



GUARANTY TRUST BANK PLC
PILLAR III DISCLOSURES
DECEMBER 2016

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1. Introduction

1.1 Corporate Overview

Guaranty Trust Bank plc, the most profitable Bank in Nigeria, is a leading financial institution incorporated in 1990 licensed and regulated by the Central Bank of Nigeria with the purpose of receiving deposits, extending credit and provision of basic investment services via its various products and services to various markets tailoring its products and services to suit the needs of customers in the following operating segments:

- Corporate Banking
- Commercial Banking
- Retail Banking
- SME Banking
- Public sector

As part of its growth strategy, the Bank adopted a focused sub-Saharan expansion plan by growing its footprint across the African continent through a combination of Greenfield and Brownfield acquisition. To this end, the Bank currently has seven banking subsidiaries with operations in nine countries namely, Cote-d'Ivoire, Gambia, Ghana, Kenya, Liberia, Rwanda, Sierra-Leone, Uganda and the United Kingdom. The Bank also has a Special Purpose Vehicle- GTB Finance B.V. Netherlands used to raise funds from the international financial market. Detailed information on the Bank, its subsidiaries and operating segments is presented in the Bank's latest Annual Report for 2016.

1.2 Basel II Overview

The Basel framework consists of a three "Pillar" approach. Pillar 1 establishes minimum capital requirements, defines eligible capital instruments, and prescribes rules for calculating Risk Weighted Assets. Pillar 2 requires banks to have an internal capital adequacy assessment process (ICAAP) and requires that banking supervisors evaluate each bank's overall risk profile as well as its risk management and internal control processes. Pillar 3 encourages market discipline through disclosure requirements which allow market participants to assess the risk and capital profiles of banks.

The Central Bank of Nigeria's (CBN) framework on Regulatory Capital Measurement and Management for the Nigerian Banking System for the implementation of Basel II/III in Nigeria is in line with the Capital Accord of the Basel Committee, and is reviewed from time to time to reflect peculiarities in our operating environment.

1.3 Aim of the disclosure report

This report provides an overview of the risk profile and risk management practices of Guaranty Trust Bank Plc (*"the Bank"* or *"GTBank"*). It also contains information on the Bank's capital structure and capital adequacy in line with the requirements of the Central Bank of Nigeria. The objective of this

disclosure is to encourage market discipline and allow stakeholders to assess key pieces of information on the Bank's risk exposures and risk assessment process. This report should be read together with the Bank's Annual Report for 2016.

1.4 Medium and Frequency of disclosure

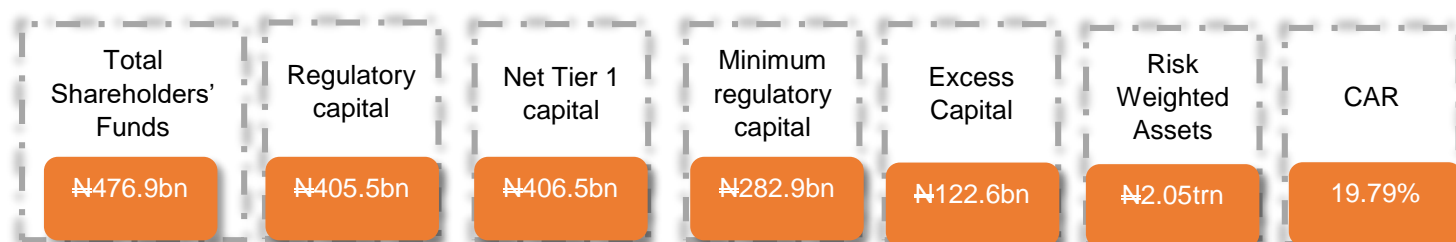
The disclosure frequency is as assessed under section 2.5 of the Pillar III Guidance Notes which requires Domestic Systemically Important Banks (DSIBs) to publish pillar III disclosures on a bi-annual basis and is made available through the Bank's website at <http://www.gtbank.com/investor-relations>.

1.5 Principles of Consolidation and Basis of Presentation

The Bank produces consolidated and separate financial statements for accounting purposes under International Financial Reporting Standards (IFRS) but produces regulatory returns for submission to the CBN relating to capital adequacy, financial statements and other information as required by the CBN from time to time at the parent level. The disclosures in this document are therefore reported at the individual, parent entity level and not at a consolidated level. Investments in subsidiaries are deducted from regulatory capital for capital adequacy purposes. These disclosures are updated semi-annually after the conclusion of the half and full-year audits of the Bank and will be assessed for more frequent disclosures should market and business conditions so warrant. All representations in this report are considered material in line with the disclosure policy in section 2.4 of the CBN Guidance Notes on Pillar III Market Discipline. Consequently, the Bank has not included disclosures on confidential and proprietary information.

1.6 Summary of key metrics as at December 31, 2016

Figure 1 below illustrates GTBank's key capital metrics. The Bank's capital resources is composed mainly of tier 1 capital and the Bank continues to maintain its capital ratio above the regulatory minimum of 15% for banks with international banking license.



2. Risk Management Framework

2.1 Overview

Guaranty Trust Bank has a strong risk culture and employs an enterprise wide risk management approach, in line with best practice, to align strategy, policies, people, processes, technology and business intelligence in order to evaluate, manage and optimize the opportunities and threats it may face in its efforts to maximize sustainable stakeholders' value within the defined risk appetite.

To continually sustain this strong risk culture, the bank adopted the COSO definition of Enterprise Risk Management which depicts ERM as a process driven by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of the entity's objectives. This involves the application of risk management principles and processes in every business activity to determine potential threats, and adopt appropriate control measures, to contain risks with the aim of achieving its objectives.

The Bank has identified its major risk areas as Credit, Market, Operational, Liquidity and Information Technology Risks. Risk identification in these areas is carried out by the relevant risk owners, in collaboration with the ERM Division.

2.2 Risk Appetite

GTBank's Risk Management Philosophy describes its attitude to risk taking. It is the driving force behind its officers' behaviour in the conduct of business activities and operations from a risk perspective. This is summarized in the statement:

“To enhance shareholders' value by creating and maintaining a culture of intelligent risk-taking”.

This philosophy is further cascaded into working statements via the following risk principles:

- The Bank's decisions will be based on careful analysis of its operating environment as well as the implications of risks to the achievement of its strategic goals.
- The Bank will not take any action that will compromise its integrity.
- Risk control will not constitute an impediment to the achievement of strategic objectives.
- The Bank will always comply with all government regulations and embrace global best practice.
- Risk management will form an integral part of the Bank's strategy setting process.
- The Bank will only assume risks that fall within its risk appetite with commensurate returns.
- The Bank shall adhere to the risk management cycle of identifying, measuring, controlling and reporting risks.
- The Bank shall continually review its activities to determine the level of risks inherent in them and adopt appropriate risk responses at all time.

The Bank recognises that there are risk elements associated with the pursuit of growth opportunities to achieve its strategic objectives. While its risk philosophy articulates how inherent risks are considered when making decisions, the Board and management of the bank determine the risks that are acceptable based on its capabilities in terms of capital, technology and people.

2.3 Risk Tolerance

To cascade the risk appetite statement across all business levels, the management of the Bank defines the risk tolerances applicable to risk factor. The tolerances are measured via a three leg limit system which measures an extreme upper region suggesting high risk or unacceptable risk level, a middle range region known as trigger point and a lower region suggesting a low risk or acceptable risk level. This establishes the acceptable level of variation relative to the bank's desired objective.

In setting the risk tolerances, the bank adopts the interview session approach wherein Management of the Bank are questioned to ascertain their position on the degree of risk the bank is willing to take. The set risk acceptance levels are subject to the approval of the Board of Directors and can be changed at the discretion of the Board and Management, when there are compelling regulatory and operating factors.

The risk tolerance limit is monitored periodically using a dashboard which establishes the status of each risk factor at any given point in time. The results of the dashboard is made available to the Management and Board of Directors to enable them take appropriate decisions regarding the acceptability of the risk tolerance level.

2.4 Risk Governance and Oversight

The Bank's Risk Management Framework is built on a well-defined organisational structure and established policies to guide in the function of identifying, analysing, managing and monitoring the various risks inherent in the business as well as setting appropriate risk limits and controls to align the risks with the strategic objectives. The risk management policies are subject to review at least once a year. However more frequent reviews may be conducted at the instance of the Board, when changes in laws, regulations, market conditions or the Bank's activities are material enough to impact on the continued adoption of the existing policies. The Bank, through its trainings and management standards and procedures, aims to develop a disciplined, engaging and controlled environment, in which all employees understand their roles and obligations.

The Bank employs a "three lines of defence governance model" in its risk management framework to implement and control decisions on strategy, risk and capital that are taken by the Board. As depicted in *Figure 2* below, the three lines of defence model are categorized into groups based on the following functions:

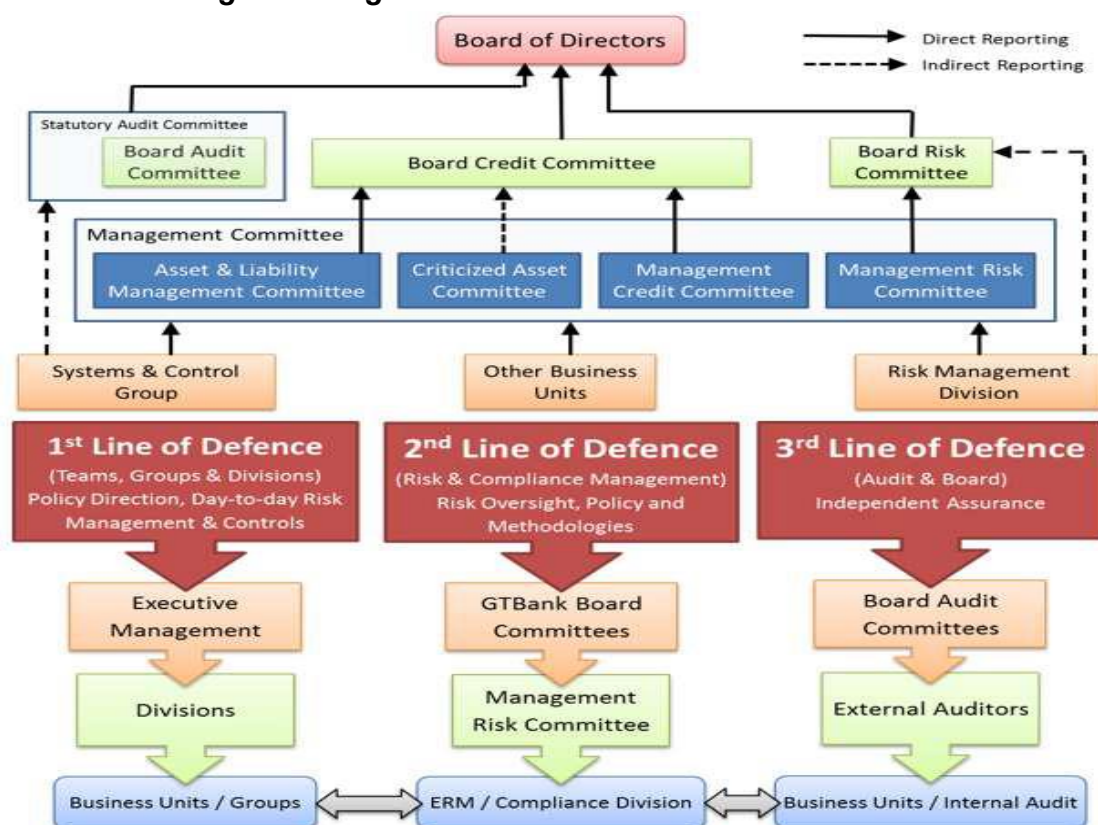
- Functions that own and manage risks.
- Functions that oversee risks.
- Functions that provide independent assurance.

First Line of Defence: Owns and manage the risks. They are responsible for implementing corrective actions to address process and control deficiencies; maintaining effective internal controls and executing risk and control procedures on a day-to-day basis. They also identify, assess, control and mitigate risks to ensure the achievement of set goals and objectives.

Second Line of Defence: Established to perform a policy-setting and monitoring role. It is a risk management function (and/or committee) that facilitates and monitors the implementation of effective risk management practices and a compliance function that monitors various specific risks such as non-compliance with applicable laws and regulations. Other functions include identifying known and emerging issues, providing risk management framework, assisting management in developing processes and controls to manage risks, monitoring the adequacy and effectiveness of internal control, accuracy and completeness of reporting and timely remediation of deficiencies.

Third Line of Defence: Provides objective assurance on the effectiveness of governance, risk management and internal controls. The scope of the assurance, which is reported to senior management and Board covers a broad range of objectives, including efficiency and effectiveness of operations, safeguarding of assets, reliability and integrity of reporting processes, and compliance with laws, regulations, policies, procedures and contracts. It also includes all elements of the risk management and internal control framework.

Figure 2: Risk Management Organisational structure



2.4.1 Board Committees

The Board of Directors has overall responsibility for the establishment of the Bank's Risk Management framework and exercises its oversight function over all the Bank's prevalent risks via various committees; Board Risk Committee, Board Credit Committee, Board Audit Committee and Board Information Technology Strategy Committee. These committees are responsible for developing and monitoring risk policies in their specific areas and report regularly to the Board of Directors. All Board committees have both executive and non-executive members.

2.4.1.1 Board Risk Committee

The Board Risk Committee is responsible for reviewing and recommending risk management policies, procedures and profiles including risk philosophy, risk appetite and risk tolerance of the Bank. The oversight functions cut across all risk areas including credit risk, market and interest rate risk, liquidity risk, operational risk, reputation risk, technology risk and other major risks that may arise from time to time. The committee monitors the Bank's plans and progress towards meeting regulatory Risk-Based Supervision requirements including Basel II compliance as well as the overall Regulatory and Economic Capital Adequacy. It also reviews and approves the contingency plan for specific risks and ensures that all members of the Bank are fully aware of the risks involved in their functions.

2.4.1.2 Board Audit Committee

The Board Audit Committee is responsible for monitoring compliance with the risk management policies and procedures, and for reviewing the adequacy of the risk management framework in relation to risks faced by the Bank. The Audit Committee is assisted by the Internal Audit Group, in carrying out these functions. Internal Audit undertakes both regular and ad-hoc reviews of risk management controls and procedures, the results of which are reported to the Audit Committee.

2.4.1.3 Board Credit Committee

The Bank's Board of Directors has delegated responsibility for the management of credit risk to the Board Credit Committee. The Board Credit Committee considers and approves all lending exposures, including treasury investment exposures, as well as insider-related credits in excess of limits assigned to the Management Credit Committee by the Board. The committee also ensures that the Bank's internal control procedures in the area of risk assets remain fool proof to safeguard the quality of the Bank's risk assets.

2.4.1.4 Board Information Technology Strategy Committee

The Board Information Technology Strategy Committee is responsible for the provision of strategic guidance to Management on Information Technology issues and monitoring the effectiveness and efficiency of Information Technology within the Bank and the adequacy of controls. The Terms of Reference of the Board Information Technology Strategy Committee include:

- To provide advice on the strategic direction of Information Technology issues in the Bank;
- To inform and advise the Board on important Information Technology issues in the Bank;

- To monitor overall Information Technology performance and practices in the Bank.

2.4.2 Management Committees

The Board Committees are assisted by the various Management Committees in identifying and assessing risks arising from day to day activities of the Bank. These committees meet on a regular basis while others are set up on an ad-hoc basis as dictated by circumstances. The roles and responsibilities of the Bank's Management Committees are highlighted below:

2.4.2.1 Management Risk Committee

The Management Risk Committee examines risk in its entirety by reviewing and analysing environmental issues and policies impacting the Bank, either directly or remotely, and make recommendations to the Board Risk Committee.

2.4.2.2 Management Credit Committee

The Management Credit Committee formulates credit policies in consultation with business units, covering credit assessment, risk grading and reporting, collateral, regulatory and statutory requirements. The committee also assesses and approves all credit exposures in excess of the Managing Director's limit set by the Board.

2.4.2.3 Information Technology (IT) Steering Committee

This Committee is responsible for assisting Management with the implementation of IT strategy approved by the Board. The roles and responsibilities of the Committee include planning, budgeting and monitoring; ensuring operational excellence and IT Risk Assurance.

2.4.2.4 Information Technology (IT) Risk Management Committee

The Bank's IT Risk Management Committee is responsible for establishing standardised IT risk management practices and ensuring compliance, for institutionalising IT risk management in the Bank's operations at all levels; and identifying and implementing cost effective solutions for IT risk mitigation. The Committee is also responsible for the continuous development of IT risk management expertise and ensuring that a proactive risk management approach is adopted throughout the Bank to drive competitive advantage.

2.4.2.5 Asset & Liability Management Committee

The Asset & Liability Management Committee establishes the Bank's standards and policies covering the various components of Market Risk Management. These include Interest Rate Risk, Liquidity Risk, Investment Risk and Trading Risk. It ensures that the authority delegated by the Board and Management Risk Committees with regard to Market Risk is exercised, and that Market Risk exposures are monitored and managed. Furthermore, the Committee limits and monitors the potential impact of specific pre-defined market movements on the comprehensive income of the Bank through stress tests and simulations.

2.4.2.6 Criticised Assets Committee

This Committee is responsible for the assessment of the Bank's credit risk asset portfolio. It highlights the status of the risk assets in line with the internal and external regulatory framework and ensures that triggers are sent in respect of delinquent credit risk assets. It also ensures adequate provisions are taken in line with the regulatory guidelines.

2.5 Risk Identification and Measurement

The Credit Risk Management Group is responsible for identifying, controlling, monitoring and reporting credit risk related issues. The Group also serves as the secretariat for the Management Credit Committee. Credit risk is the most critical risk for the Bank as credit exposures, arising from lending activities account for the major portion of the Bank's assets and source of its revenue. Thus, the Bank ensures that credit risk related exposures are properly monitored, managed and controlled.

The Credit Risk Management Group is responsible for managing the credit exposures, which arise as a result of the lending and investment activities as well as other unfunded credit exposures that have default probabilities; such as contingent liabilities.

The Enterprise-wide Risk Management (ERM) Division is responsible for optimising the risks and returns opportunities inherent in the business. The risk management infrastructure encompasses a comprehensive and integrated approach to identifying, managing, monitoring and reporting risks with focus on Credit, Market, Operational, Liquidity and Technology Risks.

In compliance with the CBN's 'Risk-based Supervision' guidelines and in accordance with Basel II Capital requirements, the Bank has implemented capital measurement approaches for the estimate of the bank's economic capital required to cope with unexpected losses using Oracle Financial Services Analytical Applications (OFSAA). The Bank has also put in place other qualitative and quantitative measures that will assist with enhancing risk management processes and creating a platform for more risk-adjusted decision-making. In determining regulatory capital, the Bank uses standardized approach (SA) for quantifying credit and market risk and basic indicator approach (BIA) for determining operational risk.

Further to determination and assessment of regulatory capital, the Bank regularly assesses and prepares a report on its internal capital. The Internal Capital Adequacy Assessment Process (ICAAP) report forms part of management and decision-making processes and is prepared on an annual basis and submitted to CBN. The ICAAP provides an elaborate information on the Bank's risk management processes; identification, measurement, monitoring and mitigation of risks; and how much capital the Bank should hold to reflect these risks now, in the future and under stressed conditions.

2.6 Credit Risk Management

The Bank defines credit risk as the risk of counterparty's failure to meet the terms of any lending contracts with the Bank or failure to perform as agreed. Credit risk arises anytime the Bank's funds

are extended, committed, invested or otherwise exposed through actual or implied contractual agreements.

The Bank's specific credit risk objectives, as contained in the Credit Risk Management Framework, include the following:

- Maintenance of an efficient loan portfolio.
- Institutionalization of sound credit culture in the Bank.
- Adoption of international best practices in credit risk management.
- Development of Credit Risk Management professionals.

Each business unit is required to implement the credit policies and procedures in line with the credit policy guide approved by the Board. Each business unit is responsible for the quality and performance of its credit portfolio and for monitoring and controlling all credit risks in its portfolio, including those subject to Management Credit Committee's approval. The Internal Audit and Credit Administration units are independent risk management functions and they undertake regular audits of business units and credit quality reviews.

The Bank continues to focus attention on intrinsic and concentration risks inherent in its business in order to manage its portfolio risk. It sets portfolio concentration limits that are measured under the following parameters: concentration limits per obligor, business lines, industry, sector, rating grade and geographical area. Sector limits reflect the risk appetite of the Bank.

The Bank drives the credit risk management processes using appropriate technology to achieve global best practices. These software are customised to suit the internal processes of the Bank and to interact seamlessly with the Bank's core banking application.

Lead to Loan is an integrated credit solution software which handles credit customers' profiles, rating scores, documents and collateral management, credit workflow processes, disbursement, recoveries and collection. The deployment of 'Lead to Loan' has further enhanced the credit processes of the Bank and guarantee data integrity towards achieving the CBN required sets of disclosures and the seamless application of Internal Rating Based – Advanced in the measurement and management of capital.

OFSAA is an oracle-based application that handles the complete range of calculations covered in the Basel II Accord. It supports Risk Weighted Assets (RWA) computation for credit risk, market risk and operational risk and performs the capital computation and risk weighted assets aggregation for all risk areas considered. The *OFSAA* software is also configured to process data from the Bank's core application and generate different required management reports for decision making.

There were no changes in the Bank's risk management policies during the period. Each business unit is required to implement credit policies and procedures, with credit approval authorised by the Board Credit Committee.

2.7 Market Risk Management

Market risk is the risk that changes in market variables, such as interest rate, equity prices, foreign exchange rates and credit spreads (not relating to changes in the obligor's / issuer's credit standing) will affect the Bank's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimising the return on risk.

The Management Risk Committee has the overall responsibility for market risk oversight in the Bank at a strategic level. The day-to-day management of market risk, however resides with the Market Risk Management Group within the Enterprise-wide Risk Management Division which is responsible for the development and implementation and review of detailed risk management policies.

The Bank separates its exposure to market risk between trading and non-trading portfolios. Trading portfolios are held by the Treasury Group and include positions arising from trading and market making activities. With the exception of translation risk arising on the Bank's net investment in its foreign operations, all foreign exchange risks within the Bank are monitored by the Treasury Group. Accordingly, the foreign exchange position is treated as part of the Bank's trading portfolios for risk management purposes.

The principal tool used to measure and control market risk exposure within the Bank's trading portfolios is the open position limits using the Earning-at-Risk approach. Specific limits (regulatory and in-house) have been set across the various trading portfolios to prevent undue exposure and the Market Risk Management Group ensures that these limits and triggers are adhered to by the bank.

The principal risk to which non-trading portfolios are exposed is the risk of loss from fluctuations in the future cash flows or fair values of financial instruments because of a change in market interest rates. Interest rate risk is managed principally through monitoring interest rate gaps and by having pre-approved limits for re-pricing bands. The ALMAC is the monitoring body for compliance with these limits and is assisted by Risk Management in its day-to-day monitoring activities.

The Bank makes use of limit monitoring, earnings-at-risk, gap analyses and scenario analyses to measure and control the market risk exposures within its trading and banking books. The bank also performs regular stress tests on its banking and trading books. In performing this, the Bank ensures there are quantitative criteria in building the scenarios. The Bank determines the effect of changes in interest rates on interest income; volatility in prices on trading income; and changes in funding sources and uses on the Bank's liquidity.

2.8 Operational Risk Management

Operational Risk (OpRisk) is the direct or indirect risk of loss resulting from inadequate and/or failed internal processes, people, and systems or from external events. The Bank manages operational risk by reviewing and monitoring all strategies and initiatives deployed in its people management, process engineering and re-engineering, technology investment and deployment, management of all

regulatory responsibilities, engagement of third party services, and response to major disruptions and external threats.

To ensure a holistic framework is implemented, operational risk management also monitors strategic and reputational risks from a broad perspective. Strategic risk management is the process for identifying, assessing and managing risks and uncertainties, affected by internal and external events or scenarios, that could inhibit the Bank's ability to achieve its strategic objectives with the ultimate goal of creating and protecting shareholder and stakeholder value. Reputational risk is the current and prospective adverse impact on earnings and capital arising from negative public opinion. It measures the change in perception of the Bank by its stakeholders. It is linked with customers' expectations regarding the Bank's ability to conduct business securely and responsibly. All adverse trends identified are reported to relevant stakeholders for timely redress.

The following practices, tools and methodologies have been deployed in the Bank for the purpose of Operational Risk Management implementation:

Loss Incident Reporting – Loss incidents are reported to OpRisk Group by all business areas in the Bank. All staff are encouraged to report operational risk events as they occur in their respective business spaces whether these risks crystallize into actual losses or not. As a result, the Bank has a robust OpRisk loss database detailing relevant OpRisk loss data for four years. Information collated is analyzed for identification of risk concentrations, appropriate OpRisk risk profiling and capital estimation.

Risk and Control Self Assessments (RCSAs) – This is a qualitative risk identification tool deployed bank-wide. All branches and Head-Office departments are required to complete the Risk Self-Assessment process at least once a year. A risk-based approach has been adopted for the frequency of RCSAs to be conducted by branches, departments, groups and divisions of the Bank. These assessments enable risk profiling and risk mapping of prevalent operational risks across the Bank. A detailed risk register cataloguing key risks identified and controls for implementation is also developed and maintained from this process.

Risk Assessments of the Bank's new and existing products, services, branches and vendors/contractors are also carried out. This process tests the quality of controls the Bank has in place to mitigate likely risks. Other Risk Assessments conducted include Process Risk Assessments, Product Risk Assessments, Vendor Risk Assessments, Fire Risk Assessments, New Branch Risk Assessment and Fraud Risk Assessments.

Key Risk Indicators (KRI) – These are quantitative parameters defined for the purpose of monitoring operational risk trends across the Bank. A comprehensive KRI Dashboard is in place and it is supported by specific KRIs for key departments in the Bank. Medium – High risk trends are reported in the Monthly and Quarterly Operational Risk Status reports circulated to Management and key stakeholders.

Fraud Risk Management Initiatives – Causal analysis of key fraud and forgeries trends identified in the Bank or prevalent in local and global business environments are carried out and reported on a monthly basis. Likely and unlikely loss estimations are also determined in the process as input in the

OpRisk capital calculation process. The focus in Fraud Risk Management is to ensure that processes for preventing, deterring, detecting fraud and forgeries incidents, and sanctioning offenders are effective.

Business Continuity Management (BCM) in line with ISO 22301 Standards – To ensure the resilience of our business to any disruptive eventuality, the Bank has in place a robust Business Continuity Plan (BCP). This plan assures timely resumption of its business with minimal financial losses or reputational damage and continuity of service to its customers, vendors and regulators. Various testing and exercising programs are conducted bank-wide to ensure that recovery coordinators are aware of their roles and responsibilities. The Plan is reviewed and updated periodically to ensure reliability and relevance of information contained. GTBank has been certified ISO 22301 Business Continuity compliant by the globally recognized British Standards Institution signifying that the Bank has instituted internationally accepted processes, structures and systems that demonstrate its capacity to resume business within a short timeframe in the event of any business disruption.

Compliance and Legal Risk Management – Compliance Risk Management involves close monitoring of KYC compliance by the Bank, escalation of Audit Non-conformances, Complaints Management, and observance of the Bank's zero-tolerance culture for regulatory breaches. It also entails an oversight role for monitoring adherence to regulatory guidelines and global best practices on an on-going basis. Legal Risk Management involves the monitoring of litigations against the Bank to ascertain likely financial or non-financial loss exposures. It also involves conduct of causal analysis on identified points of failure that occasioned these litigations. Medium – High risk factors identified are duly reported and escalated for appropriate treatment where necessary.

Occupational Health and Safety procedures and initiatives – Global best practices for ensuring the health and safety of all staff, customers and visitors to the Bank's premises are advised, reported to relevant stakeholders and monitored for implementation. Related incidents are recorded bank-wide for identification of causal factors and implementation of appropriate mitigants to forestall reoccurrence. As a result, the following are conducted and monitored: Fire Risk Assessments, Quarterly Fire Drills, Burglaries and Injuries that occur within the Bank's premises.

Operational Risk Capital Calculation – The Bank has adopted the Basic Indicator Approach under Basel II Pillar 1 for the calculation of its Operational Risk Economic Capital for internal risk monitoring and decision-making. Whilst the Bank has the required OpRisk loss data to migrate to other capital calculation methods i.e. the Standardized Approach and Advanced Measurement Approach, it is mindful of investing in the additional resources required especially as the Central Bank of Nigeria has recommended the Basic Indicator Approach for all banks in Nigeria. The Estimated OpRisk Capital Charge is reported to the Board and Management for guidance in Capital Planning and decision making.

Operational Risk Reporting – Monthly, quarterly and annual reports highlighting key operational risks identified are circulated to relevant stakeholders for awareness and timely implementation of mitigation strategies. Reports are also generated and circulated on a need-basis. To aid timely and comprehensive reporting of prevalent OpRisk exposures in the Bank, an OpRisk Management

software/application has been acquired by the Bank. This has been successfully implemented to aid data collation and information gathering, analysis, escalation and reporting of key OpRisk incidents or emerging trends observed.

2.8.1 Treatment of Operational Risks

GTBank adopts several risk treatment strategies to mitigate identified operational risks. These mitigants are applied to achieve a residual risk level aligned with the Bank's risk tolerances. In line with best practices, the cost of risk treatments introduced must not exceed the reward. The following comprise the OpRisk treatments adopted by the Bank:

Risk Acceptance and Reduction: The Bank accepts the risk because the reward of engaging in the business activity far outweighs the cost of mitigating the risk. Residual risks retained by the business after deploying suitable mitigants are accepted. For reduction option, risks that are within the Bank's strategic objectives but are outside the defined risk tolerance are reduced by implementing or increasing controls to reduce the impact and/or likelihood of the risk.

Risk Transfer (Insurance): This involves another party or parties bearing the risk, by mutual consent. Relationships are guided by the use of contracts and insurance arrangements

Risk Sharing (Outsourcing): Risk is shared with other parties that provide expert solutions required to mitigate risk or reduce risk burden whether operationally or financially

Risk Avoidance: Requires discontinuance of the business activity that gives rise to the risk

2.9 Liquidity Risk Management

The Bank's liquidity risk management process is primarily the responsibility of the Market Risk Management Group. The bank's liquidity management objectives includes the following:

- Maintenance of minimum levels of liquid and marketable assets above the regulatory requirement of 30%. The Bank has also set for itself more stringent in-house limits above this regulatory requirement to which it adheres.
- Monitoring of its cash flow and balance sheet trends. The Bank also makes forecasts of anticipated deposits and withdrawals to determine their potential effect on the Bank.
- Regular measurement and monitoring of its liquidity position/ratios in line with regulatory requirements and in-house limits.
- Regular monitoring of non-earning assets.
- Monitoring of deposit concentration.
- Ensure diversification of funding sources.
- Monitoring of level of undrawn commitments.
- Maintaining a contingency funding plan.

2.9.1 Funding approach

The Bank's overall approach to funding is as follows:

- Generation of large pool of low cost deposits.
- Maintenance of efficiently diversified sources of funds along product lines, business segments and also regions to avoid concentration risk.
-

The Bank was able to meet all its financial commitments and obligations without any liquidity risk exposure for the year ended December 2016. The Bank's Asset and Liability Management Committee (ALMAC) is charged with the responsibility of managing the Bank's daily liquidity position. Liquidity position is monitored daily and stress testing is conducted regularly under a variety of scenarios covering both normal and more severe market conditions.

All liquidity policies and procedures are subject to review and approval by ALMAC. The Risk Management Group sets limits which are in conformity with the regulatory limits. The limits are monitored regularly and exceptions are reported to ALMAC as appropriate. In addition, gap reports are prepared monthly to measure the maturity mismatches between assets and liabilities. The cumulative gap over total assets is not expected to exceed 20%.

2.9.2 Exposure to liquidity risk

The key measure used by the Bank for managing liquidity risk is the ratio of liquid assets to short term liabilities. For this purpose, liquid assets are considered as including cash and cash equivalents and investment grade debt securities for which there is an active and liquid market. Short term liability includes local currency deposits from banks and customers.

The liquidity ratio of the Bank, which is a measure of liquidity risk, is calculated as a ratio of Naira liquid assets to local currency deposits and shown in Table 1 below:

Table 1: Liquidity Ratio

| Dec-2016 | |
|------------------------|--------|
| At end of year | 42.19% |
| Average for the year | 38.56% |
| Maximum for the year | 42.19% |
| Minimum for the year | 36.13% |
| Regulatory requirement | 30.00% |

2.10 Information Technology Risk Management

Technology continues to play a critical role in the Bank's operations and in the fulfilment of its strategic objectives. Given this importance of information technology to the overall performance and success of the Bank, GTBank has in place a sound framework to identify, monitor, control and report on IT risks. The Bank's IT governance framework aligns its IT strategy with its overall business objective. The Board of directors through the Board Information Technology Strategy Committee provides guidance to Management on information technology issues and monitors the effectiveness

of information technology within the Bank and the adequacy of controls. The management also establishes a more detailed framework of supporting policies, standards and procedures that demonstrates how they will operate within the broader risk parameters established by the Board. As a result, there are two management committees that are responsible for controlling and mitigating IT risks in the Bank. These are:

- **Information Technology (IT) Steering Committee-** responsible for assisting management with the implementation of IT strategy approved by the Board as well as IT risk assurance.
- **Information Technology (IT) Risk Management Committee-** responsible for establishing standardised IT risk management practices and ensuring compliance and institutionalising IT risk management in the Bank's operations at all levels.

These committees ensure strategic alignment of information technology with business goals, value delivery, resource management, IT risk management and setting performance measures.

In order to monitor IT compliance, the Bank set up an IT Audit team in the Systems and Control Division with the mandate to examine and evaluate the Bank's IT infrastructure, policies and procedures. The audits determine whether IT controls protect corporate assets, ensure data integrity and are aligned with the business overall objectives. In fulfilment of this mandate, the IT Audit unit conducts an annual risk assessment exercise on the Bank's information technology infrastructure to identify high risk areas. This assessment culminates in an audit plan which is reviewed and approved by the Board Audit committee. The team also draws up a checklist which identifies the audit criteria, the Bank's policies and standards in effect, controls in place for information systems/products, statutory requirements and changes to the control environment.

The audit is performed through spot checks, comprehensive sweep exercises to ensure the following:

- Detect and prevent abuse of access right to the Bank's core banking application and other system applications
- System investigation to identify, rectify and prevent system malfunctions,
- Income and expense verification to verify that there no income losses due to system error and provide assurance that the income recognised is based on set parameters.
- The team also performs a review of the Bank's network to prevent unauthorised accesses and breaches.

Based on the audit findings, exception reports and recommendations are prepared and sent to the relevant unit for prompt response and/or implementation. Follow up meetings are also made to ensure that issues identified are properly resolved and the recommendations made are being implemented.

Furthermore, the Bank was awarded a triple International Organization for Standardization certification for ISO/IEC 27001- for Information Security, ISO 20000 – for IT Service Management and ISO 22301 – for Business Continuity by the British Standard Institute (BSI). The British Standard

Institute (BSI) certification recognizes companies that have implemented systems and structures that ensure their operations are in line with international best practices. The certification attests that the Bank has instituted internationally accepted processes that guaranty the security of its customers' information, the ability of the institution to consistently provide quality service and its capacity to resume business within a short timeframe in the event of any business disruptions. These certificates are valid for a period of three years during which surveillance audits will be conducted by the BSI on an annual basis to ascertain conformity with established standards and procedures. After the expiration of the certificates, a re-certification audit will be conducted to evaluate the Bank's fulfilment of all the requirement of the internationally recognised standards.

The Bank also adopts the following mitigation strategies to manage information security risks:

- **Network Controls** – The bank has put in place different controls on the network to facilitate access to network resources on need to have basis. Different network segmentations exist on the network to protect specific areas from access to unauthorized personnel. Also, a network access control security solution has been implemented to guard against enterprise network access to rogue systems.
- **Application Security Controls (e.g. Secure Coding controls)** – The Bank ensures that new and modified applications are well tested before deployment to production environment. Such tests include functional and security tests. Also, applications running on endpoint systems are reviewed quarterly to ensure that unauthorized applications are not freely used within the enterprise environment. In addition to this, security solutions such as Web Application Firewall, Database Activity Monitoring and Threat Management have been deployed to provide enhanced security for web facing applications in Bank.
- **Operating system hardening** – Bank has baseline security configurations for the various operating systems and network devices based on global security best practices. Operating systems are deployed and configured based on published security standards of Centre for Internet security.
- **Patch management** – A benchmark threshold of permissible patch compliance status was instituted by the Management of Bank. The monthly compliance status is obtained on a monthly basis, compared to the established threshold and reported to management for review and informed decision.
- **Administrative Controls (policies, procedures, attestations etc.)** – The Bank was certified by PCI DSS version 2.0 in 2012 and has continued to be recertified to upgraded version ever since, currently certified to PCI DSS Version 3.2. The Bank was also certified in ISO 27001, 22301 and 2000 in 2014 and was recertified in 2015. The tedious process of getting these certifications and recertification has really help in the development and maturity of appropriate policies, processes and procedures on business operations and security controls

3 Capital Resources and Capital Requirements

3.1 Capital Resources

The CBN requires banks to maintain a minimum level of capital to cover the Pillar 1 or traditional credit, operational and market risks. This requirement is met by the Bank in its monthly returns on Capital Adequacy Ratio (CAR to the CBN and the Bank's management. The Bank also holds additional capital in excess of regulatory capital to cover additional Pillar 2 or internally assessed risks which are extensively covered in the Bank's ICAAP.

There are 2 categories of capital under the Basel II framework: Tier 1 and Tier 2 capital. Tier 1 capital consists of only permanent shareholders' equity and disclosed reserves and includes:

- Paid up share capital which is issued and fully paid; only redeemed on the winding-up of the business.
- Share premium, the excess paid over the par value of the shares.
- General reserves, the earnings derived after all distributable allocations have been made.
- SMEEIS reserves.
- Statutory reserve, made out of profit after tax

Tier 2 capital consists qualifying hybrid capital instruments, subordinated debt and items in other comprehensive income (OCI) other than fixed asset revaluation reserves created by the adoption of IFRS. However, the Bank's Tier 2 capital is only made up of fair value reserves used to account for the revaluation changes in Available-for-sale financial instruments. Total capital is Tier 1 capital plus Tier 2 capital.

Deductions made from capital include;

- Intangible assets,
- 100% investments in unconsolidated subsidiaries and
- Deferred tax assets

The table below shows the composition of the Bank's capital resources and its reconciliation to total shareholder's equity as at 31 December 2016:

Table 2: Capital resources

| <i>In thousands of Nigerian Naira</i> | Dec-2016 |
|--|--------------------|
| Capital Resources | |
| Share capital | 14,715,590 |
| Share premium | 123,471,114 |
| Retained profits | 83,989,499 |
| Statutory Reserve | 199,185,674 |
| SMEEIS Reserve | 4,232,478 |
| Other reserves | 28,279,386 |
| Total Shareholders' Equity | 453,873,741 |
| Less Regulatory deductions : | |
| Other intangible assets | (3,377,961) |
| Deferred Tax Assets | - |
| 100% investments in subsidiaries | (43,968,474) |
| Tier 1 Capital (A) | 406,527,306 |
| Fair Value Reserves | (1,000,680) |
| Tier 2 Capital (B) | (1,000,680) |
| Total Qualifying Capital (C= A+B) | 405,526,626 |

3.2 Capital Requirements

3.2.1 Minimum capital requirements

The CBN specifies the approaches for determining minimum capital requirements for banks and financial services holding companies which is expressed in the form of a Capital to Risk (Weighted) Assets Ratio (CRAR) or as commonly known Capital Adequacy Ratio (CAR). The current minimum required level for this ratio is 10% or 15% respectively for Nigerian banks or banking groups with regional/national license and international banking license.

A summary of the composition of regulatory capital and risk weighted assets as at December 31, 2016 is shown in the table below:

Table 3: Summary of Risk Assessments and Capital Adequacy Ratio

| <i>In thousands of Nigerian Naira</i> | Dec-2016 |
|---|----------------------|
| Description | |
| Risk Weighted Amount for Credit Risk | 1,700,022,945 |
| Risk Weighted Amount for Operational Risk | 347,267,040 |
| Risk Weighted Amount for Market Risk | 1,797,607 |
| Aggregate Risk-Weighted Assets (RWA) | 2,049,087,592 |
| Minimum Capital required | 282,928,613 |
| Net Tier 1 Capital | 406,527,306 |
| Net Tier 2 Capital | (1,000,680) |
| Total Qualifying Capital | 405,526,626 |
| Tier 1 Risk-Based Capital Ratio | 19.84% |
| Total Risk-Weighted Capital Ratio | 19.79% |

3.2.2 Internal Capital Adequacy Assessment Process ICAAP

Annually, the Bank produces an ICAAP report which provides management with a view of the impact of severe and unexpected events on earnings, balance sheet positions, reserves and capital. The Bank's ICAAP integrates stress testing scenarios with capital planning and is used to assess the adequacy of its capital to support current and expected future activities. The ICAAP document includes the following key elements:

- Summary of Pillar 1 capital requirement,
- Summary of Pillar 2 capital requirement,
- A three year capital plan and
- Analysis of the impact of stress testing on Profit and Loss, Balance Sheet and regulatory capital.

The ICAAP report is reviewed and approved by the Bank's Board of Directors. As such, the Bank's risk management processes and capital assessment assumptions are regularly being challenged and a conscious effort is made to ensure that the Bank continues to retain its focus on the risks it faces.

In determining its Internal Assessment of Capital Requirements (IACR), the Bank adopted the Standardized Approach (SA) for determining all of its Pillar 1 Risks with model developed for determining quantifiable Pillar 2 Risks. The internal assessment of the Bank's capital shows that the Bank has enough capital to withstand the severe stresses modelled in the internal capital assessment and therefore ahead of what continues to be a stressed and challenging financial environment.

4 Credit Risk

4.1 Overview

Credit risk is the principal source of risk to the Bank arising from exposures in form of loans and advances extended to customers under the corporate, commercial, small & medium enterprises and retail business lines. Credit risk also arises through the use of off-balance sheet guarantees and commitments and through the Bank's investment in financial instruments. Capital requirements are based on the perceived level of risk of the individual credit exposures. As stipulated in the Basel II implementation document of the Central Bank local regulator, the bank classified its various loan exposures into appropriate Basel II classes – corporate exposures, retail, exposures to public sector entities, exposures secured by residential mortgages and mortgages on commercial properties and equity.

The Bank has adopted the Standardised Approach for assessing its capital requirements for credit risk for regulatory and internal capital assessment purposes. Exposures to the Federal Government of Nigeria, the Central Bank of Nigeria and some Multilateral development banks have been zero risk-weighted while all exposures to corporate, public sector entities and exposures secured by residential and commercial mortgages have a risk weight of 100%. A risk weight of 75% have been applied to retail exposures and exposures secured by residential mortgages.

4.2 Credit risk exposure

The total and average credit risk exposures both in the banking and trading book after accounting for offsets and without taking into account the effects of credit risk mitigation as at December 31, 2016 are set out below in the table below.

Table 4: Total and Average credit risk exposures by counterparty

| In thousands of Nigerian Naira | | Dec-16 |
|---|----------------------|----------------------|
| Credit Risk exposures/Counterparty | Gross Exposure | Average exposure |
| Federal Government and CBN | 817,224,128 | 802,004,803 |
| State & Local Government | 61,052,095 | 59,223,469 |
| Supervised Institutions | 184,496,959 | 154,711,079 |
| Corporate and Other Persons | 1,159,105,019 | 840,637,314 |
| Regulatory Retail Portfolio | 99,652,237 | 83,682,063 |
| Secured by Residential Mortgages | 2,567,635 | 1,821,990 |
| Secured by Commercial Mortgages | 66,959,221 | 60,192,198 |
| Past Due Exposures | 33,130,950 | 17,108,191 |
| High Risk Exposures (Equity Investments) | 3,909,610 | 4,063,373 |
| Other Balance Sheet Exposures | 137,895,778 | 103,030,842 |
| Sub-total (On-balance Sheet Exposures) | 2,565,993,632 | 2,143,583,512 |
| Off Balance sheet exposures | | |
| Public Sector Entities | 170,115 | 170,115 |
| Supervised Institutions | 327,179 | 1,191,810 |
| Corporate and Other Persons | 509,229,681 | 516,673,842 |
| Regulatory Retail Portfolio | 1,668,104 | 1,353,582 |
| Sub-total (Off-balance sheet Exposures) | 511,395,079 | 519,389,349 |
| Total (On and Off-balance Sheet Exposures) | 3,077,388,711 | 2,662,972,861 |

4.3 Geographical Analysis of Exposures

The geographical distribution as required under Basel II is reported by analysing where the counterparty is based and further analysed to show the breakdown by exposure. All the Bank's exposure with the exception of placements with foreign banks and subsidiaries as well as balances with foreign banks are within Nigeria.

Table 5: Geographical analysis of Exposures as at December 31, 2016

| In millions of Nigerian Naira | North Central | North East | North West | South East | South/South | South West | Outside Africa | Total Exposures |
|---|------------------|---------------|---------------|--------------|----------------|------------------|----------------|------------------|
| On-Balance Sheet Exposures | | | | | | | | |
| Federal Government and CBN | 817,224 | - | - | - | - | - | - | 817,224 |
| State & Local Government | 9,518 | 10,116 | - | 1 | 3,212 | 38,205 | - | 61,052 |
| Supervised Institutions | - | - | - | - | - | 9,193 | 175,304 | 184,497 |
| Corporate and Other Persons | 70,942 | 6,889 | 9,236 | 4,277 | 118,974 | 948,788 | - | 1,159,105 |
| Regulatory Retail Portfolio | 20,374 | 2,240 | 7,936 | 1,754 | 25,316 | 42,033 | - | 99,652 |
| Secured by Residential Mortgages | 255 | - | 21 | - | 64 | 2,227 | - | 2,568 |
| Secured by Commercial Mortgages | - | - | - | 313 | 253 | 66,394 | - | 66,959 |
| Past Due Exposures | 3,849 | 1,261 | 880 | 3,117 | 11,137 | 12,887 | - | 33,131 |
| High Risk Exposures | - | - | - | - | - | - | - | 3,910 |
| Other Balance Sheet Exposures | - | - | - | - | - | - | - | 137,896 |
| Sub-Total (On-Balance Sheet Exposures) | 922,163 | 20,506 | 18,074 | 9,461 | 158,955 | 1,119,726 | 175,304 | 2,565,994 |
| Off Balance sheet exposures | | | | | | | | - |
| Public Sector Entities | - | - | - | - | - | 170 | - | 170 |
| Supervised Institutions | - | 36 | - | - | - | 291 | - | 327 |
| Corporate and Other Persons | 207,865 | 251 | 22,916 | 510 | 33,345 | 244,344 | - | 509,230 |
| Regulatory Retail Portfolio | - | 377 | 187 | - | - | 1,104 | - | 1,668 |
| Sub-Total (Off Balance Sheet Exposures) | 207,865 | 664 | 23,103 | - | - | 245,908 | - | 511,395 |
| Total (On & Off Balance Sheet Exposures) | 1,130,027 | 21,170 | 41,177 | 9,461 | 158,955 | 1,365,634 | 175,304 | 3,077,389 |

4.4 Industry Analysis of Exposures

Table 6 shows the balances by industry classification and by exposure class as at December 31, 2016.

Table 6: Industry Analysis of Exposures (On- balance sheet) as at December 31, 2016

| In millions of Nigerian Naira | Agric. | Cap ital Mar ket & FI. | Construction & Real Estate | Education | General Commerce | Government | Individual | Info. Tel & Transport | Manufac turing | Mining, Oil & Gas | Others | Total Exposures |
|---|---------------|---------------------------------------|-------------------------------|--------------|---------------------|----------------|----------------|--------------------------|-------------------|-------------------------|----------------|--------------------|
| Federal Government and CBN | - | - | - | - | - | 817,224 | - | - | - | - | - | 817,224 |
| State & Local Government | - | - | - | - | 1 | 61,051 | - | - | - | - | 1 | 61,052 |
| Supervised Institutions | - | 184,497 | - | - | - | - | - | - | - | - | - | 184,497 |
| Corporate and Other Persons | 16,053 | 44,868 | 18,732 | 6,615 | 45,829 | - | 17,164 | 125,714 | 239,978 | 545,505 | 98,647 | 1,159,105 |
| Regulatory Retail Portfolio | 79 | 60 | 273 | 564 | 2,442 | 0 | 90,776 | 276 | 321 | 604 | 4,257 | 99,652 |
| Secured by Residential Mortgages | - | - | - | - | - | - | 2,529 | - | - | - | 38 | 2,568 |
| Secured by Commercial Mortgages | - | - | 66,959 | - | - | - | - | - | - | - | - | 66,959 |
| Past Due Exposures | - | - | 6,082 | - | 1,180 | - | 1,014 | 1,779 | 7,447 | 12,154 | 3,475 | 33,131 |
| High Risk Exposures | - | - | - | - | 3,910 | - | - | - | - | - | - | 3,910 |
| Other Balance Sheet Exposures | - | 1,042 | - | - | - | - | - | - | - | - | 136,853 | 137,896 |
| Sub-Total (On-Balance Sheet Exposures) | 16,132 | 230,467 | 92,046 | 7,179 | 53,361 | 878,275 | 111,483 | 127,769 | 247,747 | 558,262 | 243,271 | 2,565,994 |
| Off Balance sheet exposures | | | | | | | | | | | | |
| Public Sector Entities | - | - | - | - | - | 170 | - | - | - | - | - | 170 |
| Supervised Institutions | - | 327 | - | - | - | - | - | - | - | - | - | 327 |
| Corporate and Other Persons | - | 1,477 | 299,129 | 200 | 82,707 | - | - | 3,423 | 8,789 | 113,505 | - | 509,230 |
| Regulatory Retail Portfolio | - | - | 556 | - | 1,113 | - | - | - | - | - | - | 1,668 |
| Sub-Total (Off Balance Sheet Exposures) | - | 1,804 | 299,684 | 200 | 83,819 | 170 | - | 3,423 | 8,789 | 113,505 | - | 511,395 |
| Grand Total (On & Off Balance Sheet Exposures) | 16,132 | 232,272 | 391,730 | 7,379 | 137,180 | 878,445 | 111,483 | 131,192 | 256,536 | 671,767 | 243,271 | 3,077,389 |

¹Includes Engineering Services, Hospitality, Clubs, Cooperative Societies etc

4.5 Credit exposures by maturity

The residual maturity distribution of credit exposures for GTBank is broken down as follows:

Table 7: Residual maturity of credit exposures (On-balance sheet) for the year ended December 31, 2016

| In Millions Of Nigerian Naira | Less than 30days | Up to Three Months | Three to Six Months | Six to Twelve Months | One to Three Years | Three to Five Years | Five to Ten Years | Greater than Ten years | Total |
|---|------------------|--------------------|---------------------|----------------------|--------------------|---------------------|-------------------|------------------------|------------------|
| Federal Government and CBN | 385,601 | 63,214 | 120,422 | 237,965 | 100 | 207 | - | 9,714 | 817,224 |
| State and Local Government | 819 | 722 | 1,088 | 2,325 | 14,442 | 9,012 | 19,672 | 12,972 | 61,052 |
| Supervised Institutions | 139,146 | 8,574 | 7,303 | 20,244 | 4,082 | 5,148 | - | - | 184,497 |
| Corporate and Other Persons | 131,687 | 358,397 | 138,588 | 129,830 | 283,725 | 98,531 | 18,347 | - | 1,159,105 |
| Regulatory Retail Portfolio | 23,474 | 5,133 | 4,941 | 8,273 | 40,090 | 17,655 | 66 | 20 | 99,652 |
| Secured by Residential Mortgages | 104 | 46 | 73 | 136 | 693 | 567 | 655 | 295 | 2,568 |
| Secured by Commercial Mortgages | 8,351 | 1,717 | 2,540 | 14,493 | 21,272 | 18,275 | 311 | - | 66,959 |
| Past Due Exposures | 14,073 | 1,737 | 9,198 | 3,583 | 3,592 | 320 | 627 | - | 33,131 |
| High Risk Exposures | - | - | - | - | - | - | - | 3,910 | 3,910 |
| Other Balance Sheet Exposures | 130,389 | - | - | - | - | 7,506 | - | - | 137,896 |
| Sub-Total (On-Balance Sheet Exposures) | 833,646 | 439,541 | 284,153 | 416,851 | 367,996 | 157,222 | 39,675 | 26,911 | 2,565,994 |
| Off Balance sheet exposures | | | | | | | | | |
| Public Sector Entities | - | - | - | 95 | 75 | - | - | - | 170 |
| Supervised Institutions | - | - | 27 | 10 | - | - | 290 | - | 327 |
| Corporate and Other Persons | 10,171 | 12,316 | 23,523 | 74,656 | 49,582 | - | 338,982 | - | 509,230 |
| Regulatory Retail Portfolio | - | 109 | 40 | 739 | 560 | - | 219 | - | 1,668 |
| Sub-Total (Off Balance Sheet Exposures) | 10,171 | 12,425 | 23,590 | 75,500 | 50,217 | - | 339,491 | - | 511,395 |
| Total (On & Off Balance Sheet Exposures) | 843,816 | 451,966 | 307,743 | 492,351 | 418,213 | 157,222 | 379,166 | 26,911 | 3,077,389 |

4.6 Credit Quality of Exposures

4.6.1 Loan Categorization

The Bank's definition and categorization of Loans and Receivables for credit risk purposes is as follows:

- **Neither past due nor impaired:**

These are significant loans and advances where contractual interest or principal payments are not past due. The credit quality of the portfolio of loans and advances that were neither past due nor impaired can be assessed by reference to the internal rating system adopted by the Bank. These are assigned ratings 1-6₁.

- **Past due but not impaired:**

These are loans and advances where contractual interest or principal payments are past due but individually assessed as not being impaired. The Bank believes that impairment is not appropriate on the basis of the level of receivable/security/collateral available and/or the stage of collection of amounts owed to the Bank. This is assigned rating 7₁.

- **Individually impaired:**

Individually impaired are loans and advances for which the Bank determines that it is probable that it will be unable to collect all principal and interest due according to the contractual terms of the loan/advance agreement(s). These are loans and advances specifically impaired. These are assigned ratings 8-10₁.

- **Collectively impaired:**

Collectively impaired are portfolios of homogenous loans and advances where contractual interest or principal payments are not past due, but have been assessed for impairment by the Bank. Thus, Loans assessed for collective impairment transverse from ratings 1 to ratings 7₁. Tables 9 & 10 below present a breakdown of the Bank's Loans and advances based on the categorization of exposures and impairment taken on them and also by products; as well as movement in impairment on loans to banks, individuals and non-individuals.

| | | | |
|---|---|---|---|
| 1 | Ratings 1 Exceptional capacity Ratings 6 Acceptable Risk | Ratings 2 Very strong capacity Ratings 1-7 collectively impaired | Ratings 3-5 Strong repayment capacity Ratings 8-10 individually impaired |
|---|---|---|---|

Please refer to the Bank's Annual Account for additional information on accounting policies governing the identification and measurement of impairment.

4.6.2 Methodology for determining Impairment

The Bank establishes an allowance for impairment losses that represents its estimate of incurred losses in its loan portfolio. The main components of this allowance are a specific loss component that relates to individually significant exposures, and a collective loan loss allowance, established

for groups of homogeneous assets in respect of losses that have been incurred but have not been identified on loans subject to individual assessment for impairment.

- **Specific Impairment** – This is derived by identifying exposure at default and recoverable cash-flows. The Cash-flows are then discounted to present value using the original effective interest rate on the exposures. The shortfall between the discounted cash-flows and the exposure at default is recognized as individual impairment.
- **Collective Impairment** - This is arrived at using the incurred loss model under IAS 39 by incorporating emergence period into the expected loss model under Basel II.
- **Loans with renegotiated terms**- Loans with renegotiated terms are loans that have been restructured due to deterioration in the borrower's financial position and where the Group has made concessions that it would not otherwise consider. Once the loan is restructured, it remains in this category independent of satisfactory performance after restructuring.
- **Write-off policy**- The balances on Loans and Receivables or investment securities (and any related allowances for impairment losses) are written off when the Management Credit Committee determines that the exposure amount is not collectible. This determination is reached after considering information such as the occurrence of significant changes in the borrower or issuer's financial position such that obligation can no longer be repaid; or that proceeds from collateral will not be sufficient to pay back the entire exposure. For smaller balance standardised loans, charge off decisions are generally based on a product specific past due status.

The Table 8 below shows the movement in total impairment taken during the period ended December 31, 2016, on all balance sheet exposure types:

Table 8: Movement in impairment on Loans and Advances to Banks, Individuals and non- Individuals

| <i>In thousands of Nigerian Naira</i> | Loan Exposures (Corporates, Public Sector, Retail, Commercial etc) | | | High Risk Exposures (Equity Securities) | | Other Balance Sheet Exposures (Other Assets) | |
|--|--|-------------------------------------|--------------------------------|---|------------------|--|-------------------|
| | Specific allowance for impairment | Collective allowance for impairment | Total allowance for impairment | Specific allowance for impairment | | Specific allowance for impairment | Grand Total |
| Balance at 1 January | 18,919,422 | 7,389,627 | 26,309,049 | 3,454,978 | | 305,556 | 30,069,583 |
| Foreign currency translation and other adjustments | 427 | - | 427 | - | | - | 427 |
| Net increase in impairment | 13,389,143 | 50,637,628 | 64,026,771 | - | | - | 64,026,771 |
| Write offs | (16,435,362) | - | (16,435,362) | - | | - | (16,435,362) |
| Balance, end of period | 15,873,630 | 58,027,255 | 73,900,885 | - | 3,454,978 | - | 77,661,419 |

4.7 Credit Risk Exposures under the Standardized Approach

The Bank uses standardised approach for quantifying credit risk involves the application of risk weights to the exposure types. All balance sheet exposure amounts weighted for credit risk are presented net of specific and collective provisions taken on the assets. The risk weights applied are a function of the credit ratings of the counterparty or the exposures which are made available by External Credit Assessment Institutions (ECAIs). The credit quality assessment scale assigns a credit quality step to each rating provided by the ECAIs, as set out in the Table 9 below.

Table 9: Credit Quality Assessment Scale and Risk Weights as specified by CBN

| Credit Quality Step | Credit Rating | Risk Weight |
|---------------------|---------------|----------------------|
| 1 | AAA to AA- | 0%/20% ¹ |
| 2 | A+ to A- | 20%/50% ¹ |
| 3 | BBB+ to BBB- | 50% |
| 4-5 | BB+ to B- | 100% |
| 6 | Below B- | 150% |
| Unrated | Unrated | 100% |

¹ A risk weight one category less favourable than the sovereign assigned to Banks incorporated in other countries

The Basel II guidance notes on credit risk by the CBN directs banks to nominate an ECAI and use their credit assessments consistently for each type of exposure, for both risk weighting and risk management purposes. To this end, the Bank has consistently used the credit ratings of either Fitch or Standard & Poor's (S &P) to rate exposures to supervised institutions (Placements and Balances with foreign banks and subsidiaries). Where a rating for the institution is not available, the Bank adopts the sovereign rating of the country that the institution is located.

In line with the CBN guidance notes, all corporate exposures have been assigned a risk weight of 100% due to the non-availability of ECAI ratings for the Bank's obligors. Exposures secured by commercial mortgage are risk-weighted 100% while a risk weight of 75% is applied to retail exposures and exposures secured by residential mortgages. The unsecured portion of past due exposures have been assigned a risk weight of 150% and 100% where specific provisions are less than 20% and equal to or greater than 20% of the outstanding amount of the past due exposure respectively. Qualifying residential mortgage loan that are past due are risk weighted 100% and 50% where specific provisions are less than 20% and equal to or greater than 20% of the outstanding amount of the past due exposure respectively.

A more detailed breakdown of the risk weights applied to the different exposure types and their amounts is presented in the table below:

Table 10: Analysis of Exposures with or without CRM and risk weight applied (On-Balance Sheet)

| In thousands of Nigerian Naira | | Dec-16 | |
|--|-------------------------------|----------------------|---|
| Credit Risk exposures/Counterparty | Risk Weight | Exposure value | Exposure after CRM & on-balance sheet netting |
| Federal Government and CBN | 0% | 817,224,128 | 817,224,128 |
| State & Local Government | 20% | 5,219,262 | 5,219,262 |
| | 100% | 55,832,833 | 54,098,656 |
| Supervised Institutions | 20% | 170,853,124 | 158,908,916 |
| | 100% | 13,643,836 | 13,643,836 |
| Corporate and Other Persons | 100% | 1,159,105,019 | 1,051,352,115 |
| Regulatory Retail Portfolio | 75% | 99,652,237 | 95,812,117 |
| Secured by Residential Mortgages | 75% | 2,567,635 | 2,420,097 |
| Secured by Commercial Mortgages | 100% | 66,959,221 | 66,394,013 |
| Past Due Exposures | Vary according to asset class | 33,130,950 | 33,130,950 |
| High Risk Exposures (Equity Investments) | 150% | 3,909,610 | 3,909,610 |
| Other Balance Sheet Exposures | 0% | 37,836,719 | 37,836,719 |
| | 20% | (6,759,503) | - |
| | 100% | 106,818,561 | 106,818,561 |
| Total | | 2,565,993,632 | 2,446,768,981 |

Table 11: Analysis of Exposures with or without CRM and risk weight applied (Off-Balance Sheet)

| In thousands of Nigerian Naira | | December 31, 2016 | |
|--------------------------------|-------------|--------------------------|---------------------------|
| Off Balance sheet exposures | Risk Weight | Credit Equivalent Amount | Exposure Amount after CRM |
| Public Sector Entities | 100% | 170,115 | 170,115 |
| Supervised Institutions | 100% | 313,731 | 174,401 |
| Corporate and Other Persons | 100% | 323,950,465 | 317,931,965 |
| Regulatory Retail Portfolio | 75% | 1,387,866 | 1,363,795 |
| Total | | 325,822,177 | 319,640,276 |

4.8 Credit Risk Mitigation

The Bank has a lending policy encapsulated in its Credit Policy Guide which prescribes lending limits to manage credit risk concentration and ensure diversification of its risk assets portfolio. It maintains borrowing limits for individuals and groups of related borrowers, business lines, sector/industry, geographical area and rating grade.

The limits are usually recommended annually by Credit Risk Management Group (CRMG) and approved by the Board. For each industry or economic sector, the set limits are dependent on regulatory limits, historical performance of the sector as well as the intelligence report on the outlook of the sector. Limits can however be realigned (by reduction or increase) to meet the exigencies of the prevailing macroeconomic events subject to appropriate approval.

Other credit risk mitigation techniques include: collateral management, establishing and enforcing authorisation limits, including set-off limits; defining exposure levels to counterparties; verifying the creditworthiness of counterparties that are not parent undertakings; daily monitoring of positions to ensure that prudential limits are not exceeded and imposing industry / economic sector limits to guard against concentration risk. Please refer to *Credit Collateral* in Notes 4 (Financial Risk Management) in the Bank's Annual Report for a detailed discussion on the Bank's collateral management.

The Bank also adheres to the eligibility requirements on recognition of credit risk mitigants (CRM) of CBN and Basel II for the purpose of determining credit risk. The Basel II guidelines allows the Bank to use financial collaterals, on-balance sheet netting and guarantee and credit derivatives that meet certain conditions to be used to obtain capital relief from balance sheet exposures. Financial collaterals are restricted cash, gold, and qualifying debt securities and equities after applying standard supervisory haircuts.

To arrive at the CRM value used to derive the net credit exposure for regulatory capital adequacy purposes, the Bank applies the haircut adjustments on the value of the eligible collaterals to provide a margin of safety in the event of a drop in market prices. The following formula is applied in the calculation of the net credit exposure;

$$E^* = \max \{0, [E X (1 + H_e) - C X (1 - H_c - H_{fx})]\}$$

Where:

E* = the net exposure value after risk mitigation

E = the current value of the exposure

H_e = haircut appropriate to the exposure

C = the current value of the collateral received

H_c = haircut appropriate to the collateral

H_{fx} = haircut appropriate for currency mismatch between the collateral and exposure

Table 12: Eligible financial collaterals and standard supervisory haircuts

| Financial Collaterals | Residual Maturity | Sovereigns (%) | Other issuers (%) |
|---|--------------------|----------------|-------------------|
| AAA to AA-/A-1 rated securities, Federal Government of Nigeria Bonds & T-bills and State Government bonds | =< 1 year | 0.5 | 1 |
| | >1 year, < 5 years | 2 | 4 |
| | > 5 Years | 4 | 8 |
| A+ to BBB-/ A-2/A-3/P-3 rated and unrated bank securities | =< 1 year | 1 | 2 |
| | >1 year, < 5 years | 3 | 6 |
| | > 5 Years | 6 | 12 |
| BB+ to BB- | | 15 | NA |
| Main index equities (including convertible bonds) and Gold | | 15 | |
| Other equities (including convertible bonds) listed on a recognized exchange. | | 25 | |
| Cash | | 0 | |

Table 13: Credit risk concentrations and mitigation Instruments as at December 31, 2016

| Exposure Type | On-Balance Sheet Netting | Cash | Equities | Government Debt Securities | Guarantee By Eligible Guarantor | Grand Total |
|--------------------------------|--------------------------|-------------------|-------------------|----------------------------|---------------------------------|--------------------|
| In Thousands of Nigerian Naira | | | | | | |
| Supervised Institutions | 11,944,208 | - | - | - | - | 11,944,208 |
| Commercial Mortgage | - | - | - | - | - | - |
| Corporate And Other Persons | 82,005,559 | 30,799,362 | 21,257,192 | 10,436,786 | 439,497 | 144,938,395 |
| Public Sector | - | 1,734,176 | - | - | - | 1,734,176 |
| Residential Mortgage | - | - | - | - | - | - |
| Retail | - | 184,416 | 61,071 | 105,301 | - | 350,787 |
| Grand Total | 93,949,766 | 32,717,954 | 21,318,263 | 10,542,086 | 439,497 | 158,967,566 |

Table 14: Exposure values covered by eligible financial collaterals and guarantees as at December 31, 2016

| In thousands of Nigerian Naira | | Jun-16 | |
|---|-----------------------|--|--|
| Credit Risk exposures/Counterparty | Gross Exposure | Exposures covered by eligible collaterals | Exposures covered by guarantees |
| Central Governments and Central Banks | 791,561,375 | - | - |
| State Govt and Local Authorities | 61,158,982 | 57,950,114 | - |
| Supervised Institutions | 174,884,845 | - | - |
| Corporate and Other Persons | 1,199,011,296 | 331,909,106 | 3,493,546 |
| Regulatory Retail Portfolio | 85,339,874 | 746,353 | - |
| Secured by Mortgages on Residential Properties | 1,975,143 | - | - |
| Exposures Secured by Mortgages on Commercial Real Estates | 62,329,841 | - | - |
| High Risk Exposures (Unquoted Equity investments) | 3,901,551 | - | - |
| Unsettled and Failed Transactions | 4,885,232 | - | - |
| Other Assets | 111,282,490 | - | - |
| Total | 2,496,330,629 | 390,605,572 | 3,493,546 |
| Off Balance sheet exposures | | | |
| Public Sector Entities | 170,115 | - | - |
| Supervised Institutions (DMBs, Discount Houses, etc) | 300,283 | 300,283 | - |
| Corporates | 486,599,672 | 427,293,491 | - |
| Retail Portfolios | 1,773,116 | 1,109,879 | - |
| Total | 488,843,186 | 428,703,652 | - |
| Grand total | 2,985,173,815 | 819,309,224 | 3,493,546 |

| <i>In thousands of Nigerian Naira</i> | | Dec-16 | | |
|---|----------------------|---|--------------------------|---------------------------------|
| Credit Risk exposures/Counterparty | Gross Exposure | Exposures covered by eligible collaterals | On-Balance Sheet Netting | Exposures covered by guarantees |
| Federal Government and CBN | 817,224,128 | - | - | - |
| State & Local Government | 61,052,095 | 1,734,176 | - | - |
| Supervised Institutions | 184,496,959 | | 11,944,208 | - |
| Corporate and Other Persons | 1,191,181,906 | 62,301,757 | 82,005,559 | 439,497 |
| Regulatory Retail Portfolio | 99,652,237 | 350,787 | - | - |
| Secured by Residential Mortgages | 2,567,635 | - | - | - |
| Secured by Commercial Mortgages | 68,013,284 | - | - | - |
| Past Due Exposures | | | | |
| High Risk Exposures (Equity Investments) | 3,909,610 | - | - | - |
| Other Balance Sheet Exposures | 137,895,778 | - | - | - |
| Sub-Total (On-Balance Sheet Exposures) | 2,565,993,632 | 64,386,721 | 93,949,766 | 439,497 |
| Off Balance sheet exposures | | | | |
| Public Sector Entities | 170,115 | - | - | - |
| Supervised Institutions | 327,179 | 152,240 | - | - |
| Corporate and Other Persons | 509,229,681 | 6,018,500 | - | - |
| Regulatory Retail Portfolio | 1,668,104 | 24,071 | - | - |
| Sub-Total (Off Balance Sheet Exposures) | 511,395,079 | 6,194,811 | - | - |
| Grand Total (On & Off Balance Sheet Exposures) | 3,077,388,711 | 70,581,531 | 93,949,766 | 439,497 |

5 Operational Risk

5.1 Overview

Operational Risk is the risk of loss resulting from inadequate or failed internal processes, people and systems and from external events. Operational risk is categorized into the following risk categories:

- People risk
- Process risk
- System risk
- External event risk

Risk Appetite and Acceptance Criteria

The Bank's operational risk appetite as set for key categories of operational risk event is as defined below:

Table 15 – Operational Risk Appetite

| S/N | Operational Risk Parameter | Threshold |
|-----|---|---|
| 1 | Fraud & Forgeries | 1% of Gross Income |
| 2 | Legal Settlements | 1% of Gross Income |
| 3 | Damage to Physical Assets - | All other OpsRisk Exposure ≤ 3% of Gross Income |
| 4 | Business Disruption Issues - | |
| 5 | Occupational Health & Safety (OHS) Issues | |
| 6 | Fines & Penalties - | |
| | Total Operational Risk Loss | 5% of Gross Income |

5.2 Operational Risk Capital

The Bank adopts the Standardized Approach for estimating capital charge for internal capital assessment. This involves mapping the business activities into the eight (8) Basel defined business lines as applicable.

Under this approach, the capital requirement for operational risk is an average of gross income for each business line over the last three years and weighted on the basis of the beta percentages applicable to them.

The Bank's operations five out of the eight Basel defined business lines as depicted in Table 17 below:

Table 16 – Basel Business lines and Beta factor

| BASEL BUSINESS LINES BREAK DOWN | | | GTBANK | BETA FACTOR (%) |
|---------------------------------|-----------------------|--|-----------------------------------|-----------------|
| Corporate Finance | Corporate Finance | | Corporate Finance | 18 |
| | Government Finance | | Public Sector | |
| | Merchant Banking | | Energy, Telecoms, Corporate Bank | |
| | Advisory Services | | | |
| Trading and Sales | Sales | | Treasury | 18 |
| | Market Making | | | |
| | Proprietary Positions | | | |
| | Treasury | | | |
| Payments and Settlement | | | Settlement | 18 |
| Retail Banking | Retail Banking | | Retail Banking / SME / E-Business | 12 |
| | Private Banking | | | |
| | Card Services | | | |
| Commercial Banking | Commercial Banking | | Commercial Banking | 15 |

However, the bank uses the Basic Indicator Approach (BIA) for the purpose of determining operational risk regulatory capital assessment.

The Gross income used in assessing operational risk for both regulatory and internal capital measurement purposes includes net interest income and net non-interest income gross of:

- Any provisions (example unpaid interest); and write-offs made during the year
- Any operating expenses, including fees paid to outsourcing service providers; in addition to fees paid for services that are outsourced, fees received by banks that provide outsourcing services shall be included in the definition of gross income

The Gross income computation also excludes:

- Realized or unrealized profits/losses from the sale or impairment of securities in the banking book;
- Extraordinary or irregular items;
- Income derived from insurance recoveries.
- Reversal during the year in respect of provisions and write-offs made during the previous year(s);
- Income from legal settlements in favour of the bank;

6 Market Risk

The Bank's exposure to market risk comprises interest rate risk (trading & banking book) and foreign exchange risk as detailed below in Table 18:

Table 17: Market Risk Components

| Market Risk | Composition | Risk Weight (%) | Comments |
|---------------------------------|--|---|-----------------|
| A. Interest Rate Risk | | | |
| 1. Trading Book | | | |
| | Interest Rate Risk - General (Trading FGN – Treasury Bills (TB) & Bonds) | As defined within the zones based on the maturity bands | Capitalised |
| | Interest Rate Risk - Specific (Trading FGN - TB & Bonds) | 0 | Not capitalised |
| 2. Banking Book | | | |
| | Earning at Risk (Discounted Earning Impact). To enable management ascertain the likely impact on earnings if interest rate changes are not properly managed. In doing this, the gap between the rate sensitive assets and liabilities are multiplied by volatility/interest rate change & roll over periods/intervals of 30days and divided by the period covered/horizon of 365 days. The outcome is multiplied by a discount factor. | 0 | Not Capitalised |
| B. Foreign Exchange Risk | It is the higher of foreign currency position (long & short) throughout the Bank. | 15 | Capitalised |

To determine the required capital for these risks, the Bank employs a building block approach by aggregating the individual capital requirement for each of the risks aforementioned.

Interest Rate Risk: This is the risk of loss to the Bank's earnings and capital as a result of adverse movements in market prices and rates. Interest rate risk can arise from mismatch / re-pricing risk, basis risk, prepayment or extension risk and yield curve risk. Adverse movement in interest rates may potentially impact the Bank's reported earnings and capital through its interest income, interest expense, the present and future market value of the Bank's trading books and the present and future value of the Bank's cash flows. To calculate the capital requirement for the interest rate risk on the trading book, the Bank uses the maturity method of Basel II Standardized Approach.

The use of Earnings at Risk (EaR) to measure interest rate risk in the banking book helps the Bank determine how much the Bank's margin could change given a change in interest rates. It is a tool that measures short-term interest rate risk by projecting the change in interest income 12-month into the future.

The tables 18 & 19 below shows the changes that would impact the income statement after carrying out interest rate sensitivities and provides further information on the breakdown by main currencies:

Table 18: Interest Rate Sensitivity per main currencies and impact on Pre-tax earnings

| <i>In thousands of Nigerian naira</i> | Dec-16 | Dec-16 | Dec-16 | Dec-16 | Dec-16 | Dec-16 |
|--|-------------|-----------|---------|---------|---------|-------------|
| | Pre-tax | Pre-tax | Pre-tax | Pre-tax | Pre-tax | Pre-tax |
| | NGN | USD | GBP | EUR | OTHERS | TOTAL |
| Income gain/loss from decrease in rate | 1,358,719 | (147,390) | 9,184 | 7,436 | 1 | 1,227,951 |
| Income gain/(loss) from increase in rate | (1,358,719) | 147,390 | (9,184) | (7,436) | (1) | (1,227,951) |

Table 19: Interest Rate Sensitivity per main currencies and impact on Post-tax earnings

| <i>In thousands of Nigerian naira</i> | Dec-16 | Dec-16 | Dec-16 | Dec-16 | Dec-15 | Dec-15 |
|--|-------------|-----------|----------|----------|----------|-------------|
| | Post-tax | Post-tax | Post-tax | Post-tax | Post-tax | Post-tax |
| | NGN | USD | GBP | EUR | OTHERS | TOTAL |
| Income gain/loss from decrease in rate | 1,122,574 | (121,773) | 7,588 | 6,144 | 1 | 1,014,533 |
| Income gain/(loss) from increase in rate | (1,122,574) | 121,773 | (7,588) | (6,144) | (1) | (1,014,533) |

Table 20: Average volume of interest earning assets and interest bearing liabilities per currency as at December 2016

| <i>In thousands of Nigerian naira</i> | Dec-16 | Dec-16 | Dec-16 | Dec-16 | Dec-16 | Dec-16 |
|--|---------------|-------------|------------|-----------|--------|---------------|
| | NGN | USD | GBP | EUR | OTHERS | TOTAL |
| Average volume of Interest earning Assets | 1,122,189,761 | 727,409,287 | 3,817,287 | 270,611 | 27 | 1,853,686,972 |
| Average volume of Interest bearing liabilities | 1,375,753,263 | 580,019,777 | 13,001,246 | 7,706,983 | 819 | 1,976,482,087 |

Foreign Exchange Risk: Foreign Exchange risk arises when fluctuations in the exchange rates of the Bank's foreign currencies assets and liabilities impact its earnings and capital. Foreign Exchange risk has been considered as either transactional (occurs when exchange rate changes unfavourably) or translational (balance sheet exposure that results from the consolidation of financial statements of subsidiaries abroad into the "home currency". The Bank's Foreign Exchange Risk is measured in two ways;

- Use of the Net Open Foreign Exchange position of the Bank
- Use of Liquidity Gaps in the currency used for business activities by the Bank.

However, for the purpose of calculating its capital requirements, the Bank measures its foreign exchange risk using the Standardized Approach. This process involves determining the Bank's

net open position in foreign currency calculated according to Short-hand Method and then multiplying the net open position by market risk capital charge factor of 8%

As mentioned earlier, the Bank's detailed computation of its Risk Weighted Assets (RWA) for credit, market and operational risks and its Capital Adequacy Ratio is rendered to Central Bank of Nigeria (CBN) on a monthly basis in line with CBN.

7 Equity exposures

7.1 Overview

Equity risk refers to risk of losses arising from negative changes in the fair value of the long term equity investment portfolio.

The equity investments in the banking book are largely holding of investment in the Bank's subsidiaries. Investments in subsidiaries are held at historical cost at parent level but eliminated in the Consolidated Financial Statements. For the purpose of determining regulatory and internal capital, investments in subsidiaries have been deducted from Tier 1 capital and are not included in credit risk weighted assets.

The other category of equity investments are investments in unquoted small and medium enterprises (SMEES). These investments were made in compliance with the CBN's directive in 2006 which requires Deposit Money Banks to set aside a specified portion of their Profit after Tax for investment in Small and Medium Enterprises. The impact of the unquoted equity risk in the banking book is deemed immaterial as it constitutes only 0.1 per cent of the balance sheet. Unquoted equity securities are designated as Available for sale instruments and are measured at fair value in line with IAS 39 using the Discounted Cash flow (DCF) technique. They are measured at cost less impairment where fair value is not easily determinable.

7.2 Valuation Methodology and Assumptions

The fair value of the other unquoted equity securities were derived using the Discounted Cash Flow technique of the income approach. The steps involved in estimating the fair value of the Bank's investment in each of the investees (i.e. unquoted equity securities) are as follows:

- Step 1: A five-year forecast of the Free Cash Flow to the Firm (FCFF) for each of the equity investments was made (see (a) below for the definition, explanation and derivation of FCFF).
- Step 2: The yearly FCFF forecasts were discounted to present value using the company's WACC. (See (b) below for the definition, explanation and derivation of WACC).
- Step 3: The terminal value at year five was estimated by dividing the compounded (with 'g') - year Five FCFF by the capitalization rate (please see (c) below)
- Step 4: The terminal value was discounted to present value using the company's WACC.
- Step 5: The firm value was obtained by adding the present value of the five-year FCFF obtained in step (2) above to the present value of terminal value obtained in step (4) above.
- Step 6: The equity value of the firm was obtained by deducting the value of the debt of the company from the firm value obtained in step (5) above (i.e. Firm value minus market value of debt = Equity value)
- Step 7: The equity value per share was obtained by dividing the Equity value obtained in step (6) above by the number of shares outstanding in the company.
- Step 8: The fair value of the Bank's investment in each of the relevant unquoted equity securities was derived by multiplying the number of the Banks' shares in the investee by the value per share obtained in step (7) above.

a. Free Cash flow to the Firm (FCFF):

A measure of financial performance that expresses the net amount of cash that is generated for the firm, consisting of expenses, taxes and changes in net working capital and investments. Free cash flow to the firm is the cash available to all investors, both equity and debt holders.

$$\text{FCFF} = \text{NI} + \text{NCC} + [\text{Int} * (1 - \text{tax rate})] - \text{Changes in FCI} - \text{Changes in WCI}$$

Where:

NI = Net Income

NCC = Non-Cash Charges

Int. = Interest

T = tax rate

FCI = Fixed Capital Investment

WCI = Working Capital Investment

b. Weighted average Cost of Capital (WACC):

This is the average cost of both equity and debt capital used in financing a business.

$$\text{WACC} = \frac{D}{D + E} (K_d)(1 - T) + \frac{E}{D + E} (K_e)$$

$$\text{WACC} = \{(D/D+E) \times K_d(1-T)\} + \{(E/D+E) \times K_e\}$$

Where:

D = Value of Debt

E = Equity value

Ke = Cost of equity

Kd = Cost of debt

T = Tax rate

c. Capitalization Rate= WACC – g

$$\text{Terminal value} = (\text{FCFF}_5 * (1+g)) / (\text{WACC} - g)$$

Where:

FCFF = Year₅ FCFF

g = Growth rate

WACC = *Weighted average Cost of Capital*

Valuation Assumptions – Discounted Cash flow

1. Risk free rate (R_f) = 11.01% yield on 10-year Federal Government of Nigeria Bond
2. Beta = 1 or Less than 1.
3. Market premium = 6% based on trend analysis and research of market premiums across the globe by Aswath Damodaran.
4. Growth rate used is growth rate in earnings between the latest year and prior period.

It is important to note that some unquoted equities were carried at cost less impairment as there are no audited internal data (financial statements) that can be used for the purpose of fair valuation.

The tables below provides a breakdown of equity exposures that have been included in credit risk weighted assets and fair value amount that have been included in Tier 2 capital:

Table 21: Exposure Amount of Equity Securities

| In thousands of Nigerian Naira | | | |
|--|------------------|---------------------|------------------|
| Equity Exposures | Gross Exposure | Specific Impairment | Net Exposure |
| Unquoted Equity securities at fair value | 4,279,461 | (508,016) | 3,771,445 |
| Unquoted equity securities at cost | 3,085,126 | (2,946,962) | 138,164 |
| Total | 7,364,587 | (3,454,978) | 3,909,609 |

Table 22: Unquoted Equities: Unrealized Gains/ Losses recognized in Other Comprehensive Income

| In thousands of Nigerian Naira | Dec-16 |
|--|-------------------|
| Historical cost | (2,415,699) |
| Fair Value | 4,279,461 |
| Unrealized Fair Value Gain recognized in Equity (OCI) | *1,863,762 |

*Forms part of Other Comprehensive Income included in Tier 2 Capital