The current issue and full text archive of this journal is available on Emerald Insight at:
https://www.emerald.com/insight/2040-0705.htm

How do markets react to political elections during periods of insecurity and governance crises? Evidence from an African emerging democracy

Received 4 August 2021
Revised 12 February 2022
Accepted 12 May 2022

Pyemo N. Afego
University of Pretoria, Pretoria, South Africa
Dahiru A. Bala Abdullahi
Federal Inland Revenue Service Headquarters, Abuja, Nigeria
Bashir Tijjani
Department of Accounting, Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia, and
Imhotep Paul Alagidede
University of the Witwatersrand Business School, Johannesburg, South Africa

Abstract

Purpose – This paper operationalizes insecurity and governance crises to study their effects on stock market response to two political events in Nigeria – the 2015 and 2019 presidential elections.

Design/methodology/approach – An event study was used to capture the market responses. Abnormal returns at the aggregate and sectoral levels were measured over several time windows before and after the respective election results were announced.

Findings – The market reacted strongly positively to a change in presidency from an incumbent to an opposition party candidate in the 2015 election but weakly positively, at best, to the re-election of the incumbent candidate in the 2019 election. In addition, banking stocks exhibited greater sensitivity to these events than oil and gas stocks.

Research limitations/implications – There may be peculiarities with the Nigerian case and with the two elections analyzed. Therefore, future research could focus on understanding the extent to which the results generalize to the broader sub-Saharan context and other regions that face similar governance challenges.

Practical implications – Understanding that markets may have a different perception towards incumbent versus opposition candidate electoral victories during periods of insecurity and governance crisis is important for investors, policymakers, researchers and the wider society.

Originality/value – Past empirical studies on political events and stock returns in Sub-Saharan Africa contexts such as Nigeria ignore shifts in voter mood and produce contradictory findings. This paper helps to resolve some of these contradictions by providing insight into how the markets can have a different perception towards incumbent and opposition candidate electoral victories during periods of insecurity and governance crisis.

Keywords Nigeria, Elections, Event study, Stock market returns, Insecurity and governance in Africa

Paper type Research paper

© Pyemo N. Afego, Dahiru A. Bala Abdullahi, Bashir Tijjani and Imhotep Paul Alagidede. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at http://creativecommons.org/licences/by/4.0/legalcode

The authors are deeply grateful to John Kuada (editor) and two anonymous reviewers for providing detailed comments and suggestions that helped improve the paper. The usual disclaimer applies.

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

African Journal of Economic and Management Studies
Vol. 14 No. 1, 2023
pp. 135-149
Emerald Publishing Limited
2040-0705
DOI 10.1108/AJEMS-08-2021-0341

1. Introduction

Insecurity, with corruption, can weaken governance and severely test the legitimacy and credibility of incumbent leaders in Africa's emerging democracies (Adeniyi *et al.*, 2016; Mindzie *et al.*, 2014). As an example, the People's Democratic Party (PDP) dominated Nigerian politics, winning every presidential election by a landslide since the end of military rule in 1999 [1]. However, security challenges caused by armed banditry, herder-farmer clashes, abductions and extremist insurgency have worsened across the country in recent years (Onifade *et al.*, 2013). The challenges captured international attention in April 2014 when 276 schoolgirls were abducted by insurgents in Chibok town, Borno State, thus increasing public disapproval of the ruling PDP leadership (Onifade *et al.*, 2013).

The purpose of this paper is to investigate how the chances of an incumbent (opposition) getting re-elected (elected) during periods of insecurity affect investor expectations and how these expectations adjust according to the actual election results. To investigate these possible effects, we examine the stock market response to two Nigerian presidential elections, namely the 2015 and the 2019 elections [2]. There are at least two reasons why these elections represent an interesting setting to examine these effects. Firstly, both elections were held under a similar spate of insecurity and governance challenges and, therefore, had significant potential to affect investor and voter moods [3]. Secondly, unlike the previous elections, which were correctly predicted landslides, the 2015 and 2019 elections were deemed too close to call until voting had ended [6, 7].

To examine the response, we measure abnormal returns in the Nigerian stock market over several time windows before and after the respective election results are announced, thus allowing us to identify the short-term effects (up to 30 days) before and after the election results are made public. Our nuanced approach has important implications as prevailing socio-economic challenges can affect the chances of re-election for an incumbent party candidate, and in turn influence the impact that election results have on stock market movements (Arin *et al.*, 2020; Carnahan and Saiegh, 2021; Chavali *et al.*, 2020).

Extant studies on political events and stock markets in African countries, including Nigeria, have produced conflicting results and generally ignored the salience of changes in voter mood due to perceived government (in)competence (e.g., Aliyu, 2019; Irungu, 2012; Menge, 2013; Osuala *et al.*, 2018). To our knowledge, this is the first study to directly compare how stock markets react to re-election in times of significant insecurity and governance challenges in Nigeria. This study, therefore, helps to resolve some of the conflicting findings in the extant literature by providing empirical insights into how the markets can have a different perception toward incumbent and opposition candidate electoral victories during periods of insecurity and governance crises.

The remainder of the paper is organized as follows. Section 2 reviews the literature on political events, social mood and stock market fluctuations. Section 3 presents background information on the 2015 and 2019 Nigerian presidential elections and describes the data and empirical methodology. Section 4 presents and discusses the results. Section 5 concludes the paper.

2. Literature review

A large body of literature has examined the link between political events and stock market movements. Most of the studies focus on developed Western democracies and consider US data, particularly around presidential elections, with the consensus indicating that higher stock returns are more likely to be observed during Democratic Party administrations and in the second half of a presidential term (Wisniewski, 2016). More recent studies have looked at political uncertainty associated with the 2016 Brexit referendum (e.g. Hill *et al.*, 2019) and the 2014 Scottish independence referendum (e.g., Darby and Roy, 2019) and reported evidence of a significant stock market impact.

Among papers that investigate the stock market impact of political events in emerging markets are those that consider if and to what extent shareholders of specific companies benefit from political connections. In theory, politically connected firms benefit through preferential access to credit (e.g., Houston *et al.*, 2014) or government contracts (e.g., Goldman *et al.*, 2009). Acemoglu *et al.* (2018) provide empirical evidence of this in the context of the power struggle between Hosni Mubarak's National Democratic Party, the military and the Islamist Muslim Brotherhood during Egypt's Arab spring. Specifically, they find evidence of differential stock market returns for firms connected to the three groups. In addition, Fisman (2001) examines rumours about former Indonesian President Suharto's health and finds that the value of political connections accounted for 23% of firms' value in the Indonesian stock market. Johnson and Mitton (2003) observed that political connections accounted for 17% of the value of firms in the Malaysian stock market following the political shock that arose from the fall from power of Anwar Ibrahim, the Minister of Finance. Civilize *et al.* (2015) provide additional evidence to this when they document that firms with political connections in Thailand exhibit higher realized stock returns compared to non-connected firms.

The few studies that analyze the effects of elections on aggregate stock market performance in sub-Saharan Africa (SSA) have produced conflicting results. For Kenya, studies find negative market effects (e.g., Irungu, 2012), while others find positive market effects (e.g., Menge, 2013; Kithinji and Ngugi, 2005). For Nigeria, Aliyu (2019) finds evidence of positive stock market impact during the 2011 election. In contrast, Osamwonyi and Omorokunwa (2017) find evidence of a negative effect on stock prices of selected companies around the presidential elections that were held in 2003, 2007 and 2011. In another study, Osuala *et al.* (2018) found that the 2015 Nigerian presidential election exerted a positive but insignificant impact on stock market performance, while Eboigbe and Modugu (2018) discover that industry stock returns tend to decline before then increase after the 1999, 2003, 2007 and 2011 elections.

Scholars have long recognized the potential influence that psychological and social factors have on stock markets. For example, Lucey and Dowling (2005, p. 225) noted that "widely experienced fluctuations in social moods influence equity returns, with positive social feelings resulting in optimistic/higher equity pricing and negative social feelings resulting in pessimistic/lower equity pricing". Similarly, Taffler *et al.* (2017) observed that social and emotional processes that underlie investor decision making can lead to swings in stock valuations. Several other studies point to the association between the political environment, social mood and voting decisions. One such study by Ngamaba (2017) suggests that an unstable political environment can lead to strong adverse effects on the moods and feelings of citizens. Another by Caillier (2010) stresses that information about corruption can reduce voter confidence in their government's ability to solve problems, and this in turn can mobilize voters to vote the corrupt incumbent out of office (Chong *et al.*, 2011).

Yet, as this review has shown, the empirical literature on stock market reaction to political elections in SSA particularly has seemed to ignore the potential changes in public mood caused by varying perceptions of government performance. This study thus investigates how issues around insecurity and corruption may affect citizen/investor mood during political elections, the impact this may have on the chances of an incumbent (opposition) candidate getting re-elected (elected), and *how* markets perceive the actual election outcomes. To do so, it analyzes two presidential elections in Nigeria that were held in 2015 and 2019.

3. Context and methodology

3.1 Nigeria's 2015 and 2019 presidential elections

Since the end of military rule in 1999, democratic elections in Nigeria have followed a template of an incumbent victory (Owen and Usman, 2015); the 1999, 2003, 2007 and 2011 presidential elections were all predicted to favour (incumbent) candidates of the entrenched ruling party

PDP, all of whom went on to win these elections by a landslide [4]. But in recent years, insecurity caused by armed banditry, herder-farmer clashes, abductions and extremist insurgency has engulfed the country, fueling a sense of frustration among citizens [5]. The public discontent around these problems dominated the public discourse around two of the most recent elections, i.e. the 2015 and 2019 elections, leading many observers to conclude that the elections were too close to call between the incumbents and challengers [6, 7]. The Centre for Democracy and Development's election analysis explains it as follows:

> The issues around insecurity have been central in shaping the electioneering campaigns. In 2015, the Boko Haram insurgency dominated the discourse during the elections. In 2019 however, the issue is that insecurity has spread into five (5) out of the six (6) geopolitical zones in the country. In addition to the Boko Haram insurgency, farmer and herders' conflicts, rural banditry, massive kidnapping and the resurgence of the Biafran separatist agitations have spread almost all over the country. By all accounts, corruption has continued to plague Nigeria, and it is easy to see why it is a crucial issue in this year's election. Buhari, who came into office promising to tackle corruption, has himself struggled to make much progress in terms of ridding the country of corruption despite some strategic steps such as establishing the Presidential Advisory Committee against Corruption and introducing a whistle-blower policy. The question is, has he done enough [to win re-election]? [8]

Table 1 provides an overview of specific events around the 2015 and 2019 presidential elections.

3.2 Methodology

To capture market expectations before and after the 2015 and 2019 presidential elections, we follow Osamwonyi and Omorokunwa (2017) and apply the event study approach. We focus on aggregate abnormal returns of companies listed on the Nigerian all-share index over several time windows before and after the announcement day of the respective election results. As different types of firms may be affected differently, we also examine the response of sector-specific indexes, namely banking and oil and gas.

Given that our analysis focuses on aggregate abnormal returns, we follow Afik *et al.* (2016) and use the mean-adjusted return model to calculate abnormal returns (ARs) and cumulative abnormal returns (CARs). For robustness, we also use the market model to compute ARs and CARs [9].

The mean-adjusted return model assumes a constant drift μ_i and random innovation $\zeta_{i,t}$:

$$r_{i,t} = \mu_i + \zeta_{i,t}, \tag{1}$$

Note that,

$$E(r_{i,t}) = 0 \text{ and } var(\zeta_{i,t}) = \sigma^2_{\zeta_i} \tag{2}$$

where μ_i and $\sigma^2_{\zeta_i}$ are the sample mean and variance of the returns during the 220-day estimation window (−250, −31) respectively. A similar window length was used by Bash and Alsaifi (2019). Abnormal return (AR) is the actual *ex-post* return of the index minus the normal return of the index:

$$AR_{i,t} = r_{i,t} - E(r_{i,t}|\Omega_t). \tag{3}$$

The AR calculation assumes $E(r_{i,t}|\Omega_t) = \mu_i$, thus

$$AR_{i,t} = r_{i,t} - \mu_i, \tag{4}$$

where $AR_{i,t}$ captures the stock market impact of an event for time period t, $r_{i,t}$ is the actual *ex-post* return, $E(r_{i,t}|\Omega_t)$ is the normal market return that would be expected if the event had not taken place and Ω_t is the conditioning information for the normal return model. Next, we calculate the CAR to draw inferences about the market expectations related to the election

Panel A: 2015	
7 February	The election commission announces the postponement of the presidential election from its original date of February 14 to March 28
28 March	Voters cast their ballots
28–31 March	Collation of results takes place
31 March	The incumbent president telephones the opposition candidate to concede defeat.[1]
1 April (early hours)	The election commission announces that the opposition candidate won with 15.4 million (53.96%) of the total votes cast compared to the incumbent's 12.9 million (44.96%).[2]
29 May	President-elect takes oath of office
Panel B: 2019	
16 February	Five hours before polls were scheduled to open, the election commission announces the postponement of the presidential election to February 23
23 February	Voters cast their ballots
23–27 February	Collation of results takes place
27 February (early hours)	The election commission announces that the incumbent won his reelection bid with 15.2 million (55.6%) of the total votes cast compared to the opposition candidate's 11.3 million (41.2%)
29 May	President-elect takes oath of office

Note(s): [1] See *The World*, 'Goodnight for Goodluck: Nigeria's president concedes election defeat,' 31 March, 2015, https://www.pri.org/stories/2015-03-31/goodnight-goodluck-nigerias-president-concedes-election-defeat (accessed on 16 July 2020)
[2] The constitution of Nigeria stipulates that to win, a presidential candidate must gain an absolute majority of the votes and at least 25% in two-thirds of the states

Table 1. Timeline of specific events around the 2015 and 2019 Nigerian presidential elections

events over several time windows before and after the announcement day of the respective election results, as follows:

$$CAR_{\tau_1,\tau_2} = \sum_{t=\tau_1}^{\tau_2} AR_t. \tag{5}$$

The event date (day 0) is the day that the election results were announced, i.e. April 1, 2015 and February 27, 2019, respectively [10].

4. Results and discussion

4.1 Abnormal returns (ARs)

Table 2 shows the daily ARs around the 2015 presidential election for the All-share index and the banking and oil and gas indexes. Except for day −3 and day −1 for the banking index, the ARs before day 0 are not statistically significant. However, significant gains of 8.12 and 8.62% are observed on day 0 for the All-share and banking indexes, respectively. The oil and gas index also records a gain of 6.97% but this is not significant. Taken together, the results indicate that market participants positively viewed the election of the opposition candidate. This positive reaction may not be unconnected with the candidate's campaign promise to guarantee security across the country and also to tackle corruption, as explained earlier.

Table 3 reports the daily ARs around the 2019 elections for the All-share index and the banking and oil and gas indexes. In contrast to the 2015 elections, the banking index experiences a significant decrease of −4.48% on day 0. The All-share and oil and gas indexes also experience decreases of −1.49% and −1.48% respectively but these are not statistically significant. Taken together, the results suggest that the re-election in 2019 of the candidate who won in 2015 was viewed negatively by market participants. This could be probably because the most urgent issues that voters worried about in 2015, which the then opposition candidate promised to address, remained firmly in place in 2019.

Day	All-share index AR(%)	*t*-value	Banking index AR(%)	*t*-value	Oil and gas index AR(%)	*t*-value
−10	−0.27	−0.22	−2.20	−1.26	−0.71	−0.03
−9	−0.52	−0.42	−1.21	−0.70	−1.27	−0.06
−8	0.44	0.36	0.09	0.05	1.20	0.06
−7	0.72	0.58	1.49	0.86	1.13	0.05
−6	0.40	0.32	0.31	0.18	−2.04	−0.10
−5	1.16	0.94	1.65	0.95	1.74	0.08
−4	0.74	0.61	1.08	0.62	1.87	0.09
−3	1.75	1.42	3.63	2.08**	4.13	0.20
−2	1.85	1.50	2.83	1.63	−0.37	−0.02
−1	2.24	1.82*	3.59	2.06**	2.00	0.10
0	8.12	6.60***	8.62	4.95***	6.97	0.34
1	3.94	3.20***	6.90	3.96***	6.11	0.30
2	−2.09	−1.70*	−4.91	−2.82***	−4.45	−0.21
3	−2.08	−1.69*	−3.55	−2.04**	−3.82	−0.18
4	1.14	0.92	1.15	0.66	−1.26	−0.06
5	1.31	1.07	1.32	0.76	2.71	0.13
6	0.88	0.71	1.97	1.13	0.04	0.00
7	−0.29	−0.23	−2.26	−1.30	0.20	0.01
8	−0.09	−0.07	−0.22	−0.13	−0.28	−0.01
9	−0.25	−0.20	1.23	0.71	0.21	0.01
10	0.63	0.51	1.32	0.76	0.67	0.03

Table 2.
Daily abnormal return around the 2015 elections

Note(s): This table shows the mean-adjusted abnormal return for the all-share index and the banking and oil and gas indexes for each day of the event window [−10, +10]. Day 0 is the event day (the day the election commission declared the opposition candidate winner of the election). ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively

4.2 Cumulative abnormal returns (CARs)

Table 4 compares the CARs for the 2015 and 2019 presidential elections over several time windows. First, we begin with the pre-election windows, i.e. [–20, −1] and [–15, −1]. As shown, pre-election CARs for 2015 are positive but not statistically significant, except for the oil and gas index which showed negative but insignificant CARs on [–20, −1]. In contrast, pre-election CARs for 2019 are positive and statistically significant. Taken together, the results indicate that there was more enthusiasm among market participants before the 2019 election than before the 2015 elections. The weaker enthusiasm in the run-up to the 2015 election may reflect the feeling that market participants did not expect the sitting president to lose his re-election bid (despite perceptions of a high level of insecurity under the administration). This could probably be because an incumbent had never been upstaged in a Nigerian presidential election and as a result, the markets did not anticipate a change in the status quo.

Next, we consider the CARs in the period immediately surrounding the announcement of the election results, i.e. [–1, +1], [–3, +3] and [–5, +5]. As shown in Table 4, CARs for 2015 for the election-results window [–1, +1] are significantly positive at 14.30 and 19.11% for the All-share index and banking index, respectively [11]. In contrast, the corresponding window CARs for 2019 are negative but significant only for the banking index (−5.16%).

A significant positive effect on stock market valuations for stocks in the All-share and banking indexes during the 2015 elections suggests that investors positively viewed the election of the then opposition party candidate Muhammadu Buhari. It also likely reflects a newfound optimism and positive social mood within society, as Lucey and Dowling (2005) suggest, since the majority of Nigerians at the time hoped that Buhari would deliver on his campaign promise to tackle the issues of insecurity and corruption. In contrast, the negative

Day	All-share index AR(%)	*t*-value	Banking index AR(%)	*t*-value	Oil and gas index AR(%)	*t*-value
−10	0.27	0.29	−0.26	−0.22	−0.65%	−0.43
−9	0.95	1.02	0.85	0.72	4.27%	2.84***
−8	−1.47	−1.57	−3.08	−2.63***	−2.87%	−1.91*
−7	0.82	0.88	3.12	2.66***	0.83%	0.55
−6	0.79	0.85	1.00	0.85	1.08%	0.72
−5	0.01	0.01	−0.08	−0.07	0.58%	0.39
−4	−0.01	−0.01	0.67	0.57	0.98%	0.66
−3	0.72	0.77	1.03	0.88	0.15%	0.10
−2	−0.54	−0.58	−1.00	−0.85	1.65%	1.10
−1	−0.56	−0.60	−1.26	−1.08	−1.57%	−1.05
0	−1.49	−1.60	−4.48	−3.82***	−1.48%	−0.98
1	0.49	0.53	0.58	0.50	0.40%	0.27
2	1.10	1.18	2.82	2.40**	0.10%	0.07
3	0.29	0.31	1.11	0.94	−0.03%	−0.02
4	−0.01	−0.01	0.22	0.19	−1.65%	−1.10
5	−0.20	−0.21	0.06	0.05	−0.87%	−0.58
6	−0.12	−0.12	0.05	0.04	0.35%	0.23
7	−0.75	−0.81	−2.72	−2.33**	0.10%	0.07
8	−0.88	−0.94	−2.10	−1.79*	−0.27%	−0.18
9	0.30	0.32	0.23	0.19	0.10%	0.07
10	−0.33	−0.35	−0.18	−0.15	0.23%	0.15

Note(s): This table shows the mean-adjusted abnormal return for the all-share index and the banking and oil and gas indexes for each day of the event window [−10, +10]. Day 0 is the event day (the day the election commission declared the same candidate who won in 2015 winner of the election). ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively

Table 3.
Daily abnormal return around the 2019 elections

effect on stock market valuations following the 2019 elections suggests that public/investor mood may have been dampened by news of the re-election of Buhari who, after 4 years in office, may have been perceived to be unsuccessful in stemming the tide of insecurity and corruption.

We now turn our attention to the post-election period results, i.e. [0, +15] and [0, +20]. As shown in Table 4, post-election CARs for the All-share index in 2015 remain positive and statistically significant. Corresponding CARs for the banking index and the oil and gas index (on [0, +15]) also remain positive but not statistically significant. In contrast, post-election CARs for 2019 are negative and insignificant across all three indexes.

We also observe substantial differences in both the magnitude and direction of CARs across sectors. For example, in the 2015 elections, the oil and gas index shows a negative CAR of −1.32% over the [0, +20] window. This contrasts sharply with the positive CAR of 9.78% for the banking index in the same window. Similarly, in the 2019 elections, the oil and gas index shows CARs of −5.89% and −6.99% over the [0, +15] and [0, +20] windows, respectively. While the banking index shows CARs of −1.89% and −1.39%, respectively.

Importantly, while CARs for the 2015 elections over the full event window [−30, +30] are larger and statistically significant, with magnitudes of 28.24% for the All-share index and 39.91% for the banking index, CARs for the 2019 elections in this window are smaller and insignificant, with magnitudes of 5.56% for the All-share index and 9.55% for the banking index.

Taken together, the results not only indicate that investor response differs substantially at the sectoral level but also suggest that the response to the 2015 elections (when an opposition candidate won the election) differs substantially from that of the 2019 elections (when the incumbent won re-election). Specifically, the gains in CARs observed before and during the 2015 elections continue up to 30 days into the post-election window. In contrast, the gains in

	All-share index		Banking index		Oil and gas index	
	CAR(%)	*t*-value	CAR(%)	*t*-value	CAR(%)	*t*-value
Panel A: 2015 presidential elections						
Event window						
−20, −1	6.37	1.16	9.29	1.19	−3.61	−0.04
−15, −1	3.27	0.69	0.43	0.06	7.70	0.12
−1, +1	14.30	6.71***	19.11	6.33***	15.08	0.42
−3, +3	13.72	4.21***	17.11	3.71***	10.58	0.19
−5, +5	18.08	4.43***	22.31	3.86***	15.65	0.23
0, +15	10.40	2.11**	10.22	1.47	7.10	0.10
0, +20	11.54	2.05**	9.78	1.22	−1.32	−0.01
−30, +30	28.24	2.94***	39.91	2.93***	−1.19	−0.01
Panel B: 2019 presidential elections						
Event window						
−20, −1	6.51	1.56	11.37	2.17**	9.49	1.41
−15, −1	6.79	1.88*	10.11	2.23**	10.67*	1.83
−1, +1	−1.55	−0.96	−5.16	−2.54**	−2.65	−1.02
−3, +3	0.01	0.00	−1.20	−0.39	−0.78	−0.20
−5, +5	−0.20	−0.06	−0.34	−0.09	−1.73	−0.35
0, +15	−1.87	−0.50	−1.89	−0.40	−5.89	−0.98
0, +20	−1.28	−0.30	−1.39	−0.26	−6.99	−1.02
−30, +30	5.56	0.76	9.55	1.04	6.56	0.56

Table 4. Comparison of cumulative abnormal return (CAR) for the 2015 and 2019 presidential elections

Note(s): This table compares the mean-adjusted cumulative abnormal return (CAR) for the 2015 and 2019 presidential elections computed over several time windows. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively

CARs observed before and during the 2019 elections reverse in the post-election window. While this result confirms the notion that post-election market reaction may be driven by the election result (Jensen and Schmith, 2005; Oehler *et al.*, 2013), it also suggests that in periods of widespread insecurity, an opposition candidate victory may cause stronger positive stock market reaction than an incumbent candidate victory.

Figure 1 plots the CARs for the All-share index elections over the full event window [−30, +30]. As indicated by the results in Table 4 for the [−30, +30] window, the graphs show a strong (small) and sustained (temporary) increase in CAR for the 2015 (2019) election.

Figures 2 and 3 plot the corresponding CARs for the banking index and the oil and gas index, respectively. Whereas the graph for the banking index mirrors that of the All-share index, the oil and gas index exhibit a slightly different pattern, in line with the results in Table 4 ([−30, +30] window).

These results have several important implications. First, they suggest that shocks in Nigeria's domestic political environment, and social mood, matter for portfolio performance both at aggregate and sectoral levels. Specifically, the weak (strong) reactions observed when an incumbent (opposition) party candidate is re-elected (elected) suggests that information on insecurity related to terrorism and other governance challenges, such as corruption, does have a significant effect on *how* investors react to presidential election outcomes. Importantly, this indicates that perceived government (in)ability to deal with these challenges is incorporated in stock market prices. It also suggests that the Nigerian stock market is fairly efficient with respect to news of insecurity and governance challenges during elections.

Second, they suggest that under situations of insecurity and weak governance, both the magnitude and direction of the market reactions are contingent on whether an incumbent

(opposition) is re-elected (elected). This is an important finding as it provides some insight as to why prior studies, which have largely ignored shifts in voter mood induced by factors such as insecurity, find conflicting results.

Third, from a policy perspective, the results highlight the need for market regulators to continuously monitor events around national elections to mitigate unnecessary volatilities in the stock market. The findings also have some social implications. Specifically, perceptions of ineptitude in dealing with crucial issues, such as insecurity and corruption, can reduce voter support for an incumbent candidate seeking re-election. The reduction in voter support may (or may not) be big enough to make the incumbent lose re-election, as reflected in the outcome of the 2015 (2019) presidential election. This highlights the need for electable public officials to be wary of the potential implications of perceived government (in)competence not only for consumer and investor confidence but also for voter support.

Fourth, although it is difficult to adequately establish direct causality, the results lend reasonable support to behavioural theories which argue that variations in the collective level of optimism or pessimism that are widely experienced by people, at any given time, influence

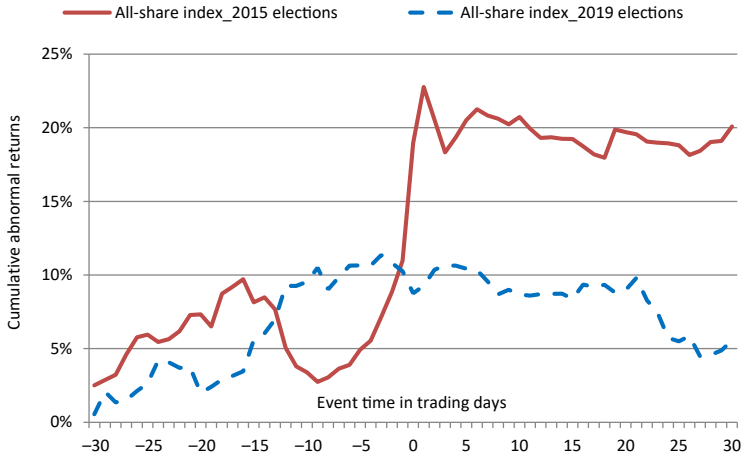

Figure 1. Cumulative abnormal returns for the All-share index for the 2015 and 2019 presidential elections over the event window [−30, +30]. Day 0 is the event day (the day that the election results were announced)

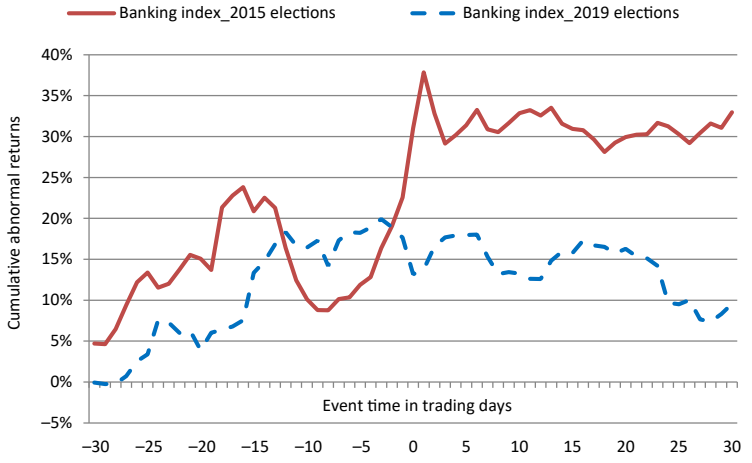

Figure 2. Cumulative abnormal returns for the Banking index for the 2015 and 2019 presidential elections over the event window [−30, +30]. Day 0 is the event day (the day that the election results were announced)

investor decisions in ways that lead to systematic patterns in stock prices (e.g. Nofsinger, 2005; Lucey and Dowling, 2005). The results also correspond with empirical findings from other fields, namely, that stock market returns are significantly affected by shocks in public mood arising from aviation disasters (e.g. Kaplanski and Levy, 2010), outcomes of soccer games (e.g. Edmans *et al.*, 2007) and terrorism (e.g. Afik *et al.*, 2016).

4.3 Robustness tests

The results of an event study may be influenced by the method of abnormal return calculation (Afego, 2017; Biktimirov and Xu, 2019). To ensure our results are not driven by this possibility, we replicate the analysis presented in Tables 2–4 by using the market model to calculate ARs and CARs [12]. The results are presented in Tables 5–7.

Focussing on the all-share index, the daily abnormal return estimations show that abnormal return on day 0 is 8.25% for 2015, as compared to the previous result of 8.12% (see Table 5). Similarly, the abnormal return on day 0 is −1.50% for 2019, as compared to the previous result of −1.49% (see Table 6).

In the CAR estimations, abnormal returns for the all-share index over the full event window (−30, +30) are 29.87 and 5.49% for 2015 and 2019, similar to the previous results of 28.24 and 5.56% respectively (see Table 7).

Overall, using the market model to estimate abnormal returns yields similar results as the mean-adjusted model.

5. Conclusion

Previous studies that examine how political events affect stock prices in SSA contexts such as Nigeria not only produce conflicting evidence but also ignore potential changes in voter mood due to perceived government (in)ability to cope with urgent challenges. Focussing on periods around the 2015 and 2019 Nigerian presidential elections, when insecurity related to extremist insurgencies dominated national discourse, the results of this study can be summarized into three main findings. First, expectations of an incumbent (opposition) getting re-elected (elected) in the face of internal insecurity and governance challenges reflect in aggregate stock returns. Second, there are pronounced differences in how these expectations adjust to the actual election results. Specifically, in times of insecurity, a change in presidency from an incumbent to an opposition party candidate causes stronger positive stock market effects than the re-election of

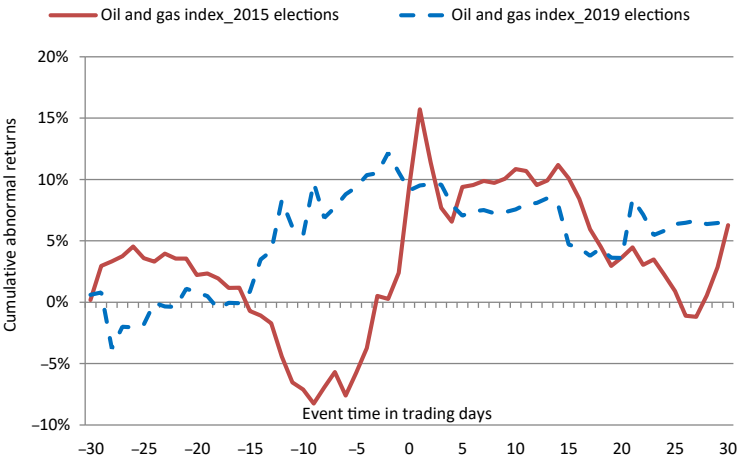

Figure 3.
Cumulative abnormal returns for the Oil and gas index for the 2015 and 2019 presidential elections over the event window [−30, +30]. Day 0 is the event day (the day that the election results were announced)

Day	All-share index AR(%)	*t*-value	Banking index AR(%)	*t*-value	Oil and gas index AR(%)	*t*-value
−10	−0.29	−0.24	−2.22	−1.27	−0.70	−0.03
−9	−0.49	−0.40	−1.19	−0.68	−1.28	−0.06
−8	0.34	0.28	0.00	0.00	1.24	0.06
−7	0.60	0.49	1.39	0.80	1.17	0.06
−6	0.58	0.48	0.47	0.27	−2.11	−0.10
−5	0.97	0.80	1.49	0.85	1.82	0.09
−4	0.75	0.62	1.08	0.62	1.87	0.09
−3	1.56	1.28	3.47	1.99**	4.21	0.20
−2	1.89	1.55	2.87	1.65*	−0.39	−0.02
−1	2.15	1.76*	3.50	2.01**	2.04	0.10
0	8.25	6.75***	8.73	5.01***	6.91	0.33
1	3.96	3.24***	6.91	3.97***	6.10	0.29
2	−2.08	−1.71*	−4.91	−2.81***	−4.45	−0.21
3	−2.15	−1.76*	−3.61	−2.07**	−3.80	−0.18
4	0.91	0.74	0.95	0.55	−1.16	−0.06
5	1.38	1.13	1.38	0.79	2.69	0.13
6	1.01	0.83	2.08	1.20	−0.01	0.00
7	−0.27	−0.22	−2.24	−1.29	0.19	0.01
8	0.44	0.36	0.24	0.14	−0.49	−0.02
9	−0.21	−0.17	1.26	0.72	0.20	0.01
10	0.72	0.59	1.39	0.80	0.63	0.03

Note(s): This table shows the market model abnormal return for the all-share index and the banking and oil and gas indexes for each day of the event window [−10, +10]. Day 0 is the event day (the day the election commission declared the opposition candidate winner of the election). ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively

Table 5. Robustness tests (market model): Daily abnormal return around the 2015 elections

Day	All-share index AR(%)	*t*-value	Banking index AR(%)	*t*-value	Oil and gas index AR(%)	*t*-value
−10	0.27	0.29	−0.28	−0.24	−0.59	−0.40
−9	0.95	1.01	0.81	0.69	4.37	2.91***
−8	−1.47	−1.57	−3.10	−2.65***	−2.80	−1.87**
−7	0.82	0.88	3.13	2.67***	0.79	0.53
−6	0.78	0.84	0.96	0.82	1.18	0.79
−5	0.01	0.01	−0.10	−0.08	0.61	0.41
−4	−0.02	−0.02	0.65	0.55	1.05	0.70
−3	0.72	0.77	1.02	0.87	0.18	0.12
−2	−0.53	−0.57	−0.96	−0.82	1.54	1.02
−1	−0.57	−0.61	−1.30	−1.11	−1.45	−0.97
0	−1.50	−1.60	−4.50	−3.84***	−1.42	−0.95
1	0.49	0.52	0.56	0.47	0.48	0.32
2	1.10	1.18	2.82	2.40**	0.10	0.06
3	0.29	0.31	1.09	0.93	0.01	0.00
4	−0.01	−0.02	0.19	0.16	−1.58	−1.05
5	−0.20	−0.21	0.07	0.06	−0.89	−0.59
6	−0.12	−0.13	0.04	0.04	0.37	0.25
7	−0.75	−0.80	−2.69	−2.29**	0.00	0.00
8	−0.89	−0.95	−2.17	−1.85*	−0.06	−0.04
9	0.31	0.33	0.25	0.22	0.02	0.02
10	−0.32	−0.34	−0.16	−0.13	0.16	0.10

Note(s): This table shows the market model abnormal return for the all-share index and the banking and oil and gas indexes for each day of the event window [−10, +10]. Day 0 is the event day (the day the election commission declared the same candidate who won in 2015 winner of the election). ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively

Table 6. Robustness tests (market model): Daily abnormal return around the 2019 elections

	All-share index		Banking index		Oil and gas index	
	CAR(%)	*t*-value	CAR(%)	*t*-value	CAR(%)	*t*-value
Panel A: 2015 presidential elections						
Event window						
−20, −1	6.21	1.14	9.15	1.17	−3.55	−0.04
−15, −1	2.94	0.62	0.15	0.02	−0.50	−0.01
−1, +1	14.36	6.78***	19.15	6.34***	15.06	0.42
−3, +3	13.57	4.20***	16.98	3.68***	10.64	0.19
−5, +5	17.59	4.34***	21.87	3.78***	15.85	0.23
0, +15	11.09	2.27**	10.83	1.55	5.45	0.07
0, +20	12.47	2.23**	10.59	1.33	−1.70	−0.02
−30, +30	29.87	3.13***	41.33	3.03***	−1.84	−0.01
Panel B: 2019 presidential elections						
Event window						
−20, −1	6.44	1.54	11.05	2.11**	10.40	1.55
−15, −1	6.73	1.86*	9.83	2.16**	11.46	1.97**
−1, +1	−1.57	−0.97	−5.25	−2.58***	−2.40	−0.92
−3, +3	−0.01	0.00	−1.28	−0.41	−0.58	−0.14
−5, +5	−0.22	−0.07	−0.47	−0.12	−1.38	−0.28
0, +15	−1.91	−0.51	−2.09	−0.45	−5.33	−0.89
0, +20	−1.33	−0.31	−1.61	−0.30	−6.38	−0.93
−30, +30	5.49	0.75	9.23	1.01	7.45	0.64

Table 7. Robustness tests (market model): Comparison of cumulative abnormal return (CAR) for 2015 and 2019 presidential elections

Note(s): This table compares the market model cumulative abnormal return (CAR) for the 2015 and 2019 presidential elections computed over several time windows. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively

an incumbent candidate. Third, the effects vary across sectors, with banking stocks exhibiting greater sensitivity relative to oil and gas stocks. These results are robust to the use of alternative models to estimate abnormal returns.

As a limitation, we acknowledge that there may be peculiarities with the Nigerian case. Therefore, future research could focus on understanding the extent to which the results generalize to the broader sub-Saharan context and other regions that face similar governance challenges.

Notes

1. See *New African*, 'Why the PDP lost', 29 April 2015, available at: https://newafricanmagazine.com/10768/ (accessed 6 December 2021)
2. Nigeria's population of nearly 200 million places it among the largest emerging democracies not just in Africa but in the world. Its stock market is one of the largest in Africa and the only one in sub-Saharan Africa, excluding South Africa, with over 100 company stock listings (Acquaah, 2015). Furthermore, the Nigerian Stock Exchange (NSE) has undergone several reforms aimed at enhancing its trading capacities and relevance as an important financial centre in the African region (Igwilo, 2020). These include the introduction, in 1997, of an automated clearing, settlement and delivery system to ease transactions and foster investors' confidence, and the linking of the Exchange to the Reuters system to enhance timely global dissemination of stock market information (Igwilo, 2020).
3. It was widely believed that the election of opposition party candidate Muhammadu Buhari on April 1, 2015, was welcomed because many had hoped that Buhari would deliver on promises made to tackle issues of insecurity and corruption (see Omilusi, 2018). But the issues of insecurity and corruption that prevailed in the run-up to the 2015 elections continued in the run-up to the 2019 elections when Buhari sought re-election for a second term. Most notably, the abduction of another

110 schoolgirls in Dapchi town, Yobe State, by insurgents in February 2018 raised suggestions that "the abduction could have an equally detrimental effect on Buhari's electoral fortunes as Chibok had on his predecessor" (The Wall Street Journal, 2018).

4. See *New African*, 'Why the PDP lost', 29 April 2015, available at: https://newafricanmagazine.com/10768/ (accessed 6 December 2021)
5. See *BBC News*, 'Nigeria's security crises - five different threats', 19 July 2021, available at: https://www.bbc.com/news/world-africa-57860993 (accessed 5 December 2021)
6. See *Financial Times*, 'Nigeria Faces the Closest Election in Its Democratic History', 14 January 2015, available at: http://blogs.ft.com/theexchange/2015/01/14/tolu-ogunlesi-nigeria-faces-the-closest-elections-in-its-democratic-history/ (accessed on 18 March 2020).
7. See *RFI*, 'Analysis: Nigeria election too close to call as campaigning gets underway', 18 November 2018, available at: https://www.rfi.fr/en/africa/20181118-analysis-nigeria-election-too-close-call-campaigning-gets-underway (accessed on 28 November 2021).
8. 'CDD ANALYSIS: 2019 presidential race to be the tightest ever'. 22 February 2019, available at: https://www.thecable.ng/cdd-analysis-2019-presidential-race-to-be-the-tightest-ever (accessed on 28 November 2021).
9. See section 4.3
10. Note from the timeline (Table 1) that April 1, 2015, coincides with the date of the concession of defeat by the incumbent candidate during the 2015 election.
11. Comparable estimates were reported in studies that focus on specific firms, such as Fisman (2001) who examines rumours about former Indonesian President Suharto's health and finds that the value of political connections accounted for 23% of firms' value in the Indonesian stock market, as well as Johnson and Mitton (2003) who show that political connections accounted for 17% of the value of firms in the Malaysian stock market following the political shock that arose from the fall from power of Anwar Ibrahim, the Minister of Finance.
12. Normal (expected) return in the market model is given by: $E[R_i] = \alpha_i + \beta_i\ E[R_m]$, where α_i and β_i are the model parameters and R_m is the market return. $\widehat{\alpha}_i$ and $\widehat{\beta}_i$. While abnormal return is the actual ex-post return minus the normal return is given by: $\mathrm{AR}_i = R_i - (\widehat{\alpha}_i + \widehat{\beta}_i R_m)$, where $\widehat{\alpha}_i$ and $\widehat{\beta}_i$ are the OLS estimates of the model parameters α_i and β_i. As insecurity related to terrorism is likely to affect *all* firms and the overall domestic economy, and given our focus on aggregate abnormal returns, we use return on the MSCI Frontier Markets index as proxy for the market's expected return to avoid the substantial bias that could arise from using a local index as the market benchmark.

References

Acemoglu, D., Hassan, T.A. and Tahoun, A. (2018), "The power of the street: evidence from Egypt's Arab Spring", *The Review of Financial Studies*, Vol. 31 No. 1, pp. 1-42.

Acquaah, M. (2015), "Determinants of corporate listings on stock markets in Sub-Saharan Africa: evidence from Ghana", *Emerging Markets Review*, Vol. 22, pp. 154-175.

Adeniyi, O., Opara, N.M., Adeyemo, T., Ekeria, A.I. and Faith-Lois, B. (2016), "African Union and the challenges of development", *Journal of African Union Studies*, Vol. 5 No. 2, pp. 67-89.

Afego, P.N. (2017), "Effects of changes in stock index compositions: a literature survey", *International Review of Financial Analysis*, Vol. 52, pp. 228-239.

Afik, Z., Lahav, Y. and Mandelzweig, L. (2016), "The inverse of a terror event? Stock market response to pro-active action", *Studies in Economics and Finance*, Vol. 33 No. 1, pp. 91-105.

Aliyu, S.U. (2019), "Do presidential elections affect stock market returns in Nigeria?", *West African Journal of Monetary and Economic Integration*, Vol. 19 No. 1, pp. 40-56.

Arin, K.P., Elmassah, S., Kaplan, S. and Spagnolo, N. (2020), "Price of a surprise", available at: https://www.academia.edu/download/66183545/Full_Version_1_.pdf (accessed 6 December 2021).

Bash, A. and Alsaifi, K. (2019), "Fear from uncertainty: an event study of Khashoggi and stock market returns", *Journal of Behavioral and Experimental Finance*, Vol. 23, pp. 54-58.

Biktimirov, E.N. and Xu, Y. (2019), "Market reactions to changes in the Dow Jones industrial average index", *International Journal of Managerial Finance*, Vol. 15 No. 5, pp. 792-812.

Caillier, J. (2010), "Citizen trust, political corruption, and voting behavior: connecting the dots", *Politics and Policy*, Vol. 38 No. 5, pp. 1015-1035.

Carnahan, D. and Saiegh, S. (2021), "Electoral uncertainty and financial volatility: evidence from two-round presidential races in emerging markets", *Economics and Politics*, Vol. 33 No. 1, pp. 109-132.

Chavali, K., Alam, M. and Rosario, S. (2020), "Stock market response to elections: an event study method", *The Journal of Asian Finance, Economics, and Business*, Vol. 7 No. 5, pp. 9-18.

Chong, A., Ana, L., Karlan, D. and Wantchekon, L. (2011), *Looking Beyond the Incumbent: The Effects of Exposing Corruption on Electoral Outcomes (No. W17679)*, National Bureau of Economic Research, Cambridge, Massachusetts.

Civilize, S., Wongchoti, U. and Young, M. (2015), "Political connection and stock returns: a longitudinal study", *Financial Review*, Vol. 50 No. 1, pp. 89-119.

Darby, J. and Roy, G. (2019), "Political uncertainty and stock market volatility: new evidence from the 2014 Scottish Independence Referendum", *Scottish Journal of Political Economy*, Vol. 66 No. 2, pp. 314-330.

Eboigbe, S.U. and Modugu, K.P. (2018), "Stock market reaction to election cycles: the Nigerian experience", *Journal of Accounting and Finance in Emerging Economies*, Vol. 4 No. 1, pp. 63-76.

Edmans, A., Garcia, D. and Norli, Ø. (2007), "Sports sentiment and stock returns", *The Journal of Finance*, Vol. 62 No. 4, pp. 1967-1998.

Fisman, R. (2001), "Estimating the value of political connections", *American Economic Review*, Vol. 91 No. 4, pp. 1095-1102.

Goldman, E., Rocholl, J. and So, J. (2009), "Do politically connected boards affect firm value?", *The Review of Financial Studies*, Vol. 22 No. 6, pp. 2331-2360.

Hill, P., Korczak, A. and Korczak, P. (2019), "Political uncertainty exposure of individual companies: the case of the Brexit referendum", *Journal of Banking and Finance*, Vol. 100, pp. 58-76.

Houston, J.F., Jiang, L., Lin, C. and Ma, Y. (2014), "Political connections and the cost of bank loans", *Journal of Accounting Research*, Vol. 52 No. 1, pp. 193-243.

Igwilo, J.I. (2020), "*The impact of information and communication technology adoption on stock market development in Africa*", Unpublished doctoral dissertation, University of South Africa, Pretoria.

Irungu, A.K. (2012), *Informational content of general election results announcement at the Nairobi securities exchange*, Ph.D dissertation, University of Nairobi, Nairobi.

Jensen, N.M. and Schmith, S. (2005), "Market responses to politics: the rise of Lula and the decline of the Brazilian stock market", *Comparative Political Studies*, Vol. 38 No. 10, pp. 1245-1270.

Johnson, S. and Mitton, T. (2003), "Cronyism and capital controls: evidence from Malaysia", *Journal of Financial Economics*, Vol. 67 No. 2, pp. 351-382.

Kaplanski, G. and Levy, H. (2010), "Sentiment and stock prices: the case of aviation disasters", *Journal of Financial Economics*, Vol. 95 No. 2, pp. 174-201.

Kithinji, A. and Ngugi, W. (2005), *Stock Market Performance before and after General Elections–A Case Study of the Nairobi Stock Exchange, Unpublished MBA project*, University of Nairobi, Nairobi.

Lucey, B.M. and Dowling, M. (2005), "The role of feelings in investor decision-making", *Journal of Economic Surveys*, Vol. 19 No. 2, pp. 211-237.

Menge, R.N. (2013), *Effect of Elections on Stock Market Returns at the Nairobi Securities Exchange, Doctoral dissertation*, University of Nairobi, Nairobi.

Mindzie, M.A.A., Wachira, G.M. and Dunderdale, L. (2014), *Effective Governance in Challenging Environments*, International Peace Institute, New York.

Ngamaba, K.H. (2017), "Determinants of subjective well-being in representative samples of nations", *European Journal of Public Health*, Vol. 27 No. 2, pp. 377-382.

Nofsinger, J.R. (2005), "Social mood and financial economics", *The Journal of Behavioral Finance*, Vol. 6 No. 3, pp. 144-160.

Oehler, A., Walker, T.J. and Wendt, S. (2013), "Effects of election results on stock price performance: evidence from 1980 to 2008", *Managerial Finance*, Vol. 39 No. 8, pp. 714-736.

Omilusi, M. (2018), "Governance in deeply divided societies: isolated integrity, social cleavages and president Buhari's burden of electoral promises in Nigeria", *Brazilian Journal of Development*, Vol. 4 No. 6, pp. 3165-3195.

Onifade, C., Imhonopi, D. and Urim, U.M. (2013), "Addressing the insecurity challenge in Nigeria: the imperative of moral values and virtue ethics", *Global Journal of Human Social Science Political Science*, Vol. 13 No. 2, pp. 52-63.

Osamwonyi, I.O. and Omorokunwa, O.G. (2017), "Presidential election and portfolio selections in the Nigeria stock Exchange", *International Journal of Financial Research*, Vol. 8 No. 4, pp. 184-195.

Osuala, A.E., Onoh, U.A. and Nwansi, G.U. (2018), "Presidential election results and stock market performance evidence from Nigeria", *Applied Economics and Finance*, Vol. 5 No. 2, pp. 117-124.

Owen, O. and Usman, Z. (2015), "Briefing: why goodluck jonathan lost the Nigerian presidential election of 2015", *African Affairs*, Vol. 114 No. 456, pp. 455-471.

Taffler, R.J., Agarwal, V. and Wang, C. (2017), "Asset pricing bubbles and investor emotions: an empirical analysis of the 2014-2016 Chinese stock market bubble", *Behavioural Finance Working Group Meeting*, June, Queen Mary University London.

The Wall Street Journal (2018), "Boko Haram's Violent Push Puts New Heat on Nigerian President", 27 February, available at https://www.wsj.com/articles/boko-harams-violent-push-puts-new-heat-on-nigerian-president-1519765062 (accessed 6 December 2021).

Wisniewski, T.P. (2016), "Is there a link between politics and stock returns? A literature survey", *International Review of Financial Analysis*, Vol. 47, pp. 15-23.

Corresponding author
Pyemo N. Afego can be contacted at: pyemo.afego@yahoo.com

For instructions on how to order reprints of this article, please visit our website:
www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: **permissions@emeraldinsight.com**