"Political risk and banking sector performance in Nigeria"

AUTHORS	Adefemi A. Obalade (iD) Babatunde Lawrence (iD) Joseph Olorunfemi Akande (iD)

NUMBER OF REFERENCES	NUMBER OF FIGURES	NUMBER OF TABLES
77	**0**	**3**

Adefemi A. Obalade (South Africa), **Babatunde Lawrence** (South Africa), **Joseph Olorunfemi Akande** (South Africa)

POLITICAL RISK AND BANKING SECTOR PERFORMANCE IN NIGERIA

Abstract

Political risk is prevalent in Nigeria and tends to influence business outcomes and the stability of the banking system. As a result of this study, it was determined whether political risk matters to the performance of the banking sector in Nigeria. The effect of political risk on different banks' performance measures, such as return on assets, return on invested capital, credit risk and stock price, were examined in a panel of 12 selected commercial banks for the period 2006–2018. Data was analyzed using a two-stage system of generalized method of moments. The results provided evidence that the effect of political risk on bank performance depends on the performance proxies. Specifically, political risk was found to be negatively related to banks' returns on invested capital and positively related to deteriorating credit risk. Hence, it can be concluded that political risk induces poor banking system performance in Nigeria. The study provides a critical insight into the management of a country's political systems in terms of their potential to create unfavorable conditions for banking systems to thrive.

Keywords	country risk, credit risk, GDP, stock price, return on assets
JEL Classification	G21, G32, L25, N17

INTRODUCTION

The banking sector is the focal point of money markets that are used for short-term funds and investments. As a result, the sector is a key component of the financial system and plays a fundamental role in the development and growth of nations (Fapetu & Obalade, 2015). The relevance of this sector qualifies it as the most regulated sector in Nigeria's economy, as in many other economies (Adaramola et al., 2018).

In the course of history, the Nigerian banking system has experienced series of banking failures resulted in the liquidation of 51 banks from 1936 to 2000 (Marshal, 2017). The unfavorable financial situation of the Nigerian banking system necessitated the 2004 consolidation policy, which led to the reduction in the number of banks from 89 in 2004 to 25 in 2005. Four years later, inefficient credit risk management rendered numerous banks insolvent as 9 out of the 24 strong banks were classified as failed ones (Nigeria Deposit Insurance Corporation, 2009). Nigerian Deposit Insurance Corporation published another list of six failed banks in 2011 due to excessive credit risk taking. Marshal (2017) observed that the problem of failures continues despite several amendments to banking regulations. While the issues of bank failures are often blamed on bank management, excessive risk taking and nonperforming loans (Sanusi, 2009) and poor regulatory framework (Marshal, 2017) among others, Mark and Nwaiwu (2015) explained that government actions and the Nigerian political environment could affect business outcomes.

Adefemi A. Obalade, Ph.D., Postdoctoral Research Fellow, School of Accounting, Economic and Finance, Finance Department, University of KwaZulu-Natal, South Africa. (Corresponding author)

Babatunde Lawrence, M.Sc., Postgraduate Scholar, School of Accounting Economics and Finance, Finance Department, University of KwaZulu-Natal, South Africa.

Joseph Olorunfemi Akande, Ph.D., Associate Professor, Department of Accounting Science, Walter Sisulu University, Mthatha, South Africa.

The Nigerian political environment within which the banking system operates has been relatively unstable and affected by widespread corruption, absence of transparency and inferior quality of infrastructures. The implication was that political risk constitutes a major component of country risk in the Nigerian banking system. For example, banking turmoil, which led to the revocation of licenses of five banks and takeover of 18 banks by the CBN between 1994 and 1996, occurred following an unstable political environment engendered by the cancellation of the 1993 Presidential Election. In this context, Brownbridge (1998) attributed banking distress in African countries such as Nigeria, Kenya, Uganda and Zambia to moral hazard arising from political interference. . Political risk is a component of country risk and may be viewed as "the exposure that a company or bank faces due to political events that might affect its profitability" (Mokatsanyane, 2016, p. 3).

Although Tamadonnejad et al. (2013) revealed that country risk and political risks lead to deterioration of bank efficiency in Asian countries, research on banking industry profitability performance in the context of political risk exposures has rarely been conducted. Given the prevalence of political risk in Nigeria, this paper contributed to the risk-performance literature on the banking industry by examining the impact of political risk component of country risk on different deposit money banks' performance measures in Nigeria.

1. LITERATURE REVIEW

Extensive research has been conducted on various risk factors and bank performance. A review of the concepts and relevant theories and empirical studies is presented in this section, taking cognizance of various risk measures.

1.1. Conceptual review and theoretical framework

Country risks are usually measured by risk ratings provided by rating agencies (international credit risk guide (ICRG, 2017). It represents the general risk inherent in the domestic markets of individual countries. Country risk is proxied by three components, namely the political, financial and economic risk (ICRG, 2017), and affects the success of investment in a country as it is non-diversifiable (Perry, 2017). The factors of the political risk include government stability, socio-economic conditions, investment profile, internal and external conflicts, corruption, military in politics, religion in politics, law and order, ethnic tensions, democratic accountability, and bureaucratic quality (Muzindutsi et al., 2020). The financial risk index measures the level of foreign indebtedness, exchange rate stability, debt service, current account and international liquidity, while the economic risk index incorporates inflation, GDP per capita, GDP growth, budget balance and current account as a percentage of GDP (ICRG, 2017; Muzindutsi

& Obalade, 2020). Kirikkaleli (2020) showed that political risk possesses the ability to explain economic and financial risks. For example, political instability reduces policymakers' and government's tenures, thereby resulting in unsuitable and unstable economic policies that unfavorably affect the soundness of the economy and the financial sector. Consequently, this study focused on political-risk effect as a proxy for country risk.

Theoretically, the capital asset pricing model (CAPM) illustrates the correlation between market risk and expected returns for securities, especially stocks (Sharpe, 1964; Lintner, 1965). If returns are considered as a measure of performance and political risk as a form of market risk, CAPM as a theory is indirectly relevant to the subject under consideration. Additionally, the arbitrage pricing theory (APT) of Rose (1976) offers a multi-factor pricing model that describes assets' expected return as a function of numerous risk variables. Similarly, using the returns to determine performance, the open-ended nature of APT risk factors implies that political risk can be added to the risk factors such as credit risk. As a result, the APT is indirectly relevant as a theory for the subject under consideration. On the other hand, an efficient political institution has been linked to financial development in literature (Ashraf et al., 2018). Roe (2006) posited that a nation's financial development depends on her political antecedence or history, while Keefer (2007) stated that the political

structure of a nation is relatively paramount in engendering a developed financial institution. The proponents of this view postulated that a politically stable nation tends to be financially developed (Roe & Siegel). Consequently, studies (Bordo & Reusseau, 2006; Quintyn & Verdier, 2010; Girma & Shortland, 2008) have shown that financial development is determined by stable political tenures, accountability of political office holders and democratic feature of a nation.

1.2. Empirical review

1.2.1. Bank performance and credit risk

Empirically, Kolapo et al. (2012) and Uwalomwa et al. (2015) showed that effects of credit risk proxies on return on assets (ROA) as a measure financial performance are significant and negative. These findings were supported by similar studies (Adeusi et al., 2013), where credit risks exact significant negative impacts on return on equity (ROE) and ROA. In this context, Iwedi and Onuegbu (2014) and Soyemi et al. (2014) showed that credit risk signifies a significant positive sign for bank ROA and ROE performance in Nigeria. Significant inverse effects of credit risk on bank performance were observed in Ethiopia (Gizaw et al., 2015). The majority of these studies revealed that capital and liquidity risks encouraged the performances of financial institutions (Soyemi et al., 2014; Adeusi et al., 2013). These studies have applied a panel regression approach. In Ghana, Boahene et al. (2012) and Afriyie and Akotey (2012) showed that different measures of credit risks have positive and significant impacts on commercial banks' performance (ROA). Credit risk significantly increased the ROA and ROE performance of forty-seven of the largest commercial banks in Europe (Li et al., 2014), while credit risk significantly reduced performance in the Swedish (Ara et al., 2009) and Costa Rican (Epure & Lafuente, 2012) banking sectors.

In the Eastern Caribbean Currency Union (ECCU), Hodge (2017) revealed that non-performing loans, bank size and liquidity portended a significant negative status for NIM and ROA. However, GDP growth positively related to ROA. Additionally, bank-specific variables such as size and operating expenses impacted bank perfor-

mance (Menicucci & Paolucci, 2016; Augustin & Prophète, 2016; Moulton, 2011; Ally, 2014), while there are macroeconomic variables such as GDP growth, monetary policy, inflation among others, that impact bank performance (Mokatsanyane, 2016; Moulton, 2011; Athanasoglou et al., 2005; Flamini et al., 2009; Demirguc-Kunt & Huizinga, 2000). Nevertheless, Ani et al. (2012), Almumani (2013), and Athanasoglou et al. (2005) showed that bank size has no significant influence on performance. In this context, the effect of credit risk on bank performance has been thoroughly investigated. Generally, the results have been conflicting.

1.2.2. Bank performance and political risk

Few recent studies introduced country risk variables. For example, Mokatsanyane (2016) revealed through an ARDL panel that the effects of credit and political risks depend on the measure of performance of banks in South Africa. It was found that political risk has no significant effect on ROE, ROA, EPS and NIM in the short term. The long-term effect was similar, except for the positive effects of political risk in the long term. In China, the deteriorating effect of oil price shocks on the performance of the banking industry can be ameliorated by stable country risks through the political, economic and financial components using GMM for dynamic panels (Chi-Chuan Lee & Chien-Chiang Lee, 2019). Additionally, Chi and Li (2017) indicated that uncertainty in economic policy portends rising credit risks and declining loan size in China. Similarly, Şanlısoy and Aydin (2017) utilized a panel ARDL and found that political risk reduced bank profitability, and the effect was largely felt by public than private banking firms in Turkey.

In the context of Islamic banks, political risk, inflation and GDP have positive and significant impacts on performance in Yemeni (Yahya et al., 2017). Focusing on 51 developing nations, Ashraf et al. (2018) showed that state-owned banks experienced a severe political pressure, a sudden rise in loan demand and low earning during electioneering periods, especially in countries with weak political structures. Brůha and Kočenda (2017) showed via Bayesian inference in panel estimation that sovereign risk was substantially driven by non-performing loans, while size and stabili-

ty had a reducing effect on sovereign risk in the European Union. Tamadonnejad et al (2013) revealed that country risk and political risks lead to deteriorated bank efficiency in Asian countries using a Stochastic Frontier Analysis in ten East Asian countries. It can be seen from the review that the evaluation of country risk effect on bank performance is limited in the literature.

1.2.3. Credit risk and political risk

A number of studies showed that bank credit risk or nonperforming loans are usually triggered by bank-specific and macro-economic factors. In this context, country risk via its three components is usually ignored, while attention is devoted to factors such as inflation and GDP. For example, Thiagarajan (2013) and Bozga and Trenca (2018) showed that inflation contributes to rising credit risk, while GDP leads to its decline in Belize banks and 13 developed European countries, respectively. The reducing effect of GDP on credit risk also applied to banks in Pakistan (Kasana, 2016) and Nigeria (Kure et al., 2017). In this context, Duong and Huong (2017) and Mpofu and Nikolasidou (2018) revealed that GDP growth is one of the main drivers of credit risk in the Vietnamese and sub-Saharan African commercial banks, respectively. In Nigeria, it was shown that credit risk (nonperforming loans) increases with interest rate (Kure et al., 2017) and exchange rate (Akinlo & Emmanuel, 2014) by utilizing panel estimation, while Omoruyi and Igbinosa (2014) and El-Maude et al. (2017) showed that macroeconomic factors are not significant determinants of credit risk, using time-series analysis.

There is a dearth of studies linking credit and country risks, as observed under a bank performance-country risk nexus. Muzindutsi and Nlapho (2017) evaluated this relationship in South Africa and found that the ability of banks to extend credit to the private sector is curtailed by economic, financial and political risk on in the long run. However, credit extension is mostly influenced by its past changes, albeit minimum influence from financial and economic risks in the short run. It implies that banks are risk averse as extending credit against the background of rising country risks could result in loan defaults. Alternatively, banks may find it problematic to re-

cover previously extended credits. As a result, asset distribution decisions by financial institutions are influenced by country risk ratings (Apergis et al., 2011; and Bofondi et al., 2013). For example, risk rating downgrade has an unfavorable impact on the supply of credit facilities relative to rating upgrade (Apergis et al., 2011).

Generally, there are three major systemic factors influencing bank performance. They entail the relevant macroeconomic condition, economic policies changes and the relevant political condition. Existing studies on bank performance and credit risk have mostly examined the macroeconomic conditions such as GDP and inflation because other systemic factors are difficult to measure (Mpofu & Nikolasidou, 2018). As a consequence, studies on the effect of country risk, especially the political risk component on bank performance and credit risks, are scarce and limited in literature. This subject has not been addressed in the Nigerian context, despite the prevalence of political-related risk of the nation. This study filled the gap by examining the effect of political risk on bank performance in Nigeria.

2. METHODOLOGY

The research approach adopted for this study was quantitative, involving the analyses of the effects of country risk and certain bank-specific and macroeconomic variables pertaining to the performance of Nigerian banking firms. There are three sections of the methodology, namely the sample and data, model specification and estimation technique.

2.1. Sample and data

There are 22 registered commercial banks in the Nigerian banking sector (Kure et al., 2018). However, only 15 of these banks had their data published by the Nigerian Stock Exchange in 2018. Three of these banks did not publish their ROA, which is one of the dependent variables for this study, and, as a result, the final sample for this study entailed 12 commercial banks, namely Guaranty Trust Bank (GTB), Zenith Bank (ZNB), Access Bank (ACB), United Bank for Africa (UBA), Union Bank (UBN), First Bank of Nigeria (FBN),

Sterling Bank (STE), Fidelity Bank (FDE), Wema Bank (WEMA), Unity Bank (UNTB) Union Bank (UB) and Equatorial Trust Bank (ETI). The sample period comprised the post consolidation era. The secondary data for these banks were collected in respect of a 13-year period (2006–2018).

The main performance measures were ROA, return on invested capital (ROIC) and stock prices (STOCK). Literature (Aliabadi et al., 2013) supported the use of ROA as an established and valued accounting performance metric by industries for market and accounting performance, while ROIC were estimated for robustness purposes. In addition to internal performance measures, this study also examined the reaction of banking stock market prices to political risk as country risk is external to the banks and its effect on bank performance might pass through the external or market performance measures. The explanatory variables were credit risk (CRISK), bank size (SIZE), political risk (PRISK), gross domestic product (GDP) and inflation (INF), which were found to exert significant impacts on bank performance. Bank and macroeconomic variables were sourced from Bloomberg, while stock returns sourced from S&P capital IQ.

2.2. Model specification

Examining the impact of country risk on bank performance in Nigeria, four different models were estimated. These were estimated by using different internal profitability and market (stock price) measures of bank performance and by evaluating the effects of political risk on credit risk. To achieve the objective, this study implemented a generalized method of moments (GMM) that accounted for the influence of probable omitted regressor and time persistence of performance indicators and is also robust to cross-sectional dependence and missing data that could be inherent in the nature of this study. The dynamic model is given as follows:

$$\varphi_{it} = \alpha + \sum_{K=1}^{K} \gamma_k \varphi_{it-k} + X'_{it}\beta + \lambda_i + \varepsilon_{it}, \qquad (1)$$

where ϕ represents the dependent variables ROA, ROIC, CRISK and STOCK, which are the ratio of

net profit to total assets, ratio of net profit to invested capital, non-performing asset/total loan, and logarithm of stock price, respectively; i and t are notations representing individual banks (i = 1, ..., 12) and time (t = 2006, ..., 2018), respectively; X_{it} denotes a vector of the regressors where PRISK, SIZE, GDP and INF symbolize political risk index, log of total assets, growth rate of gross domestic product and consumer price index in that order; β is a vector of the estimated coefficients, while λ_i denotes unobserved bank-specific effects, ε_{it} represents the error term.

2.3. Estimation techniques

The above equations were estimated using the pooled-OLS, fixed effect and random effect[1], as well as GMM models. The study depended on the two-stage system GMM as a main estimation technique for notable reasons. First, pooled-OLS is prone to bias and inconsistency (Arellano & Bond, 1991; Baltagi, 2008). Secondly, fixed effect suffers from dynamic panel bias associated with perceived endogeneity of the lagged regressand and the fixed effects in the ε_{it}, notably with limited t and large i panels (Judson & Owen, 1999). Thirdly, two-stage GMM is an asymptotically more efficient estimator when compared to the one-stage GMM (Arellano & Bond, 1991; Mpofu & Nikolasidou, 2018). In contrast with difference GMM, system GMM applied in this study generates high precision estimates with limited t and large i panels. Subsequently, the Pearson correlation matrix was used to ensure that there is no multicollinearity or correlation between the explanatory variables.

3. RESULTS

This study estimated four different models to evaluate the role of political risk components on the performance of the Nigerian banking sector using panel data approach. This was achieved by using different measures of bank performance (ROA, ROIC, STOCK) and credit risk (CRISK) as dependent variables. This study presents the analyses of the system GMM after the presentation and interpretation of preliminary analyses.

---

1   Pooled-OLS, fixed effect and random effect are not reported due to their deficiencies. For example, they fail most of the model diagnostic tests. However, they can be made available to the reviewers on demand.

Table 1. Descriptive statistics results

Statistics	ROA	ROIC	CRISK	SIZE	PRISK	GDP	INFT	STOCK
Mean	1.435804	9.206539	0.022996	5.736225	1.462685	4.750769	11.02769	11.02135
Median	1.781900	9.063450	0.015000	5.892671	1.580600	6.060000	11.54000	8.195000
Maximum	10.00860	35.40630	0.157400	6.747820	1.636700	8.040000	16.52000	83.81000
Minimum	−28.51420	−8.747800	0.000000	3.342271	0.000000	−1.620000	5.380000	0.520000
Std. dev.	3.553788	8.113386	0.029202	0.699562	0.426998	2.860689	3.063804	10.83040
Skewness	−4.483518	0.746667	2.297862	−1.128839	−3.091118	−0.841250	0.098262	2.674208
Kurtosis	36.17789	3.934868	8.681406	4.113603	10.73940	2.618491	2.342024	15.48274
Jarque-Bera	7677.673	20.17614	347.0938	41.19196	637.7693	19.34631	3.065099	1198.759
Prob.	0.000000	0.000042	0.000000	0.000000	0.000000	0.000063	0.215984	0.000000
Obs.	156	156	156	156	156	156	156	156

3.1. Descriptive analysis

The descriptive statistics of the variables are presented in Table 1, where the maximum value of ROA and ROIC are approximately 10 and 35, and the minimum values are –29 and 9, respectively. The average of the two variables are shown as 1 and 9, respectively, implying that huge volumes of bank assets do not generate income. Variables other than the INF are not normally distributed given the small p-values of Jarque-Bera statistics.

To reveal the extent of correlation amongst regressors, the Pearson correlation matrix is given in Table 2. It can be observed that the correlations between certain variables were negative, while others were positive; generally, the observed values were below 40%. Moreover, the choice of data analysis techniques is robust to multi-collinearity issues in case.

3.2. Model estimation results

The results (coefficients and standard error) of the 2-step system *GMM* for the four estimated models are presented in Table 3. From the first model, the results indicated that *ROA* is strongly but negatively influenced by its own lag. This was shown by the negative and statistically significant coefficient of lagged *ROA*. Similarly, the macroeconomic determinants, namely the *GDP* and *INF*, contributed negatively to the *ROA* performance of Nigerian banking firms. In this context, a percent change in *GDP* and *INF* contributed 50% and 312% reduction in *ROA,* while *SIZE* had no significant impact. This suggested that the inverse effect of *INF* was pronounced compared to the *GDP*. However, the bank-specific variables are not statistically significant

Table 2. Pearson correlation matrix

Correlation	ROA	ROIC	CRISK	SIZE	PRISK	GDP	INF	STOCK
ROA	12.54845	–	–	–	–	–	–	–
	1.000000	–	–	–	–	–	–	–
ROIC	3.437802	65.40506	–	–	–	–	–	–
	0.120000	1.000000	–	–	–	–	–	–
CRISK	0.016435	0.010357	0.000847	–	–	–	–	–
	0.159385	0.043997	1.000000	–	–	–	–	–
SIZE	0.325875	1.096854	−0.000559	0.486250	–	–	–	–
	0.131925	0.194497	−0.027542	1.000000	–	–	–	–
PRISK	−0.972611	−4.893571	−0.031045	−1.007700	123.9283	–	–	–
	−0.024664	−0.054354	−0.095805	−0.129812	1.000000	–	–	–
GDP	−0.509273	−3.939854	−0.004485	−0.527042	11.41171	8.131084	–	–
	−0.050418	−0.170844	−0.054030	−0.265058	0.359494	1.000000	–	–
INF	−0.818882	1.704646	0.021383	0.465224	−9.030163	−4.826167	9.326725	–
	−0.075694	0.069018	0.240534	0.218458	−0.265611	−0.554196	1.000000	–
STOCK	8.017398	16.07999	−0.013954	−0.842212	−7.746898	2.548346	−7.796944	116.5457
	0.209648	0.184176	−0.044404	−0.111878	−0.064461	0.082782	−0.236489	1.000000

in explaining the *ROA*. It can be seen that the *PRISK*[2] had a positive effect on *ROA* at the 5% level of significance. As such, a one percent increase in *PRISK* led to a 7.5% increase in *ROA*.

Subsequently, the second model presents the effects of the *PRISK* and other dependent variables on *ROIC*. The result in the second column of Table 3 shows that the previous period *ROIC* significantly influenced the current period *ROIC*. Amongst the bank-specific factors, *CRISK* is a positive and significant determinant of *ROIC,* while *SIZE* is insignificant. In addition, macroeconomic variables had no significant influence of the *ROIC* performance of the Nigerian banking sector. The effect of *PRISK* was negative on the *ROIC* albeit significant at a 10% level of significance.

The third model is estimated to determine whether country risk proxy by *PRISK* contributes to the *CRISK*. The result in the third column reveals that the *CRISK* is positively and significantly driven by its previous values at a 5% level of significance. Between the bank-specific factors, *SIZE* of the banking sector leads to a reduction in *CRISK* such that a one percent increase in *SIZE* leads to a 2.67% reduction in *CRISK*. Between the macroeconomic factors, *INF* exerted and exerts a negative influence on *CRISK,* given its negative coefficient, while *GDP* is not a statistically significant determinant of *CRISK* in the Nigerian banking sector. Subsequently, the effect of *PRISK* is positive on the *CRISK* albeit significant at a 10% level of significance. This suggested that an 0.163 percent rise in credit risk was attributable to a one percent increase in the political risk index.

While *ROA* and *ROIC* respectively measure bank performance in terms of management proficiency in asset and capital utilization, the market-wide effect of country risk could reflect on the stock market prices. Consequently, the result in the fourth column is meant to solve this assumption. The result showed that banking stock prices reduce with the increase in its own lag. This is demonstrated by negative and significant coefficients of *L. STOCK*. *PRISK* is significantly positive at a 5% level of significance. Specifically, a 1% increase in *PRISK* leads to a 49.4% increase in banking stock prices.

In addition, the macroeconomic factors portend positive signs for the *STOCK*. As a result, banking *STOCK* increases as the *GDP* and *INF* increase at a 5% level of significance.

Table 3. GMM regression results

Source: Authors' calculation (2020).

Variables	Model 1	Model 2	Model 3	Model 4
	ROA	ROIC	CRISK	STOCK
L. ROA	−0.283**	–	–	–
	(0.1310)	–	–	–
CRISK	21.21	3.202**	–	3.818
	(18.8900)	(1.4190)	–	(11.6200)
SIZE	1.553	0.562	−0.0265***	4.516
	(1.2710)	(0.5980)	(0.0067)	(3.6120)
PRISK	−0.0751**	0.0567*	−0.00163*	−0.494**
	(0.0341)	(0.0335)	(0.0010)	(0.2430)
GDP	−0.502**	0.13	0.0012	15.87***
	(0.2030)	(0.5130)	(0.0009)	(6.0730)
INF	−3.120**	−0.157	0.0326***	38.33**
	(1.4110)	(0.7810)	(0.0067)	(14.9900)
L. ROIC	–	0.899***	–	–
	–	(0.3340)	–	–
L. RISK	–	–	0.370***	–
	–	–	(0.0368)	–
L. STOCK	–	–	–	−1.532**
	–	–	–	(0.7420)
Constant	0.522	−3.01	0.0942***	−141.1**
	(5.0740)	(5.8210)	(0.0330)	(58.4900)
Observations	144	144	144	144
Number of ids	12	12	12	12
Number of groups	9	11	11	8
Wald stat prob.	0.000	0.000	0.000	0.021
AR2	0.315	0.544	0.721	0.058
Hansen stat prob	0.842	0.818	0.764	0.497

Note: Standard errors in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

3.3. Discussion

This study determined the effect of political risk on the performance of Nigerian banking firms using two-stage GMM for the 2006–2018 period. It was found that political risk has a favorable effect

---

2   As per the international country risk guide, an increase in risk ratings reflects decreasing risk (Erb et al., 1996).

on return on assets and stock prices. This finding differs from Mokatsanyane (2016) in the study of South African banks where other measures other than net interest margins were not affected by political risks. This study found that the political risk index reduces the return on invested capital and increases the credit risk of Nigerian commercial banks, *albeit* weak significance. The unfavorable impact of the Nigerian political situation is manifested through nonperforming loans. The instability in political environment could adversely affect government policy-making and ease of doing business. Considering the ease of doing business, Nigeria ranked 146th and 131st worldwide according to the report of the World Bank in 2019 and 2020, respectively (Society Generale, 2020). This feature could lead to business failure or unprofitable operation and make it difficult for borrowers to repay loans and credit facilities. This finding is consistent with Tamadonnejad et al. (2013) who concluded that country risk and political risks deteriorated efficiency in Asian banks.

The unfavorable effect of the political risk can be linked to the effect of macroeconomic factors. It can be assumed that the growth rate of the economy and inflation have deteriorating effects on bank performance. These factors tend to increase the cost of business operations for banks and their customers. This informs the positive effect of inflation on credit risk and suggests that inflation increases nonperforming loans for the Nigerian banking industry. As most of these factors are beyond the control of the bank management, they could be the major reasons for the prolonged banking crisis, despite various government interventions and capital

regulations in the Nigerian banking industry. As illustration, extending credit when confronted with rising country risks could result in loan defaults. In addition, banks may find it difficult to recover previously extended credits.

Subsequently, the study found that CRISK is not a significant determinant of (ROA) performance in the Nigerian banking industry. This finding is not supported by most of the existing studies that established negative (Iwedi & Onuegbu, 2014; Soyemi et al., 2014) and positive (Kolapo et al., 2012; Uwalomwa et al., 2015) effects of credit risk on ROA financial performance in Nigeria. The observed differences in the findings relevant to literature emanate from a different estimation technique. However, the preference for GMM employed in this study was well articulated in literature. It was found that credit risk stimulated bank return on capital, which supports the majority of the existing studies, although prior studies employed return on equity. This study revealed that the effect of credit risk is dependent on performance measure. The differences in the impact of credit risk on return on assets relative to return on invested capital is acceptable as assets are larger than capital. No bank performance measure is affected by the size of Nigerian banking firms. This finding was proposed in literature (Almumani, 2013; Kasana, 2016).

Additionally, this study found that stock prices are determined by the macroeconomic condition in Nigeria. GDP growth and inflation rates and political risk index all exhibit positive significant effects on bank stock prices. This suggested that these factors pose favorable effects on bank performance in stock market.

CONCLUSION

This study has examined whether political risk matters to bank performance in the Nigerian banking sector. It was found that the effects of country risk and macroeconomic factors on bank performance were mostly unfavorable. It was concluded that political and macroeconomic risks mostly reduce performance or worsen credit risk situations of Nigerian banking firms. Through this article, the first empirical evidence on how political environment induces poor performance in Nigeria's banking system was provided. In terms of policy recommendation, there is a need to create tranquility in the political arena and develop the nation's political architectures. Subsequently, a general increase in business and economic outputs is necessary to improve the performance in the Nigerian banking system, and, as a result, policy decisions should be focused in this direction. The study of the effect of country risk on performance can be extended to nonbanking financial institutions. Finally, the effect of unexpected event such as COVID-19 on bank performance provides motivation for future empirical research.

AUTHOR CONTRIBUTIONS

Conceptualization: Adefemi A. Obalade, Babatunde Lawrence.
Data curation: Adefemi A. Obalade, Babatunde Lawrence, Joseph Olorunfemi Akande.
Formal analysis: Adefemi A. Obalade, Babatunde Lawrence, Joseph Olorunfemi Akande.
Investigation: Adefemi A. Obalade, Babatunde Lawrence, Joseph Olorunfemi Akande.
Methodology: Adefemi A. Obalade, Babatunde Lawrence, Joseph Olorunfemi Akande.
Project administration: Adefemi A. Obalade.
Resources: Adefemi A. Obalade, Babatunde Lawrence, Joseph Olorunfemi Akande.
Software: Adefemi A. Obalade, Babatunde Lawrence, Joseph Olorunfemi Akande.
Supervision: Adefemi A. Obalade.
Validation: Adefemi A. Obalade, Joseph Olorunfemi Akande.
Visualization: Adefemi A. Obalade, Babatunde Lawrence, Joseph Olorunfemi Akande.
Writing – original draft: Adefemi A. Obalade, Babatunde Lawrence, Joseph Olorunfemi Akande.
Writing – reviewing & editing: Adefemi A. Obalade, Babatunde Lawrence, Joseph Olorunfemi Akande.

REFERENCES

1. Adaramola, A. O., Obalade, A. A., Akosile, M. O., & Obalade, G. O. (2018). Effect of Dividend and Earnings on Stock Price Movement in Nigerian Banking Sector. *Acta Universitatis Danubius. Œconomica, 14*(5), 229-246. Retrieved from http://journals.univ-danubius.ro/index.php/oeconomica/article/view/4836/5340

2. Adeusi, S. O., Akeke, N. I., Adebisi, O. S., & Oladunjoye, O. (2013). Risk management and financial performance of banks in Nigeria. *IOSR Journal of Business and Management, 14*(6), 52-56. https://doi.org/10.9790/487X-1465256

3. Afriyie, H. O., & Akotey, J. O. (2012). *Credit risk management and profitability of selected rural banks in Ghana.* Ghana: Catholic University College of Ghana. Retrieved from https://www.econrsa.org/system/files/workshops/papers/2012/afriyie-credit-risk-management.pdf

4. Akinlo, O., & Emmanuel, M. (2014). Determinants of non-performing loans in Nigeria. *Accounting & Taxation, 6*(2), 21-28. Retrieved from http://www.theibfr2.com/RePEc/ibf/acttax/at-v6n2-2014/AT-V6N2-2014-3.pdf

5. Aliabadi, S., Dorestani, A., & Balsara, N. (2013). The most value relevant accounting performance measure by industry. *Journal of Accounting and Finance, 13*(1), 22-34. Retrieved from http://www.na-businesspress.com/JAF/DorestaniA_Web13_1_.pdf

6. Ally, Z. (2014). Determinants of banks' profitability in a developing economy: Empirical evidence from Tanzania. *European Journal of Business and management, 6*(31), 363-375. Retrieved from https://www.iiste.org/Journals/index.php/EJBM/article/view/16568/16971

7. Almumani, M. A. (2013). Impact of managerial factors on commercial bank profitability: Empirical evidence from Jordan. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 3*(3), 298-310. http://dx.doi.org/10.6007/IJARAFMS/v3-i3/203

8. Ani, W., Ugwunta, D., Ezeudu, I., & Ugwuanyi, G. (2012). An empirical assessment of the determinants of bank profitability in Nigeria: Bank characteristics panel evidence. *Journal of Accounting and Taxation, 4*(3), 38-43. http://dx.doi.org/10.5897/JAT11.034

9. Apergis, N., Payne, J. E., & Tsoumas, C. (2011). *Credit rating changes' impact on banks: evidence from the US banking industry* (MPRA Paper No. 35647). University Library of Munich, Germany. Retrieved from https://mpra.ub.uni-muenchen.de/35647/1/MPRA_paper_35647.pdf

10. Ara, H., Bakaeva, M., & Sun, J. (2009). *Credit risk management and profitability in commercial banks in Sweden* (Master's Thesis). Retrieved from https://gupea.ub.gu.se/bitstream/2077/20857/1/gupea_2077_20857_1.pdf

11. Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies, 58*(2), 277-297. https://doi.org/10.2307/2297968

12. Ashraf, B. N., Arshad, S., & Yan, L. (2018). Do better political institutions help in reducing political pressure on state-owned banks? Evidence from developing countries. *Journal of Risk and Financial Management, 11*(3), 43. https://doi.org/10.3390/jrfm11030043

13. Athanasoglou, P. P., Brissimis, S. N., & Delis, M. D. (2005). *Bank-specific, industry-specific and macroeconomic determinants of bank profitability* (MPRA Paper No. 32026). Retrieved from https://mpra.ub.uni-muenchen.de/32026/1/Bank-specific.pdf

14. Augustin, D., & Prophète, C.-H. (2016). The Determinants of

Bank Profitability in Haiti. *Paper presented at the 48th Annual Monetary Studies Conference*. Caribbean Centre for Money and Finance, Nassau, Bahamas.

15. Baltagi, B. (2008). *Econometric analysis of panel data*. John Wiley & Sons.

16. Ben Nasr, A., Cunado, J., Demirer, R., & Gupta, R. (2018). Country risk ratings and stock market returns in Brazil, Russia, India, and China (BRICS) Countries: A nonlinear dynamic approach. *Risks, 6*(3), 94. https://doi. org/10.3390/risks6030094

17. Boahene, S. H., Dasah, J., & Agyei, S. K. (2012). Credit risk and profitability of selected banks in Ghana. *Research Journal of Finance and Accounting, 3*(7), 6-14. Retrieved from https://www.iiste. org/Journals/index.php/RJFA/ article/view/2628/2643

18. Bofondi, M., Carpinelli, L., & Sette, E. (2013). *Credit supply during a sovereign debt crisis* (Working Paper No. 909). Bank of Italy Temi di Discussione. Retrieved from https://www.bancaditalia. it/pubblicazioni/altri-atti- convegni/2013-2-sovereign-debt- crisis/carpinelli.pdf

19. Bordo, M. D., & Rousseau, P. L. (2006). Legal-political factors and the historical evolution of the finance-growth link. *European Review of Economic History, 10*(3), 421-444. Retrieved from https:// www.jstor.org/stable/41378452

20. Bozga, D., & Trenca, I. (2018). Determinants of Credit Risk in the European Banking Sector. *EuroEconomica, 37*(1), 108-113. Retrieved from http://journals. univ-danubius.ro/index.php/euro- economica/article/view/4543

21. Bremmer, I., & Keat, P. (2009). *The fat tail: the power of political knowledge for strategic investing*. OUP Catalogue.

22. Brownbridge, M. (1998). *The causes of financial distress in local banks in Africa and implications for prudential policy*. UNCTAD/ OSG/DP/132. Retrieved from https://unctad.org/system/files/ official-document/dp_132.en.pdf

23. Brůha, J., & Kočenda, E. (2018). Financial stability in Europe: Banking and sovereign risk. *Journal of Financial Stability, 36,* 305-321. https://doi.org/10.1016/j. jfs.2018.03.001

24. Carey, A. (2001). Effective risk management in financial institutions: the Turnbull approach. *Balance Sheet, 9*(3), 24-27. https://doi. org/10.1108/09657960110696014

25. Chi, Q., & Li, W. (2017). Economic policy uncertainty, credit risks and banks' lending decisions: Evidence from Chinese commercial banks. *China Journal of Accounting Research, 10*(1), 33-50. https://doi.org/10.1016/j. cjar.2016.12.001

26. Converse, N., & Mallucci, E. (2019). *Preferential Treatment in the Sovereign Debt Market: Evidence from Bond Mutual Funds* (Technical Report). Board of Governors of the Federal Reserve System (U.S.).

27. Demirgüç-Knut, A., & Huizinga, H. (2000). *Financial structure and bank profitability* (Policy Research Working Paper No. 2430). World Bank. Retrieved from https:// documents1.worldbank.org/cu- rated/en/364151468749353823/ pdf/multi-page.pdf

28. Duong, N. T., & Huong, T. T. T. (2017). The Analysis of Major Credit Risk Factors-The Case of the Vietnamese Commercial Banks. *International Journal of Financial Research, 8*(1), 33- 42. https://doi.org/10.5430/ijfr. v8n1p33

29. El-Maude, J. G., Abdul-Rahman, A., & Ibrahim, M. (2017). Determinants of non-performing loans in Nigeria's deposit money banks. *Archives of Business Research, 5*(1), 74-88. https://doi. org/10.14738/abr.51.2368

30. Epure, M., & Lafuente, I. (2012). *Monitoring performance in the presence of risk* (Working Paper No. 613). Barcelona GSE. Retrieved from https:// upcommons.upc.edu/bitstream/ handle/2117/27455/Epure_&_La- fuente_GSE%20WP613.pdf

31. Erb, C. B., Harvey, C. R., &

Viskanta, T. E., 1996. Political Risk, Economic Risk, And Financial Risk. *Financial Analysts Journal, 52*(6), 29-46. https://doi. org/10.2469/faj.v52.n6.2038

32. Fapetu, O., & Obalade, A. A. (2015). Sectoral allocation of banks' credit and economic growth in Nigeria. *International Journal of Academic Research in Business and Social Sciences, 5*(6), 161-169. http://dx.doi. org/10.6007/IJARBSS/v5-i6/1666

33. Flamini, V., Schumacher, M. L., & McDonald, M. C. A. (2009). *The determinants of commercial bank profitability in Sub-Saharan Africa* (IMF Working Paper No. WP/09/15). International Monetary Fund. Retrieved from https://www.imf.org/external/ pubs/ft/wp/2009/wp0915.pdf

34. Girma, S., & Shortland, A. (2008). The political economy of financial development. *Oxford Economic Papers, 60*(4), 567-596. https://doi. org/10.1093/oep/gpm040

35. Gizaw, M., Kebede, M., & Selvaraj, S. (2015). The impact of credit risk on profitability performance of commercial banks in Ethiopia. *African Journal of Business Management, 9*(2), 59-66. https:// doi.org/10.5897/AJBM2013.7171

36. Hodge, A. (2017). *Determinants of Commercial Bank Profitability in the ECCU*. Research Department, Eastern Caribbean Central Bank, St. Kitts.

37. ICRG. (2017). *International country risk guide (ICRG)*. Retrieved from http://www. prsgroup.com/about-us/our-two- methodologies/icrg

38. Iwedi, M., & Onuegbu, O. (2014). Funding Housing Deficit in Nigeria: A Review of the Efforts, Challenges and the Way Forward. *International Journal of Business and Social Science, 5*(13), 206-209. Retrieved from https://ijbssnet. com/journals/Vol_5_No_13_De- cember_2014/22.pdf

39. Judson, R. A., & Owen, A. L. (1999). Estimating dynamic panel data models: a guide for macroeconomists. *Economics Letters, 65*(1), 9-15. https://

doi.org/10.1016/S0165-1765(99)00130-5

40. Kasana, S., & Naveed, Q. (2016). The Determinants of Credit Risk in Commercial Banks of Pakistan. *Journal of Poverty, Investment and Development, 25,* 65-72. Retrieved from https://www.iiste.org/Journals/index.php/JPID/article/view/31376/32214

41. Keefer, P. (2007). *Beyond legal origin and checks and balances: political credibility, citizen information, and financial sector development.* The World Bank.

42. Kirikkaleli, D. (2020). Does political risk matter for economic and financial risks in Venezuela? *Journal of Economic Structures, 9*(1), 3. https://doi.org/10.1186/s40008-020-0188-5

43. Kolapo, T. F., Ayeni, R. K., & Oke, M. O. (2012). Credit risk and commercial banks in Nigeria: A Panel Model Approach. *Australian Journal of Business and Management Research, 2*(2), 31-38. Retrieved from http://ajbmr.com/articlepdf/aus_20_70i2n2a4.pdf

44. Koutsomanoli-Filippaki, A., & Mamatzakis, E. (2009). Performance and Merton-type default risk of listed banks in the EU: A panel VAR approach. *Journal of Banking & Finance, 33*(11), 2050-2061. https://doi.org/10.1016/j.jbankfin.2009.05.009

45. Kure, E., Adigun, M., & Okedigba, D. (2017). Non-Performing Loans in Nigerian Banks: Determinants and Macroeconomic Consequences. *Economic and Financial Review, 55*(3), 1-24. Retrieved from https://www.cbn.gov.ng/Out/2018/RSD/CBN%20EFR%20Volume%2055%20No%203%20September%202017%20-%20Draft%20for%20Upload.pdf

46. Lee, Chi-Chuan., & Lee, Chien-Chiang. (2019). Oil price shocks and Chinese banking performance: Do country risks matter? *Energy Economics, 77,* 46-53. https://doi.org/10.1016/j.eneco.2018.01.010

47. Li, F., Zou, Y., & Lions, C. (2014). *The Impact of Credit Risk Management on Profitability of Commercial Banks: A Study of Europe.* UMEA School of Business and Economics, UMEA Universitet. Retrieved from http://www.diva-portal.org/smash/get/diva2:743402/FULLTEXT01.pdf

48. Li, J., & Zinna, G. (2014). On bank credit risk: systemic or bank specific? Evidence for the United States and United Kingdom. *Journal of Financial and quantitative analysis, 49*(5-6), 1403-1442. https://doi.org/10.1017/S0022109015000022

49. Lintner, J. (1965). Security prices, risk, and maximal gains from diversification. *The Journal of Finance, 20*(4), 587-615. https://doi.org/10.1111/j.1540-6261.1965.tb02930.x

50. Mark, J., &Nwaiwu, J. N. (2015). Impact of political environment on business performance in multinational companies in Nigeria. *African Research Review, 9*(3), 2-10. https://doi.org/10.4314/afrrev.v9i3.1

51. Marshal, I. (2017). Bank Failure in Nigeria: Evidence of Prudential Regulator Laxity. *Frontiers in Management Research, 1*(4), 141-150. https://dx.doi.org/10.22606/fmr.2017.14003

52. Menicucci, E., & Paolucci, G. (2016). The determinants of bank profitability: empirical evidence from European banking sector. *Journal of Financial Reporting and Accounting, 14*(1), 86-115. https://doi.org/10.1108/JFRA-05-2015-0060

53. Mensi, W., Hammoudeh, S., Yoon, S. M., & Nguyen, D. K. (2016). Asymmetric linkages between BRICS stock returns and country risk ratings: Evidence from dynamic panel threshold models. *Review of International Economics, 24*(1), 1-19. https://doi.org/10.1111/roie.12201

54. Mokatsanyane, D. (2016). *The relationship between political risk, credit risk and profitability in the South African banking sector* (Master's Thesis). North-West University (South Africa), Vaal Triangle Campus. Retrieved from https://dspace.nwu.ac.za/bitstream/handle/10394/24920/Mokatsanyane_D.pdf

55. Monfared, S., & Pavlov, A. (2019). Political Risk Affects Real Estate Markets. *The Journal of Real Estate Finance and Economics, 58*(1), 1-20. https://doi.org/10.1007/S11146-017-9619-Y

56. Moulton, A. (2011). *An Investigation of the Determinants & Forecast Performance of Bank Profits: The Case of Jamaican Banks.* Research and Economic Programming Division, Bank of Jamaica.

57. Mpofu, T. R., & Nikolaidou, E. (2018). Determinants of credit risk in the banking system in Sub-Saharan Africa. *Review of Development Finance, 8*(2), 141-153. https://doi.org/10.1016/j.rdf.2018.08.001

58. Muzindutsi, P. F., & Oba-lade A. A. (2020). Effect of Country Risk Shocks on South African Bond Market Performance under changing Condition. *Global Business Review,* 1-3. https://doi.org/10.1177%2F0972150920951116

59. Muzindutsi, P. F., Jamile, S., Zibani, N., & Obalade A. A. (2020). The Effects of political, economic and financial Risks on Housing Prices in South Africa. *International Journal of Housing Markets and Analysis,* Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/IJHMA-05-2020-0060

60. Muzindutsi, P.-F., & Nhlapho, R. (2017). Effect of different components of country risk on credit extension in South Africa. *International Journal of Economics and Finance Studies, 9*(2), 152-166. Retrieved from https://www.sobiad.org/eJOURNALS/journal_IJEF/archieves/IJEF_2017_2/p-muzindutsi.pdf

61. Nathan, C., & Mallucci, E. (2019). *Differential Treatment in the Bond Market: Sovereign Risk and Mutual Fund Portfolios* (International Finance Discussion Paper No. 1261). Board of Governors of the Federal Reserve System. https://doi.org/10.17016/IFDP.2019.1261

62. Nigeria Deposit Insurance Corporation. (2009). Annual

Report. Retrieved from https://www.proshareng.com/news/Regulators/2009-Annual-Report-and-Statement-of-Accounts/14240#

63. Omoruyi, A., & Igbinosa, O. B. (2014). Determinants of nonperforming loans in Nigerian banking sector: evidence from macroeconomic factors. *Journal of Economics and Development Studies, 2*(2), 43-63.

64. Quintyn, M. M., & Verdier, G. (2010). *Mother, Can I Trust the Government? Sustained Financial Deepening: A Political Institutions view* (IMF Working Paper No. 10/210). International Monetary Fund. Retrieved from https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Mother-Can-I-Trust-the-Government-Sustained-Financial-Deepening-A-Political-Institutionsview-24207

65. Roe, M. J. (2006). Legal origins, politics, and modern stock markets. *Harvard Law Review, 120,* 460-527. Retrieved from https://harvardlawreview.org/wp-content/uploads/pdfs/roe.pdf

66. Roe, M. J., & Siegel, J. I. (2011). Political instability: Effects on financial development, roots in the severity of economic inequality. *Journal of Comparative Economics, 39*(3), 279-309. Retrieved from https://dash.harvard.edu/handle/1/12019047

67. Ross, S. A. (1976). The arbitrage theory of capital asset pricing. *Journal of Economic Theory, 13*(3), 341-360. https://doi.org/10.1016/0022-0531(76)90046-6

68. Şanlısoy, S., Aydın, Ü., Yalçınkaya, A., & Elif, A. (2017). Effect of political risk on bank profitability. *International Journal of Business Management and Economic Research (IJBMER), 8*(5), 998-1007.

69. Sanusi, L.S. (2009). Keynote address at the CBN Executive Seminar. *Economic and Financial Review, 47*(4), 1-5. Retrieved from http://library.cbn.gov.ng:8092/jspui/handle/123456789/180

70. Sharpe, W. F. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk. *The Journal of Finance, 19*(3), 425-442. https://doi.org/10.1111/j.1540-6261.1964.tb02865.x

71. Societe Generale. (2020). *Import Export Solution.* Retrieved from https://import-export.societe-generale.fr/en/country/nigeria/investment-country-risk

72. Soyemi, K. A., Ogunleye, J. O., & Ashogbon, F. O. (2014). Risk management practices and financial performance: evidence from the Nigerian deposit money banks (DMBs). *International Journal of Managerial Studies and Research (IJMSR), 2*(5), 31-39. Retrieved from https://www.arcjournals.org/pdfs/ijmsr/v2-i5/5.pdf

73. Tamadonnejad, A., Abdul-Majid, M., Rahman, A., & Jusoh, M. (2013). Political Stability, Country Risk and Bank Efficiency in East Asian Countries. *Prosiding Perkem, 8*(2), 616-628. Retrieved from https://www.ukm.my/fep/perkem/pdf/perkemVIII/PKEM2013_3B1.pdf

74. Thiagarajan, S. (2013). Determinants of Credit Risk in the Commercial Banking Sector of Belize. *Research Journal of Social Science and Management, 3*(4), 84-90. Retrieved from https://www.theinternational-journal.org/ojs/index.php?journal=tij&page=article&op=view&path%5B%5D=2034&path%5B%5D=pdf

75. Uwalomwa, U., Uwuigbe, O. R., & Oyewo, B. (2015). Credit Management and Bank Performance of Listed Banks in Nigeria. *Journal of Economics and Sustainable Development, 6*(12), 27-32. Retrieved from https://www.academia.edu/15093516/Credit_Management_and_Bank_Performance_of_Listed_Banks_in_Nigeria

76. Uwuigbe, U., Uwuigbe, O. R., & Okorie, B. (2015). Assessment of the effects of firms' characteristics on earnings management of listed firms in Nigeria. *Asian Economic and Financial Review, 5*(2), 218-228. https://doi.org/10.18488/journal.aefr/2015.5.2/102.2.218.228

77. Yahya, A. T., Akhtar, A., & Tabash, M. I. (2014). The impact of political instability, macroeconomic and bank-specific factors on the profitability of Islamic banks: an empirical evidence. *Investment Management and Financial Innovations, 14*(4), 30-39. http://dx.doi.org/10.21511/imfi.14(4).2017.04