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Bank loan loss provisioning during election years in Nigeria

P.K. Ozili

Abstract

The paper investigates the behavior of loan loss provisions during election years in Nigeria. Election events create uncertainties in the business environment in Nigeria which can increase the credit risk that banks face. The findings reveal that the banking sector had high loan loss provisions when it is under-capitalised during election years. However, the election year did not have a significant effect on the level of loan loss provisions in the Nigerian banking sector.

Keywords: loan loss provisions; income smoothing; election; Nigeria, banks, financial reporting, credit risk;

JEL Classification: G21, G28.

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1. Introduction

The objective of this paper is to investigate the behaviour of loan loss provisions in the Nigerian banking sector. Loan loss provisions (LLPs) are used to mitigate expected loan losses arising from bank lending (Curcio and Hasan, 2015; Leventis et al, 2011). The size of loan loss provisions reported in the financial statement of banks can have signaling effects on the asset quality of banks (Ozili and Outa, 2018). In Nigeria, the size of loan loss provisions in banks are significantly influenced by credit risk considerations, prudential regulation requirements and accounting standards (Ozili and Outa, 2019).

In addition to credit risk, there are other risk factors that banks take into account. One of such risk factor is the impact of elections on banks' ability to recover loans from politically-connected obligors as well as the effect of elections on banks' ability to conduct business in the election year (Ozili, 2020), and this is called the election year effect. According to Ozili (2020), the "election-year effect' is a country risk factor which banks take into account if banks believe that a change in the current government following general elections may affect their ability to recover loans from politically-connected obligors. Such banks will keep additional provisions to mitigate credit risk arising from the 'election year' effect.

Surprisingly, the banking literature has not examined the characteristics of bank financial reporting during the election year despite the fact that banks are often the largest borrowers to fund election campaigns in most countries and in Nigeria, and there is the risk that the loans issued to election campaigners may not be repaid in full, or at worst, will be written off. Due to this concern, this is the first study to examine the effect of election events on the characteristics of bank financial reporting in emerging economies, particularly, Nigeria. In this study, I focus on the impact of the election year on the level of loan loss provisions in the Nigerian banking sector.

The empirical results show that there is a negative and significant association between LLP and bank capital during election years which implies that loan loss provisions are higher when the banking sector is under-capitalised especially during election years. This finding supports the capital management hypothesis. The capital management hypothesis states that banks will increase loan loss provisions when they have low capital in order to compensate for their low capital levels, and banks will keep fewer loan loss provisions when they have sufficient (or high) capital (Curcio and Hasan, 2015; Ozili and Thankom, 2018). The findings also reveal that the election year did not have a significant effect on banking sector provisioning.

This study makes two contributions to the literature. Firstly, this study contributes to the literature that investigate the influence of external and institutional factors on bank financial reporting behaviour (e.g., Ozili, 2019; Bikker and Metzemakers, 2005; Laeven and Majnoni, 2003; Ozili, 2020). By controlling for election year effect, political stability and level of corruption, insights were provided to understand how unique factors in a country can influence the behaviour of loan loss provisions in banks. Secondly, this study examines loan loss provisioning behaviour in the banking sector of a country that, arguably, has non-transparent general elections, and a country that is prone to economic fluctuations (i.e., booms and recessions) due to its exposure to crude oil prices. This therefore provides a natural setting to test the effect of election events on banks' financial reporting, focusing on loan loss provision in this study.

The remainder of the paper is organised as follows. Section 2 provides an overview of the relevant literature. Section 2 develops the hypotheses. Section 3 presents the data, model specification and empirical methods. Section 4 discuss the empirical results. Section 5 concludes the paper.

2. Literature review

In the literature, Balla and Rose (2015) examine the relationship between earnings and loan loss provisioning at the time when the US SEC[1] tightened accounting constraints following the SEC's 1998 SunTrust Bank decision. The findings show that the positive association between earnings and loan loss provisions weakened for publicly-held banks but not for privately-held banks shortly after the SEC action, which is consistent with reduced earnings management among publicly-held banks only. Ozili (2020) examine the impact of the election-year on banks' loan loss provisioning behaviour using a cross country sample, and find that the banking sectors have high provisions during election years because banks anticipate a higher number of default from politically connected borrowers and also anticipate default that may arise from election uncertainties.

Also, some country-specific studies report some determinants of the level of loan loss provisions. For instance, in the United States, Morris et. al., (2016) examine the economic determinants and value relevance of US banks' loan loss provisions during the global financial crisis. They find that discretionary provisions are used for income smoothing and signaling when the two incentives reinforce each other, but income smoothing occurs more frequently. Kanagaretnam et. al., (2005) show that US banks use loan loss provisions to signal information about banks future prospects but the propensity to use provisions for signaling purposes is greater among smaller banks. In Italy, Caporale et. al., (2018) examine the determinants of loan loss provisions among 400 Italian banks during 2001 to 2015. They find that loan loss provisions in Italian banks were significantly influenced by the non-discretionary components of loan loss provisions; however, the procyclicality of loan loss provisions was less pronounced for local banks because their loans were well collateralised and their behaviour was more strongly affected by supervisory activity. In China, Wang et. al., (2019) examine whether bank loan loss provisions affect credit fluctuation in China's banking system, and find that non-discretionary loan loss provisions have a significant impact on credit fluctuation whereas discretionary loan loss provisions have no significant impact on credit fluctuation for Chinese banks.

In South Africa, Ozili and Outa (2018) show that South African banks do not use loan loss provisions to smooth income when they are: under-capitalised, have large non-performing loans and have a moderate ownership concentration; however, using LLPs to smooth income is pronounced when South African banks are more profitable during economic boom years, when they are well-capitalised and is pronounced among banks that adopt International Financial Reporting System (IFRS) and have a Big 4 auditor. In Poland, Borsuk (2019) conducted a set of stress test scenario to determine how different economic scenarios would affect loan loss provisions among other financial ratios. Borsuk find that economic growth, the labour market, and market interest rates have a significant influence on the loan loss provision ratio of banks in Poland. Although the literature has examined the behavior of LLP in several contexts, the extant literature has not examined the behaviour of bank financial reporting during election years, particularly the behaviour of loan loss provisions in election years.

In Nigeria, Ozili and Outa (2019) examine whether banks in Nigeria use loan loss provisions to smooth income during mandatory IFRS adoption in Nigeria, to determine whether mandatory IFRS adoption increased or decreased income smoothing among Nigerian banks. They find that the mandatory adoption of International Financial Reporting Standards (IFRS) in Nigeria was associated with reduced earnings

[1] Securities and Exchange Commission

smoothing among Nigerian banks, which suggest that mandatory IFRS adoption discouraged the use of loan loss provisions for income smoothing, while Ozili (2015) find that Nigerian banks used loan loss provisions for income smoothing and capital management purposes, but not for signaling purposes, during the voluntary adoption of IFRS in Nigeria. In an African study, Ozili (2019) show that using loan loss provisions for income smoothing purposes is more pronounced in African countries that have high levels of corruption and in politically unstable African countries. Overall, the empirical literature has not examined the effect of election events on bank financial reporting in Nigeria.

3. Data and Methodology

3.1. Data

Financial data for Nigeria was obtained from the World Bank database. The sample period is from 2003 to 2016 and is sufficient to cover at least 4 general election cycles. Data for real gross domestic product growth rate was collected from the World Economic Forum archived in the World Bank database, while institutional data was collected from the World Governance Indicators database of the World Bank's database. See Appendices A1 for descriptive statistics of the sample data and the variable descriptions.

3.2. Methodology

The baseline model is specified below, which is adapted from the models used in Curcio and Hasan (2015) and Ozili (2019).

$$LLPt = c + CARt + NPLt + CCt + PSt + ELECTt + GDPt + e$$

Where, LLP = loan loss provisions to gross loans; NPL = ratio of nonperforming loans to gross loans; CAR = ratio of total regulatory capital to total risk-weighted assets (%); ELECT = a binary variable that equal one in election year and zero in non-election year; ΔGDP = real domestic product growth rate; CC = control of corruption index; PS = political stability/ absence of terrorism index; t = year. See Appendix for detail variable description.

A positive sign for the ELECT coefficient is expected if banks anticipate that a change in the current government following general elections will make it difficult to recover their loans from politically-connected obligors, and banks would respond to this by keeping higher provisions in the election year. Prior studies control for other determinants of loan loss provisions (see Ahmed et. al, 1999; Ozili and Outa, 2017). The first variable is nonperforming loan (NPL). Banks will keep higher provisions when they expect high loan defaults (Laeven and Majnoni, 2003; Bikker and Metzemakers, 2005); thus, a positive sign is predicted for NPL coefficient. The second variable is the capital management (CAR) variable. CAR controls for capital management incentive to influence provisions estimates. Banks with low capital levels tend keep higher provisions to compensate for their low capital levels and vice versa, and this describes the capital management hypothesis (Ozili and Outa, 2017); thus, a negative relationship is predicted for CAR coefficient. The third variable is the real gross domestic product growth rate (ΔGDP) which control for bank provisioning behaviour that depends on the state of the economic cycle. Bank provisions are generally higher during recessionary periods and relatively lower during economic booms (Laeven and Majnoni, 2003, Ozili, 2018); implying a negative relationship between ΔGDP and LLP. Next, two institutional factors were introduced (the corruption control (CC) indicator and the political stability (PS) indicator) that play a

significant role during elections in Nigeria. High corruption levels and political instability are considered to be detrimental to general elections (Dupas and Robinson, 2012; Callen and Long, 2015). For the PS variable, a negative relationship between LLP and PS is expected because banks in politically unstable environments will keep higher provisions especially higher general provisions to mitigate credit risk in unstable political environments. For the CC variable, a positive relationship between LLP and CC is expected because banks in less corrupt environments tend to keep fewer general provisions (where general provisions are the smaller component of total provisions).

4. Results

4.1. Regression Results

The results are reported in Table 1. The variables of interest are the ELECT coefficient and the coefficient of the interaction variables. The ELECT coefficient is statistically insignificant in all models (1) to (6). The ELECT*CAR coefficient is negative and statistically significant, indicating that bank provisions are higher when the banking sector is under-capitalised during election years. Also, the ELECT*NPL, ELECT*PS, ELECT*CC and ELECT*ΔGDP coefficients are statistically insignificant, hence no meaningful conclusion can be drawn.

(insert table 1 here)

4.2. Correlation analysis

In the Pearson correlation results in Table 2, the focus is on the correlation between the loan loss provisions (LLPs) and the election year (ELECT) variable which tells us whether election years are associated with higher (or fewer) provisions in the Nigerian banking sector. The correlation analysis shows that the correlation between LLP and the ELECT is statistically insignificant, indicating that there is no significant correlation between bank provisions and election years. As can be observed, loan loss provisions (LLP) is significantly correlated with regulatory capital ratio (CAR) and business cycle (ΔGDP). However, CAR is negatively correlated with LLP while ΔGDP is positively correlated with LLP. This indicates that lower regulatory capital levels are associated with higher loan loss provisions in the Nigerian banking sector, while higher loan loss provisions are associated with periods of economic prosperity (i.e., positive GDP growth). However, loan loss provisions (LLP) is not significantly correlated with corruption control (CC) and political stability (PS) variable although PS is positively correlated with LLP while CC is negatively correlated with LLP.

(insert table 2 here)

4.3. Descriptive statistics

The mean values of the variables are reported in Table 3. The mean value of the LLP ratio is 8.02 which is much lower than the NPL ratio and indicates that bank provisions is lower than the level of nonperforming loans (NPLs) during the period of analysis. The standard deviation of NPL and LLP shows that the NPLs had higher variability than LLPs in the Nigerian banking sector. Also, the mean of the regulatory capital ratio (CAR) is higher than the means of LLP and NPL which suggest that the Nigerian banking sector has sufficient regulatory capital to mitigate expected losses. The CAR variable

has lower variability than NPL and LLP which indicate the regulatory capital ratio of the Nigerian banking sector is relatively stable

(insert table 3 here)

5. Conclusion

The behaviour of bank loan loss provisions during election years in Nigeria was examined. The main message of this paper is that, although there was no significant direct impact of election year on bank provisioning in Nigeria, loan loss provisions are higher when the banking sector is under-capitalised, especially during election years. One implication of the findings is that political events, such as elections, may affect other accounting numbers in banks. Secondly, bank supervisors should understand how election events might affect banks' loan portfolio in their assessment of the appropriate level of regulatory provisions that banks should keep. One idea is to require banks to increase its stock of 'general provisions' in election years to act as a cushion to mitigate expected and unexpected losses arising from election and post-election events. It is recommended that future research should investigate other national events that can affect the stability of the Nigerian banking sector. Future research may also focus on the effect of elections on bank provisioning in microfinance banks.

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Tables

Table 1: Provisioning during election years						
	(1)	(2)	(3)	(4)	(5)	(6)
Variables	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)	Coefficient (t-statistic)
c	0.554 (0.06)	0.269 (0.03)	-15.871 (-1.86)	-1.425 (-0.13)	0.109 (0.01)	-1.49 (-0.17)
NPL	-2.281 (-1.51)	0.675*** (11.29)	0.779*** (19.15)	0.667*** (9.33)	0.668*** (9.87)	0.694*** (15.19)
CAR	-0.208* (-2.23)	-0.202* (-2.27)	0.016 (0.18)	-0.190 (-1.61)	-0.203 (-1.61)	-0.175* (-2.58)
ELECT	0.688 (0.91)	0.866 (0.85)	12.093* (2.36)	7.318 (0.66)	-0.532 (-0.06)	1.446 (1.32)
ΔGDP	0.205*** (4.82)	0.199** (3.15)	0.231*** (7.98)	0.226** (3.20)	0.210* (2.77)	0.191** (3.46)
CC	-2.281 (-1.51)	-2.681 (-1.19)	-0.924 (-0.65)	-0.937 (-0.36)	-1.910 (-0.67)	-3.398 (-1.56)
PS	0.543 (0.17)	0.692 (0.18)	-6.044* (-1.79)	-0.998 (-0.19)	0.166 (0.03)	0.495 (0.15)
ELECT*NPL		-0.024 (-0.20)				
ELECT*CAR			-0.593* (-2.42)			
ELECT*PS				3.428 (0.61)		
ELECT*CC					-1.083 (-0.13)	
ELECT*ΔGDP						0.939 (0.40)
R^2	99.55	99.56	99.78	99.58	99.55	99.59
Adjusted R^2	99.02	99.79	99.40	98.86	98.78	98.88
F-statistic	186.21	128.93	261.62	137.93	128.36	140.56
Prob(F-statistic)	0.000	0.0002	0.00004	0.0001	0002	0.0001
Durbin Watson	2.49	2.46	3.40	2.63	2.57	2.32
Akaike information criterion	2.85	3.34	2.31	2.95	3.02	2.93

Estimations are based on ordinary least squares (OLS) regression. 'White heteroscedasticity-consistent standard errors & covariance' is applied to correct for autocorrelation and heteroscedasticity. NPL = ratio of nonperforming loans to gross loans: the lower the better; CAR = ratio of total regulatory capital to total risk-weighted assets (%); ELECT = a binary variable that equal one in election year and zero in non-election year. ΔGDP = real gross domestic product growth rate; CC = control of corruption index: the higher the better; PS = political stability/ absence of terrorism index: the higher the better; t-statistics is reported in parenthesis. *,**, *** denotes significance at the 10%, 5% and 1% levels .

Table 2: Correlation Matrix

Variables	NPL	LLP	CAR	CC	PS	ELECT	ΔGDP
NPL	1.000						
LLP	0.977***	1.000					
	(14.51)						
	((0.00))						
CAR	-0.710***	-0.712***	1.000				
	(-3.19)	(-3.21)					
	((0.01))	((0.01))					
CC	0.005	-0.131	-0.103	1.000			
	(0.014)	(-0.41)	(-0.32)				
	((0.99))	((0.68))	((0.74))				
PS	0.240	0.251	0.348	-0.293	1.000		
	(0.782)	(0.82)	(1.17)	(-0.97)			
	((0.45))	((0.43))	((0.26))	((0.35))			
ELECT	-0.157	-0.170	0.421	-0.145	0.345	1.000	
	(-0.50)	(-0.54)	(1.46)	(-0.46)	(1.16)		
	((0.62))	((0.59))	((0.172))	((0.65))	((0.27))		
ΔGDP	0.368	0.526*	-0.083	-0.524*	0.389	-0.139	1.000
	(1.25)	(1.95)	(-0.26)	(-1.94)	(1.33)	(-0.44)	
	((0.23))	((0.07))	((0.79))	((0.08))	((0.21))	((0.66))	

Estimations are based on Pearson correlation analysis. T-statistics are reported in single parenthesis. P-values are reported in double parenthesis.

Table 3: Descriptive statistics for all variables from 2003 to 2016							
	NPL	LLP	CAR	CC	PS	ELECT	ΔGDP
Mean	12.16	8.02	15.55	-1.14	-1.94	0.28	7.53
Median	9.30	4.20	17.47	-1.14	-1.97	0.00	6.28
Maximum	37.30	27.90	23.40	-0.89	-1.63	1.00	33.73
Minimum	2.95	0.00	1.75	-1.36	-2.21	0.00	-1.61
Std. Dev.	10.13	8.51	6.41	0.13	0.16	0.46	8.06
Observations	13	14	12	14	14	14	14

Appendix

A1: Variable Description		
Indicator	Short definition	Source
ΔGDP	Change in Gross Domestic Product in percentage	World Bank national accounts data, and OECD National Accounts data files.
CAR	The capital adequacy of deposit takers. It is a ratio of total regulatory capital to its assets held, weighted according to risk of those assets.	Financial Soundness Indicators Database (fsi.imf.org), International Monetary Fund (IMF)
NPL	Ratio of defaulting loans (payments of interest and principal past due by 90 days or more) to total gross loans (total value of loan portfolio). The loan amount recorded as nonperforming includes the gross value of the loan as recorded on the balance sheet, not just the amount that is overdue.	Financial Soundness Indicators Database (fsi.imf.org), International Monetary Fund (IMF)
PS	Political stability and absence of terrorism index	World Governance Indicator database
CC	Control of corruption index	World Governance Indicator database