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THE DETERMINANTS OF PERFORMANCE IN THE NIGERIAN BANKING INDUSTRY 2004-2014

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ABSTRACT

The Nigerian government strategy to alter the structure and scope of its banking sector via consolidation and other accompanying sectorial reforms did not only impact the soundness of banks with significant cost of state sponsored interventions, policy also had long run implications for nature of industry competition and performance with direct consequence for the determinants of the industry's performance. Observed alterations to structure of the banking sector structure post these interventions directly impacted borrowing costs and motivations for the resulting enlarged financial institutions to extend credit to the real sector. Banks with improved performance post reforms have enhanced capacity to absorb adverse volatility in the system, hence, imperatives of evaluating the determinants of the industry's performance. The study analyzes determinants of performance in the Nigerian financial industry in pre and post consolidation era (2004-2014) using panel data with fixed-cross sectional effect to determining bank specific- industry and macro determinants of performance. Derived results show bank specific factors such as ability to manage expenses, capital, and intensity of loan usage significantly affect banks profitability. Model estimated from the study, however, strongly rejected the structure-conduct-performance (SCP) hypothesis as the influence of intense concentration in banking though highly significant is negative, which implies that banks are unable to engage in non-competitive behavior as the Nigerian banking space is competitive and highly regulated. In addition, impacts of most macroeconomic factors are found to be negligible. However, exchange rate variation affects bank's profitability in a significant manner.

Contribution/ Originality: The study contributes to the existing literature by evaluating the role of profitability indicators such as bank characteristics and macroeconomic factors in determining performance of Nigerian banking industry.

1. INTRODUCTION

Globally, it is a known fact that a fully developed banking landscape aids effective allocation of scarce economic resources as well as aid economic development. Indeed, Schumpeter (1911) Supply-leading hypothesis (SLH) and developed further by King and Levine (1993) affirmed that an orderly evolution of financial markets impacts positively on capital build-up, savings culture and capital flows; all of which facilitate and stimulate economic growth. Based on this, the banking industry is crucial and its importance greater than just aid payments systems

and extend loans. Financial industry incorporates peculiarities that mobilises tangible resources to eventual beneficiaries. Financial systems form the bedrock of an effective market-driven economy and contain several inter-twined components all of which are essentials of functioning economy. These economic peculiarities encompass intermediating units – banks, insurance players, markets for the trading and intermediation in financial instruments and infrastructure. Thus, the banking system performs better in the presence of a robust and effective payments infrastructure. This strategic importance is reinforced by the strategic roles of banks in economic development. For example, banks foster growth by providing access to credit for the productive arm of the nation's economy – the real sector, whilst also mobilizing deposits from surplus units for use by deficit units which could be private or government in their quest for needed funds required in funding developmental initiatives, programs and strategic intents.

It is based on the strategic and systemic importance of banks or financial institutions to a nation's emancipation that underscores the need for a healthy and efficient banking system; which could only be guaranteed through sound supervision by the central bank and proactive reforms that addresses any perceived or anticipated lapses in the system. Indeed, it is crucial to focus on evolution of performance indices for Nigerian banking given various reforms measures that have been introduced over the past decades. Key purpose of these reforms had been the need to restructure, strengthen and improve banking competitiveness and performance in order to engender public confidence and enhance stability of the industry. Therefore, the need to evaluate the condition of the performance of the monetary economy is crucial as it is to determine financial factors affecting competitive performance and identify key determinant of efficiency gains.

The paper therefore reviews the effect of profitability indicators, specifically, unique bank and, characteristics and macroeconomic factors determining performance of Nigerian banking industry using yearly data from 18 financial institutions in Nigeria.

The remainder of the paper is structured as follows. We document the background to banking reform and consolidation in Nigeria in Section 2. The review of literature on key factors determining bank performance is given in Section 3. In Section 4, we provide the description of data, methodology, and empirical models encompassing assessment of variables of interest in details. We present our empirical results and findings in Section 5, while Section 6 details our conclusion in the paper and makes recommendation.

2. BACKGROUND TO BANKING REFORMS IN NIGERIA

Generally, it is believed that the Nigerian financial system as represented by the banking industry has made significant strides towards development and improved competitiveness in the past decade. However it should be noted that overtime, until July, 2005, the Nigerian banking industry was unable to compete effectively compared to their Southern African peers not to mention globally, due to unfavourable government policies and banking opportunities as banking was largely fragmented and limited in capability by size with only one international bank existing (Soludo, 2004). Unhealthy pricing activities was prevalent in the industry, as financial institutions banks charge very high interest rates for loans offered but offer lower deposit interest rates on current and savings account. This resulted in the emergence of a highly concentrated banking industry where individuals and corporates (small and medium sized) have credit obligations which far outweigh their alternatives as borrowers.

Prior to Consolidation, the broad outlook of the Nigerian banking was deemed unsatisfactory with the central bank classifying only 62 of 89 banks as sound, 14 banks were deemed as marginal and 11banks rated as unsound. Indeed 2 of these banks failed in return rendition as at financial year 2004. Systemic weaknesses were attested to by banks overdrawn positions as the CBN discount window, significant non-performing loans portfolios, capital inadequacies, and poor corporate governance structure manifested by weak management. Ultimately, these led to the revocation of the operating licenses of two prominent banks and the suspension of three other banks from

clearing and settlement activities. As at that date, the affected banks collectively accounted for: 19.2 percent of Industry's total assets, 17.2 percent of Industry's deposits and industry' non-performing loans at 19.5 percent.

Although the ratios enumerated above with the exception of deposits liabilities ratio, were below the crises threshold for systemic distress, key problems plaguing the industry at the time were sustained illiquidity, deficient banking assets and negative operational margins. Of all reforms agenda, the issue of increasing stakeholders fund to N25 billion and the need to comply before 31st December 2005 generated heated discuss amongst the stakeholders. Indeed, Ebong (2006) noted that, public discourse on the subject centered largely on two issues of the increase in the minimum capital base from N1 billion to N25 billion as well as resulting mergers and acquisitions. In the bid to comply with this revised capitalization requirement, banks adopted various strategies with the capital market suddenly assuming greater feasibility and importance. Hence, the introduction of various capital raising mechanism into the Nigerian lexicon.

Post consolidation, the banking sector witnessed unprecedented growth which hindsight seemed like neither the regulatory authorities not the industry itself were prepared for neither was there any effective tools or measures to monitor the industry's explosive growth. The phenomenal growth in banking spread and capabilities of financial institutions tested regulatory capacity of the CBN to its limits while growing sophistication of designed financial instruments and its usage heightened the risks of malpractices and invariably the sustainability of the industry. As the competitiveness of the financial industry evolved post 2005; huge rent opportunities due to the deposit to loan rate gap becomes a pull to several potential entrants as both new indigenous and several foreign financial institutions entered the domestic market. Although, consolidation enhanced the capability of domestic financial institutions to expand offshore, it is widely argued that potential arbitrage opportunity due to inefficiencies in the foreign exchange market was a major attraction for the new entrants due to potentials for gains from foreign exchange trading.

Unarguable, the reform in Nigeria's banking industry via bank consolidation exercise in 2005, led to significant changes in the financial landscape as evidenced by changes in the size, capital structure, adequacy and operational peculiarities of the banking system. Nonetheless, these reforms led to the birth of new set of challenges that threatened the financial system, from 2008 which coincided with the peak of the global financial crisis (GFC). Expanded banking capabilities, led to increased capital flows in form of FDIs and portfolio investments. This surge in capital flows led to banks taking leaps into high risk in form of non-collateralized capital market investments through margin lending. Thus, the downturn witnessed in the capital market in 2008 and 2009 adversely impacted the quality of balance sheets of these banks thereby necessitating increased patronage at the CBN discount window to draw on the standby lending facility (SLF). Persistent illiquidity and balance sheet mis-matches led to a surge in inter-bank rates with some banks borrowing at abnormally high rates to stay afloat. Increased defaults from overpriced assets led to a spike in non-performing loans; which resulted in confidence crises as there was a 'flight to safety' by customers; and heightened unethical practices by the managements of some banks as revealed at CBN intervention in 10 banks in 2009. In the end, the margin loan crises resulting from post consolidation capital market boom snowballed into full-blown banking crisis, which became worrisome to monetary authorities thus necessitating post consolidation reforms in 2009.

Hindsight, it seemed that sudden and significant growth in the size of banks over-stretched the regulatory/supervisory capacity as it appears that the regulators were not sufficiently equipped to regulate the banks optimally. The resultant effect of poor corporate governance and ethics (such as insider credits and trading, nepotism amongst others and poor risk management capability and capacity (covering analysis, evaluation and assessment framework), led to the deterioration in quality of industry' loan portfolios (Central Bank of Nigeria, 2008). Specifically, due to sustained and widely prevalent mismanagement (poor credit approval/management procedures and insiders' credits) across vast number of banks, the industry accumulated delinquent loans and advances portfolio, which eventually contributed to loans write offs of 6.6% of equity; with eight banks receiving

loans from the CBN. In all, eight banks received N620 billion immediate bail-out from the CBN representing 2.5% of Nigeria's 2010 GDP of N26.7 trillion (Central Bank of Nigeria Bullion, 2011) as well as AMCON accommodation of about 1.36trillion at the time.

While analyst agrees that the Nigerian banking industry was in full crises as at year 2009, some operators especially owners and management of these rescued banks expressed divergent views. According to Demirguc-Kunt and Detragiache (1997) a lull in activity could be classified as crisis if at least one of four conditions is present, namely: (i) ratio of non-performing loan greater than 10 percent; (ii) cost of a rescue higher than 2 percent of GDP; (iii) nationalization of banks resulted from crises; and (iv) a "bank run" or liability freezes or institution of a blanket guarantee to assure depositors of deposit safety. Analyzed against these factors; the Nigerian financial sector was without doubt in manifest crisis. Lead indicators being that: (i) the non-performing loan ratio was estimated at 32.8% in 2010 (CBN, 2012). The industry asset quality shows significant improvement as at December 2012 compared to December 2011 as industry NPL ratio improved from 6% in FY2011 to 3% in 20122. The improvement was as a result of the decline in Gross NPL to N221 billion from N347 billion due to improved risk management structures in most of the banks, post-acquisition of toxic loans by AMCON; (ii) resulting from the 2008/2009 special examination, Nigerian banks wrote off loans equivalent to 6.6% of their Equity; (iii) 4 banks were taken over and nationalized by the CBN; and (iv) a 'run on banks' did not occur only as a result of the injection of funds and confirmation of a blanket guarantee of all inter-bank obligations of the rescued banks by the CBN for a specified period. Post restructuring, all but one (Keystone Bank) previously rescued banks were sold to private investors expected to nurture these banks back to profitability with the aim of a full positive turnaround that will facilitate their ability to settle exposures to AMCON. Based on these findings, Nigeria banking industry was indeed in crises at the time of the Lamido Sanusi led reform in July 2009.

Besides these two major intervening policy actions, there were other significant financial reforms initiatives by the Nigerian regulatory authority, covering governance, operations, technology, reporting standards and liquidity of the national economy through its cashless policies which also has adverse impact on corruption as it has somewhat made its practicability difficult as it fosters transparency. By these policies, the banking system and profitability seemed to have improved following consolidation and resulting regulatory reforms in Nigeria.

Post reforms, the Nigerian banking sector could be said to have become oligopolistic with dominant characteristics of market concentration and leadership. Reforms have resulted in significant reduction in number players, altered their operating framework and contribution to the economy with operations that could readily compete with the 'best in class' globally. Increased capital is also expected to lead to increased profitability, higher returns to shareholders and improve competiveness. Hence, bigger sizes and enhanced capitalization of banks, implies bigger its capacity to absorb shocks. Besides being a cushion against losses, adequate capitalisation is expected to foster banks' access to cheaper funds sources due to wider pooling sources and also enhances liquidity position. However, the more liquid a bank gets, the less its exposure to risk. The drawback is that overtime, little effort may be rewarded with commensurate return thus limiting bank's earnings potentials. Therefore while illiquidity may adversely impact the banks, excess liquidity may equally retard earnings generation.

Improved quality and value of assets of the industry also signaled positive improvement post reforms as a barometer to positive economic development witnessed post consolidation. Total Assets excluding contingents for the banking industry was N18 trillion ($113 billion) up from N15 trillion in 2011 due mainly to increased liquid assets and loans. The top 5 banks per asset size represent about 54% of the industry total assets size (FY2011: 55%). The largest contributor to the Total Assets size was loans and advances which stood at N7.4 trillion and accounts for 39% of total assets (FY2011: 42%). Noteworthy is the fact that all the banks in the sampled universe have at least a $1billion in total assets. Total Assets including contingents for the banking industry was N25.1trillion ($88 billion) up from N22.0 trillion ($110 billion) in 2015 due mainly to increased liquid assets and loans while reduction

in foreign currency equivalent reflects impact of devaluation since 2015. The top 5 banks per asset size represent about 65% of the industry total assets size as at FY2015.

Key banking performance indicators namely total assets, deposits, loans, and loan to deposit ratio show improvement during the period. Asset creation drive accelerated at a faster phase than deposit mobilization thus resulting in growth in loan to deposit ratio (LDR) from 45.3% in 2004 to 65% in 2014 (69.8% in 2015; 76.4% 2016% respectively). The broader picture of the performance of banking sector is provided in Table 1a of the appendix. Improvement in financial activities equally resulted in improved returns to shareholders due to increased profitability over the period. Furthermore, the turgidity of the banking system is reflected in improved asset quality and capital adequacy ratio (CAR). Industry loan defaults had decreased significantly from 32.1% in FY'2004 to 3.1% by FY'2014 close. The decrease of NPLs during reviewed period is a pointer to improved loan quality and loan management techniques. Capital adequacy ratio also improved from 9.1% in 2014 to 16.92% in 2014. Regulatory benchmark for NPL is 5% while CAR for Systematically important banks is at 16%.

3. THEORY AND LITERATURE REVIEW

The innovative article by Ho and Saunders (1981) represents the conjectural background for other experiential essays on the determining factors of banks latitudes. Using a dealership model, Ho and Saunders affirmed that a bank's risk aversion, their transaction volumes, interest on deposits and loans differentials determine bank's optimum interest margin earnable along with the intensity of market competitiveness. Hawtrey and Liang (2008) and Kasman (2010) buttressed this via an evaluation of outcomes in both developed and developing countries. By the introduction of different types of bank products, Allen (1988) extended the model while Angbazo (1997) who expanded its scope by incorporating credit risk defaults with a further contribution by Maudos and Guevara (2004) through the inclusion of running costs in the model.

As an alternate methodology, Naceur and Omran (2011) espoused net interest margins and return on assets (ROA) in addition to equity using a more heterogeneous one-step estimation technique which deployed an interactive model to ascertain the performance of the banking firm. Under this technique, performance is expressed in a function of intramural and peripheral determinants. The intramural factors routinely adopted are bank precise elements with peripheral variables such as economic, financial and institutional ecosystem.

Subsisting models articulates bank profitability (performance) as a product of intramural and peripheral elements by employing different sets of explanatory variables for both categories. Typically, Intramural factors are the micro or bank-precise elements, while external elements which are usually outside of banks influence are representatives of pecuniary and v official environment influencing financial sector operation and performance as demonstrated in Athanasoglou *et al.* (2008); Rasiah (2010); Sastrosuwito and Suzuki (2012). Commonly used intramural factors in these studies are size of firms, loans structure, expense administration, capital structure, cash flows, levels of investment and liability configuration. Tangential factors that are prevalent are largely macro-economic variables as money supply, inflation, GDP progression and market concentration indicator.

In order to test the relevance of earlier theories, and in order to ascertain the presence of scale economics or its diseconomies in Banking, Naceur and Omran (2011) incorporated the impact of consolidation exercises by adding Size of banks as a proxy for consolidation.) is included to assess the existence of economies or diseconomies of scale in the banking. The resulting outcomes present a somewhat mixed result. Indeed, Ben Naceur had earlier teamed up with other notable researchers, Smirlock (1985) and BenNaceur and Goaied (2008) in testing the relevance of size in the estimations, the both studies find a positive and significant co-relationship between size and bank performance. Years earlier, Kosmidou *et al.* (2005) working around same subject finds that smaller sized banks in the UK actually outperform bigger banks in terms of profit generation. In the same vein, Kasman (2010) opines that whilst being statistically significant, the size of banks have a negative effect on net interest income margin derived from a panel of 431 banks in 39 countries.

Similarly, empirical literature evaluating impact of loan creation on bank margins and profitability, states that in the absence of verifiable data on credit cushion/mitigants in form of loan loss provision, credit risk of banks is evaluated using the ratio of bank loans to total assets in order to derive an estimate of liquidity ratio of these (Maudos and Fernandez, 2004). With credit risks, Miller and Noulas (1997) opines an inverse relationship with earnings, as profits are lowered where banks possess a higher loans and advances to asset ratio as increased exposure to credit risks increases possibility of defaults and as a consequence, exposure of banks to bad loans. This notion is at variance to conventional asset pricing models which posit a positive relationship between risk and returns. Other Studies advocate that risk averse shareholders will demand greater profitability as compensation for increased risk taking by institutions (Maudos and Guevara, 2004; Flamini *et al*., 2009) as they expect that a higher deposit to loan ratio (LDR) will translate to margins. However, Demirgüç-Kunt and Huizinga (1999) emphasizes positive impact of macro factors such as the GDP on profit generation as their study finds that a positive relation when GDP is included in the profit before-tax over total assets equation which implies that when the level of economic activities accelerate, banking tends to be far more profitable. This was not the case for the profit equation before the incorporation of gross domestic product variable.

In 2006, Athanasoglou *et al*. (2006) employed an unbalanced panel dataset of South Eastern European (SEE) credit institutions covering 1998-2002 to scrutinize the impact of bank and industry-specific factors along with macro-economic factors to obtain an estimate which emphasises the direct and profound effect of share of wallets, credit exposure, operating expenses, capitalization foreign ownership and scope of operations on banks profitability. Also, the study found evidence structure-conduct-performance (SCP) hypothesis as impact of concentration is positive though measurable ambiguity results from this given inter-relatedness to the efficient-structure (EF) hypothesis. However, their study failed to ascertain a direct between banking consolidation and resultant earnings profile. The influence of macroeconomic factors is also interspersed. As a further contribution to body of knowledge, Athanasoglou *et al*. (2008) also adopts same sets of factors for Greek banks over the period 1985-2001; with major intent being to determine if banks in a concentrated market can utilize market power to beat the market by adopting tactics that magnifies spreads from charging higher lending rates and paying lower rates on deposits. The result suggests that though impact of nature of shareholding and size could be verified, SCP is not determined as impact of industry concentration was intangible as other parameters namely production factors of labour and capital along with output variations , operating expenses and inflation positively impacts profitability.

Following from the 2006 study, Pasiouras and Kosmidou (2007) utilize intramural factors that are unique to banks along with factors influencing the environments in which they operate. These factors are combined with external factors that has as an addition to GDP, the proportion of stock market capitalization to total industry assets, and the quotient of stock market capitalization to GDP for domestic and foreign banks practicing in 15 European countries from 1995-2001. The result is that all deployed factors have significant but divergent influence on profit generation of banks.

More recently, Naceur and Omran (2011) deplore same variable set but with a new invention of adding regulatory and institutional variables. Regulation is represented by level of corruption and effectiveness of rule of law and its enforcement while institutional parameters are proxied by financial and institutional for Middle East and North Africa (MENA) countries for period covering 1988-2005. They found that whilst macro-economic factors except inflation and development factors have no major influence, institutional variables of corruption and rule of law affects performance profoundly. Similarly, other bank unique features especially capitalization and credit exposure significantly affect performance.

Preceding the above study in 2010, Sufian and Habibullah (2010) analysed the effect of Asian financial crises on performance through the use of an unbalanced panel of 404 sample derived from 1990-2005 for Indonesian banks. The results opine a negative impact for this region. Empirical results suggest that the Asian financial crisis exerts negative and significant impact on Indonesian banks' profitability. Also, García-Herrero *et al*. (2009) found that for

87 banks Chinese banks in the period-1997-2004, higher capitalization backed by higher share of customers deposits and X-efficiency led to higher profitability. Thus the lower the level of interference by regulatory authorities and lower level of concentration will lead to improved profitability.

Still in Asia, Sufian (2011) equally utilized data set that are unbalanced in the period, 1992-2003, to analyze the major drivers of banks' capacity for profit generation. The study, used data derived from audited financial statements of these banks found results that correlates the findings of year 2010 study that events occurring in a business such as the business life cycle, product diversification initiatives, exposure to risks undertaken from lending, and business liquidity have significant on banks performance. Another major factor driving performance from this study is industry concentration. Impact of macro-economic factors appears minute in this study.

In Nigeria, in the light of the enormous observed impact of the global financial crises (GFC) on all economic indices especially the nation's capital market, Olaniyi and Olabisi (2011) sought to ascertain and quantify statististically the nature of effect of the GFC on the banking industry. In doing this, they employed ancillary data from publications, bulletins and other data sources, with ROE proxied by value of share capital used as a dependent variable. The study which used other bank precise variables as deposit base, value of assets invested in securities and credit exposures in form of loans derived that the GFC had an adverse and significant effect on banks operating in Nigeria irrespective of their level of liquidity, which was bolstered four years prior by increased capitalization from the consolidation exercise of year 2004/2005. Similarly, in evaluating the influence of the consolidation exercise on the efficiency profile of banks in Nigeria, Odeleye (2014) utilized a parametric stability test and GMM estimation on data covering 1999-2011. With banks' total assets assumed as the anchor of performance, the study found a diminishing influence of reforms on profitability when earning parameters such as Net Income, earnings per share (EPS) and dividend per share (DPS) are combined with measures of liquidity such as deposits base, level of loans and advanced on banks books. Nonetheless, influence of EPS on performance was found to be profoundly significant with a 99% probability. This notion is not strange as EPS remains a major indicator for analysts and investors in evaluating performance of institutions.

4. DATA, METHODOLOGY AND VARIABLE MEASUREMENT

4.1. Data and Data Sources

In order to evaluate the key determinants of banking industry' profitability for Nigeria after the consolidation exercise, the study focused on yearly data from 18 commercial banks in Nigeria. Statistical data was obtained from their yearly financial report and accounts as audited by respective bank' auditors. Macro statistics were obtained from both the Central Bank's 2015 Bulletin covering statistics and Bureau of statistics in Nigeria. Data period covers 2005-2014. Due to fundamental changes that have occurred in Nigerian Banking landscape since 2004, which resulted in hurried re-alignment and subsequent un-envisaged M&A in response to the consolidation deadline of December 2005 as well as subsequent banking reform in year 2009 (culminating in further reduction in number of deposit money banks (DMBs); some banks had missing data in some years. To ensure our results are devoid of bias, all acquired banks were omitted in our analysis. Therefore, the period under analysis covers the actual consolidation era (2005 – 2009) and 2009-2014. These represent the periods of actual consolidation and period post the 2009 banking reform till end of that governance regime. This allows for a comprehensive evaluation of impact of reform measures undertaken by the central bank governors in charge at these independent periods.

4.2. Variables and Measurements

4.2.1. Dependent Variable

Following Sastrosuwito and Suzuki (2012) the study highlights two measures of profitability, which are namely return on invested equity (ROE) as well as return on net assets (ROA). ROA is depicted as Profit after Tax over Grand Asset total shows capacity banks' capacity for returns generation from resources employed (assets). ROE

(Net Profit after Tax/Total Equity), which shows the return to the shareholders on their equity would have been preferred but it is mostly distorted by high equity multipliers , thus study, still employed ROA profile and adjust for potential off-balance-sheet activities. As pointed by many scholars especially (Athanasoglou *et al*., 2008) ROA is an important variable, in the analysis of commercial banks' profitability as ROE ignores risks resulting from significant leverage of an institution. Thus as opined in Rumler and Waschiczek (2010) studies scarcely employ ROE as a unitary evaluator of measure of profitability. Hence, in this study, we employ ROA as a dependent indicator/variable.

4.2.2. Independent Variables

These includes bank-precise characteristics which are unique bank-specific variables such as OEOI (operating expenses apportioned by operating income) denoting expenses administration, EQTA (equity/total assets) representing capitalization/adequacy of capital, CRTA (credits/total assets) signifying loan intensity, and LNTA (natural logarithm of total assets) indicating size.

Overhead expense administration: Represented by operating expenses proportioned to operating income ratio, an indicator of the cost-overheads of running the bank—comprising of wages and other emoluments, rental expenses and others such as office stationery—as a fraction of income. Stated ratio measures banks supervisory efficiency – costs control initiative. Impact on profits is expected to be negative.

Capitalization: A measure of capital structure as depicted by owners' equity, capitalized reserves and earnings retained. Increased capital is anticipated to boost profitability as superior CAR profile significantly enhances banks' risk taking capacity. Enhanced capitalization ratio affords strong credit expansion opportunities and ability to evaluate and mitigate potential emerging or expanding credits and anticipate impending risks.

Intensity of loans: This is the most crucial activity for a bank. Interest income is usually the biggest component a banks' income. However, as credit expansion or asset creation results in liquidity and credit risks; banks must manage such risks suitably. Broadly, increased loans will imply higher interest revenue which also will lead to greater profitability for banks.

Bank size: Scale economics from size points to an affirmative connection between size and banks' performance. A bank's enormity might lead to economies of scale that minimizes cost of information gathering and processing (Pasiouras and Kosmidou, 2007). Sizeable financial institutions have potential for greater spectrum for loans dispersion and product diversification. The smaller banks may struggle at diversification (Dietrich and Wanzenried, 2011). Nonetheless, first-hand outcomes on banks size are varied, as some studies observed scale economies for bigger institutions (Berger and Humphrey, 1997) whilst some established size-reversion effects for larger banks (Vennet, 1998).

Industrial concentration: This is widely measured via the summation of share of markets of banks in the industry all squared to derive the Herfindahl-Hirschman index (HHI); which is measured by adding up the squares of the market shares of all bank. This is expressed mathematically as $HHI = \sum_{i=1}^{N} (\frac{Z_i}{Z_T})^2$ Where: $Z i$ is is denoted as a bank's (i) size and Z_T denotes entire banking industry scope. Based on Department of Justice (USA) specification. Concentration index (HHI) greater than 0.18 is deemed as highly concentrated, HHI with a range between 0.18 and 0.1 is abstemiously concentrated while an index of below 0.1 is not intense or weakly concentrated.

In a market where the structure-conduct-performance (SCP) hypothesis mentioned above hold banks in such concentrated industry will likely engage in various forms of non-competitive conduct by setting arbitrary prices that are unfavourable to consumers in order to earn higher profits (Berger, 1995; Bikker and Haaf, 2002). To test this for Nigerian banking; the HHI is adopted to ascertain the relevance of the SCP hypothesis to this market. If

SCP holds, the relationship between HHI and banks' profitability will be positive. Industrial concentration is thus used as an anchor of the nature of competitiveness or lack thereof for Nigerian banking. A negative HHI will thus connote competition which precludes non-competitive behavior in the industry.

Inflation: Defined to be a sustained, rapid increase in prices, as measured by some broad indicator (The consumer price index (CPI)) over months, years or by the indirect value deflator for gross national product (GNP). Inflation is broadly explained as a state where "too much money is chasing too few goods" and is mirrored in the correspondingly decreasing value of a nation's exchange rate. Inflationary pressure affects the fixed-wage or salary earners the most, and discourages savings. Existing empirical studies on relations between inflation and performance measured in profitability terms are inconclusive. Expectations drives impact of Inflation on profitability (Rasiah, 2010) With perfect market expectation on inflation, interest rates level will rise up to the level of calculated inflation premium such that revenues will rise higher than costs levels, hence a positive performance impact. Conversely, with unanticipated inflation pressures, banks may not proactively adjust pricing – rates of interest, thus resulting in a mis-match with costs dwarfing revenues; thus resulting in negative impacts on profitability. The study also considers the impact of exchange rate and crude oil prices as other forms of shocks to the system.

Rate of exchange: This measures the parity between currencies and the units of conversion of these currencies. Elements that influence conversion ratio include (1) rate of interest, (2) inflationary trend, (3) balance of trade, (4) political climate, (5) domestic congruence, (6) transparency in governance, (7) economic conditions, and (8) governance traits. Exchange rates in the currency markets are derived based on interplay of market forces in terms of demand and supply amongst buyers and sellers trading continuously. The spot rate is the prevailing rate at a particular point in time while the forward rate indicates value of a currency as determined today for trades with delivery and payment at a specified future date. In perfect markets, the worth or strength of the country's currency should a directly positive effect on banking sector' profitability.

Oil shocks: Referred to as an enormous variation in crude oil prices that triggers of a significant decline in global economic activity thus triggering recession. An oil shock will most likely manifest in oil crisis, with sharp upward swing in prices of oil being followed by reduced supply. As crude oil still remains the dominant energy supply source in most industrialized economies, shocks to supplies may trigger economic and political instability for world economies due to interconnectivities with globalization. However, to a producing economy, a significant drop in oil prices could also have negative consequences as oil earnings could experience major volatility thus affecting economic stability in the producing nations. Oil Shocks are usually measured via variations in oil prices and impact is expected to be negative. Each variable in our model is as detailed in Table 1.

Table-1. Summary of performance variables.

Variables	Description relationship	Notation	Hypothesised
Dependent variable			
Profitability	Net income/ total assets	ROA	
Bank–specific determinants			
Expense administration	Operating expenses /operating income	OEOI	-
Capitalization	Equity/total assets	EQTA	+
Intensity of loans	Credits/ over-all assets	CRTA	+
Bank Size	Natural logarithm of aggregate assets	LNTA	+
Industry- precise determinant			
Industrial concentration (HHI)	Sum of shares of market shares squared of participating financial institutions	INDCON	+/-
Macro-economic determinants			
Levels of inflation	Inflation ratio	INF	+/-
Exchange rate	Exchange rate	EXCHG	+
Oil shocks	Oil price	COIL	-

Table-2. Descriptive statistics.

	ROA	OEOI	EQTA	CAPTZN	CRTA	LNTA	INDCONC	EXCH	INFL	COIL
Mean	1.021504	1.116026	0.156969	13.33541	0.398551	13.25762	249.5857	101.5610	10.79121	83.59275
Median	1.019750	1.027350	0.145350	13.48915	0.398950	13.42170	200.0000	99.56500	11.18923	87.83875
Maximum	1.092400	3.770100	0.406900	15.06570	0.787700	15.06570	613.0000	127.1383	17.86349	105.0083
Minimum	1.000000	0.015100	0.000300	9.874800	0.125900	9.874800	3.000000	85.54750	5.382224	53.35420
Std. dev.	0.014129	0.589011	0.067359	1.016804	0.109476	1.047741	173.3096	12.87707	3.334743	18.97629
Skewness	1.456768	1.859451	1.026543	-0.944236	0.056221	-0.766634	0.746721	0.716891	0.476878	-0.235303
Kurtosis	7.188285	9.335954	4.722094	3.923640	3.195969	3.395860	2.502803	2.324001	2.922853	1.443095
Jarque-Bera	151.8441	314.8515	41.88781	25.78004	0.297774	14.62775	14.45250	14.65744	5.341009	15.43164
Probability	0.00000	0.00000	0.00000	0.00003	0.861666	0.000666	0.000727	0.000656	0.069217	0.000446
Sum	143.0106	156.2436	21.97560	1866.958	55.79710	1856.066	34942.00	14218.54	1510.770	11702.98
Sum sq. dev.	0.027749	48.22380	0.630672	143.7108	1.665920	152.5887	4175032	23048.81	1545.751	50053.83
Observation	140	140	140	140	140	140	140	140	140	140

Source: Authors' computation using E-views 9.

4.3. The Econometric Models

The adoption of panel data over cross-sectional data for use in regression estimates was premised on its observed dominance over the latter as alluded to in other similar studies such as by Al-Muharrami *et al.* (2006). Of variables choices for the model was steered by literature and empirical findings on the topic. To analyze the effect of bank- precise, precise and macro-economic elements on performance, a one-way error module regression model is adopted, with a general model to subsist in linear form. In determining profitability levels, the study adopted the analytical technique used by Shin and Kim (2013) adopting the proportion of revenue earned as interest income over overall assets and proportion of complete revenue to complete assets as reliant variable. The log measurement of these variables was used to minimize possible concurrent bias; hence an estimated reduced-form revenue function to estimate equation.

$$\prod_{it} = C + \sum_{j=1}^{j} \beta_j X_{it}^{j} + \sum_{i=1}^{L} \beta_l X_{it}^{l} + \sum_{m=1}^{M} \beta m X_{it}^{m} + \varepsilon_{it;} \qquad \varepsilon_{it} = v_i + u_{it} \tag{1}$$

Where $\prod_{it}$ stands for bank i' profitability at period t, with i = 1,…,N, t =1,…, T, C represents the constant variable, X_{it}'s collectively form the explanatory variables with ε_{it} being a ruckus. v_i is an undetected bank-specific effect and the unique error. $v_i \sim IIN(0,\sigma_v^{\,2})$ is distinct and autonomous of $u_i \sim IIN(0,\sigma_v^{\,2})$. X_{it} variables are delineated into according to their unique characteristics with bank-definite attributes grouped in X_{it}^{j}, industry-definite into X_{it}^{l}, and macro-economic attributes categorized as X_{it}^{m}.

A static cross-sectional effect was espoused in order to seize undetected idiosyncratic properties of various financial institutions with the constant variable treated as section-precise. The assessor of constant impacts (LSDV) stands as the least-squares mock variables (the dummy). The mock variable allows group-specific constants by incorporating a mock variable for each group as was done in Cooper and Schindler (2011). The study utilized a sample size (N=140) and the model was also estimated using the system GMM of Arellano–Bond estimator. Thus we obtain:

$$\prod_{it} = \prod_{it-1} + \sum_{j=1}^{j} \beta_j X_{it}^{j} + \sum_{i=1}^{L} \beta_l X_{it}^{l} + \sum_{m=1}^{M} \beta m X_{it}^{m} + \varepsilon_{it;} \qquad \varepsilon_{it} = v_i + u_{it} \tag{2}$$

The profile of the descriptive statistic of data used is presented in Table 2. The data also shows a high level of consistency as reported statistic are mostly in line with conventional probability that is a relatively high Jarque-

Bera statistics, Kurtosis in excess of 3, thus indicating goodness of fit. However, as indicated in Table 2, an obvious variation exists in terms of structure namely banks size and total asset market share as depicted by very high the standard deviations of LNTA (size) and industrial concentration (INDCONC) represented as the sample HHI of evaluated banks. This assertion is also buttressed via a cursory look at the minimum and maximum numbers of macro determinants as exchange rate (EXCH), inflation (INFL) and prices of crude oil (COIL). Thus, to aid our understanding of factors determining banking performance and help ensure the derivation of robust and detailed results, it is crucial to control for banks unique peculiarities denoted by macro, industry and bank-specific characteristics.

5. EMPIRICAL RESULTS

Presented in Table 3 is the result of analysis of Equation 3 which uses ROA as dependent variable and analysis impacts of stated determinants of sectorial profitability in Nigeria. The equation is presented as follows:

$$\text{Ln ROA} = \alpha_1 + \alpha_2 \text{Ln(OEOI)} + \alpha_3 \text{Ln(EQTA)} + \alpha_4 \text{Ln(CRTA)} + \alpha_5 \text{LNTA} + \alpha_6 \text{Ln(INDCON)} + \alpha_7 \text{INFL} + \alpha_8 \text{COIL} + \alpha_9 \text{EXCGR} + e_t \quad (3)$$

The adj-R^2-squared statistic of 0.5025 points to the goodness of fit of the models and the ability of the factors to explain the dynamics of assets returns (ROA) from employed capital by banks in Nigeria.

Table-3. Determinants of banks' profitability: OLS panel regression system estimation.

Dependent variable: Ln ROA [1]			
Variables	**Coefficient**	**t-Statistic**	**Probability**
Ln (OEOI)	-0.08324	2.44500	0.0160
Ln (EQTA)	0.02110	-2.25868	0.0258
Ln (CRTA)	-0.00211	1.33930	0.0183
LNTA	0.04128	2.36216	0.0198
Ln (INDCON)	-0.08742	-4.22856	0.0000
INFL	-0.00049	-0.16642	0.8681
COIL	0.00150	0.23335	0.7955
EXCGR	0.00346	0.23335	0.8159
Constant	0.83238		
Number of observation		140	
Adj-R^2	0.502487		
F-statistic	5.325434		
Prob(F-statistic)	0.000000		
S.D. dependent var.	0.013749		
Durbin-Watson stat	1.354070		
Schwarz criterion	-5.624514		

*These are different from zero at the 10% significance level.
** These are different from zero at the 5% significance level.

As observed, some of the variables employed in the model are statistically insignificant, the F-statistics 5.3254 and p-values of 0.0000 indicates significant explanatory power on ROA. Expenses management capability (OEOI), adequacy of capital (EQTA), and intensity of loans disbursed (CRTA) impacted banks profitability at the 5% significance level. Industrial concentration (INDCON) significantly impacts banks' performance at 1% level of significance.

Expenses management capability (OEOI) impacts profitability significantly as expected. Any increase in banks running cost such as overhead cost, other operating expenses amongst others will adversely affect the bank's profitability. Thus, ability to manage operating expenses in relation to income determines and distinguishes a bank' profitability as also stated in Athanasoglou *et al.* (2008). This is quite true for the Nigerian banking industry, where cost efficiency could be seen to have improved following consolidation, due to rationalization of employees and

branch restructuring with closure of unprofitable branches and movement of dormant branches to more conspicuous locations along with adoption of advanced IT infrastructure to further drive efficiency.

Similarly, impact of EQTA (proxy for consolidation) and a measure of the level of capitalization and the adequacy of capital is positive and significant following consolidation. Results are not unexpected as banks with high capital are well positioned to assume greater risks profile with resultant capacity for higher profitability. Higher profitability will result from lower cost of deposit insurance payment, as well capitalized banks will have reduced cost of funding but are able to also lend at higher rates thus maintaining a wide transaction spread. A bank's dexterity at minimizing cost of capital while maintaining or even increasing lending rate will endanger greater and more robust profitability levels.

The effect of intensity of loans disbursed (CRTA) on performance is adverse and significant. Although this differs from expectation, the negative impact is understandable for Nigerian banking industry as loan quality is easily deductible from non-performing loans (NPL) over studied timeframe. Prior to banking reforms (consolidation) in 2005, the quality of loans granted by the industry was suspect as most banks did not subject loan approval process to strict risk management framework, hence prevalence of high level of non-performing credits. Post consolidation, with availability of tier 1 capital to banks, there was aggressive expansion of the loan books thus generating another round of systemic stress which led to the 2009 intervention in 10 banks. At the time of CBN intervention in 2009, industry's NPL ratios had jumped from 6.3% in 2008 to 32.8% in 2009, with improvements to 15.5% in 2010. With strong risk framework drafted for the industry, post 2009, banking NPL eventually settled at 3.3% by end of 2014. Continuing periodic spike in NPL levels shows that though the Nigerian banks have managed to improve on their capacity to manage credit deployed; sustenance over a measurable period of time is crucial in changing narratives around profile intensity of loans disbursed for the industry.

In addition, our model strongly rejected the SCP hypothesis as effects of INDCON a measure of industry concentration though highly significant at 5% confidence level is negative, which implies that banks are unable to engage in non-competitive behavior as the Nigerian banking space is competitive.. The rejection of SCP indicates that banks with a large market share cannot secure better profits by adopting oligopolistic behavior even in highly concentrated market with adequate regulation. Perhaps, link between concentrated markets and corporate profitability could be explained by an efficient-structure (ES) model in that institutions with top-quality administrators, effective cost minimization techniques, and proficient production and procedures may obtain improved and reap generous profits, broaden their share of wallets while entrenching concentration as articulated by Peltzman (1977). With a negative concentration impact on profitability shown by the findings, the study clearly rejected the ES hypothesis. The inverse impact displayed by the coefficient of industry concentration leads us to affirm that in efficient markets where entry and exits are free, firms engage in competitive behavior regardless of market concentration or structure (Baumol, 1982). This may buttress why the non-structural approach evaluates competition from a corporate behavioral context as against competition intensity in its analysis of market structure, rather than measuring the degree of concentration. Indeed, Nigerian banking though somewhat concentrated with the top 5 banks accounting for over half (52%) market share of the total banking industry in year 2014, is highly competitive with no oligopolistic tendency as banks are able to price their assets freely within permissible limit by regulators and customers able to move freely amongst banks in search for least cost banking services for expected service quality.

Size depicted as LnTA (ordinary logarithm of overall assets) affirmed a positive impact of increase in size of banks on banks performance derived from scale economies that will reduce overall cost of undertaking banking services, this corroborates earlier studies by Pasiouras and Kosmidou (2007) with positive LNTA coefficient which is also significant at the 5% level. Its significance could be the result of banking consolidation when depth and breadth of banks were altered significantly through merger and acquisition over time.

5.1. Robustness Check

To further prove that banks profitability adjust to policy changes over time in a dynamic way and not instantaneous as in static model, we estimate the results from Equation 2 using GMM estimation technique. Also, we introduced impact of macro determinants to estimate influence of shocks on bank's profitability and whether adjustment to shocks also follow dynamic pattern of behaviour. Table 4 presents regressions of profitability on bank to industry specific and macro-economic variables.

Table-4. Determinants of return on assets of banks: Dynamic GMM estimation.

Dependent variable: Ln ROA		
Variables	**Dynamic model [2]**	**Differenced dynamic Model [3]**
L.ROA	0.76743	-0.25313*
	(0.0516)	(0.030)
Ln (OEOI)	-0.00849	-0.00473
	(0.054)	(0.020)
Ln (EQTA)	0.02823	0.07896
	(0.0485)	(0.054)
Ln (CRTA)	-0.75197	-0.02513
	(0.025)	(0.495)
LNTA	0.001106	0.00606
	(0.795)	(0.482)
Ln (INDCON)	-0.00064	-0.00079
	(0.010)	(0.002)
INFL	0.00012	-0.00007
	(0.812)	(0.890)
COIL	-0.0007	0.00006
	(0.544)	(0.601)
EXCGR	0.00040	0.00034
	(0.036)	(0.027)
Number of observation	112	98
F-Statistic	2.86	4.11
Prob>F	(0.004)	(0.000)
Sargan /Hansen (p-values)	20.23 (0.569)	23.49 (0.172)
1st order ser. Cor.(p-values)	-3.11 (0.002)	-3.56 (0.000)
2nd order ser. Cor.(p-values)	-0.19(0.847)	0.38 (0.703)

Presented in Table above are the results from model to ascertain contributors to performance (depicted by return on assets) for commercial banks in Nigeria. Profiled commercial banks were all holders of universal banking license which has now been abolished. Results obtained using GMM model in dynamic form.
Stated in parentheses are the P-values.

- Implies variable that are significant at the level of 10%.

** Implies variable that are significant at the level of 5%.

a The test for over-identifying restrictions is distributed as χ^2 asymptotically under the null hypothesis. The null hypothesis being that applied instruments are uncorrelated with the error term. P-value associated with these also stated.
b Test for 2nd order correlation of error is distributed as N(0,1). The null hypothesis being that that the noise variables in the premier difference regression display no 2nd order serial correlation. P-value associated with variables stated against each in parentheses. Variable sources and an exhaustive elucidation are as stated in Table 1.

The Wald-test of both models indicates satisfactory goodness of fit. Test for validity of the over-identifying restrictions in our GMM estimation is accepted via the Hansen test with 20.23 and 23.49 in both specifications respectively and the presence of second-order autocorrelation is overruled by given p-values of 0.847 and 0.703 correspondingly. The dynamic nature of banks profitability using GMM estimators is confirmed by decidedly significant coefficients of the lagged dependent variable both in the dynamic model and also the difference of the dynamic model. Our results outline for the coefficients in the lagged reliant variables yields a values 0.7674 and 0.2531 in models (2) and (3) with ROA being the proxy for performance. This means that that deviance in a perfect market with unrestricted competition is larger in the dynamic equation than in the differenced model.

All bank and industry precise (Industry concentration) parameters follow the same pattern as in Equation 1 with industry concentration still strongly negatively related to profitability thus rejecting the SCP hypothesis but

affirming the relevance of non-structural model used in our estimation. Similarly, we observe the positive and significant impact of capital adequacy level (EQTA), also referred to as capitalization level on profitability in the dynamic model (14) as well as in the differenced Equation 2 represented in model (3). Equity is not cheap thus shareholders expect adequate return on their investments in banks. In order to meet shareholder's expectation, banks need to employ competitive but allowable pricing mechanism on loans and other intermediation instruments to recompense superfluous risks, which produces bigger earnings.

5.2. The Macroeconomic Environment

In terms of the effects of macroeconomic variables and shocks to banks profitability, from Table 4, the macroeconomic measures namely, inflation, oil price and exchange rate volatility, all have differing impacts on banks profitability. This paper discovers an affirmative impact as to effect of inflation on banks' productivity, under dynamic models but the results are insignificant as demonstrated by p-values of 0.812 and 0.890 in models (2) and (3) individually, hence both results cannot be relied upon.

The effect of shocks from oil price variations on financial sector profitability stands also negative in model (2) but impact is positive in model (3). However p-values are quite high in both models which imply that impact of oil shocks on bank's profit during and in period after consolidation is insignificant hence cannot be relied upon.

Impact of shocks to the banking system from exchange rate variations is direct with bank profitability; which would imply that a percentage increase in exchange rate parity will lead to a corresponding surge in bank's profit by 0.04 percent. Whereas devaluing the exchange rate will result in a corresponding reduction of value of bank's profitability. This is plausible as currency volatility impacts performance of institutions both straightforwardly and circuitously. For institutions holdings instruments - assets or liabilities with net payment streams measured in a foreign currency terms, the immediate impact is evident. Foreign currency variations fluctuations lead to significant alterations in values of such assets in domestic parity rate terms. This unambiguous currency risk font is easily determinable, hence can be hedged effortlessly. Most Nigerian banks have issued different series of Eurobonds at different times to raise long term and cheaper finance in view of low levels of LIBOR rates since 2009 GFCs. A devaluation of the local currency will imply that banks need to exchange more of local currency for a unit of US$ in order to meet their foreign commitments. These local currencies are sourced at a cost (the opportunity cost being the interest they would have earned on lending out the extra local currency required to meet the repayment value shortfall), which would ultimately impact on bank's earnings. The converse during currency appreciation is also true as bank's will need less local currency to meet foreign obligation, savings in form of earned interest on excess naira will boost banks viability. This view agrees with submissions of Popper (1996) as well as who noted that an increase in cost of a nation's export that outweighs its imports cost even by a small fraction will lead to an attenuation in value of its currency weighed against its other trading allies.

6. CONCLUSION

The Nigerian banking industry like that of several other countries went through different stages and phases of reforms. These reforms collectively resulted in significant modifications in the banking topography and have resulted in the entry and exit of many participants. The Nigerian banking landscape remains dynamic and continues to witness different changes to its structure. Existing literature and studies evaluating the impact of banking reforms on performance have focused largely on developing economies with less focus on analyses using bank-level statistics for the sector in Nigeria.

This paper assesses key determinants of the financial industry accomplishment for Nigeria using bank-level data for 18 Nigerian banks over the period 2004-2014. The study, like Fosu (2013) tried to control for a range of bank-level and sectorial peculiarities along with macroeconomic characteristics. This study found that a greater proportion of analyzed significant factors influencing earnings of banks behaved in line with hypothesized

relationship expectations. Unique institutional peculiarities such as level or adequacy of capital and exposure to credit risk have an affirmative and dominant influence on profit generation. The implication of positive capitalization impact is that for banks who capitalize in excess of allowable limits, excess capital allows the bank to increase its asset creation as loans or securities, which are risky assets that will be compensated by higher returns; that is, profitability. More importantly, the estimated outcomes posit that aside size of banks, under the dynamic scenario, all other unique attributes denoted under bank-precise factors impacts institutions in ways anticipated apriori. Expenses management capabilities along with intensity of loan disbursement both impacts earnings profoundly but inversely. More importantly, the paper affirmed the appropriateness of the non-structural approach for Nigerian banking system as it rejects the presence of SCP theory. Industrial concentration does not have positive and significant effect on profitability. The impact of bank size on banks productivity is muted in the study as its coefficients are insignificant.

Lastly, the assertion of macroeconomic indicators as 'influencers' could not be substantiated in the study as most of these parameters (oil shocks and inflation) have no weighty effect on earnings aside shocks from exchange rate movements. The result showing a significant impact of exchange rate adjustments points to the significant impact of devaluation of a country's currency on earnings or profitability of financial institutions. Devaluation impacts banking industry profitability in a profound manner given that banks engage in significant international trade which necessitates banks to hold foreign currency denominated assets for effectiveness. Devaluation thus affects ability to meet foreign currency obligations and vice versa whereas, inflation shocks seem largely absorbed upfront by banks and mitigated via alteration to interest rates from time to time reflected in pricing of loans and advances and deposits.

Overall, these empirical results provide evidence that the profitability of post-consolidation banking system in Nigeria resulted from unique management framework and institutional practices in place at these banks. From the regulator's perspective, this means that there is need for an effective regulation with greater emphasis on timely risk based assessments (RBA) aside from the more recognized foreign exchange management and utilization audits, which is more prevalent due to the peculiar characteristics of international trade practices relating to banks in Nigeria. Well developed and transparent risk management architecture is required to effectively moderate banks management, ownership decisions and industrial structure towards an achievement of sound banking performance and competition in Nigeria.

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APPENDIX

Table-1A. Banking industry landscape.

Banks' scorecard	2009	2008	2007	2006	2005	2004
	N 'Million	N 'Million	N 'Million	N 'Million	N 'Million	N 'Million
Total assets & contingents	12,869.28	13,241.66	7,377.62	4,639.94	2,258.26	1,645.23
Total assets	10281.72	10337.47	5895.20	3861.81	1907.71	1381.69
Profit before tax	1.40	310.41	158.21	92.46	56.15	47.53
Profit after tax	(15.88)	259.44	128.16	74.63	42.26	36.86
Total local currency deposits	6,648.19	6,560.39	3,959.26	2,574.53	1,113.39	864.26
Total loans (gross)	5,344.99	3,479.10	1,806.38	1,174.33	652.41	480.82
Core capital	1,836.89	1,817.91	686.68	515.52	253.50	121.28
Gross earnings	1,707.38	1,944.05	952.56	884.86	231.92	189.13
Non-performing loans /total loans	14.0%	27.5%	29.2%	28.0%	30.4%	32.1%
Capital adequacy ratios	18.71%	21.28%	15.9%	18.8%	16.2%	9.1%
Total loans (net) /local currency deposits	60.19%	32.65%	35.64%	32.97%	43.68%	45.31%
Pre-tax return on equity	0.14%	34.15%	46.08%	35.87%	44.30%	78.39%

Banks' scorecard	2014	2013	2012	2011	2010
	N 'Million	N 'Million	N 'Million	N 'Million	N 'Million
Total assets & contingents	32,434.10	28,181.68	23,453.23	20, 491.23	15,354.29
Total assets	25,120.16	22,034.24	18,124.47	15,740.23	11,937.34
Profit before tax	584.35	497.71	465.23	203.46	228.57
Profit after tax	524.45	446.23	432.14	186.79	178.59
Total local currency deposits	15,257.21	14,136.75	12,347.23	9,487.99	7,321.34
Total loans (gross)	12,012.94	9,424.89	7,435.43	6,352.78	5,423.56
Core capital	3,359.24	2,909.69	2,623.37	2,233.57	1,883.98
Gross earnings	2,683.33	2,451.69	2,179.87	1,503.34	1,240.35
Non-performing loans /total loans	3.08%	3.19%	3.00%	4.3%	9.5%
Capital adequacy ratios	16.92%	20.53%	22.30%	19.00%	19.30%
Total loans (net) /local currency deposits	65.00%	56.01%	50.90%	54.40%	60.5%
Pre-tax return on equity	18.60%	31.30%	19%%	10%	22.00%

Source: Banks audited 2004-2014 financial statements. Ratio computations derived using Advanced MS Excel application.