

## IMPACT OF CAPITAL ADEQUACY AND THE BASEL ACCORD ON BANKS PROFITABILITY IN NIGERIA

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### ABSTRACT

*As the prime movers of economic life, banks occupy a significant place in the economy of every nation. It is therefore not surprising that their operations are perhaps the most heavily regulated and supervised of all businesses entities. This paper looks into the impact of capital adequacy on the profitability of banks in Nigeria. It brings into account the Nigerian banking system and the regulatory framework, the history of recapitalization and the introduction of capital adequacy in the Nigerian banking system. The paper also looks into the notions on capital adequacy and bank failures. It highlights the Basel Accord and analyse the pitfalls of Basel I, a guide to capital adequacy standards for lenders of Basel II and the impacts of Basel III on banking and financial institutions.*

**Key Words: Capital Adequacy, Recapitalization, Profitability and Risk.**

### INTRODUCTION

The Nigerian banking system has undergone remarkable changes over the years, in terms of the number of institutions, ownership structure, as well as depth and breadth of operations. These changes have been influenced largely by challenges posed by deregulation of the financial sector, globalization of operations, technological innovations and adoption of supervisory and prudential requirements that conform to international standards. Prior to the recent reforms, the state of the Nigerian banking sector was very weak. "The Nigerian banking system today is fragile and marginal. The system faces enormous challenges, which if not addressed urgently, could snowball into a crisis in the near future (Soludo, 2004). Many banks appear to have abandoned their essential intermediation role of mobilizing savings and inculcating banking habits at the household and micro enterprise levels. The indifference of banks towards small savers, particularly at the grass-roots level, has not only compounded the problems of low domestic savings and high bank lending rates in the country, it has also reduced access to relatively cheap and stable funds that could provide a reliable source of credit to the productive sectors at affordable rates of interest. The current structure of the banking system has promoted tendencies towards a rather sticky behaviour of deposit rates, particularly at the retail level, such that while banks' lending rates remain high and positive in real terms, most deposit rates, especially those on savings, are low and negative (Imala, 2005). In addition, savings mobilization at the grass-roots level has been discouraged by the unrealistic requirements by many banks for opening accounts with them.

The issue of recapitalization is a major reform objective. Recapitalization literally means increasing the amount of long term finances used in financing the organization. Recapitalization entails increasing the debt stock of the company or issuing additional shares through existing shareholders or new shareholders or a combination of the two. It could even take the form of merger and acquisition or foreign direct investment. Whichever form it takes, the end result is that the long term capital stock of the organization is increased substantially to sustain the current economy trend in the global world. "Recapitalization may raise liquidity in short term but will not guaranty a conducive macroeconomic environment required to ensure high asset quality and good profitability" (Asedionlen, 2004). Through the transformation process, the number of banks was reduced from 89 to 25 by end of the year 2005. The number of banks has now reduced to 22 (this include a newly licensed non-interest bank – Jaiz International Bank) following Standard Bank's

takeover of IBTC. The banking licenses of 14 banks were revoked. Guaranty Trust Bank PLC (GTB), Zenith Nigeria International Bank (the City Group subsidiary), Stanbic Nigeria and Standard Chartered were the only banks that did not engage in Merger and Acquisition (M & A) activity over this period. In addition, only Zenith Bank and GTB were among the local banks not involved in M & A activity. Apart from the foreign-owned banks, ownership of the banks is broad-based with direct and indirect government ownership limited to 10%. For analytical purposes, the International Monetary Fund (IMF) divides the banks into four groups as follows:

- Group 1 comprises the first generation banks, which were the largest traditional banks that achieved the capital threshold mostly on their own and may have also consolidated long established affiliates and acquired one or two smaller banks. Group 1 banks, therefore, have significant advantages in terms of franchise and a large resource base. They include First Bank, Guaranty Trust Bank (GTB), United Bank for Africa (UBA), Union Bank of Nigeria (UBN), Intercontinental Bank - now merged with Access Bank, Oceanic Bank (now acquired by Ecobank) and Zenith Bank.
- Group 2 constitutes banks that achieved the capital threshold by merging through voluntary partnerships. They include Access Bank, Diamond Bank, Ecobank, Equatorial Trust Bank now acquired by Ecobank, Fidelity Bank, IBTC-Chartered Bank, Platinum-Habib Bank now nationalized by Nigeria Deposit Insurance Corporation (NDIC) and christened as Keystone Bank, WEMA Bank, and Afribank also acquired by NDIC and now known as Mainstreet Bank.
- Group 3 comprises banks that achieved the capital threshold through four or more banks partnering out of necessity. They include First City Monument Bank (FCMB), First Inland Bank merged with FCMB, Skye Bank, Spring Bank also nationalized by NDIC under new identity – Enterprise Bank, Sterling Bank, and Unity Bank.
- Group 4 is made up of banks with majority or wholly foreign ownership. They include NIB, Stanbic Bank, and Standard Chartered Bank.

The recent development in banking industry in terms of ownership structure is the merger and acquisition of some banks: Diamond Bank acquired Oceanic Bank; Access Bank acquired Intercontinental Bank; Afribank, Bank PHB, and Spring Bank were merged. Some of the first generation banks, such as First Bank, United Bank for Africa (UBA), Union Bank of Nigeria (UBN), etc which are the largest traditional banks that achieved the capital threshold, are on their own. But previously Union Bank of Nigeria (UBN) acquired Broad Bank and Universal Trust Bank.

### **Capital Adequacy and the Nigerian Banking System**

The Central Bank of Nigeria (CBN) brought into force the risk-weighted measure of capital adequacy recommended by the Basle Committee of the Bank for International Settlements in 1990. Before then, capital adequacy was measured by the ratio of adjusted capital to total loans and advances outstanding. The CBN in 1990 introduced a set of prudential guidelines for licensed banks, which were complementary to both the capital adequacy requirement and Statement of Standard Accounting Practices (SSAP). The prudential guidelines, among others, spelt out the criteria to be employed by banks for classifying non-performing loans. In 2001, when the Universal Banking was adopted in principle, the capital base was jerk up to 1 billion Naira for existing banks, and 2 billion Naira for new banks. But in July 2004, the new Governor of the CBN announced the need for banks to increase their capital base to 25 billion Naira, and all banks were expected to comply by December 2005. Capital adequacy was implemented to strengthen the banking system, embrace globalization, improve healthy competition, exploit economies of scale, adopt advanced technologies, raise efficiency, protect depositors and investors funds and improve profitability. Ultimately, the goal is to strengthen the intermediation role of banks and to ensure that they are able to perform their developmental role of enhancing economic growth, which

subsequently leads to improved overall economic performance and societal welfare. The proponents of capital adequacy believed that increased capital could potentially increase bank returns, through revenue and cost efficiency gains; it may also reduce industry risks through the elimination of weak banks and create better diversification opportunities (Berger, 2000). On the other hand, the opponents argued that capital adequacy could increase banks' propensity toward risk taking. Capital Adequacy can be percentage ratio of a financial institution's primary capital to its assets (loans and investments) used as a measure of its financial strength and stability. According to the Capital Adequacy Standard set by Bank for International Settlements (BIS) at Basel, Switzerland, banks must have a primary capital base equal to at least eight percent of their assets: a bank that lends 12 Naira for every Naira of its capital is within the prescribed limits. However, the assessment of capital adequacy for precautionary purposes is problematic at best due to rapidly changing economic and financial services industry. Another role of capital is the fact that the viability of a bank depends to a critical extent upon public confidence.

### **Notions on Capital Adequacy and Bank Failures**

- The inadequacy of minimum capital standards in accounting for risks in banks assets portfolio could be one of the major factors leading to bank failures (Mpuga, 2002). He studied the 1998-99 banking crisis in Uganda and how the new banking guidelines in Uganda was to increase bank solvency and capital adequacy by shifting their portfolio towards lower risk assets, in an effort to meet the new requirements.
- Epstein, (2005) studied on capital adequacy failures and concludes that capital adequacy and ratio analysis (CA & RA) are failed strategies. However, analysis of the causes of failure has often been shallow and the measures of success weak.
- The international financial crisis of the second half of the 1990s provoked more reflection on ways to strengthen the global financial system. The international community identified a number of priorities, including the need to enhance its own ability to monitor the health of the financial system. "The ability to monitor the financial sector soundness presupposes the existence of valid indicators, which can measure the health and stability of financial systems" (Nnanna, 2003). The general macro-prudent indicators as developed by the International Monetary Fund (IMF) for assessing the supervising banks are embedded in the CAMEL framework.

### **The CAMEL Rating**

The CAMELS rating is a scheme for grading the performance of banks by bank supervisors, and examiners during on-site examinations. These on-site examinations are designed to identify problems in individual banks and to ensure banks' compliance with existing laws and regulations. The acronym derives from the five major dimensions of a bank's operation: Capital adequacy, Asset quality, Management quality, Earnings ability, and Liquidity sensitivity to market risk (CAMEL). Examiners score each of these factors as a single number from 1 to 5, with 1 being the strongest rating, and develop an overall CAMEL rating from 1 to 5 from the factor scores. As a rule of thumb, banks with a CAMEL rating of 4 or 5 are considered to be problem banks. The rating system is applied widely in the USA especially due to its simplicity and use by regulators, although it is often complemented with more rigorous analysis.

### **Banks Capital Adequacy Regulation and Profitability**

The imposition by regulators of minimum capital standards on financial institution was one important development in the 20th century. Most banks regulators see capital adequacy regulation as a means of strengthening the safety and soundness of the banking industry. There are three arguments for capital adequacy regulation. The first is that capital adequacy regulation is needed for prudential reasons, but most advocates of this position take the argument no further to explain why prudential "need" is there in the first place (Patricia and Jackson, 1999). The second argument

is that capital adequacy regulation is needed to counter moral hazard problems created by the regulator themselves (Benston and Kaufman, 1996). The third and final argument is that capital adequacy regulation is needed to protect small depositors (Craig and Hardee, 2004). Capital adequacy by definition is seen as a quantum of fund, which a financial institution should have and plan to maintain in order to conduct its business in a prudent manner (Kishore, 2005; Pandey, 2005). Adequate capital is regarded as the amount of capital that can effectively discharge the primary function of preventing banking industries failure by absorbing losses. It is seen as a way of providing the ultimate protection against insolvency arising from the risk in banking sector. It is the least amount necessary to inspire and sustain confidence in the banks, keep it open and operating so that time and earnings can stand the test of time.

Contrary to the propositions that in a frictionless world of full information and complete markets, a firm's capital structure cannot affect its values (Modigliani and Miller, 1958), Banks operates in a highly regulated and volatile world, hence lacks any rational in the frictionless world of Modigliani and Miller. Banks capital has a direct relationship with profitability, as more and more money is pumped into the business, more profit will be recorded. Available statistics shows that arising from the consolidation, the capital market received a boost with a total of 406 Billion Naira raised, out of which the apex bank verified and cleared only 306 Billion Naira as at December 2005. The consolidation drive has also brought a staggering \$3 Billion into the sector, \$500 Million of which represent Foreign Direct Investment (FDI). Following the announcement of the new recapitalization policy, the interbank market was adversely affected as interbank placements by the big players in the market were withdrawn from the smaller banks as precautionary measure. There was also a wave of flight to safety by depositors who were apprehensive of the survival of their bank, thus creating capital flight problem (Ogunleye, 2005). The development complied with the planned phased withdrawal of public sectors funds from the universal banks made the liquidity position of some banks precarious, this among other emerging challenges would put pressure on Nigerian Deposit Insurance Corporation (NDIC); both pre-consolidation and post consolidation challenges.

### **Regulatory Framework: Basel Accord and the Birth of Capital Adequacy Basel I Accord**

In the late 1980s it was decided that, as banks were becoming increasingly international in their operations, there was a need for a uniform regime to set minimum levels of capital that banks must hold across the developed countries. An international regime was deemed necessary to ensure that a level playing field operated and that banks had adequate capital to ensure their soundness and thereby protect the global financial system and their depositors. The Bank for International Settlements (BIS), based in Basel in Switzerland, was the body charged with establishing a framework for setting a minimum level of capital each bank should have to hold. It was decided that this minimum level of capital would be determined with regard to the riskiness of the assets banks held. Each asset on the balance sheet of a bank was given a weighting between 0% and 100%, where 0% represented the safest assets such as government bonds and 100% the riskiest exposures such as corporate debt and unsecured personal loans. Loans secured on residential property were given a 50% risk weighting. Banks would be required to hold tier 1 capital of at least 4% of Risk Weighted Assets (RWA) and total capital of at least 8%.

Tier 1 capital is the purest form of capital, comprises shareholders funds and preference shares. Total capital also comprises capital/debt hybrids such as subordinated debt, (which counts as capital because it is at risk before deposits and other bonds). Basel I essentially provided for just one option of measuring capital adequacy of banks. It gives an equal risk-weight to all corporate credits, whether high or low credit quality. However, this Accord fails to incorporate potential savings from loan portfolio diversification, as a result of its simple additive nature. It has also led to extensive regulatory capital arbitrage, which adds to the riskiness of bank asset portfolios.

Essentially the fact that risks facing banking institutions are ever changing and increasing beyond those related to credit, hence, makes Basel I highly inadequate. It is against this background that Basel II was brought into existence to make up for inadequacies of Basel I.

### **Inadequacies of Basel I**

- Limited differentiation of credit risk: There are four broad risk weightings (0%, 20%, 50% and 100%), based on an 8% minimum capital ratio.
- Static measure of default risk: The assumption that a minimum 8% capital ratio is sufficient to protect banks from failure does not take into account the changing nature of default risk.
- No recognition of term-structure of credit risk: The capital charges are set at the same level regardless of the maturity of a credit exposure.
- Simplified calculation of potential future counterparty risk: The current capital requirements ignore the different level of risks associated with different currencies and macroeconomic risk. In other words, it assumes a common market to all actors, which is not true in reality.
- Lack of recognition of portfolio diversification effects: In reality, the sum of individual risk exposures is not the same as the risk reduction through portfolio diversification. Therefore, summing all risks might provide incorrect judgment of risk. A remedy would be to create an internal credit risk model - for example, one similar to the model as developed by the bank to calculate market risk. This remark is also valid for all other weaknesses. The above listed criticisms have led to the creation of a new Basel Capital Accord, known as Basel II, which added operational risk and also defined new calculations of credit risk. Operational risk is the risk of loss arising from human error or management failure.

### **Basel II Accord**

By the late 1990s, banks had become much more sophisticated in their operations and risk management and were increasingly able to find ways to reduce a bank's Risk Weighted Assets (RWA) in ways that did not reflect lower real risk (what has become known as regulatory capital arbitrage). It was therefore decided that a new capital standard was required and work began on Basel II. Upon promulgation in 2004, Basel II finally came out consisting of three mutually reinforcing pillars, which enshrine the key principles of the new regime. Collectively, they go well beyond the mechanistic calculation of minimum capital levels set by Basel I, allowing lenders to use their own models to calculate regulatory capital while seeking to ensure that lenders establish a culture with risk management at the heart of the organisation up to the highest managerial level.

Pillar 1. Minimum Capital Requirement: This imposes minimum capital requirements on credit, market and operational risks to reduce impact of losses on exposure. It sets out the mechanism for calculating minimum regulatory capital. Under Basel I this calculation related only to credit risk, with a calculation for market risk added in 1996. Basel II adds a further charge to allow for operational risk.

Pillar 2. Supervisory Review Process: This imposes specific bank supervision to promote better risk management. It is meant to identify risk factors not captured in Pillar 1, giving regulators discretion to adjust the regulatory capital requirement against that calculated under Pillar 1. For most lenders, the Pillar 2 process results in a higher regulatory capital requirement than calculated under Pillar 1 alone. Pillar 2 requires banks to think about the whole spectrum of risks they might face including those not captured at all in Pillar 1 such as interest rate risk.

Pillar 3. Market Discipline: This promotes market discipline through greater public disclosure. It is designed to increase the transparency of lenders' risk profile by requiring them to give details of their risk management and risk distributions. Information is released through the normal mandatory financial statements lenders are required to publish through lenders' websites.

The three pillars constitute a complete package. This accord therefore cannot be

considered fully implemented, if the three pillars are not in place. Minimum or Partial implementation of one or two of the pillars may not deliver an adequate level of soundness. (Basel Committee on Banking Supervision, 1999).

### **Implications of Basel II**

There has been a considerable amount of debate concerning the potential impact of Basel II. Perhaps the most obvious effect will be to alter the percentage return on regulatory capital by altering the denominator (the amount of regulatory capital required). For residential mortgages, the release of regulatory capital under both the standardised and retail IRB approaches should be considerable. Many commentators see this as the basis for significant changes in industry pricing once the Basel I capital floors are removed and lenders move entirely to Base II as the determinant of regulatory capital, which they believed could alter the competitive landscape and drive consolidation. However, there are a number of reasons why the impact on market pricing might not be as dramatic as expected. These include:

- Many of the largest financial institutions already set their pricing on the basis of economic rather than regulatory capital. For them Basel II should not lead directly to a desire to reappraise their pricing.
- Non-deposit taking lenders face different regulatory capital requirements under which the minimum levels of capital they are required to hold is much lower, so the introduction of Basel II should have no direct impact on their pricing. The fact that non-deposit taking lenders have not come to dominate the lending industry is testament to the competitive importance of factors other than capital (like access to a stable retail deposit base).
- Lenders routinely hold capital well above the regulatory minimum. Even where the minimum level of regulatory capital alters significantly, a lender may choose not to alter its actual capital profile in response. Lenders hold capital for a number of reasons, such as to enhance their credit rating or allow for future possible acquisitions, and not just to satisfy the regulator.
- Lenders face a risk/reward trade-off: The higher their capital ratio, the lower the perceived risk, other things being equal. This provides lenders with an incentive to hold more capital independent of the requirements of the regulator.

The reason for a three tier approach to credit and operational risk is to allow the fact that smaller lenders are not going to be able to devote the same resources to Basel as the larger ones. Although a move from standardised to retail IRB should see a reduction in regulatory capital for mortgage lenders, the move to Basel II will have brought much larger changes driven by relative portfolio mix. As a result, the pressure that Basel II will create for further consolidation may not be as great as some commentators have claimed. The other area where Basel II will be felt is in firms' 'risk culture'. A key objective of the Accord is to promote a more rigorous approach to risk management. It will require increasingly sophisticated risk management and greater senior management engagement in issues relating to risk. The requirement for public disclosure outlined in Pillar 3 and the expected regulatory capital relief for IRB banks against those on the standardised approach support this objective. Following the international financial and economic crisis of 2007-2009 whereby regulatory and supervisory institutions *cum* instruments (including Basel II) revealed their weaknesses and apparent lack of resilience to shocks, the Basel Committee revised Basel II and formulated a new accord known as Basel III.

### **Basel III Accord**

Undoubtedly, Basel III is the latest Basel Accord and the best International standard, to that extent, the Accord needs to be understood intimately and implemented fully. The summary of Basel III is as follows:

Increased Overall Capital Requirement: Between 2013 and 2019, the common equity component of capital (Core Tier 1 & 2) will increase from 2 percent of a bank's risk-weighted assets before certain regulatory deductions to 4.5 percent after such deductions. The overall capital requirement (Tier 1 and Tier 2) will increase from 8% to 10.5%. Banks will also need to meet a new 2.5% capital conservation buffer, as well as a Zero to 2.5% Counter-cyclical capital buffer. This is to promote the build-up of capital buffers in good times that can be drawn down in periods of stress and prevent inappropriate distribution of capital respectively.

Narrower Definition of Regulatory Capital: Common equity will continue to qualify as Core Tier Capital, but most outstanding hybrid capital instruments (upper Tier 1 and Tier 2) must be replaced by instruments that are more loss-absorbing and do not have incentives to redeem. The distinctions between upper and lower Tier 2 instruments and all Tier 3 instruments will be abolished. All non-qualifying instruments issued on or after September 12, 2010, and all non-qualifying Core Tier 1 Instruments issued prior to that date, will be derecognized in full, from January 1, 2013. Other non-qualifying instruments issued prior to September 12, 2010 will be phased out at the rate of 10 percent per year from 2013 to 2023 subject to certain exceptions.

Two New Liquidity Ratios: The first is the Net Stable Funding Ratio (NSFR) and the second is the Liquidity Coverage Ratio (LCR). The NSFR requires banks to hold certain ratio of Stable Capital to support its illiquid assets. The NSFR will be adopted by January 1, 2018. The LCR requirement necessitates banks to hold a pool of high quality liquid assets to equal or exceed highly-stressed cash outflows and will be adopted by January 1, 2015.

Increased Capital Charge for Banking and Trading Book Exposures: From December 31, 2010, securitization exposures and certain liquidity commitments held in the banking book will require more capital. In the trading book;

(i) From January 1, 2011 banks will be subject to new "stressed" value-at-risk models, increased capital charges and restrictions on correlation trading portfolio, increased capital charges for securitization exposures. (ii) Starting from January 1, 2013, banks will be subject to substantially increased and expanded counterparty risk charges, including increased charges for exposures to other financial institutions.

(Basel Committee on Banking Supervision, 1999).

### **Impacts of Basel III on Banking and Financial Institutions**

Under Basel III, systemically important banks will experience even more financial audit than other banks and this distinction will not be taken lightly. The build-up of Capital buffers will provide for easy draw-down during stress, while counter-cyclical capital buffer will prevent inappropriate distribution of capital. Banks and financial institutions will now under Basel III, have to maintain a higher level of liquidity that should prepare banks for a likely downturn in the future. By this, banks will generally become more stable. Global economic recovery may also benefit from the long phase-in period, given the fact that, Basel III will not be fully implemented until January, 2019. However, having stated some of the important contributions the Accord is expected to make to the global financial system, caution should also be taken in implementing Basel III, based on the following observations:

Firstly on the face of it, it is expected that full implementation of Basel III should make banks more stable. It should however be noted that Implementation of Basel III will make most banking activities undertaken in the trading book more expensive. Banks will therefore generally increase interest rates, which will make interbank lending expensive and small and medium sized businesses will be pushed away from banks' loans. This will definitely reduce importance of banks in the real economy. Taking into account, in a banking system like that of Nigeria, whose regulator, CBN recently increased the Monetary Policy Rate from 6.5% to 7.5%, which increase would ordinarily inform consequential increase in lending rates, adopting Basel III in totality may mean much tougher moment for small and medium sized businesses within such economy. The Basel Committee has developed a methodology that embodies the key components of "systemic

importance” and they are Size, Interconnectedness, Substitutability, Global Activity and Complexity. The reason advanced for the increase by the Central Bank Governor was the need to tighten inflation in the Country. (*The Guardian (Nigeria) Tuesday, March 29, 2011, Vol. 28, No. 11,780*).

Secondly, it should also be noted that the absence of separation of investment banking from commercial banking activities with commensurate regulations, is indeed a huge lacuna or omission in Basel III. It is therefore loudly advocated that “casino-like activities” be separated from the retail system that holds consumers’ savings.

Thirdly, the length of the phase-in period of Basel III which spans over a period of nine (9) years appears too long, and enough for another “bubble” to build up and burst before the new system is finally in place.

### **CONCLUSION AND RECOMMENDATIONS**

This paper revealed the extent to which inadequate capital are accountable for bank failure in Nigeria. It was observed that capital adequacy is imperative for the survival of the banking sector in Nigeria. To arrest the issue of capital inadequacy, banks must ensure they maintain reasonable and acceptable shareholders’ fund unimpaired by losses at all times and avoid capital erosion. They must endeavour to develop maturity profile that can accommodate the matching of their assets and liabilities. Every loan granted by each of the banks has to be adequately collateralized and the incidence of insider related credits must be deemphasized to avoid loan losses or huge non-performing loans. The regulatory authorities on the other hand should engage themselves in capacity building to enable them perform their supervisory and regulatory functions as effectively as possible.

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