International Journal of Innovative Finance and Economics Research 8(4):33-39, Oct-Dec., 2020
© SEAHI PUBLICATIONS, 2020 www.seahipaj.org ISSN: 2360-896X

The Impact of COVID-19 on Stock Price of Quoted Banking Firms in Nigeria

***IWEDI, Marshal (PhD); GBARABE, Emmanuel Legia & URUAH, Nyema Kingsley**

Department of Banking and Finance
Rivers State University, Nkpolu-Oroworukwo Port Harcourt, Nigeria
***iwedimarshal@yahoo.com**

ABSTRACT
The study investigates impact of COVID-19 on stock price of quoted banking firms in Nigeria from the period dated 1st January 2020 to 30th September, 2020. Using confirmed cases of COVID-19 and stock price of quoted banking firms as variables for the study. The study applied the vector auto regressive Model in analyzing the variables. The results reveal that negative relationship between COVID-19 and stock price of quoted banking firms in Nigeria though statistically insignificant. Contrarily, the result of the variance decomposition shows weak influence of COVID-19 in predicting stock price movement of quoted banking firms in the future. This means the variable do influence stock price movement in short run but does not influence it in the long run. The impulse response function graph shows that a one SD shock of COVID-19 initially has no noticeable impact on stock price in period 1 to 3. The study concludes that COVID-19 impacted on the stock price of quoted banking firms in Nigeria during period under review.
Keywords: COVID-19 Stock Price, Banking Firms, VAR, Nigeria

1. INTRODUCTION

The arrival of the coronavirus pandemic in Nigeria on 27 February 2020 precipitated a deluge of challenges to the nation's economy generally and the banking industry in particular. Thereafter, most businesses were compelled to close shop or at best reduce their scope of operations for the few considered essential. The banking industry as one of the sectors with high interpersonal interactions was largely impacted as movement of people was restricted, as a result, some banks reduced their working hours while others closed a number of offices with some still closed up to mid-September 2020. Entrance into banking halls are still reduced to permit social distancing required to limiting transmission of the virus. Some bank staff whose services were considered non-essentials was suspended while others were disengaged. The inability of marketing staff to visit customers further undermined their capacity for deposit mobilisation thereby hurting the bank intermediation function. The reduction in business activities in other sectors also weakened cash generation by customers, this of course culminated into liquidity challenges for individuals and businesses including banks. Other challenges experienced in the industry within the period include high credit losses which impacted on asset quality, capital and liquidity of banks, security breaches and the constraint of keeping employees safe while meeting customers' expectation.

The situation was further exacerbated as most Nigerian firms are yet to develop effective virtual channels thereby making the lock down severe on bank operations. The subdued economic activities produced a mixed scorecard in the half year 2020 report made available to the public which indicate that some with developed virtual platforms recorded expansion in net profits. Such banks include Fidelity Bank PLC 33% (Nwafor, 2020), FCMB Group PLC 29% (Ani, 2020), Stanbic IBTC Bank PLC 24.86 % (Egene, 2020), First Bank Holding PLC 23.81% (Nigerian Banker, 2020), Zenith Bank PLC 16.8% (Olowoekere, 2020) and UBA PLC 4.9% (Nigerian Banker, 2020). Others which recorded a decline in net profit include Access Bank PLC 0.5% (Nigerian Banker, 2020), GTBank PLC 4.84% (Nigerian Banker, 2020), Union

Bank PLC 9% (Owoeye, 2020) and Ecobank Group (ETI) 22% (Abuede, 2020). It is against this backdrop, that the researchers seek to investigate the impact of COVID-19 outbreak on stock price of tier-1 banking firms in Nigeria.

2. LITERATURE REVIEW

Nuhu (2020) examined the impact of the COVID-19 on the financial market: Evidence from China and U.S.A. The study applied a regression model time series data from China COVID-19 statistics reports and trading economics from 1st of March 2020 to 25 March 2020. The study used the Shanghai Stock Exchange as a sample for China and the New York Dow Jones as a sample for the U.S.A. The study found that there is a positive significant relationship between the COVID-19 confirmed cases and all the financial markets.

Baret, Celner, O'Reilly and Shilling (2020) investigated the impact of the COVID-19 pandemic on the financial market and banks. The study found evidence of significant effects of COVID-19 on the general financial markets as recently the world experienced fall in share prices, oil prices, equities and bonds' prices.

Xinhuao (2020) found that there is a significant impact between COVID-19 pandemic and the Chinese financial market such that the financial market in China have remained generally stable compared to overseas markets despite the spread of the corona virus.

Tesfaye (2020) explore the impact of COVID-19 pandemic on the Ethiopia's private banking system. Ten (10) years historical data from 2010 to 2019 was used to found that the pandemic has effect on both balance sheet and income statement of banks.

Iwedi, Kocha and Oriakpono (2020) assessed COVID-19 global pandemic trade and impact on the Nigerian economy. The study employed descriptive methodology to evaluate Covid-19 pandemic global trade wars and its impact on the Nigerian economy. The study revealed that coronavirus cripple the Nigerian economy in terms of social, religious and economic activities while the measures taken to contain the spread of COVID-19 impacted on Nigerian citizens in many ways including job losses, higher prices, and damage to healthcare and seriously on education services.

Wakode (2020) studied the influence of COVID-19 on the credit exposure of a bank. The study employed the statistical tool of the multivariate analysis of variance to choose and found out that there is a significant impact between COVID-19 and bank risk metrics.

Denurjuc-Kunt, Pediaza and Ruiz (2020) assessed the impact of banking sector performance during the COVID-19 crisis. The study found that the crisis and the countercyclical lending role that banks are expected to play have put banking systems under significant stress with bank stocks underperforming in their domestic market than other non-banking financial firms.

Xhang, Hu and Ji (2020) studied financial markets under the COVID-19 global pandemic. The study employed descriptive statistics to map the general patterns of country specific risks and systemic risks in the global financial markets. The researchers analysed possible consequences of policy intervention like the US implementation of zero-percent interest rate and unlimited quantitative easing (QE) and the extent to which such policies may introduce further uncertainties into financial markets. They observed that the rapid spread of the pandemic has created an unprecedented level of risk causing investors to suffer huge losses within a short period of time. They observed that QE stopped investors panic but may create inconsistencies between investors' short-term and long-term expectations as well as further uncertainties to the global market and create trouble for developing economies as occurred in 2008 global financial crisis leading to greater systemic risk.

3. METHODOLOGY

The descriptive and analytical techniques were used to investigate the impact of COVID-19 on tier-1 banking firms in Nigeria. The non-probability sampling method was used to select five (5) tier-1 banking firms quoted on the floor of the Nigeria Stock Exchange. These firms form the target population of the study. These include Access Bank, Guaranty Trust Bank, First Bank of Nigeria, United Bank for Africa and Zenith Bank. Monthly data on COVID-19 confirmed cases in Nigeria and stock price of these five

banking firms were used as variables for the study while the vector autoregressive model of the ordinary least square method were used for the analysis. Thus the VAR model with two variables is specified as:

$$stockprice_t = \alpha + \sum_{i=1}^{k} \beta_i stockprice_{t-1} + \sum_{j=1}^{k} \phi_j \text{cov}id19_{t-j} + u_{1t}$$

*STOCKPRICE = C(1)*STOCKPRICE(-1) + C(2)*STOCKPRICE(-2) + C(3)*COVID19(-1) + C(4)*COVID19(-2) + C(5)*

$$\text{cov}id19_t = \sigma + \sum_{i=1}^{k} \beta_i stockprice_{t-1} + \sum_{j=1}^{k} \phi_j \text{cov}id19_{t-j} + u_{2t}$$

COVID19 = C(6)*STOCKPRICE(-1) + C(7)*STOCKPRICE(-2) + C(8)*COVID19(-1) + C(9)*COVID19(-2) + C(10)

The dependent variable is a function of its lagged values and the lagged values of other variables in the model.

4. RESULTS AND DISCUSSIONS

Table 1 Vector Autoregression Results

	STOCKPRICE	COVID19
STOCKPRICE(-1)	1.087763	640.3520
	(0.18144)	(163.808)
	[5.99515]	[3.90915]
STOCKPRICE(-2)	-0.100552	-648.2073
	(0.17630)	(159.168)
	[-0.57034]	[-4.07248]
COVID19(-1)	-2.43E-05	1.337284
	(9.6E-05)	(0.08688)
	[-0.25220]	[15.3917]
COVID19(-2)	7.84E-05	-0.893863
	(9.0E-05)	(0.08139)
	[0.87008]	[-10.9831]
C	-0.084354	3905.525
	(0.84377)	(761.772)
	[-0.09997]	[5.12689]
R-squared	0.919439	0.908973
Adj. R-squared	0.908698	0.896836
Sum sq. resids	147.1601	1.20E+08
S.E. equation	2.214799	1999.567
F-statistic	85.59741	74.89306
Log likelihood	-74.79587	-312.9892
Akaike AIC	4.559764	18.17081
Schwarz SC	4.781957	18.39300
Mean dependent	11.23000	8406.857
S.D. dependent	7.329826	6225.464
Determinant resid covariance (dof adj.)		17509033
Determinant resid covariance		12863780
Log likelihood		-385.7994
Akaike information criterion		22.61711
Schwarz criterion		23.06149

Source: E-view 9.0 Output

The VAR result in table 1 reveals that stock price of quoted banking firms in Nigeria strongly influences its own self going by the T-statistic of 5.99515. COVID-19 confirmed cases in Nigeria do not have any significant impact on stock price of banking firms. This implies that the past realization in stock price movement of quoted banking firms is associated with 108.77 percent increase in stock price on average if all things being equal. For the COVID-19 coefficient a percentage increase in confirmed cases of COVID-19 in Nigeria account for 2.43 percent decrease in stock prices of quoted banking firms in Nigeria on average if all things being equal, though this is not significant.

Looking at the COVID-19 results, the first lag of stock prices (-1) strongly influences COVID-19 positively while the second lag stock price (-2) negatively influences COVID-19. A look at the T-statistic results shows that COVID-19 is also significant to predict itself and so on.

Table 2 Probability Results for VAR

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	1.087763	0.181441	5.995149	0.0000
C(2)	-0.100552	0.176301	-0.570344	0.5706
C(3)	-2.43E-05	9.62E-05	-0.252200	0.8017
C(4)	7.84E-05	9.01E-05	0.870083	0.3877
C(5)	-0.084354	0.843769	-0.099972	0.9207
C(6)	640.3520	163.8083	3.909154	0.0002
C(7)	-648.2073	159.1678	-4.072477	0.0001
C(8)	1.337284	0.086883	15.39171	0.0000
C(9)	-0.893863	0.081385	-10.98311	0.0000
C(10)	3905.525	761.7725	5.126892	0.0000
Determinant residual covariance		12863780		

Equation: STOCKPRICE = C(1)*STOCKPRICE(-1) + C(2)*STOCKPRICE(-2) + C(3)*COVID19(-1) + C(4)*COVID19(-2) + C(5)

Observations: 35			
R-squared	0.919439	Mean dependent var	11.23000
Adjusted R-squared	0.908698	S.D. dependent var	7.329826
S.E. of regression	2.214799	Sum squared resid	147.1601
Durbin-Watson stat	2.044471		

Equation: COVID19 = C(6)*STOCKPRICE(-1) + C(7)*STOCKPRICE(-2) + C(8)*COVID19(-1) + C(9)*COVID19(-2) + C(10)

Observations: 35			
R-squared	0.908973	Mean dependent var	8406.857
Adjusted R-squared	0.896836	S.D. dependent var	6225.464
S.E. of regression	1999.567	Sum squared resid	1.20E+08
Durbin-Watson stat	2.040512		

Source: E-view 9.0 Output

The probability results for vector auto regression model shows that probability value of C(2)*Stock price(-2), C(3)*Covid19(-1) and C(4)*Covid19(-2) are not significantly associated with the stock prices of quoted banking firms in Nigeria. This means that C(2), C(3) and C(4) are not significant variables to explain movement in stock price of banking firms in Nigeria during this period under review.

Table 3 Wald Coefficient Results

Wald Test:			
System: Untitled			
Test Statistic	Value	df	Probability
Chi-square	0.337403	1	0.5613
Null Hypothesis: C(3)=C(4)=0			
Null Hypothesis Summary:			
Normalized Restriction (= 0)		Value	Std. Err.
C(3) - C(4)		-0.000103	0.000177
Restrictions are linear in coefficients.			

Source: E-view 9.0 Output

The Wald test statistic in table 3 shows that the Chi-square value is 0.337403 with a probability value of 0.5613. The P value is greater than 0.05 percent significance level. This means that there is no significant impact between COVID-19 and stock price of quoted banking firms in Nigeria and as such we accept the null hypothesis that (C(3)=C(4)=0) COVID-19 does not impact on movement of stock price of quoted banking firms in Nigeria within period under review.

Table 2 Variance Decomposition Results

Variance Decomposition of STOCKPRICE:			
Period	S.E.	STOCKPRICE	COVID19
1	2.214799	100.0000	0.000000
2	3.261172	99.98023	0.019770
3	4.035278	99.97869	0.021313
4	4.731148	99.80093	0.199073
5	5.413325	99.43790	0.562100
Variance Decomposition of COVID19:			
Period	S.E.	STOCKPRICE	COVID19
1	1999.567	10.72667	89.27333
2	3955.256	36.38080	63.61920
3	5005.406	49.26978	50.73022
4	5189.270	52.80009	47.19991
5	5381.819	49.75449	50.24551
Cholesky Ordering: STOCKPRICE COVID19			

Source: E-view 9.0 Output

In the short run, looking at the first three months 100 percent and 99 percent forecast error variance in stock price of quoted banking firms is explained by the variable itself. This means that other variable in the model do not have any strong influence on stock price of quoted banking firms in Nigeria. In that case, COVID-19 has strong exogenous impact. That is, it does not influence stock price movement in the short run. Furthermore, the variance decomposition results reveal that COVID-19 exhibit strong exogeneity. This is means it has weak influence in predicting stock price movement of quoted banking firms in the future.

In the long run, 99.43 percent of forecast error variance in stock price is explained by stock price. Stock price is showing strong influence right from short run period. Influence from COVID-19 is barely between 0.1 percent and 5 percent. This variable does not influence stock price movement in both short and long run. For COVID-19 variance decomposition the variable explains and influences itself on the short run while in the long run COVID-19 is not capable of predicting itself in the future.

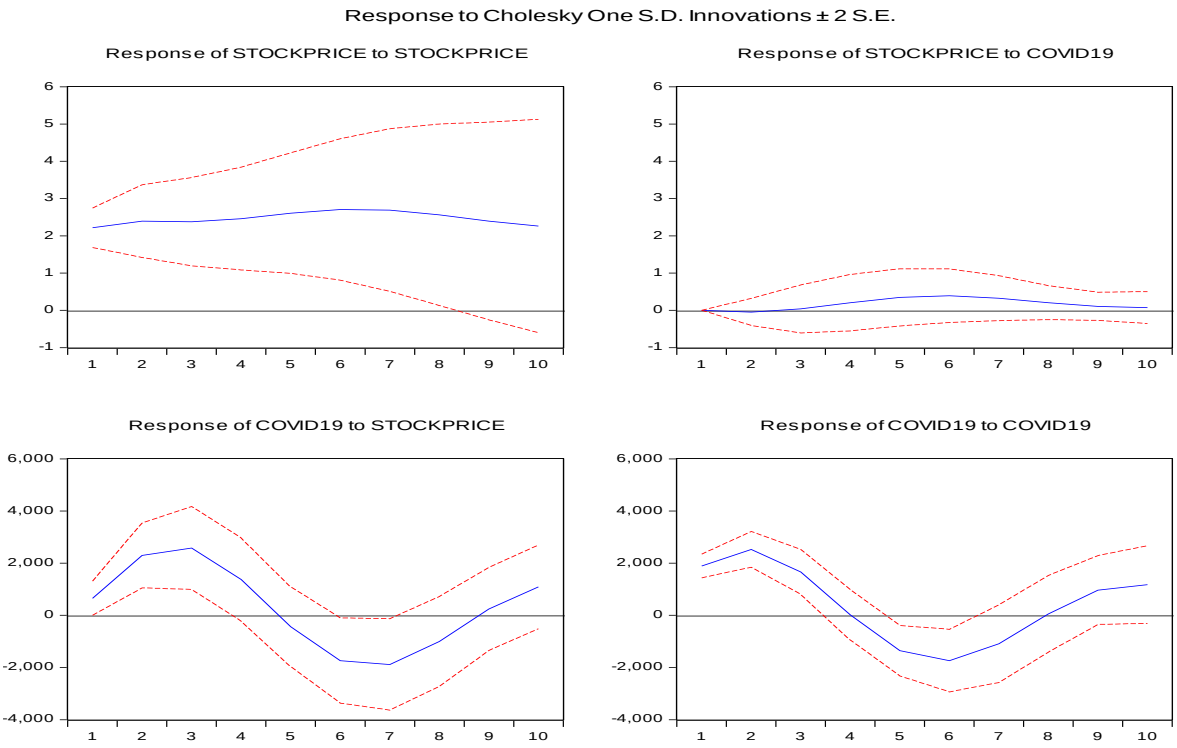

Figure 1 VAR Response Impulse Function

The impulse response function graph shows that a one SD shock of COVID-19 initially has no noticeable impact on stock price in period 1 to 3. The response gradually increase until the 8th period when its hits its steady state values and remained in the positive region. This means that shocks from COVID-19 has a positive impact on the stock price of quoted banking firm in the short and long run.

5. CONCLUSION

The study investigates impact of COVID-19 on stock price of quoted banking firms in Nigeria from the period dated 1st January 2020 to 30th September, 2020. Using confirmed cases of COVID-19 and stock price of quoted banking firms as variables for the study. The study applied the vector auto regressive Model in analyzing the variables. The results reveal that negative relationship between COVID-19 and stock price of quoted banking firms in Nigeria. Contrarily, the result of the variance decomposition shows weak influence of COVID-19 in predicting stock price movement of quoted banking firms in the future. This means the variable do influence stock price movement in short run but does not influence it in the long run. The impulse response function graph shows that a one SD shock of COVID-19 initially has no noticeable impact on stock price in period 1 to 3. Based on the study concludes that COVID-19 impacted on the stock price of quoted banking firms though this impact is statistically insignificant.

REFERENCES

Abuede, C. (2020) Ecobank Group reports $770.9million in revenue in H1 2020, *Business A.M. Newspaper*s, www.businessamlive.com(accessed 19/9/2020).

Adesoji, B.S. (2020) Non-performing loans in Nigerian Banks rise to N121 trillion in H1 2020, *Nairametrics* 9 (13).

Ani, M. (2020) FCMB Group records impressive half year 2020 results as PBT rose to 26%, *BusinessdayNewspapers*6 August, www.businessday.com (accessed 19/9/2020).

Baret, S., Celner, A., O'Reilly, M. & Shilling, M. (2020) COVID-19 Potential implications for the banking and capital market sector: business and operational resilience, *Deloitte Insights*.

Demirgue-Kunt, Pedraza & Ruiz (2020) Banking sector performance during the COVID-19 Crisis, *The World Bank Policy Research Working Paper* Series 9363.

Iwedi, M., Kocha, C.N. & Oriakpono, A.E. (2020) Covid-19 pandemic, global trade wars and impact on the Nigeria economy. *Academic Journal of Current Research* 7(5); 71-82

Jones, D. (2020) Covid-19 can increase in cyber frauds and changes in banking.

KPMG Report (2020) The twin shocks (COVID-19 and Oil price war) and Implications for the banking Sector. An Analysis of the COVID-19 and the oil price war impact and potential mitigating measures.

Nigerian Banker (2020) FBN Holdings plc, Access Bank plc, Announces Board Meetings, *Nigerian Banker*, www.nigerianbanker.com (accessed 19/9/2020)..

Nigerian Banker (2020) Union Bank plc H1 2020 Profit Dips on Reduced Interest Earnings.

Nigerian Banker (2020) UBA Board approves H1 2020 audited financial statements, interim dividend.

Nuhu, S. (2020) The impact of the corona virus on the financial market: Evidence from China and U.S.A. *Electronic Research Journal of Social Sciences and Humanities*, 2(2); 29-39

Nwafor, O (2020) H1 2020: Fidelity Bank's profit up 22%, gross earning hit N105.8bn, *Vanguard Newspapers* 7 September, wwwvanguardngr.com.

Okorafor, I. (2020) Beware of COVID-19 Cyber-attacks, frauds, *Central Bank of Nigeria*, www.CBN.ng(accessed 19/9/2020).

Oliseh, O. (2020) Banks to witness low earnings over Coronavirus, *Nairametrics* 5 (4).

Olowookere, D. (2020) Zenith shareholders to get interim dividend for H1 2020, *Premium Times Newspapers 3 July*, www.primiumtimes.com (accessed 19/9/2020).

Tesfaye, B.L. (2020) The Impact of COVID-19 on the Ethiopian Private Banking system, PhD Thesis, University of South Africa, https//www.researchgate.net.Publications 1342106350.

Wakode, S. (2020) Efficacious Scrutinizing of COVID-19 on Banking using credit risk metrics, *International Journal of Banking Research* 6(3), 15-25

Xinhua (2020) China financial market remains strong amid COVID-19 Impact, *China Daily*, Hong Kong.

Zhang, D., Hu, M., & Ji Q, (2020) Financial markets under the global pandemic of COVID-19, *Finance Research Letters*, https://doi.org/10.1016/j.frl.2020.101528, www.elsevier.comlocate/frl, 1-6 (accessed 19/9/2020).