil associated with oil price increase will manifest in the decline of corporate performance and resultant general economic recession, particularly in oil-importing economies (Ayres and Voudouris, 2014).

Notwithstanding income redistribution in favour of oil-exporting countries, fluctuations in oil price pose great challenge for policy and management decisions, especially for countries like Nigeria that depend largely on earnings from oil export, and imports over 85% of her finished oil products. Moreover, the attendant

## 2. LITERATURE REVIEW

inflationary pressure of increasing oil price could motivate the Central Bank to review interest rate upward, which increase the cost of capital for firms (Dadashi et al., 2015; Kayalar et al., 2017; Liu and Klinkowska, 2017).

Being an importer and exporter of oil products, fluctuations in the price of oil has an adverse effect on domestic currency of Nigeria (Naira) (Asaolu, 2011; Ogundipe and Ogundipe, 2013). Exchange rate fluctuation affects corporate performance because of the participation of firms in international trade (Simakova, 2017). Firms are exposed to risk since changes in exchange rate alter their respective cost of production and international revenue with(out) hedging (Bodnar and Gentry, 1993; Baggs et al., 2009). Exchange rate fluctuation also affects a wide range of businesses due to its macroeconomic impact on output, inflation and employment, which leads to capital gains or losses (Mordi and Adebisi, 2010).

Following the different episodes of oil price shocks, especially after 1972 and the implementation of the Structural Adjustment Programme (SAP) in 1986, Nigeria has operated different forms of exchange rate regimes (Appendix 1) which have had different implications for economic activity. However, no one form of exchange rate regime has been used with absolute rigidity. Rather, a guide- floating regime is usually adopted, with periodic Central Bank interventions to ensure stability as required.

The goal of corporations is usually to expand output, profitability and to maximize shareholder value while remaining competitive (Akingunola et al., 2018). Fluctuations in oil price and exchange rate constitute great risk to the achievement of these objectives (Osigwe, 2015; Daddikar and Rajgopal, 2016). This reality was clearly manifested following the 2014 oil price slump and exchange rate crises that pushed the Nigerian economy into recession. Within a 6-month period, the All-Share-Index dropped from 42482.48 points in August 2014 to 29562.07 points in January of 2015, and 23916.15 in January 2016. This situation drastically affected corporate profitability, competitiveness and the going concern ability of a number of firms (Appendix 2).

From the foregoing, the question of how oil price and exchange rate shocks influence corporate performance arises. The literature has emphasized the influence of oil price and exchange rate individually on corporate performance. Given the relationship between oil price shock and exchange rate fluctuation, this study aims to investigate the concurrent impact of these two events on corporate performance. In addition, this study seeks to investigate the impact of the various exchange rate regimes operative in Nigeria since 1985 on corporate performance. Findings from this study are valuable for corporate managers in better managing their investments and hedging corporate risks following anticipated oil price and exchange rate movement. National economic policy managers may also be better informed on appropriate policy directions.

The remainder of the paper proceeds as follows: Sections two, three, four, five and six presents the literature review, data properties, empirical methodology, empirical findings and discussions, implications and recommendations, and conclusions respectively.

Concerns for oil price and exchange rate volatility led to an extensive investigation of their impact on economic variables. Theoretically, transmission strata such as the supply-side and demand side in terms of the impact of oil price shocks on economic activity treat oil as a basic production input and consumption good respectively. Other transmission strata include income transfer approach, real business cycle theory and real balance effects. However, Kilian (2009) stressed these approaches are conceptually distinct and differ in terms of their effect on macroeconomy. Hamilton (1983) forms the basis for successive research on the influence of oil price on macroeconomic variables and he posited that oil price shocks have negative effect on US economy, following the fact that oil price shocks preceded major recessions witnessed in the US after World War II. Similar conclusions were reached by Gisser and Goodwin (1986), Mork (1994), Finn (2000), Hamilton (2000) and An et al. (2014). However, Huntington (2005) asserted that the position of an economy in terms of growth determines how oil price shocks influence it. He argued that economies experiencing high growth are less affected and are less likely to be pushed into a recession by oil price shocks, at least much less so than slow growth economies. In a similar vein, Kilian (2009) and Wang et al. (2013) argued that the effects of oil price shocks on the economy differ greatly depending on the underlying causes of the oil price shocks. Taghizadeh-Hesary and Yoshino (2015) in contrast to El-Anshasy (2009) found that oil price shocks affect emerging economies more adversely than do the developed economies.

Studies on Nigeria reported mixed findings. Ayadi (2005) Olomola and Adejumo (2006), Iwayemi and Fowowe (2011), Adeniyi et al. (2011), Chuku (2012), and Wilson et al. (2014) reported findings indicating that oil price shocks do not have direct influence on the economy, but affect the economy through other macroeconomic variables, particularly the exchange rate. Conversely, Aliyu (2009; 2011) and Riman et al. (2013) revealed a significant positive and direct effect.

Rukavishnikova and Baars (2014), Daddikar and Rajgopal (2016) and Zaabouti et al. (2016), demonstrated that the influence of oil price volatility varies significantly across firms given the individual firm's characteristics that expose them to oil price fluctuations. Darko and Kruger (2017) and Lele (2016) also found that oil price movements influence accounting returns of considered firms positively. Most studies in this regard considered stock-index as a reflection/proxy of firms' aggregate performance. Kayalar et al. (2017) demonstrated that oil-exporting countries showed more dependence on oil price relative to oil-importing countries. Similarly, Liu and Klinkowska (2017) reported that there is weak short-run and strong long-run dependence of UK oil and gas firms' performance on oil price movement with considerable positive and negative effect. Contrary to these findings however, Park and Ratti (2008), Huang et al. (1996), using daily returns on oil price and American stock markets, found no link between oil price movement and the stock returns, which was similar to the findings of Dadashi et al. (2015). Sadorsky (1999), Papapetrou (2009), Basher et al. (2015), Janor et al. (2013), Dhaoui and Khraief (2014) and Sariannidis et al. (2016), validated the negative effect of oil

price on stock-returns. Meanwhile, Creti et al. (2014) reported that irrespective of whether the country imports or exports oil, oil price impacts negatively on the stock market. Ewing and Malik (2016) and Salisu and Oloko (2015) among others found positive relation between oil price and stock price. Guesmi and Boubaker (2016) suggested that the effect of oil price shocks on the stock market varies depending on the reality of time but have evident long run convergence. Though Ojikutu et al. (2017) reported insignificant impact of oil price on the stock market for Nigeria, Gil-Alana and Yaya (2014), Ogiri et al. (2013) and Uwubanmwun and Omorokunwa (2015) emphasized the dominance of oil price in affecting the stock market as Olayeni and Olofin (2015) reiterated the extreme risk exposure of the stock price to oil price shocks. Akinlo (2014) showed, with impulse response that oil price has a temporary positive impact on stock-index. However, Asaolu and Ilo (2012) upheld the “golden rule” of oil-price-up stock-price-down that is mostly reported for oil-importing countries.

Theoretically, two approaches explain exchange rate stock market relation: the flow-oriented approach provides that movements in exchange rate motivate stock market changes (Dornbusch and Fischer, 1980), while the stock-oriented approach as proposed by Branson (1981) and Frankel (1983) emphasized that activities in the stock market modulate exchange rate. In the interest of this study, focus relies on the influence of exchange rate on corporate performance. Albeit Jorion (1991) found that the stock market is insensitive to exchange rate, while Ülkü and Demirci (2011) found a positive relationship between them, a finding corroborated by Kohler et al. (2014) who reported positive effect of real exchange rate (RER) on economic activity and inflation in the Australian economy. Gounopoulos et al. (2012) suggested cautiously that the direction of impact of exchange rate on the stock market varies from time to time. Meanwhile, Baggs et al. (2009) reported negative effect of exchange rate appreciation on survival and sales of firms in Canada. Bodnar and Gentry (1993) and Flota (2014) emphasized the impact of exchange rate risk exposure of industries in Japan, Canada and US. Fung and Liu (2009) reported that real depreciation in exchange rate is associated with increased firms’ productivity and sales, which leads to profitability. Similarly, Simakova (2017) reported negative relationship between exchange rate and firms’ value of listed companies in Visegrad countries (Czech Republic, Hungary, Poland and Slovakia). Particular to Nigeria, Taiwo and Adeola (2013) and Inyiamia and Ozouli (2014) emphasized that the impact of exchange rate shocks on corporate performance is sensitive to the proxy used for performance as they demonstrated that exchange rate shocks influence performance of financial institutions and the brewery industry in Nigeria respectively. Likewise, David et al. (2010) suggested adverse effect but evidently, there are positive and negative responses of different sectors of the Nigerian economy. Kelilume (2016) however reiterated negative impact as he revealed that exchange rate volatility impact negatively on return-on-assets, asset-turn-ratio and the portfolio activity and resilience. Asaolu (2011) submitted that there is no evident difference in the risk exposure of firms (whether financial or not) as exchange rates instability constitute great hindrance to firms’ performance. Meanwhile, Isaac (2015) emphasized the impact of exchange rate risk on banks position in Nigeria.

From the foregoing, discussions on the influence of oil price and exchange rate movement on economic activity remain inconclusive. Existing studies have attempted to investigate the effect of oil price and exchange rate on firms’ performance separately, while there is scarcity of studies that consider the two variables together. Moreover, studies have not considered the response of firms’ performance following the different exchange rate regimes adopted in Nigeria. This study is an attempt to fill these gaps in the literature using the theory-based structural vector autoregressive (SVAR)/historical decomposition (HD) method, which has limited adoption in the Nigerian literature.

### 3. METHODOLOGY

#### 3.1. Data Properties

Data series used in this study span from January 1985 to April 2018, which include most recent periods of oil price fluctuations and periods Nigeria has experienced the most volatile exchange rate movement. The sample period is chosen to capture the SAP period when exchange rate fluctuation really become a significant source of shocks to the economy and other periods of fixed and managed floating exchange rate. Oil price is measured using the Western Texas Index, RER is estimated using the conventional formula  $r_N = E_N [P^*/P_N]$ , where,  $r_N$ ,  $E_N$ ,  $P_N$  and  $P^*$  are RER, nominal naira exchange rate, price level captured by the consumer price index (CPI) in Nigeria and price level in the foreign country (US-CPI) respectively), and corporate performance is captured using Nigerian Stock Exchange index. Data on the variables were sourced from the American Federal Reserve, Central Bank of Nigeria, and Nigerian Stock Exchange websites.

##### 3.1.1. Unit root tests

In order to establish the stochastic property of the time-series, we conducted unit-root tests to investigate the order of integration of the variables. The conventional augmented dickey fuller (ADF) of Dickey and Fuller (1981) and Phillip and Perron (1988) tests were adopted. Table 1 presents the results of the unit-root tests. Oil price and corporate performance are revealed to have unit-root at levels and became stationary at first difference in both tests which suggests they are  $I(1)$ . However, RER is shown to be stationary at levels and  $I(0)$ .

##### 3.1.2. Cointegration tests

Cointegration test is used to assess the existence of long-run relationship among variables. Given that the variables are of

**Table 1: Unit root tests**

	Levels		1 <sup>st</sup> difference		
	ADF	PP	ADF	PP	Decision (5%)
<i>OPR</i> (C)	-1.6696	-1.4598	-14.665	-14.139	$I(1)$
<i>OPR</i> (C/T)	-3.3877	-3.0099	-14.652	-14.122	
<i>RER</i> (C)	-3.1634	-3.1531	-19.943	-19.950	$I(0)$
<i>RER</i> (C/T)	-3.0617	-3.0461	-19.981	-19.993	
<i>CPP</i> (C)	-2.2013	-2.2207	-6.9060	-187.51	$I(1)$
<i>CPP</i> (C/T)	-1.1722	-0.9862	-7.1818	-188.82	

Source: Author’s Computation using Eviews 9. ADF/PP critical value with intercept are -3.45 (1%), -2.87 (5%) and -2.57 (10%); ADF/PP critical value with trend and intercept are -3.98 (1%), -3.42 (5%) and -3.13 (10%). ADF: Augmented dickey fuller, PP: Phillips-Perron

mixed order of integration, the Johansen Cointegration test will be inappropriate to establish long run. Rather, we employed the autoregressive distributed lag (ARDL) Bound cointegration test as proposed by Pesaran and Shin (1999). As presented in Table 2, given that the calculated values of the ARDL Bound test is lower than the  $I(0)$  critical values, we cannot reject the null of no cointegration. Thus, concluding that the variables are not cointegrated.

### 3.2. Empirical Methodology

#### 3.2.1. SVAR model

A wide range of economic literature has adopted SVAR to study the impact of oil shocks on macroeconomy (Kilian, 2009; Aremo et al., 2012; Wang et al., 2013; Cunado et al., 2015). Following the stochastic properties of the data with mixed orders of integration, it will be appropriate to use an SVAR model to establish the dynamics among the variables, since the SVAR imposes theoretical restriction on the model and interpretations are based on structural impulse response without particular estimates (Sims, 1980; Sims et al., 1990).

The SVAR is an advancement to the conventional-VAR based on criticism that VAR estimation is devoid of prior economic theory (Kilian, 2011). Following Blanchard and Watson (1986) and Sims (1986), the SVAR establishes partially overlapping relationships among macroeconomic variables fluctuations and identifies the effects of policy changes. The SVAR requires the VAR be restricted based on theoretical/institutional/other extraneous assumptions about the relationship among the variables. For convenience's sake, the AB-model type of SVAR was adopted as it easily models the instantaneous links between the variables and the impact of the orthonormal random shocks coming into the system. The conventional-VAR is thus transformed as

$$\begin{aligned} A\Pi(L)y_t &= A\varepsilon_t, & A\varepsilon_t &= B\varepsilon_t, & A\Omega A' &= BB' \\ E(e_t) &= 0 & E(e_t, e_t') &= I_M & E(\varepsilon_t, \varepsilon_t') &= \Omega \end{aligned} \quad (1)$$

The elements of matrix- $A$  and matrix- $B$  are such that  $a_A + b_B \geq 2M^2 - M(M+1)/2$ . In order to achieve the most appropriate identification with orthogonality,  $M(M+1)/2$  number of non-linear restrictions must be imposed with  $2M^2 - M(M+1)/2$  other elements free. As expressed in Equation 2, depending on the theoretical identifications, the  $A$ -matrix specifies the relationships among endogenous variables and the  $B$ -matrix identifies the effect of orthonormal shocks to the system.

$$\begin{pmatrix} 1 & 0 & 0 \\ a_{21} & 1 & 0 \\ a_{31} & a_{32} & 1 \end{pmatrix} \begin{pmatrix} \varepsilon^{OPR} \\ \varepsilon^{RER} \\ \varepsilon^{CPP} \end{pmatrix} = \begin{pmatrix} b_{11} & 0 & 0 \\ 0 & b_{22} & 0 \\ 0 & 0 & b_{33} \end{pmatrix} \begin{pmatrix} e^{OPS} \\ e^{ERS} \\ e^{ESS} \end{pmatrix} \quad (2)$$

**Table 2: Cointegration test**

	ARDL bound test				
F-statistic	3.4097***	10%	5%	2.50%	1%
$I(0)$ Bound		3.17	3.79	4.41	5.15
$I(1)$ Bound		4.14	4.85	5.52	6.36

Source: Author's Computation using Eviews 9. ARDL: Autoregressive distributed lag

The variables are arranged in the order, oil price ( $OPR$ ), RER and Corporate Performance ( $CPP$ ). The short-run restrictions were imposed based on the theoretical economic knowledge. Corporate performance ( $CPP$ ) is the most domesticated and dependent variable of interest, it is only logical for it to receive impulses from oil price ( $OPR$ ) as captured by  $a_{31}$  and RER as captured by  $a_{32}$ . By expectation, movement in oil price as an internationally trade commodity leads to exchange rate adjustments which is captured by  $a_{21}$ . This study assumes perfect correlation of a variable with itself; therefore, parameters are unit and other parameters are restricted to zero to focus on the relationship of interest. The shocks generated by  $OPR$  and  $RER$  to the SVAR system are termed oil-price-shocks ( $OPS$ ) and exchange-rate-shocks ( $ERS$ ) respectively. Meanwhile, the precautionary shocks that captures those components of  $CPP$  movement that are not reflected by  $OPR$  and  $RER$  are termed economic-specific-shocks ( $ESS$ ). Analysis of shocks are based on the structural impulse response.

#### 3.2.2. HD

Then again, we use HD to enumerate how oil price and exchange rate contribute to changes in corporate performance over the years of the study, particularly over several exchange rate regimes. The HD framework is a form of counterfactual simulation that generates uncorrelated structural shocks. As expressed in Equation 3, HD involves recreating the actual data and generating the contributions of all variables to deviation in exogenous variables from their base projection (trend).

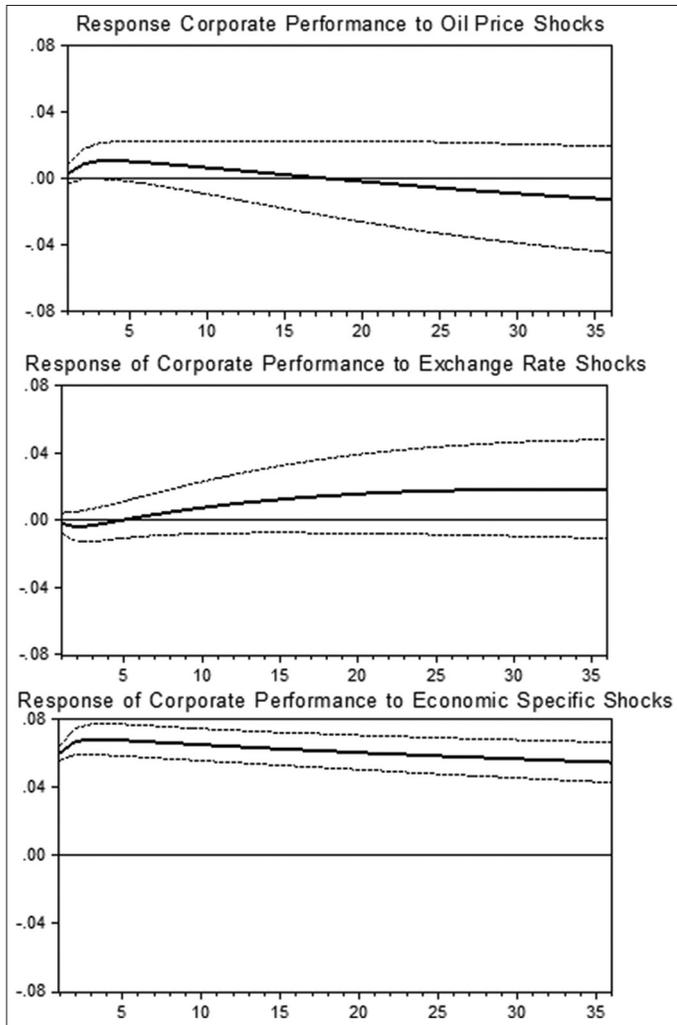
$$Y_{T+j} = \sum_{s=0}^{j-1} \Psi_s \varepsilon_{T+j-s} + \left[ \gamma X_{T+j} + \sum_{s=j}^{\infty} \Psi_s \varepsilon_{T+j-s} \right] \quad (3)$$

Here,  $\sum_{s=0}^{j-1} \Psi_s \varepsilon_{T+j-s}$  represents the deviations in  $Y_{T+j}$  based on time innovation (base projection while  $\left[ \gamma X_{T+j} + \sum_{s=j}^{\infty} \Psi_s \varepsilon_{T+j-s} \right]$  represents deviations in  $Y_{T+j}$  caused by changes in the variables in the system (Sims 1980; Doan, 2010).

## 4. RESULT/ANALYSIS

Figure 1 presents the structural impulse response of corporate performance to oil price and exchange rate shocks based on one standard deviation innovations  $\pm 2$  standard error. Evidences from the first panel shows that oil price shocks have an instantaneous positive effect on corporate performance, but towards the 2<sup>nd</sup> and 3<sup>rd</sup> months, the impact is reversed and leads to negative impact, which gets deeper without returning to equilibrium within a 3 years horizon. By implication, this finding emphasizes the supply-side channel as oil price will initially have positive immediate effect on businesses, but as time goes on, the businesses are adversely affected. This is a reflection of how uncertainty in oil price can affect economic activity even at times when oil prices are increasing. Particularly, when oil prices are falling the adverse effect becomes more severe on corporate performance in Nigeria. The second panel shows that corporate performance responds instantaneously to exchange rate shocks with negative effect;

**Figure 1:** Corporate performance response to structural one SD innovations  $\pm 2$  SE

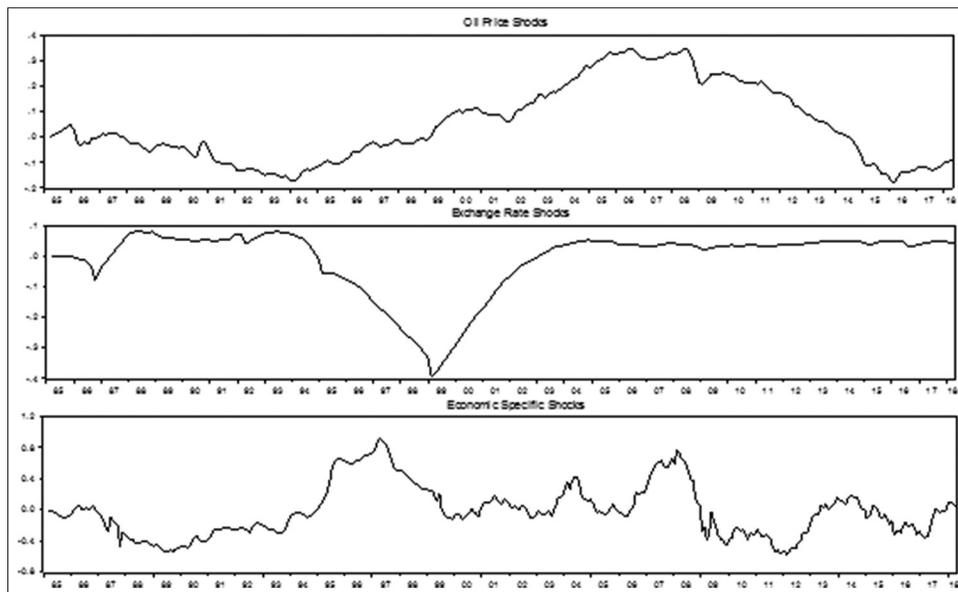


Source: Author's computation

the reversion is more spontaneous, turning positive effect in the 2<sup>nd</sup> month, which did not subside in a 3-year horizon. This, emphasizing the flow-oriented approach, suggest exchange rate shocks will initially have a very short-term depressing effect on businesses but subsequently leading to positive outcomes for corporate performance – exchange rate depreciation can lead to improved business performance. This is informative to some extent for Nigeria given that major inputs of the manufacturing sector are imported with very large presence of petroleum and gas products that are also imported. Lamentably, the third panel shows that the effect of economic-specific shocks has been depressing. This implies that Nigeria's economic characteristic has been disadvantageous to corporate performance.

Based on the objective of identifying how corporate performance had fared in the different exchange-rate regimes, we adopted the HD of shocks to analyse the contributions of exchange rate to changes in corporate performance. Figure 2 presents plots of the contributions of oil price, exchange rate and economic-specific shocks to changes in corporate performance every month. Arguably, the HD of RER has reflected the influences of the different exchange-rate regimes. Following the introduction of SAP, even though element of control was observable, exchange rate contributes appreciably to corporate performance and its contributions were stable over the period of 1986-1993. In May-1993, exchange rate was fixed at N22/USD until December-1998. The period was associated with severe negative contributory effect on performance of businesses in Nigeria. Switching from fixed to flexible in the wake of 1999 that raised exchange rate to N86/USD was associated with positive contributions to business performance. Though still floating, the period of the global financial crisis saw negative effect of exchange rate but its contributions remained positive. A close look at 2016, the short period of fixed exchange rate was associated with drop in corporate performance. Performance picked up after the reversal of the fixed rate in June 2016. The implication of this finding is

**Figure 2:** Historical decomposition of the contributions of oil price, exchange rate and economic specific shocks to deviation in corporate performance



Source: Author's computation

that, though exchange fluctuations might have affected economic activity, periods of fixed exchange rate have contributed negatively to corporate performance while the contributions of the various forms of floating exchange rate regimes have been positive and more beneficial to corporate performance. One possible reason for this observation is that a fixed exchange regime in a situation where the oil revenue and by extension foreign exchange earning capacity of the country is low, is essentially a subsidizing of corporate and household consumption. The cost of this subsidy is extremely high, thus diverting resources away from productive sectors and essential infrastructure that should otherwise support the productivity and performance of corporations. On the other hand, floating (and less so managed-floating) exchange rate regimes, compels corporations and households to be more efficient in production, savings and consumption, thus leading to higher productivity and corporate performance. In addition, government has more resources for improving the economic infrastructure and operating environment for corporations to thrive.

It is worth noting also that while exchange rate intervention policies in Nigeria have been rather reactive, the intervention choices over the years would appear to have had positive impact on the economy and on corporate performance. These interventions have prevented the adverse impact of exchange rate shocks from having a long-run impact. More proactive exchange rate stabilizing policies primarily aimed at diversifying the economy from oil dependence, shoring up foreign reserves, reducing the high propensity for foreign consumption, reducing current accounts deficit as well as more prudent, investment and savings oriented management of incremental revenue from oil price windfalls, are likely to better stabilize the economy and corporate performance.

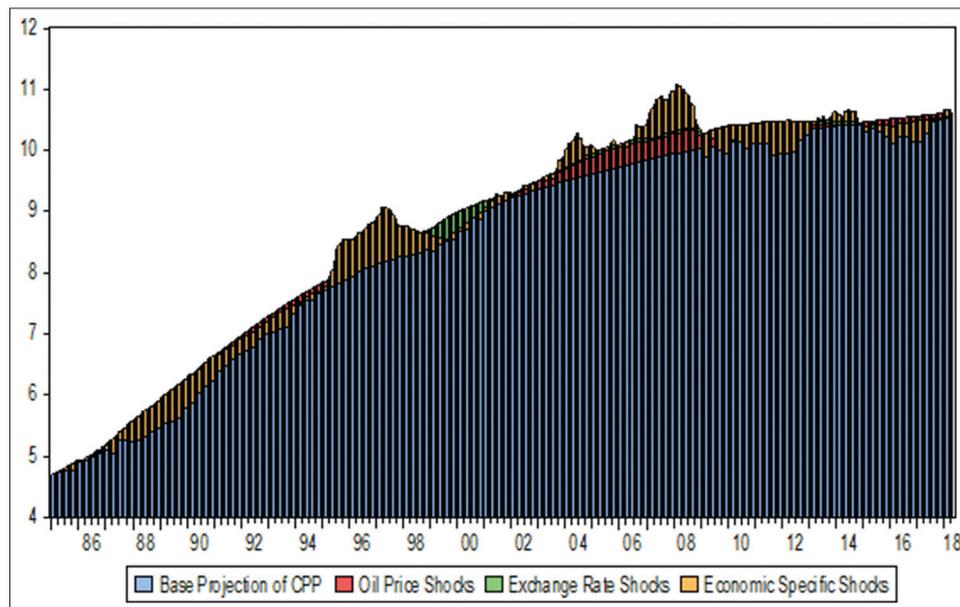
In the same vein, the HD-graph has reasonably captured the different episodes of oil price shocks as presented in the first panel of Figure 2. Economic-specific shocks as expressed

in the third panel shows that significant shocks on corporate performance are attributable to Nigeria's economic characteristics. Figure 3 provides a clearer picture; it presents a stack diagram of the contributions of the shocks to corporate performance. It displays how the variables have caused corporate performance to deviate from trend (base projection). It further shows that most of the upward and downward movements in corporate performance are attributable to economic-specific shocks followed by oil price shocks, while exchange rate contributed the lowest. Particularly, there was slight positive contribution to performance in 1986 period; substantial positive contributions around 1999 and 2002 and noticeable positive contributions around 2004 to 2008 that caused performance to increase above trend, and negative contributions that caused performance to drop below trend in 2014-2015 and 2017.

## 5. CONCLUSIONS

The objective of this study is to establish the influence of oil price and exchange rate movement on corporate performance in Nigeria. This was done within the structural-VAR and HD frameworks that respectively analyse the dynamics between the variables based on theoretical restrictions and generate the contributions of each variable to changes in the system. Findings from this study are quite insightful as to how oil price and exchange rate impact on corporate performance. It was revealed that oil price shocks is associated with negative corporate performance but with an instantaneous positive effect. Exchange rate is associated with increased performance. Though economic-specific shocks contribute the most to corporate performance deviation followed by oil price and exchange rate fluctuations, our findings showed that fixed exchange rate regimes have been inimical to firms' performance while floating exchange rate is favourable for corporate performance.

**Figure 3:** Stack graph of the contributions of oil price, exchange rate and economic specific shocks to deviation in corporate performance



Source: Author's computation

The implication of this study for policymaking is that managed devaluation and floating exchange rate regime is better for the economy and for enhancing corporate performance, rather than fixed exchange policy, due to its stabilizing effect on the foreign exchange market. In addition, government should focus actively on managing those areas of the economy that are more controllable which have direct and higher impact on economic and corporate performance, through appropriate policy initiatives. Non-oil price dependent and non-exchange rate dependent variables, which have more impact than oil price and exchange rate on performance should be the focus of policy targets. These include variables such as interest rate and inflation levels and stability, structure of the economy with respect to increased diversification from and less dependence on oil, tax regimes and incentives that promote ease of doing business, and the pursuit of non-oil driven economic growth through, for example, import substitution strategies. While oil price has a reasonable impact on economic and corporate performance, it is less controllable. The policy objectives should be focused on ensuring stable local production and supply to the international market, and ensuring local refining and production, and less importation of secondary oil products. Policy should also address more prudent management of oil price windfalls, reduce excessive propensity for importations and reduce the current account deficit (CAB), while increasing foreign reserves.

With respect to private investment decisions, corporate managers should be aware that oil price shocks and exchange rate fluctuations can be detrimental to corporate performance. Economic Specific Shocks in relation to the nature and structure of their firms have more impact on performance than oil price and exchange rate movement. Adequate hedging strategies should be put in place to mitigate the uncertainties associated with short-term impact of oil price shocks and exchange rate shocks. In the longer term however, firms should design operating structures that make them more financially stable and flexible, and less directly exposed to the impact of oil price and exchange rate changes.

However, this study is limited in scope, as it only captures oil price and exchange rate, while the findings suggest that other economic-specific factor contribute more to observed changes. Further research is therefore required to understand the specific nature and characteristics of these economic-specific, structural and firms-specific factors that have a greater and direct impact on economic and corporate performance. Moreover, this study is limited to Nigeria. A comparative study with other African and non-African countries is likely to improve our understanding of the impact on oil price and exchange rate shocks on corporate performance and the structural and firm-specific variables that drive observed outcomes.

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## APPENDIXES

### Appendix 1

Fixed (Pegged to British pound sterling/US Dollars)	1960-1972
Managed float	1973-1978
Basket of currencies approach	1978
Dual exchange rate system (Introduction of second tier FEM)	September, 1986
DAS of bidding	1987
Single enlarged foreign exchanged market with various pricing methods	1987
Creation of IFEM	January, 1989
Pegged exchange rate system	1994
Autonomous foreign exchange market	1995
Reintroduction of IFEM	October, 1999
DAS of foreign exchange management	July, 2002
Wholesale DAS	2006-2013
Retail DAS of foreign exchange management	October, 2013
Interbank foreign exchange market (Closure of Official Window)	February, 2015
Fixed exchange rate	February, 2016
Floating	June 2016
Guided floating	2017-date

IFEM: Interbank foreign exchange market, DAS: Dutch auction system

### Appendix 2

