CORPORATE PERFORMANCE IN NIGERIA: INSIGHTS FROM ECONOMIC-SPECIFIC SHOCKS

Original Research Article

Abstract

Aims: This study investigated the impact and contributions of macroeconomic factors to corporate performance by considering the contributions of three key market segments in the economy: international, money, and goods markets.

Methodology: This study concentrated on Nigeria, and the time series data span from January 1995 to December 2022.Given the mixed order of integration among the variables of interest, the analysis was based on the SVAR/HD estimations, which investigate shocks based on theoretical restrictions and generate each variable's contributions to corporate performance. Inferences are based on the impulse response, variance decomposition and historical decomposition.

Results: Based on Structural One S.D. Innovations ± 2 S.E, the study's results underscore the vulnerability of Nigerian businesses to speculative markets(55.37%), with the international market exerting the most significant influence(32%) on corporate performance, followed by the money market. Notably, the variables under consideration demonstrate varying relationships over different time periods. In the short-term, oil prices, government deficits, and inflation positively impact corporate performance, but this effect reverses to negative in the medium to long term. Conversely, the exchange rate initially has a negative effect but shows a positive long-term impact. Surprisingly, the impact of money supply and economic growth on corporate performance is found to be negligible. The study further reveals that firm-level shocks are the primary drivers of corporate performance development.

Conclusion: This study provides actionable insights for decision-makers and firm managers. The research suggests that decision-makers can enhance their strategic decision-making by adopting strategic hedging strategies in light of the study's findings. Moreover, firm managers are advised to comprehensively review their internal processes to ensure sustained corporate performance growth.

Keywords: Corporate Performance, Firm Value, Economic Specific Shocks, Macroeconomic Shocks, Structural VAR, Historical Decomposition

JEL Code: E32, E44. F44, G11

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Introduction

Evidence over the years has demonstrated the direct and indirect effects of oil prices and exchange rates on the economy [1] and their impact oncorporate performance[2-8].While an earlier study by Omoregie and Olofin [9]emphasised similar conclusions,they,however, suggested that the importance attributed to oil prices and exchange ratesas major drivers of corporate performance and economic activities in general may be exaggerated.They enunciated that economic-specific shocks regarding the characteristics and attributes of the economy, business conditions,policy framework, and firm-specific and industry-specific shocksaccount for most economic/performance fluctuations.

Various researchers have found thatfirms' going concern and improved performance depend on economic and environmental viability and internally consistent strategies that drive performance [10-15]. Firms in recent timeshave operated in a rapidly and increasingly dynamic and uncertain business environment with continual changes in regulatory frameworks, international exposure, business climate, and customer taste that increase management complexity andrisk[16,17].

Economic-specific factors are broadly dividedinto micro-macro factors [18,14,19,20,15]. Macroeconomic factors could refer to the general economic and financial space that incentivisescorporate performanceand includes factors such asreal-GDP growth, inflation, interest rate, exchange rate, treasury bill rate, and money supply. Microeconomic factors(or firm-specific variables)arethefirms' characteristics and deliberate choices that drive corporate performance,including corporate strategy, financial policy, corporate governance, industry, choice of products and services and production techniques, market segments andmarket share,scale and scope of operations, etc.

Whilemicroeconomic factorsare endogenous and specific to the individual firm, macroeconomic factors areexogenousand not within the direct control of business managers. The implicationsfor corporate performance range from positive to negative and apply similarly to businesses in the economy.The ability of firmsto take advantage of favourable macroeconomic conditions and hedge against unfavourable ones depends on internal microeconomic (firm-specific)factors [21,12,20]. Conducive macroeconomic conditionsenhance corporate performance. However, conduciveness is relative as it depends on how the firm/industry perceivesand responds tothe macroeconomic conditions [22].

In Nigeria, businesses face a volatile macroeconomic environment. Despite the soundness of business managers' decision-making, some adverse effects will be experienced. Therefore, what are the impacts of economic-specific shocks? In order to effectively respondto changes in exogenous macroeconomic factors, a proper understanding of the nature of theirrelationship and their specificinfluences on thecorporate performance of particularfirmsis important to achieve corporate goals and strategies.This is because exogenous macroeconomic variables have different impact points and effects across different industries and on different firms within the same industry.Corporate managers, thus, have to develop the capacity to understand and anticipate the impact of these economic-specific shocks in order to respond with proactive and effective risk-hedging strategies.

Therefore, this study seeks to identify some of these economic-specific factors as they contribute to changes in corporate performancefollowing the Arbitrage Pricing Theory (APT) approach. This study also classified macroeconomic factorsbased on international-money-goods market segmentations.Giventhe fact that corporate performance translates to share price movement (firm value), corporate performance is proxied by the stockmarket index. Findings from this study will assistmanagers, investors and policymakersin makinghedging choices thatimprove corporate performance, mitigate business risks, and identify the major market activity that affects corporate performance.

The remainder of this study is such that Sections Two, Three, Four,Five and Six present the literature review, methodology, empirical analysis, discussion and implication, and conclusions, respectively.

1. Literature Review

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Researchers haveadopteddifferent approaches in studying economic-specific shocks, especially at the macroeconomic level. Some studies have focused on corporate performance indicators such as profitability, firm value, business exit, and corporate failure. Others have considered movement in share prices, stock indices, and market capitalisation.

In a study of macroeconomic uncertainties, Baum et al. [23] found evidenceemphasising the importance of macroeconomicuncertainties on financial policy as external factors that influence financing decision-making and interact with corporate governance, with the effectsvarying across firms.Montes and Bastos[24], workingon macroeconomic policy, business confidence and industrial production in Brazil,foundthat monetary and fiscal policies alongside monetary regimes affect entrepreneurs' expectations for performance.Regarding regulation and infrastructure, Khanna and Sharma [17] found that total factor productivity is sensitive to public service delivery and socioeconomic and financial infrastructural facilities. However, no evidence supported the effect of law and regulatory institutions. These findings are rather too focused on firm decision-making and the business environment.

Beyond just decision-making, earlier evidence from Demirguc-Kunt and Huizinga [25] showed that inflation and interest rates have positive relationships with profitability and bank interest margins. This suggests that bank profitability increases more than the associated cost of inflation and interest rates. Also, the bank-concentration ratio andmarket capitalisation-GDP ratio positively affect interest margins and profitability. However, corporate income tax, official reserves rate, financial structure and institutional factors were revealed to be detrimental to interest margins and profitability. The findings from this study might be contestable depending on specifics relating to the methods, the country of study and corporate responses, butit does confirm the impact of macroeconomic shocks on the performance of firms.

In corroboration,Tan and Floros [26]and Athanasoglou et al. [10]find that the business cycle and inflation influenced the banking sector's profitability. However, they observed an asymmetry in how output growth affects bank profitability; they are positively related only when output growth is above the trend.Similarly, Aviliani et al. [12],in a Vector Error Correction (VEC) framework on bank performance, revealed that the production index appears to have the highest correlation with bank performance in Indonesia, while the exchange rate has the lowest. Return on asset responds the most to macroeconomic shocks.

Bassey et al. [27] agree with Kelilume [28] in reporting that the exchange rate has a negative impact on quoted agro-based firms, while energy consumption per capita, installed capacity utilisation rate, and total commercial bank credit to small-scale industries impact their performance positively. Nanda and Panda [15] reported that the nominal exchange rate better explains profitability and emphasisesthe difference in the effect of nominal and real exchange rates.Sikarwar [8]showed that, particularly after the Global Financial Crisis,the exchange rate contributes immensely to firms' risk.

Banerjee and Majumdar [19]findthat GDP, among others, affects the profitability of insurance companies in the UAE. However, findings from Gatsi and Gadzo [29] emphasisedthe inflation rate as the major macroeconomic variable that modulates financial performance in Ghana as against GDP and exchange rate. Similarly, Simbolon and Purwanto [30] demonstrated using composite analysis that exchange rate, interest rate and inflation influence stock performance.

Using economic value-added, Atanda et al. [18] revealed that capital-expenditure ratio and inflation negatively affect firm value-added while exchange rate, interest rate, and labour market positively affect firm value-added. Abushammala and Sulaiman [31] also demonstrated that GDP, credit spread, and government budget deficit positively influence corporate cash holdings. However, Egbunike and Okerekeoti [20],on Nigerian listed manufacturing firms,found interest rate and exchange rate insignificant to ROA,but GDP and inflation are significant.

Evidence from Audretsch and Acs [32] also emphasisedthat macroeconomic fluctuations influence start-ups in a similar way as they are positively motivated by macroeconomic growth.Start-ups are most incentivised by high unemployment and low capital costs. Bhattacharjee et al. [11] on firm exit demonstrated that stability in the exchange rate, inflation and long-term interest rate could motivate business exit, and the manner of effect varies. There are more acquisitions in a boom and bankruptcies in

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a downturn, and bankruptcy is prone among newly listed firms in adverse economic instability.Similarly, Everett and Watson [33] reported that macroeconomic factors account for 30%-40% of small business failures. Relative to bankruptcy and discontinuance of ownership, interest and unemployment rates were positively related to business failure, withtheir increase associated with increasing business failure.

Likewise, Goudie and Meeks [34]findthat the contributions of exchange rates to corporate failure are substantial, and the effect is asymmetric and non-linear. The relationship can be positive or negative and have a differing effect.Liu [35],in short-run and long-run analysis,found interest rate to be the most important factor contributing to corporate failure alongside the availability of credit, profitability and product prices. Considering structural changes, Liu [36] emphasised that the influence of macroeconomic variables differs inthe shortand long run.

Kyereboah-Coleman and Agyire-Tettey [22]on Ghana showed that lending rates of deposit money banks have an adverse effect on stock performance and business growth. However, with lagged behaviour, inflation has a negative effect,and the exchange rate positively influences stock performance as investors benefit from currency depreciation. Ibrahim and Aziz [37] reported significant short-run and long-run relationships between macroeconomic variables and the stock index in Malaysia. Accordingly, industrial production and inflation influence stock performance positively, while exchange rate and money supply influence it negatively. This contradicts the findings of Mozumder et al. [4], who found that stock returns are positively related to the exchange rate. Similarly, Aurangzeb [38]showed in the South Asian context that foreign direct investment and exchange rates positively influence stock performance while interest rate has a negative effect. Panetta [39]contrarily submitted that the relationship between macroeconomic variables and stock returns of Milan Stock Exchange-listed companies is unstable. Gurloveleenand Bhatia [40] reported inefficiency in the Indian Stock Exchange as they found a weak relationship between macroeconomic variables and the stock index.

Further evidence from Gathogo [41] on market capitalisation suggested that the exchange rate positively influences the real sector's market capitalisation and negatively affects the finance/investment and commercial/service sectors. Inflation was reported to have a positive effect on investment, while the real sector, alongside commercial services and others,is affected negatively.The interest rate was also revealed to affect agricultural and commercial sector capitalisation and investment negatively.

Beyond macroeconomic factors, studies have also given particular attention to microeconomic factors that are industry or firm-specific in nature that could impact performance [10,11,13,14,15,19,20,29,42,43]. Despite the divergence in views in the literature regarding the kind of relationship that exists regarding the subject matter, corporate performance is responsive to changes in macroeconomic indicators. However, studies on this phenomenonhad limitations in their attempt to explain the direction of the relationship.

Following from the literature, existing research work and results have not paid attention to which macroeconomic and exogenous variables take priority over the others and what the contributions of each of these variables are to corporate performance, especially in Nigeria.Accordingly, the study contributes to the literature by categorising economic-specific (macroeconomic) factors based on the international-money-goods markets to fill this gap.This novel investigation is an attempt by this present study to fill this gap, in addition to categorising themacroeconomic factors under investigation based on the international-money-goods markets. Therefore, contributions from each market and a priority market for risk hedging can be identified. This study quite appreciates that microeconomic factors contribute to changes in performance.

2. Methodology

3.1 Theoretical Framework

Arbitrage Pricing Theory

Sharpe [44] and Lintner [45]proposedthe Capital Asset Pricing Model (CAPM), whichexpresses the expected return on an investment outlay as a function of the rate of returns on risk-free investment and risk premium for market speculations.As anadvancement andalternative, the Arbitrage Pricing Theory

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(APT) proposed by Ross [46] rests on the assumption of one market price, as no two identical assetsshouldcommand different prices. Otherwise, investors will take advantage of arbitrage,eliminatingprice differences. In essence, returns should be similarfor identical assets in a market. It proposes that actual return on investment (a reflection of corporate performance)is an unrestricted N-factor linear function of different factors that can influence it[47,48]. Therefore, return on investment is derived by a number of *N*-variables as expressed below;

$$R_i = E(R_i) + \beta_{1i}X_1 + \beta_{2i}X_2 + \ldots + \beta_{Ni}X_N + \mu_i \qquad (1)$$

where R_i is the actual return on investment, X_n denotes the *N*-factors capable of influencing return, $E(R_i)$ represents the expected return at zero changes in the value ofX_N, andβ_{Ni} represents the rate of responsiveness of return on investment to each factor or risk premiums associated with each factor.A positive (negative) value of$E(R_i)$ shows that the return on investment is greater (lesser) than the expected market return. The risk premium,as represented by β_i is the responsiveness of returns to each factor. A β_i value greater (lesser) than unit shows that the expected return risk associated with each factor on an investment is more (less) than the expected market return risk.Therefore, Equation 1 is further re-expressed in equilibrium expected return for regression analysis as

$$E(R_i) = \delta_0 + \beta_{1i}\delta_1 + \beta_{2i}\delta_2 + \ldots + \beta_{Ni}\delta_N + \varepsilon_i \qquad (2)$$

In the interest of this study, the APT model is adopted to provide some guidance concerning corporate performance. The theoretical relaxation of conditionsAPT providesmakes it more appealing [48]. Estimations of APT in the literature have been based on three different factor models:macroeconomic, fundamental, and statistical[47].This study investigates the influence of economic-specific shocks on corporate performance, focusing on macroeconomic variables as causes of risk and uncertainty to corporate performance, which calls for adoptinga macroeconomic model. Consequently, the econometric model specific to this study is expressed as follows:

$$LCCP_t = \delta_0 + \beta_1 LOPR_t + \beta_2 LEXR_t + \beta_3 MPR_t + \beta_4 LMS_t + \beta_5 GDF_t + \beta_6 LCPI_t + \beta_7 EGT_t + \varepsilon_i \qquad (3)$$

3.2. Data Properties

The data series used in this study spans January 1995 to December 2022, covering the period of independent monetary policy,oil price volatility cycles, and recentmacroeconomic fluctuations.The macroeconomic variables considered include Oil Price (*OPR*) and Exchange Rate (*EXR*) to reflect the international market. Also, monetary policy rate (*MPR*) and aggregate money supply (*MS*) capture the money market while Government Deficit (*GDF*), Inflation (*CPI*) and Economic Growth (*EGT*) mirror the goods market. Nigerian Bonny Lightand Nigerian Stock Exchange Index, respectively, proxy oil price and corporate performance (CPP). Data were sourced from the Central Bank of Nigeria database[1]. Oil price, exchange rate, money supply, consumer price index, and corporate performance are adopted in their logged form, while others are in their natural form.

Table 1 presents the Augmented-Dickey-Fuller(ADF) and Phillip-Perron (PP) unit-root tests to establish the order of integration of the variables. Itreveals that all the variables are not stationary at levels but at the first difference*I*(1), except economic growth*I*(0). Given the mixed order of integration among the variables, the Autoregressive Distributed Lag (ARDL) Bound cointegration test is adopted. As presented in Table 2, it is revealed that there is no cointegration among the variables, given that the *F*-statistic falls below the *I*(0) critical bound.

Table 1: Unit Root Tests

	Levels		1st Difference		
	ADF	PP	ADF	PP	Decision @ 5%
LOPR (C)	-2.1019	-1.8944	-13.374***	-14.942***	
LOPR(C/T)	-2.6858	-2.4074	-13.361***	-14.916***	*I*(1)

[1]http://statistics.cbn.gov.ng/cbn-onlinestats/DataBrowser.aspx

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LEXR (C)	-1.5300	-1.5333	-17.739***	-17.740***	
LEXR (C/T)	-2.1185	-2.1989	-17.735***	-17.735***	*I*(1)
MPR (C)	-1.7916	-2.0510	-18.059***	-18.120***	
MPR (C/T)	-1.7021	-1.9984	-18.048***	-18.108***	*I*(1)
LMS (C)	-1.6549	-1.8979	-23.264***	-23.528***	
LMS (C/T)	-0.8572	-0.8383	-23.360***	-23.881***	*I*(1)
GDF (C)	-2.0729	-2.1105	-18.246***	-18.246***	
GDF (C/T)	-2.1183	-2.4924	-18.218***	-18.218***	*I*(1)
LCPI (C)	-0.6078	-0.9328	-12.702***	-12.613***	
LCPI (C/T)	-4.4837***	-4.8071***	-12.687***	-12.602***	*I*(0)
EGT (C)	-2.6523*	-2.7272*	-18.223***	-18.223***	
EGT (C/T)	-2.9215	-2.9910	-18.215***	-18.215***	*I*(1)
LCPP (C)	-2.5909*	-2.5751*	-14.975***	-15.561***	
LCPP (C/T)	-2.6051	-2.7626	-15.051***	-15.611***	*I*(1)

Note: ADF/PP critical values with intercept are -3.46(1%), -2.88(5%) and -2.57(10%); ADF/PP critical values with trend and intercept are -4.00 (1%), -3.43 (5%) and -3.14 (10%).
Source: Authors' Computation

Table 2: Cointegration Test

ARDL Bound Test					
F-statistic (K=7)	1.3387	10%	5%	2.50%	1%
I(0) Bound		2.03	2.32	2.6	2.96
I(1) Bound		3.13	3.5	3.84	4.26

Source: Authors' Computation

3.3. Empirical Methodology

3.3.1. Structural Vector Autoregressive (SVAR) Model

The SVAR model becomes an appropriate approach for this study given the mixed order of integration and absence of long-run cointegration among the variables. This is sequel to the fact that the SVAR estimation is based on non-linear theoretical restrictions and result interpretations are based on structural impulse response without parameter estimates[49,50].The SVAR was developed as an alternative to the conventional VAR following criticism of the lack of theoretical economic ground. The SVAR establishes the effect of policy/macroeconomic changes and estimates partially overlappingrelationships among macroeconomic variables[51]. The SVAR is estimated such that the restrictions on the VAR reflect established theoretical, intuitive and institutionally expected relationships among macroeconomic variables. The conventionalVAR is thus transformed as

$$A\Pi(L)y_t = A\varepsilon_t, A\varepsilon_t = Be_t, A\Omega A' = BB'$$
$$E(e_t) = 0E(e_t e_t') = I_M E(\varepsilon_t \varepsilon_t') = \Omega \qquad (4).$$

For orthogonality, it is required that the elements of matrix-*A* and matrix-*B* are such that$a_A + b_B \geq 2M^2 - M(M+1)/2$. As such, there should be $M(M+1)/2$ non-linear restrictions,and $2M^2 - M(M+1)/2$othersshould be generated. Equation 5 presents the theoretical identifications as the *A*-matrix identifies the relationships among the endogenous variables, and the *B*-matrix identifies orthonormal shocks in the model.

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$$\begin{pmatrix} 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ a_{21} & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ a_{31} & a_{32} & 1 & 0 & 0 & 0 & 0 & 0 \\ a_{41} & a_{42} & a_{43} & 1 & 0 & 0 & 0 & 0 \\ a_{51} & a_{52} & a_{53} & a_{54} & 1 & 0 & 0 & 0 \\ a_{61} & a_{62} & a_{63} & a_{64} & a_{65} & 1 & 0 & 0 \\ a_{71} & a_{72} & a_{73} & a_{74} & a_{75} & a_{76} & 1 & 0 \\ a_{81} & a_{82} & a_{83} & a_{84} & a_{85} & a_{86} & a_{87} & 1 \end{pmatrix} \begin{pmatrix} \varepsilon^{OPR} \\ \varepsilon^{EXR} \\ \varepsilon^{MPR} \\ \varepsilon^{MS} \\ \varepsilon^{GDF} \\ \varepsilon^{CPI} \\ \varepsilon^{EGT} \\ \varepsilon^{CPP} \end{pmatrix} = \begin{pmatrix} b_{11} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & b_{22} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & b_{33} & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & b_{44} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & b_{55} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & b_{66} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & b_{77} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & b_{88} \end{pmatrix} \begin{pmatrix} e^{OPS} \\ e^{EXS} \\ e^{MPS} \\ e^{MSS} \\ e^{GDS} \\ e^{IFS} \\ e^{EGS} \\ e^{CPS} \end{pmatrix} \quad (5)$$

As presented in Equation 5, the restrictions are imposed such that corporate performance, as the dependent variable of interest, is naturally expected to be influenced by the other variables in the system. At the same time, the international market runs to the money and goods markets. The money market receives impulses fromthe international market and can equally run to the goods market and corporate performance. The goods market also receives impulses from the international and money markets and runs to corporate performance.

3.3.2. Historical Decomposition

The Historical Decomposition(HD) follows a counterfactual simulation method that generates uncorrelated structural shocks. It involves regenerating the actual data and splittingthem into the contributions of each of the variables in the system alongside the base project (trend). As such, based on the structural relationship imposed, the historical decomposition is used to generate the contributions of each variable in the SVAR system to corporate performance over time. Estimation of the historical decomposition is expressed as

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

where$\sum_{s=0}^{J-1} \Psi_s \, \varepsilon_{T+j-s}$is the deviations based on the trend of Y_{T+j}overtime, $\left[\gamma X_{T+j} + \sum_{s=j}^{\infty} \Psi_s \varepsilon_{T+j-s}\right]$is the deviations in Y_{T+j}resulting from movements in the system's variables [49,52].

4. Empirical Analysis

Analysis of the relationships is based on the impulseresponse, variancedecompositionand historical decomposition. Figure 1 presents the impulseresponse based on structural one standard deviation innovation ± 2 standard error.Findings on the international marketas captured by oil price and exchange rate are congruent with Omoregie and Olofin [9].Oilprice shocks haveashort-run positive impact on corporate performance; however, the impact reverses to negative in the medium to long run.This reemphasises how transient the impact of an oil price boom could be on business performance as it has an immediate positive impacton businesses, turning adverse over the medium to long run.

Likewise, exchange rate shocks instantaneously motivate a negative impacton corporate performance; however, they reverse to a positive impact within the first four months, which is sustained over the medium to long run. This reiterates the flow-oriented approach, which suggests exchange rate shocks will have a depressing effect on businesses in the short run but will yield overall positive outcomes forcorporate performance. The finding hereinreflectsthe reality of businesses in Nigeria, especially in the manufacturing sector, which depends on imports for raw and intermediate inputs. As such,an exchange rate increase will immediately restrain business performancethrough an increase in the cost of inputs. However, Corporate response and adjustments are usually geared towards finding internal efficiencies in operations to mitigate the effect of this input cost increase occasioned by the exchange rate shocks, thus leading to a sustained reversal of the initial adverse effect to a positive one.

The impulse response analysis reveals that monetary policy shocks negatively influencecorporate performance, suggesting increasing interest rates is inimical for business performance in Nigeria. Money

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supply shocks, however, have a nearly inconsequential impact on corporate performance. This implies that money growth does not have much influence on businesses. Governmentdeficit shocks, as well as inflationary shocks, impactpositively on corporate performance in the short run,which reverses over the long run. Contrary to theoretical thinking, economic growth negatively influencescorporate performance.Meanwhile, corporate performance sustained a positive influence on self-shocks.

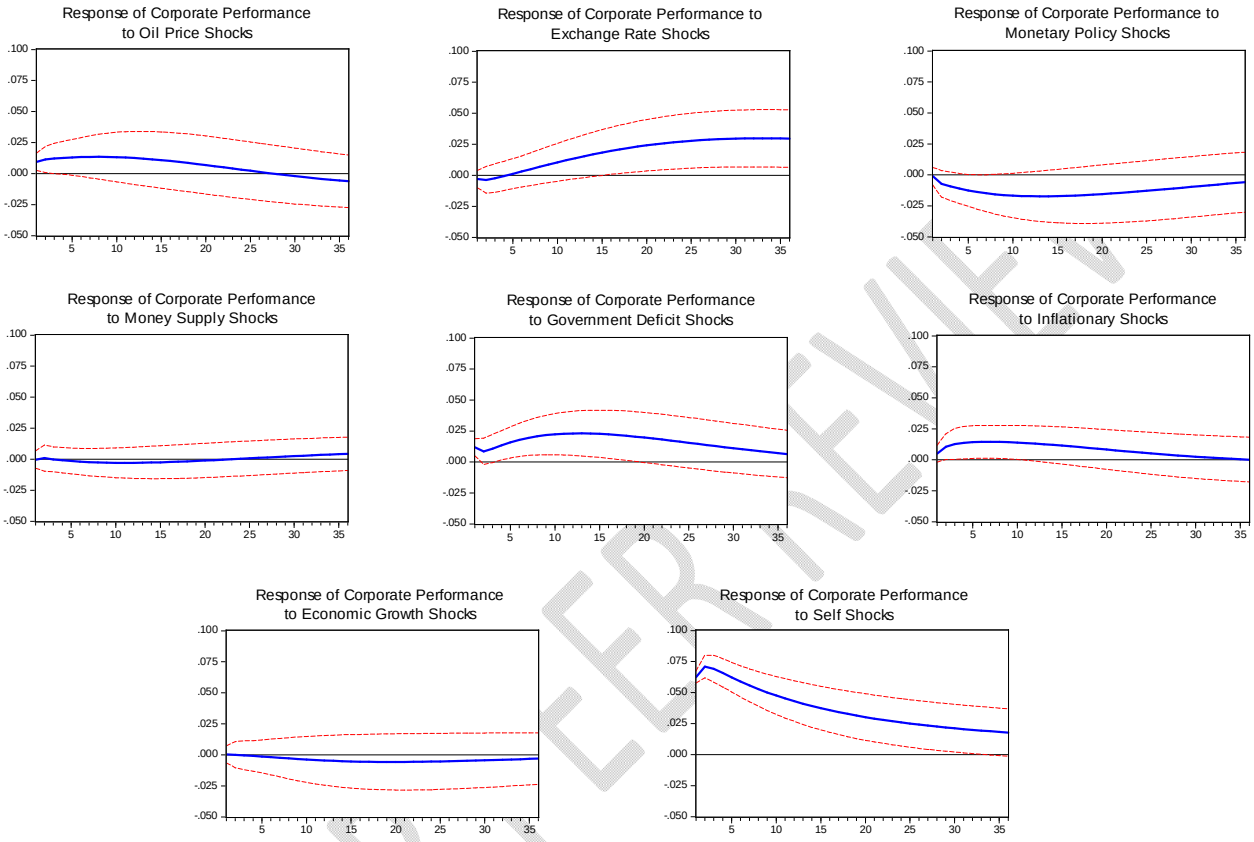

Figure 1: Corporate Performance Response to Structural One S.D. Innovations ± 2 S.E

Figure 2 presents panels that graphically displaythe historical decomposition and variance decomposition of corporate performance in Nigeria. The first panel presents the actual trend of corporate performance (in logged form) and the base projection of corporate performance. The deviations in the actual trend of corporate performance from the base projection are attributable to macroeconomic shocks, as indicated in the model of this study. The predominance of adverse shocks from the macroeconomic indicators pressures corporate performance below the base projection, while positive shocks pressure corporate performance above the base projection.

The second panel showsthe historical decomposition of corporate performance, while the third panel presents the structural variance decomposition of corporate performance. Evidence from thesepanelsshowsthat the characteristics of corporate performance (firm-specific characteristicsof businesses that make up the economy) contribute the most to changes in corporate performance. Across the various points of deviations of corporate performance from base projection (see the second panel), corporate performanceshocks, which can be inferred to be firm-specific shocks, have been the major contributors to changes in corporate performance. Likewise, the variance decomposition (see the third panel) over the study period reveals that corporate performance contributes an average of 55.37% to changes in itself.In other words, the firm-specific endogenous and controllable factors, which are a direct result of managerial choices, decisions and actions, contribute far more (55.37%) to corporate

performance outcomes, as compared to the effects of exogenousuncontrollable macroeconomic variables of international-money-goods markets, such as oil price, exchange rate, monetary policy rate, aggregate money supply, government deficit, inflation, and economic growth.

In a bit of departure from Omoregie and Olofin[9], whichattributed more weight to the impact of oil price than the exchange rate,exchangerate shocks have the most impact on corporate performanceof all the macroeconomicvariables and across all the dimensions of this study. However, the contribution of oil price shocks is significantly lower.Apart from 1997-2000, when exchange rate shocks contributed negatively to corporate performance, they contributed positively to corporate performance over the years. Besides, the variance decomposition analysis reveals that exchange rate shocks contribute an average of 27.63% to changes in corporate performance over the years. Meanwhile, the contribution of oil prices to changes in corporate performance stood at an average of 4.37% over the study period. Positive oil price contributions to corporate performancewere noticeable in 2005-2009. Meanwhile, negative oil price contributions were observable from 1997-1999 and 2015 through 2017. Nonetheless, the contributions of oil prices to corporate performance trail periods of sharp movements in oil prices.

Another important variable that contributes to changes in corporate performance after the exchange rate is the monetary policy rate. Likewise, its negative or positivecontributions trail its ups and downs in monetary policy rate (MPR). It motivated declines in corporate performance in 1996/1997, 1999, 2001-2003, 2011/2012, and 2021/2022, which were associated with rate hikes. It, however, contributed positively to corporate performance in 2006-2008 and was associated with the decline in policy rate from 14% in 2006 to 6% in 2009. Based on the variance decomposition, the contribution of money supply to corporate performance is meagre,averaging 2.26%. The contributions of money supply to changes in corporateperformance are noticeable in 1999, 2004/2005 and 2009/2010.Government deficits contribute negatively on most occasions (1998-2001, 2003-2005 and 2016-2018) to corporate performance as they mean an increase in bond market yields and sometimes reflect the level of uncertainty in the country. Nevertheless, it contributed positively in 1997 and 2009-2011. Meanwhile, inflation and economic growth marginally contribute to corporate performance. By implication, goods market indicators contribute the least to corporate performance.

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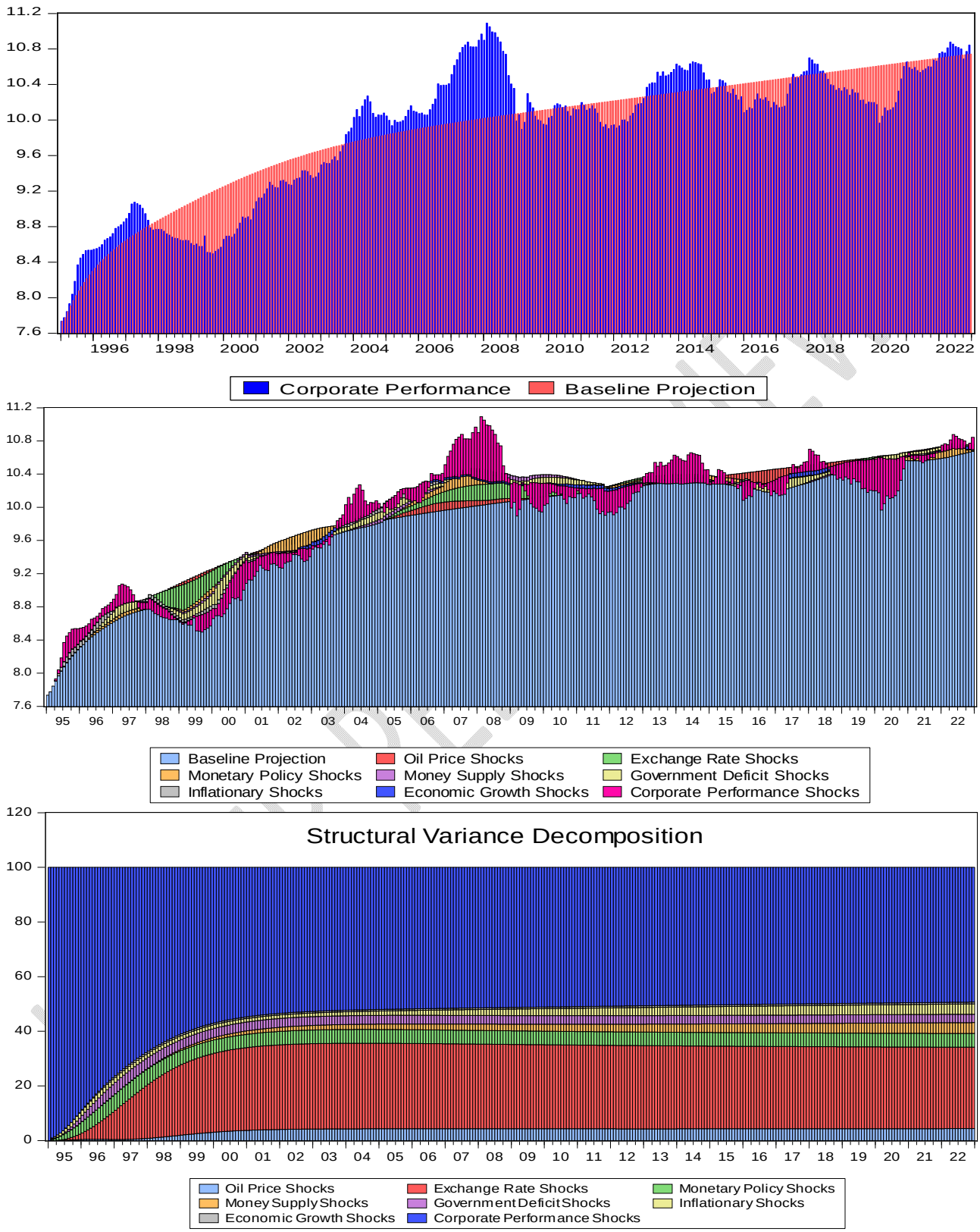

Figure 2: Stack Graph of the Historical and Variance Decompositions

5. Discussion and Implication

Contrary to expectation, results from this study strongly suggestthat the international market and the money market indicators predominantly influence corporate performance more than the goods market.This study emphasises the short-run positive impact of oil prices. It shows that it has much lower contributions to corporate performance as more indicators and dimensions are captured in the study.Managers,thus,need to be cautious as oil price increases come with a short-run positive spike in corporate performance, which reverses in the near term.Inadequatehedging against associated risk can make businesses suffer value loss/erosion when the short-run positive impact is reduced, especially with positive changes.Exchangerateshocks have a short-run negative and, counterintuitively, a long-run positive influence, with a much higher contribution to corporate performance than the oil price.

By implication, given that Nigeria has a high import dependence rate, exchange rate deprecation will lead to declining corporate performance in the short-runas rising exchange rate leads to increased cost of production and commodity. However, in the longrun, the illiquidity created by an excess demand for foreign exchange would be cleared,managers would strive for operational efficiencies to mitigate the impact of the increase in the cost of production, and corporate performance wouldconsequentlyimprove.Also,exchange rate appreciation will lead to a short-run reduction in the volume and value of import bills, but associated long-run illiquidity will dampencorporate performance.Byintroducing more variables and indicators to the model of corporate performance, the analysis amplifies the importance of exchange rates on corporate performance. Therefore, managers should hedge appropriatelyand seek operational efficienciesto mitigate exchange rate risk.

Findings on monetary policy arequite intuitive and theoretical in terms of the relationship; increasing the policy rate has anegativeeffect on corporate performance while decreasing the policy rate has a potentially positive effect on corporate performance. This is evident in its contributions to changes in corporateperformance as it also moves in asimilar directiontochanges in the policy rate.However, this studyrevealsquite clearly that money supply has very little impact on to corporate performance. Therefore, managers should hedge appropriately against interest rate risk, especially in their financial policy/capital structure decisions.

The study also reveals thatgovernment fiscal deficit, which has a crowding-out effecton private investment, has a short-term positive effect on corporate performance with medium to long-runnegative influence. This suggests that the government,in an attempt to spend more than its revenue, influencescorporate performance positively and in pursuance of fiscal surplus, corporate performance declines. However, a prolonged fiscal deficit will crowd out capital for private businesses, drive up interest rates and operating costs, and inhibit corporate performance. A short-run positive impact is reported for inflation,which turns negative in the medium to long run. This suggests that firms can enjoy immediate benefits from increased output prices. Given the structural nature of the drivers of inflation in Nigeria, especially from the supply side, the drivers of inflation permeate into the operating costs and suppresscorporate performance.This could also be traced to the realrate of returns pass-through, whereby as inflation increases,the real rate of returns falls.However, the findings on economic growthare against logic as they negatively influencecorporate performance. This could have resulted from the data structure because it was converted from annual data to monthly and smoothened. Nevertheless,it could indicateimmiserisinggrowthor imperfect linkage between the capital and goods markets. Therefore, managers should not be too carried away by the growing economy but focus on implementing strategies and hedging policies to ensure improved corporate performance.

In summary, this study hasdemonstrated the importance ofthe international market for corporate performance, as its indicators (oil price and exchange rate) account for about 31.3% of the changesincorporate performance. On the other hand, the money market contributed about 7.2% to changes in corporate performance. Meanwhile, the contributions of the goods market stand at 6.12%. Managers should, therefore, pay attention to movement in international and money market indicators without neglecting the goods market.

Furthermore,this study has revealed that beyond the macroeconomic factors that could affect the performance of businesses,endogenousfirm-level characteristics, corporate structures and strategies, operations, corporate responses and hedging strategiesto macroeconomic shocks, far more reaching

impact on corporate performancethan exogenous factors and macroeconomic shocks. This is reflected by the over 55% contributions of corporate performance shocksto corporate performance outcomes. These factors, whichcan be referred to as firm-specific factors,constitutefirm-specific shocks to corporate performance. These firm-specific factors may be reactive responses to exogenous pressures and proactive and deliberate choices about opportunities to pursue, industry choices, strategies to adopt, responses to competitors, consumers, operations, financing decisions, etc.

Consequently, managers should seek to understand the specific potential impact of exogenous economic-specific shocks on their businesses and respond more proactively to hedge the adverse impacts while taking advantage of the positives. They, however, need to worry less about these largely uncontrollable exogenous pressures while improving their capacities to improve the quality of strategic business choices and consequential operational and financial decisions. Policy choices should be more proactive rather than reactive, should be based on extensive analysis of the objectives, impact assessment and execution imperatives, and should involve extensive expert consultation and stakeholder engagement. Future research should be positioned to investigate and dimension the nature, scope and interactions of these endogenous firm-specific shocks and theirspecificimpact oncorporate performance. This investigation is also importantto aid a better understanding of theinteractionsbetween exchange rates and other macroeconomic indicators as it assumes more responsibility in determining corporate performance as more variables are considered.

6. Conclusion and Limitations

Following Omoregie and Olofin [9], this study investigated the effect of some macroeconomic factors on corporateperformance. It argued for three macroeconomic factor categories: international, money and goods markets indicators. The analysis was based on the Structural Vector Autoregressive/Historical Decomposition estimations. The findings revealedhow much the various markets contributed to corporate performance. It was revealed thatthe international market contributes the most, followed by the money market. This reflects the susceptibility of Nigerian businesses to speculative risks that characterise indicators such as oil price, exchange rate, and interest rate.

It was revealed that oil price has a short-runpositive influence on corporate performance, and its contributions to corporate performance trail the oscillatory nature of oil price.The exchangerate, however, has a transient negative impact on corporate performance and a long-run positive impact with the most substantial contributions. Therefore,the major international contributor is movements in exchange rates. In the money market, the monetary policy rate negatively influencescorporate performance, with its contributions also directly trailing movements in the policy rate. However, the money supply has a negligibleimpact on corporate performance, with its contributions also trailing money growth. The goods market contributed the lowest to corporate performance, with major input from the government deficit. Government deficit positively influencescorporate performance, though with a negative medium to long-run effect. Inflation also positively influences corporate performance in the short run and negatively in the long run. Nevertheless,economic growth rate has a negative influence on performance. Decision-makers are, therefore, admonished to hedge strategically in view of the findings of this study. Future studies should investigate the company and industry-specific factors.

The study, however, is limited in scope as it is based on aggregate data. Meanwhile, the findings emphasise the importance of specific characteristics at the firm or industry level that impact corporate performance. Therefore, future research should be positioned to investigate and dimension the internal factors that most impact corporate performance. Besides, further research on the interactions between exchange rates and other macroeconomic indicators is important as it assumes more responsibility in determining corporate performance as more variables are considered.

Authors' Contributions

UNDER PEER REVIEW

This research paper was collaboratively created by both authors. Both authors read and approved the final manuscript.

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