



Guaranty Trust Bank Plc Pillar 3 Disclosure

December 2019



Our Risk Appetite Statement...

Guaranty Trust Bank will maintain a moderate risk appetite in pursuit of its core strategies to dominate its priority sectors, expand its franchise on the African continent, contain its operating cost whilst leveraging on technology and remain the most profitable, without taking unnecessary risks.

Contents

1. INTRODUCTION	8
1.1 Corporate Overview	8
1.2 Legal Structure of Subsidiaries	11
1.3 Basel II Overview	12
1.4 Aim of the disclosure report.....	13
1.5 Medium and Frequency of disclosure	14
1.6 Scope of application	14
1.7 Highlights.....	14
1.8 The IFRS 9 Capital Transitional Arrangement.....	15
1.9 The Impact of New Regulations	16
1.10 Summary of key capital metrics as at Dec. 31st, 2019.....	16
2. Risk Management Framework.....	18
2.1 Overview.....	18
2.2 Risk Management Philosophy	18
2.3 Risk Appetite.....	19
2.4 Risk Tolerance.....	20
2.5 Risk Governance and Oversight.....	20
2.5.1 Board Committees.....	22
2.5.1.1 Board Risk Management Committee	22
2.5.1.2 Board Audit Committee.....	22
2.5.1.3 Board Credit Committee	22
2.5.1.4 Board Information Technology Strategy Committee	23
2.5.2 Management Committees.....	23
2.5.2.1 Management Risk Committee.....	23
2.5.2.2 Management Credit Committee	23

2.5.2.3	Information Technology (IT) Steering Committee	23
2.5.2.4	Information Technology (IT) Risk Management Committee	23
2.5.2.5	Asset & Liability Management Committee	24
2.5.2.6	Criticised Assets Committee	24
2.5.3	Other Risk Management Oversight Roles	24
2.5.3.1	Chief Risk Officer (CRO)	24
2.5.3.2	Internal Control	24
2.5.3.3	Financial Control.....	25
2.5.3.4	Compliance	25
2.6	Risk Identification, Management and Measurement	25
2.7	Credit Risk Management	26
2.8	Market Risk Management	27
2.9	Operational Risk Management.....	28
2.9.1	Treatment of Operational Risks	31
2.10	Liquidity Risk Management	32
2.10.1	Funding approach.....	32
2.10.2	Exposure to liquidity risk	33
2.11	Information Technology Risk Management	34
3	Capital Resources and Capital Requirements	37
3.1	Capital Resources	37
3.2	Capital Requirements	39
3.2.1	Minimum capital requirements.....	39
3.2.2	Internal Capital Adequacy Assessment Process (ICAAP)	40
4	Credit Risk.....	42
4.1	Overview.....	42
4.2	Credit Quality of Exposures	42
4.2.1	Loan Categorization – The Staging approach.....	42
4.2.2	Methodology for determining Expected Credit Loss	44
4.2.3	Write off Policy	48

4.3	Credit Risk Exposures	49
4.3.1	Geographical Analysis of Exposures as at Dec. 31st, 2019.....	50
4.3.2	Industry Analysis of Exposures	51
4.3.3	Credit exposures by maturity	52
4.3.4	Credit exposures and their Value adjustments	53
4.4	Credit Risk Exposures under the Standardized Approach.....	55
4.5	Credit Risk Mitigation	57
4.6	Collateral Evaluation and Management.....	58
5	Operational Risk	63
5.1	Overview.....	63
5.2	Operational Risk Capital	64
6	Market Risk.....	66
7	Equity exposures	69
7.1	Overview.....	69
7.2	Accounting Technique: Classification and Measurement	69
7.3	Valuation Methodology and Assumptions	71
8	Regulatory Standards in issue but not yet effective	73
8.1	CBN’s Guidance for Domestic Banks in line with the Key Principles of Basel III	73
8.1.1	Minimum Capital Requirements	73
8.1.2	Leverage Ratio (LeR).....	74
8.1.3	New Liquidity Requirements	76
8.1.3.1	Liquidity Coverage Ratio.....	77
8.1.3.2	Net Stable Funding Ratio.....	77
9	ABBREVIATIONS	78

List of Figures and Tables

Figure 1:	Contribution of Operating Segments to key metrics as at 31 st December 2019	10
Figure 2:	Group Entities as at December 31 st , 2019	11
Figure 3:	Risk Weighted Assets by Type as at December 31 st , 2019	14
Figure 4:	Risk Management Organisational Structure	21
Table 1:	Key capital metrics as at December 31 st , 2019	17
Table 2:	Liquidity Ratio	33
Table 3:	Regulatory Capital Structure	38
Table 4:	Minimum Regulatory Capital Requirement for Pillar 1 risks	39
Table 5:	Summary of Risk Weighted Assets, Regulatory Capital and Capital Adequacy Ratio	40
Table 6:	Internal Assessment of Capital required for Pillar 1 and Pillar 2 Risks	41
Table 7:	Total and Average Gross Credit Risk exposures with Capital Requirements per counterparty	49
Table 8:	Geographical analysis of exposures as at December 31 st , 2019	50
Table 9:	Industry Analysis of exposures (On and off-balance sheet Credit Equivalent Amount) as at December 31 st , 2019	51
Table 10:	Residual maturity of credit exposures (On-balance and Off-balance sheet) as at December 31 st , 2019	52
Table 11a:	Gross exposure and Total value adjustments on On-Balance Exposures (In line with IFRS 9)	53
Table 11b:	Gross exposure and Total value adjustments on Off-Balance Exposures	53
Table 11c:	Movement in Value adjustments on all Balance sheet exposures as at December 31 st ,2019	54
Table 11d:	Geographical distribution of Stage 3 Loans and Total Impairment taken as at December 31 st , 2019	55
Table 12:	Credit Quality Assessment Scale and Risk Weights as specified by CBN	55
Table 13:	Analysis of exposures with or without CRM and the risk weights applied (On-Balance Sheet)	56
Table 14:	Analysis of Off-Balance sheet exposures (Credit Equivalent Amount) before and after CRM and Risk weight applied	57
Table 15:	Eligible Financial collaterals and standard supervisory haircuts	60
Table 16:	Exposure value covered by eligible financial collaterals, On-balance sheet netting and eligible guarantees as at December 31 st , 2019	61
Table 17:	Breakdown of Financial Collaterals as at December 31 st , 2019	62
Table 18:	Operational Risks appetite	63
Table 19:	Basel Business lines and Capital Charge	64
Table 20:	Market Risk Components	66

Table 21a: Unfavourable impact of a 1% reduction in interest rate on pre-tax Net Interest Income as at December 31 st , 2019	67
Table 21b: Favourable impact of a 1% reduction in interest rate on pre-tax Net Interest Income as at December 31 st , 2019	67
Table 21c: Unfavourable impact of a 1% reduction in interest rate on post-tax Net Interest Income as at December 31 st , 2019	68
Table 21d: Unfavourable impact of a 1% reduction in interest rate on post-tax Net Interest Income as at December 31 st , 2019	68
Table 22: Exposure Amount of Equity Securities	69
Table 23: Unrealised Gains/Losses on Equity Instruments	70
Table 24: Unrealised Gains/Losses recognized in the Statement of Financial Position	70
Table 25: Regulatory Capital Ratio for DSIBs under Basel III	74
Table 26: Leverage Ratio as at December 31 st , 2019	75

1. INTRODUCTION

1.1 Corporate Overview

Guaranty Trust Bank plc. is a leading African financial institution with vast business interests spanning Anglophone and Francophone West Africa, East Africa and Europe. The Group has an Asset Base of ₦3.76 trillion, Shareholders' funds of ₦687.3 billion and employs over 10,000 people in Nigeria, Gambia, Ghana, Liberia, Sierra Leone, Cote d'Ivoire, Uganda, Rwanda, Kenya, Tanzania and the United Kingdom.

Established in 1990, on a foundation of excellence, professionalism and best practices, the Bank's consistent delivery of innovative financial solutions and exceptional customer experiences has enabled it to record year on year growth in clientele base and key financial indices since inception. The Bank's operation style, staff conduct, and service delivery models are built on 8 core principles: Simplicity, Professionalism, Service, Friendliness, Excellence, Trustworthiness, Social Responsibility and Innovation. These Principles are known as *The Orange Rules* which reflects the Bank's vibrant Orange corporate colour.

The Bank offers a wide range of bespoke financial products and services through five (5) distinct operating segments:

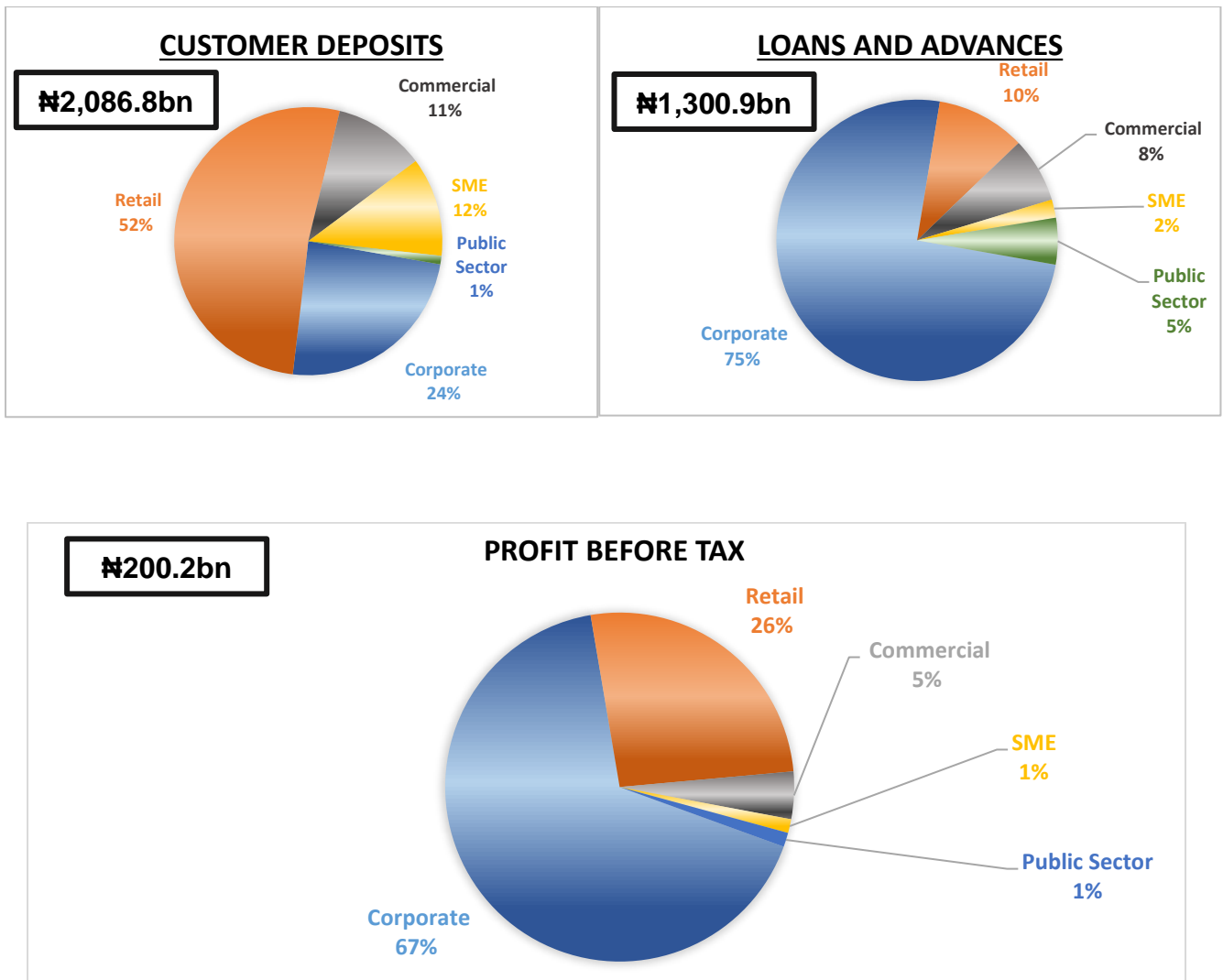
- **Corporate Banking Segment** is structured to meet the banking needs of well-structured multinationals and large corporate organisations with strong corporate governance culture and clearly defined operational processes and policies. The annual gross revenue of the companies serviced by this segment is at least ₦5.0 billion. The products offered include current accounts, Tenored deposits (Call and Time), overdrafts, loans and other credit facilities, e-payment and collection platforms, advisory services, foreign currency and derivative products. The market segments handled by the corporate banking segment include Treasury, Corporate Finance, Energy, Telecoms, Construction, Metals, Flour mills, Automobiles, Auto-care, Personal care, Financial Institutions etc.
- **Commercial Banking Segment** is structured to meet the banking needs of entities that offer support services to the large corporates. The segment caters to medium-sized entities such as manufacturers, importers, distributors, traders, religious organizations, educational institutions, health care services, and other corporate organizations that do not meet the corporate banking qualitative criteria with annual gross revenues between ₦500 million and ₦5.0 billion. The products offered by this segment include current accounts, call and time deposits, overdraft, time and term loans to finance capital expenditure and working capital needs, foreign currency services etc.
- **SME Banking segment** offers bespoke banking products and services to small and medium-size enterprises and ventures where the financial requirements are too large for micro finance Banks and too small to be served by Corporate or Commercial banking segment. The Bank has stratified

this segment into micro, small and medium businesses - Micro businesses are businesses with annual gross turnover of less than ₦500,000, Small businesses have an annual turnover of more than ₦500,000 but less than ₦2 million while Medium businesses have an annual turnover of more than ₦2 million but less than ₦500 million. The products and services offered by this segment include GTBusiness account, GTMax Account, SME Term Loan (Build & Buy), SME Invoice Discount Facility, GTBusiness Evolve, GTPay, GTBank Automated Payment System (GAPs), SME Markethub, Food and Fashion loans, GT Cashflow credit (for working capital financing), etc. The market segments catered to by this operating segment include registered businesses, educated and technically skilled proprietors that have high potential for growth. These include: hospitality and social services, agriculture, small scale manufacturers – garment wear, furniture etc.

- **Retail Banking** provides private and general banking services to individuals. The Bank leverages digital and agent banking platforms in addition to its network of brick and mortar branches to promote inclusive banking and to properly serve customers in this segment. A large percentage of the Bank's deposits is generated from the retail segment and is extended as credit facilities to the top and middle end of the Bank's customers. There is no pre-defined annual turnover, however, the segment is fragmented based on income level, literacy, spending habits and occupation. This operating segment targets entrepreneurs, youths, professionals, HNIs, expatriates, Non-Resident Nigerians etc. Some of the products offered to customers in this segment include Current accounts, Savings account, Tenored deposits, Investment in government debt securities, Digital banking products (Internet banking, USSD, Mobile Banking apps), remittances via various platforms, investment advisory services, Credit facilities such as Quick credit (for salary and non-salary earners), BETA Health, Travel advance, e-payment and collection platforms, advisory services, foreign currency and derivative products etc.
- **Public Sector** offers banking services to government at the Federal, State and Local levels as well as Ministries, Departments and Agencies (MDAs). Some of the products and services offered by the segment include deposit and investment accounts, revenue collection platforms, electronic payroll systems, remittances, credit facilities etc. There is no pre-defined turnover for institutions that fall into this category.

The chart below shows the contributions of the Bank's Operating Segments to Loans and advances (Banks and Customers), Deposit liabilities (Banks and Customers) and Profit Before Tax.

Fig 1: Contribution of Operating Segments to key metrics as at 31st December 2019



Corporate Banking segment is the largest contributor to the Bank’s loans and advances portfolio at 75% while the Retail segment underpinned by digital innovation generates about 52% of the Bank’s deposit liabilities. All business lines are profitable with the corporate and retail segments contributing the most to the Bank’s bottom line.

1.2 Legal Structure of Subsidiaries

The Bank has eight (8) subsidiaries and two (2) sub-subsidiaries with presence in 10 countries outside Nigeria, providing superior financial services to its customers. The Group conducts its business through GTBank Plc Nigeria and its subsidiaries, across multiple jurisdictions. The subsidiaries are established solely to fulfil the Group’s business objectives. All subsidiaries of GTBank plc operate in the financial services industry and are directly regulated by their local banking supervisors who set and monitor their compliance to all regulatory requirements.

Fig. 2: Group entities as at December 31st, 2019



* Guaranty Trust Bank Plc's stake in Guaranty Trust Bank (Uganda) Limited and Guaranty Trust Bank (Rwanda) Limited are indirect holding as these are Subsidiaries of Guaranty Trust Bank (Kenya) Limited where Guaranty Trust Bank Plc has 70% ownership.

1.3 Basel II Overview

The Basel II Accord was introduced following substantial losses in the international markets which were attributed to poor risk management practices. Under the provisions of the accord, financial institutions are mandated to quantify its exposure to credit, market risk, operational risk using standardized measurement or approaches, as well as other inherent risk types arising from the business operations.

The aims of the accord include the following.

- Improving the ability of financial institutions to absorb shocks that arise from financial and economic stress;
- Improving risk management and governance; and
- Strengthening Bank's transparency and disclosures.

The Basel II framework is structured around a three-pillar approach that allows Banks and its supervisors to properly evaluate its various risk exposures. It specifies a minimum level of capital that Banks must maintain to ensure that they can cover unexpected losses that arise from possible risk events and more importantly promote public confidence. It also specifies comprehensive disclosure requirements for Banks operating under the framework.

A summary of the three pillars is provided below:

- **Pillar 1** establishes minimum capital requirements and prescribes methods to quantify the amount of capital required to absorb unexpected losses that could occur in the three major risk areas that Banks are exposed to: credit risk, market risk and operational risk. The Bank has adopted the Standardized Approach for Credit and Market Risk quantification and the Basic Indicator Approach for Operational Risk quantification.
- **Pillar 2** establishes supervisory review of an institution's capital adequacy and internal assessment process. This pillar is two phased; the Internal Capital Adequacy Assessment Process (**ICAAP**) and the Supervisory Review and Evaluation process (**SREP**). Banks conduct a self-assessment of internal capital requirements via the ICAAP which details approaches and procedures on how it measures and computes its various risks and capital requirements. On the other hand, the Central Bank of Nigeria (CBN) conducts an assessment of the Bank's capital adequacy and risk management processes via the SREP in order to ascertain the reliability of the Bank's self-assessment and to proffer recommendations or corrective measures where necessary.

- **Pillar 3** emphasizes Market Discipline through disclosures. This encourages external communication of risk exposure, risk management policies and procedures as well as capital information by Banks in order to promote transparency and sound risk management practices. It requires the disclosure of exposures and associated risk weighted assets for all identified risk types as well as the quantification of the capital required to absorb all identified risks.

In adherence to the requirements of Basel and CBN Guidance Notes on Pillar 3 Disclosures, the Bank in this document has articulated its risk profile, risk management practices and capital information to enable market participants have full understanding of its activities.

1.4 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 detailed information on the underlying drivers of Risk weighted assets, the Bank’s capital structure and the capital adequacy ratio. The objective of this disclosure is to encourage market discipline and allow stakeholders to assess accurate information on the Bank’s risk exposures and risk assessment processes.

Guaranty Trust Bank’s Pillar III Disclosure report follows the requirements of the following regulatory guidelines:

- I. 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 in Nigeria;
- II. The Basel Committee on Banking Supervision’s (BCBS) Revised Pillar 3 Disclosure Requirements;
- III. The Central Bank of Nigeria’s (CBN) Revised guidance on Pillar 3 Disclosure Requirement.

This report has been internally verified by those charged with governance in line with the Pillar 3 disclosure policy, which describes the responsibilities and duties of senior management and the Board in the preparation and review of the Pillar 3 disclosure. It aims to ensure that:

- Minimum disclosure requirements of the regulations, standards and directives are met;
- The disclosure provides a true reflection of the Bank’s financial condition and risk profile;
- Disclosed information is consistent with the way the Board assesses the Bank’s risk portfolio; and
- The quantitative and qualitative disclosures are appropriately reviewed.

Our disclosure report contains extensive information on risk measurement, risk management and capital management. It provides detailed regulatory risk measures that reflect the Bank’s risk profile and strategy.

1.5 Medium and Frequency of disclosure

The Pillar 3 Disclosure Report is published bi-annually and can be accessed on the Bank’s website at <https://www.gtbank.com/investor-relations/financial-information>

1.6 Scope of application

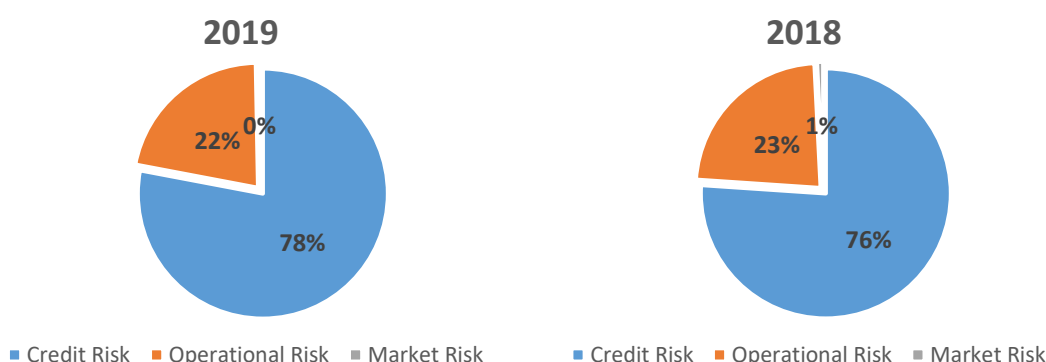
The Bank produces consolidated and separate financial statements for accounting purposes in line with International Financial Reporting Standards (IFRS). It consolidates the result of all of its subsidiaries with that of the parent in accordance with IFRS 10. The disclosures in this report are prepared at individual parent entity level and are in accordance with the CBN Guidance notes on Pillar 3, which covers the qualitative and quantitative disclosure requirements. Investments in subsidiaries are deducted from regulatory capital for capital adequacy purposes.

All representations in this report are considered material in line with section 2.4 of the CBN Guidance Notes on Pillar III Market Discipline.

1.7 Highlights

The Bank has a strong balance sheet which is well diversified, adequately capitalized, highly liquid with an efficient funding structure and low leverage. During the year, the volume of loans increased significantly as a result of a regulatory directive requiring Banks to increase their lending activities in order to stimulate economic activities. This development led to a 14.2% increase in risk weighted asset from N1.8bn in 2018 to N2.1bn in 2019 with credit risk weighted asset contributing 78.0% to total risk weighted assets.

Fig. 3: Risk Weighted Assets by Type as at December 31st, 2019



Despite the increase in risk weighted asset, the Bank’s capital adequacy ratio returned at 24.67% transitional impact (20.59% Full impact). This remains well ahead of the current capital requirement of 16%.

1.8 The IFRS 9 Capital Transitional Arrangement

In 2018, the Central Bank of Nigeria (CBN) issued a circular to provide guidance on the treatment of Expected Credit Loss (ECL) provisions for regulatory purposes and introduce a four-year transitional arrangement to cushion the effect of the higher IFRS 9 impairment on Tier 1 regulatory capital.

The CBN's IFRS 9 impact assessment for the Banking industry revealed that the transition to the ECL model of impairment determination resulted in higher provisions for credit losses, with negative implications for retained earnings and capital adequacy.

To address this, a "Transitional arrangement" was introduced as a relief to cushion the impact of the ECL provisions on the regulatory capital of Banks. Consequently, Banks are now expected to compute their CAR under 2 scenarios i.e. the "Adjusted impact" and the "Full impact assessment". The summary of the guidance is as follows:

1) Utilisation of Regulatory Risk Reserve (RRR) to cushion the impact of IFRS 9 ECL Provisions on Transition Date

To cushion the impact of IFRS 9 on regulatory capital, Banks are required, in the first instance, to apply the balance in their RRR to reduce the additional ECL provisions to be recognized in the opening retained earnings on January 1, 2018. The amount to be deducted from RRR shall be limited to the excess of ECL provisions over the IAS 39 provisions on the transition date. Accordingly, Banks are required to effect appropriate accounting entries to reflect the transfer from RRR to the retained earnings.

2) Transitional Arrangement of the ECL Accounting Provisions for Regulatory Capital Purpose

Where the additional IFRS 9 ECL provision as stated in (1) above is higher than the balance in RRR, Banks are required to amortise the excess in line with the transitional arrangements provided by CBN.

The excess of the ECL provisions over IAS 39 provisions after applying the balance in RRR is termed "Adjusted Day One Impact". Banks are required to use the Static approach which requires them to hold static the Adjusted Day One Impact and amortise on a straight-line basis over the four-year transition period by writing back to its Tier 1 capital as indicated in the table below:

Period	Provisions to be written Back
Year 0 (January 1, 2018)	4/5 of Adjusted Day One Impact
Year 1 (December 31, 2018)	3/5 of Adjusted Day One Impact
Year 2 (December 31, 2019)	2/5 of Adjusted Day One Impact
Year 3 (December 31, 2020)	1/5 of Adjusted Day One Impact
Year 4 (December 31, 2021)	Nil

Where the RRR fully absorbs the additional ECL provision, this transitional arrangement shall not apply.

During the four-year transition arrangement period, Banks are required to submit their Capital Adequacy Ratio (CAR) computations to the CBN under two scenarios: **“Adjusted Impact”** and **“Full Impact”**. This would require showing the ratios before and after adding back the amortised “Adjusted day one impact”. The essence of this is to enable the CBN monitor the impact of the additional ECL provisions on the Banking industry.

1.9 The Impact of New Regulations

Recent developments in Banking regulation in Nigeria includes a directive from the Central Bank of Nigeria to Deposit Mobilization Banks (DMBs) requiring an increase in lending to the real sector in order to stimulate economic growth. A mandatory threshold of 65% loan to funding ratio was established for all Banks and to drive compliance, the CBN prescribed a penalty of additional Cash Reserve Ratio (CRR) to the tune of 50% of the lending shortfall of the LDR target on any Deposit Money Bank (DMB) that does not attain the threshold by the given deadline.

This directive led to significant credit growth in the Bank as an additional ₦198.2bn (or 17.1%) was extended during the period.

Capital Adequacy Requirements: Growth in risk assets has capital implications as additional capital charge is required to absorb the increase in credit risk arising from the aggressive growth in loans. Further, the pressure to grow the loan book in a short time span will elevate the probability of default, and if the obligors are not carefully selected, the NPL ratio will worsen.

The subsequent section will shed more light on the quantitative impact of the new regulation on the Bank’s capital adequacy ratio and will show the resilience of its capital to absorb additional risk exposure.

1.10 Summary of key capital metrics as at Dec. 31st, 2019

The Bank’s Regulatory Eligible Capital consists of Tier 1 and Tier 2 capital with Tier 1 capital constituting the significant component. The Bank has maintained its capital adequacy ratio at a comfortable margin above the regulatory minimum of 16% for Domestic Systemically Important Banks despite the impact of IFRS 9 on its equity (Retained earnings).

Table 1: Key capital metrics as at Dec. 31st, 2019

In billions of Nigerian naira	Transitional Arrangement		Full Impact	
	Dec-19	Dec-18	Dec-19	Dec-18
Capital:				
Net Tier 1 Capital	516.1	486.8	417.2	371.2
Net Tier 2 Capital	1.4	(1.6)	1.4	(1.6)
Regulatory Eligible Capital	517.5	485.1	418.7	369.6
Minimum Capital	297.9	258.0	287.4	247.5
Excess Capital	219.6	227.2	131.3	122.1
Risk Weighted Assets (RWAs):				
Credit Risk	1,631.3	1,393.1	1,565.8	1,327.6
Operational Risk	454.6	423.8	454.6	423.8
Market Risk	6.0	14.6	6.0	14.6
Total RWAs	2,091.9	1,831.4	2,026.4	1,765.9
Capital Ratios:				
Tier 1 CAR	24.67%	26.58%	20.59%	21.02%
Tier 2 CAR	0.07%	(0.09%)	0.07%	(0.09%)
Total CAR	24.74%	26.49%	20.66%	20.93%

- The increase in Eligible capital was largely driven by the underlying profits generated during the period as well as favourable movement in other qualifying reserves.
- The increase in RWA was largely driven by operational business growth within the Bank. This growth was largely evident in the Loans and advances portfolio which attract higher risk weights. The loan growth was propelled by the regulatory Loan to Deposit ratio (LDR) directive issued by the Central Bank of Nigeria for Banks to increase lending to the wider economy. Furthermore, Operational risk increased as a result of the increase in gross earnings used in determining the capital charge and RWA under the Basic Indicator Approach. Market risk however declined as the Bank held shorter tenored trading instruments that attracted a lower capital charge.
- The growth in RWA more than offset the increase in eligible capital thus resulting in a decline in Total Capital Adequacy Ratio.
- The ratio however, remains well above the regulatory threshold of 16% which attests to the resilience of the Bank's capital as well as the presence of a strong risk management culture.

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, it aligns strategy, policies, people, processes, technology and business intelligence 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 concept 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 Management Philosophy

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. The Bank's Risk Management Philosophy 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 on 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, assessment, measuring, controlling, monitoring 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.

2.3 Risk Appetite

The Bank recognises that there are inherent risks associated with the pursuit of growth opportunities in achieving its strategic objectives. While the 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 people, capital and technology.

Risk Appetite Statement

“Guaranty Trust Bank will maintain a moderate risk appetite in pursuit of its core strategies to dominate its priority sectors, expand its franchise on the African continent, contain its operating cost whilst leveraging on technology and remain the most profitable, without taking unnecessary risks.”

The Bank’s risk appetite statement expresses the attitude and position of the Board and Management on the approach to risk adopted across all the businesses in relation to the set strategic objectives. This statement is interpreted in quantitative and qualitative risk measurement indicators that measure the risk profile. The identified risk indicators include:

- Capital Adequacy
- Earnings Growth (Profit Before Tax)
- Earnings Quality (Net Interest Margin)
- Return on Asset
- Issuer Debt Rating
- Return on Equity
- Cost-to-Income
- Asset quality (Non-Performing Loan) and Coverage,
- Cost of Risk
- Liquidity and Coverage Ratio
- Risk Asset Funding
- Obligor and Sector Concentration
- Staff Attrition
- Stop Loss Limit

The Bank’s Risk appetite statement is further cascaded across all business segments. This is based on the consideration of several factors that determine risk tolerance levels of each business segment. The bank has a low risk appetite in the Corporate, Commercial and Public sector business segments given the

quantum of exposure to these segments. A low risk appetite in these segments will not impede the ability of the Bank to achieve its mission, goals and strategic objectives. For SME and Retail Banking, the Bank has a moderate risk appetite.

The Bank's business is conducted in accordance with its risk appetite statement to achieve strategic objectives and remain a dominant player in the industry.

2.4 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 indicator at any given point in time. The results of the dashboard are made available to Management and Board of Directors to enable them take appropriate decisions regarding the acceptability of the risk tolerance level.

2.5 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 "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 3* below, the three lines of defence model are categorized into groups based on the following functions:

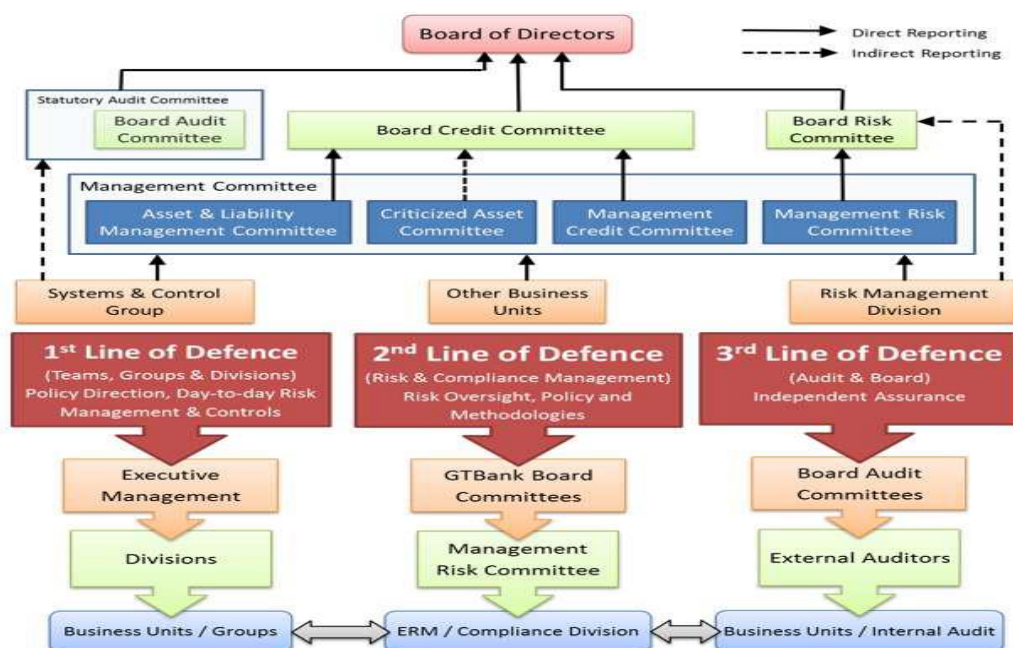
- Functions that own and manage risks.
- Functions that oversee risks.
- Functions that provide independent assurance.

First Line of Defence: Own 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 4: Risk Management Organisational structure



2.5.1 Board Committees

The Board of Directors have 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.

2.5.1.1 Board Risk Management Committee

The Board Risk Management Committee is responsible for reviewing and recommending risk management policies, procedures and profiles including risk philosophy, risk appetite and risk tolerance of the Bank. Their 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.

2.5.1.2 Board Audit Committee

The Board Audit Committee is responsible for oversight of financial reporting process, ensuring independence of the internal and external auditors, monitoring compliance with the risk management policies, controls and procedures, and for reviewing the adequacy of the risk management framework in relation to risks faced by the Bank. The Board 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 Committee.

2.5.1.3 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.

2.5.1.4 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. They also monitor 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 inform and advise the Board on important Information Technology issues in the Bank;
- To provide advice on the strategic direction of Information Technology in the Bank; To monitor overall Information Technology performance and practices in the Bank.

2.5.2 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:

2.5.2.1 Management Risk Committee

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

2.5.2.2 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.

2.5.2.3 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.

2.5.2.4 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.

2.5.2.5 Asset & Liability Management Committee

The Asset & Liability Management Committee assist the Board by monitoring the implementation of the Bank's standards and policies covering the various components of its Asset and Liability management and Market Risk related procedures. 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. These include Interest Rate Risk, Liquidity Risk, Investment Risk and Trading Risk. Furthermore, the Committee limits and monitors the potential impact of specific pre-defined market movements on the income of the Bank through stress tests and simulations.

2.5.2.6 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 set in respect of delinquent credit risk assets. It also ensures adequate provisions are taken in line with the regulatory guidelines.

2.5.3 Other Risk Management Oversight Roles

2.5.3.1 Chief Risk Officer (CRO)

The Chief Risk Officer shall be responsible for the following:

- Development and regular review of the Bank's disclosure policy to ensure proper alignment with the business requirements and supervisory expectations;
- Periodic reporting of the contents of the disclosure requirements to the Board;
- Ensure the accuracy, completeness and integrity of Pillar III disclosures;
- Independently review the disclosure requirements to ensure compliance with regulation;
- Ensure prompt action is taken to mitigate any form of breach.

2.5.3.2 Internal Control

Internal control shall be responsible for the independent assessment of the disclosure policy with particular focus on:

- Assessment of the design and effectiveness of the disclosure requirement framework and its alignment with regulatory expectations;

- Validation of the design and effectiveness of disclosure requirements techniques;
- Reporting any deficiencies identified in the disclosure framework to the Board and Executive Management.

2.5.3.3 Financial Control

Financial control shall be responsible for the following:

- Preparing financial statements in accordance with International Financial Reporting Standards (IFRS);
- Ensuring that financial information provided is accurate, complete and timely;
- Ensuring that the disclosures in the financial statement are in line with regulatory requirements and global best practice

2.5.3.4 Compliance

Compliance shall be responsible for the following:

- Provide guidance on regulatory issues such as updates and changes in regulatory requirements;
- Ensure the bank's disclosure framework is in line with stipulation of the Central Bank of Nigeria

2.6 Risk Identification, Management and Measurement

Risk identification is the act of identifying existing and potential risks inherent in a business that can hamper a business entity from achieving its strategic objectives. To successfully identify risk exposures, the Bank analyses its business activities and operations to gain a thorough understanding of the risks it is exposed to. The Bank has entrusted the Enterprise-wide Risk Management (ERM) Division with the responsibility to identify, assess, monitor and report on the risks inherent in the business. The risk management infrastructure encompasses a comprehensive and integrated approach to identifying, managing, monitoring and reporting risks with a focus on Credit, Market, Operational, Liquidity and Technology Risks.

In compliance with CBN's 'Risk-based Supervision' guidelines and in accordance with Basel II Capital requirements, the Bank has implemented capital measurement approaches for the estimation of its economic capital required to manage unexpected losses using Oracle Financial Services Analytical Application (OFSA). The Bank has also put in place other qualitative and quantitative measures that assists 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.

Regarding risk measurement, the Bank gauges the probability of occurrence as well as the impact of the risk using a combination of regulatory specified methodologies and internally developed models. These models are designed in line with best practice and are subjected to model validation by the internal audit team.

Further to the determination and assessment of regulatory capital, the Bank - on an annual basis - assesses and prepares a report based on a self-assessment exercise carried out to determine the adequacy of its capital to withstand the impact that could arise from potential risk events it has assessed. The Internal Capital Adequacy Assessment Process (ICAAP) report forms part of management decision-making processes and is prepared on an annual basis and submitted to CBN. The ICAAP provides elaborate information on the Bank's risk management processes; identification, assessment, measurement, monitoring and mitigation of risks; and how much capital the Bank should hold to absorb these risks now, in the future and under stressed conditions.

2.7 Credit Risk Management

Credit risk is the risk of loss arising from a counterparty's failure to meet the terms of any lending contracts with the Bank. Credit risk arises anytime the Bank's funds are extended, committed, invested or otherwise exposed through actual or implied contractual agreements.

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

- Maintenance of an efficient loan portfolio.
- Institutionalization of a 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. The business unit is responsible for the quality and performance of its credit portfolio and for monitoring 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: Per Obligor, Business sector and Geographical area. These limits reflect the risk appetite of the Bank.

The Bank drives the credit risk management processes using appropriate scalable technology in line with global best practices. To comply with the CBN requirements on Basel II implementation, especially

computation of capital adequacy ratio, the Bank invested in two major softwares namely: Lead to Loan Credit Solution and OFSAA Basel II solution. This 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 guarantees data integrity towards achieving the CBN's required set of disclosures in the measurement and management of capital.
- **OFSAA** is an oracle-based application capable of handling 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.

For the purpose of impairment computation, the Bank adopted Expected Credit Loss (ECL) methodology of IFRS 9 'Financial Instruments' for the period ended Dec. 31st, 2019. This methodology is discussed extensively under section 4.1.

2.8 Market Risk Management

Market risk is the risk of loss in on and off-balance sheet positions, resulting from adverse movement in interest rate, foreign exchange rates, equity or commodity prices. 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 and Liquidity Risk Management Group within the Enterprise Risk Management Division which is responsible for the development, implementation and review of detailed risk management policies.

The Bank separates its exposure to market risk between trading and non-trading portfolios. Due to the volatility of macro-economic indicators and unanticipated market happenings, the bank continues to engage in proactive monitoring of market risks inherent in both trading and non-trading activities. The trading portfolios are held by the Trading and Sales group of the Bank, and they maintain positions arising from proprietary trading and market making activities. With the exception of translation risk arising on the

Bank's net investment in its foreign operations, the Market and Liquidity Risk Group monitors the foreign exchange position in the trading and Banking books.

The principal tools used to measure and control market risk exposure within the Bank's trading portfolios are the Open position limits, Mark-to-Market Analysis, Value-at-Risk Analysis, Sensitivity Analysis and the Earning-at-Risk Analysis. Specific limits (regulatory and in-house) across the trading portfolios have been clearly defined in line with the Bank's overall risk appetite. These set limits prevent undue exposure in the event of abrupt market volatility. The Market and Liquidity Risk Management Group ensure that these limits and triggers are adhered to by the Trading and Sales Group.

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. The Asset and Liability Management (ALM) Group is responsible for managing and monitoring mismatches between the bank's assets and liabilities. The Asset and Liability Management Committee (ALMAC) is responsible for ensuring compliance with these limits while the limits are independently verified by Market & Liquidity Risk Management Group.

The Bank performs regular stress tests on its banking and trading books. In performing this, it ensures there are quantitative criteria used as inputs 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.

2.9 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.

The Bank's Operational risk management objectives include the following;

- Implement and enforce an appropriate framework for identification, assessment, monitoring and reporting of operational risks;
- Identify critical risk areas and recommend appropriate mitigants that will ensure the Bank maintains its moderate risk appetite.

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 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 to enable collection of internal OpRisk losses and near misses. 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 built a robust OpRisk loss database detailing relevant OpRisk loss data for seven (7) 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. A risk-based approach has been adopted for the frequency of RCSAs to be conducted by branches, departments, groups and divisions of the Bank. All branches and Head-Office departments are required to complete the Risk Self-Assessment process at least once a year. 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 Assessment of the Bank's new and existing products, services, branches and vendors/contractors are also carried out. This process identifies inherent operational risks and tests the quality of controls the Bank has in place to mitigate likely risks.

Key Risk Indicators (KRI) – These are quantitative parameters defined for monitoring operational risk trends across the Bank. A comprehensive KRI Dashboard has been put in place and it is supported by specific KRIs for key departments in the Bank. Medium to 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 forgery incidents identified in the Bank or prevalent in local and global business environments are carried out and reported. Likely and unlikely loss estimations are also determined in the process as input into the OpRisk capital calculation process. The focus in Fraud Risk Management is to ensure that processes for preventing, deterring, detecting fraud and forgery 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 Management System (BCMS). This system assures timely resumption of critical business activities with minimal financial losses or reputational damage and continuity of service to its customers, vendors and regulators. 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.

Part of the BCMS is a Business Continuity Plan (BCP), which is reviewed and updated periodically to ensure reliability and relevance of information contained therein. 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 therein.

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/or 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.

2.9.1 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. As regards Risk reduction, 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 occurrence 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: This requires discontinuance of the business activity that gives rise to the risk

2.10 Liquidity Risk Management

The Bank continues to develop and improve its liquidity risk management system with the aim of effectively identifying, measuring, monitoring and controlling liquidity risk across its network. Seeking at all times to balance safety, liquidity, profitability and regulatory requirements.

The Bank's liquidity risk management process is primarily the responsibility of the Asset and Liability Management Group and the Market Risk Management Group. The Bank's liquidity risk management objectives include the following:

- Control of liquidity risk by setting dynamic limits using metrics such as Liquidity Ratio, Liquidity Coverage Ratio (LCR), Net Stable Funding Ratio (NSFR), Asset and Liability gap measures, amongst others. Internal limits are typically more stringent than regulatory limits across all jurisdictions of the Bank's operation.
- Regular monitoring of limits with exceptions reported to the Management Risk Committee (MRC) and the Board.
- Actively adjusting business strategies to prevent and control liquidity risk based on its judgement of financial market trends.
- Control of non-earning assets proportion to the overall financial position.
- Performing regular liquidity stress tests.
- Ensuring proper diversification of funding sources to control concentration risk.
- Monitoring the level of undrawn commitments.
- Maintaining a contingency funding plan.
- Regular conduct of the Asset and Liability Management Committee (ALMAC) meetings.

The Bank's Asset and Liability Management Committee (ALMAC) is charged with the following responsibilities:

- Establishing policies and tolerance levels for liquidity, interest and valuation management.
- Ensure the Bank operates within the guidelines and limits set.
- Strategic financial position planning from both risk and return perspective.
- Coordinate the management of the Bank's financial position in consideration of changing economic conditions.

2.10.1 Funding approach

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

- Consistently grow funding pool at the lowest possible cost.
- Maintain an appropriate funding structure that enables the Bank to operate under a variety of adverse circumstance, including potential firm-specific and/or market liquidity events.

- Maintain appropriate capital to support the Bank’s risk level and strategic intent.

The Bank was able to meet all its financial commitments and obligations without any liquidity risk pressure during the period ended 31st December 2019.

The Bank’s Asset and Liability Management (ALM) Group 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.

2.10.2 Exposure to liquidity risk

The key measure used by the Bank for managing liquidity risk is the ratio of liquid assets to local currency deposit liabilities (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.

Other important measures include the Liquidity Coverage Ratio which aims to ensure that the Bank has an adequate stock of unencumbered high quality liquid assets which can be easily and quickly converted to cash to meet the Bank’s liquidity needs over a 30-calendar day liquidity stress scenario and the Net Stable Funding Ratio which tries to ensure that Banks funds their activities with stable sources of fund on an on-going basis. This ratio promotes financial stability and ensures that the Bank does not experience funding shocks that can increase the probability of distress.

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 the table below:

Table 2: Liquidity Ratio

	Dec-2019	Dec-2018
At end of period	49.33%	41.44%
Average for the period	44.43%	48.07%
Maximum for the period	49.86%	55.88%
Minimum for the period	36.80%	38.58%
Regulatory requirement	30.00%	30.00%

2.11 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 the 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.

To monitor IT compliance, the Bank set up an IT Audit team in the Systems and Control Division with the mandate to periodically examine and evaluate the Bank's IT infrastructure, policies and procedures. The audit determines 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 team 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 Information Technology risk management committees are set up to achieve the following risk management objectives:

- Detection and prevention of unauthorised access to the Bank's core banking application and other system applications
- Identify, rectify and prevent system malfunctions by carrying out periodic system investigations

- Income and expense verification to ensure that there are no income losses due to system error and providing assurance that the income recognised is based on set parameters.
- Ensure compliance with relevant laws and regulations

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.

The Bank was awarded a triple International Organization for Standardization certification i.e. 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 its network to facilitate access to network resources on a need to have basis. Different 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 by 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** – The 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 the Bank. The monthly compliance status is obtained monthly, 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 versions ever since, currently certified to PCI DSS Version 3.2. The Bank was also certified in ISO 27001, 22301 and 20000 in 2014 and has continually being recertified to upgraded versions up to 2019. The tedious process of getting these certifications and recertification has really helped in the development and maturity of appropriate policies, processes and procedures on business operations and security control.

3 Capital Resources and Capital Requirements

3.1 Capital Resources

The CBN requires Banks to maintain a minimum level of capital to absorb the losses that could arise from the Pillar 1 Risks - Credit, Operational and Market. This requirement is met by the Bank in its monthly returns of Capital Adequacy Ratio (CAR) to the CBN and the Bank's management. The Bank capital is in excess of minimum regulatory capital and is adequate to cover other Pillar 2 risks.

The Bank has 2 categories of capital under the Basel II framework: **Tier 1 and Tier 2 capital**.

The Bank's Tier 1 capital consists only of ordinary shareholders' equity and disclosed reserves. It 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 (Retained earnings)**, the earnings derived after all distributable allocations have been made.
- **SMEEIS / AGSMIES reserves**, a mandatory appropriation from earnings that is maintained to comply with the Central Bank of Nigeria's requirement for banks to set aside a portion of their profit after tax in a fund to be used to support the federal government's effort at promoting agricultural businesses and small and medium enterprises.
- **Statutory reserve**, an appropriation from profit after tax in compliance with Nigerian banking regulations that require banks to make an annual appropriation to a statutory reserve.

With the introduction of the Transitional arrangement by the CBN, the following line items have been introduced as components of Tier 1 capital.

- **IFRS 9 Transitional Adjustment**, represents the portion of the adjusted day one impact that is written back as a form of relief against the impact of the additional impairment arising from the adoption of IFRS 9. It is introduced under the "Adjusted impact scenario".
- **RRR applied for IFRS 9 impact**, represents a reversal of the Regulatory Risk Reserve initially allowed as relief against the excess of IFRS 9 impairment over IAS 39 impairment. It is introduced under the "Full impact scenario".

Regulatory Deductions made from Tier 1 capital include;

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

Tier 2 capital consists of 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 made up of only fair value reserves in other comprehensive income used to account for the revaluation changes in financial instruments classified as Fair value through other comprehensive income.

The Bank's total regulatory or eligible capital is a combination of Tier 1 and Tier 2 capital.

The table below shows the composition of the Bank's qualifying capital resources for use in the computation of the Capital Adequacy Ratio as at December 31st, 2019:

Table 3: Regulatory Capital Structure

In thousands of Nigerian Naira	Transitional Arrangement Impact	Transitional Arrangement Impact	Full Impact	Full Impact
	Dec-2019	Dec-2018	Dec-2019	Dec-2018
Tier 1 capital:				
Share capital	14,715,590	14,715,590	14,715,590	14,715,590
Share premium	123,471,114	123,471,114	123,471,114	123,471,114
Retained profits	95,110,906	79,668,689	95,110,906	79,668,689
Statutory Reserve	298,877,835	272,609,043	298,877,835	272,609,043
SMEEIS and AGSMEIS Reserves	26,984,540	18,638,552	26,984,540	18,638,552
IFRS 9 Transitional Adjustment	33,359,963	50,039,944	-	-
RRR applied for IFRS 9 Impact	-	-	(65,490,719)	(65,490,719)
Tier 1 Sub-Total	592,519,947.6	559,142,931.9	493,669,266.0	443,612,269
Less Regulatory deductions:				
Other Intangible assets	(9,546,253)	(5,635,606)	(9,546,253)	(5,635,606)
100% of investments in unconsolidated Banking and financial subsidiary/associate companies	(55,814,032)	(55,814,032)	(55,814,032)	(55,814,032)
Unsecured lending to subsidiaries within the same group	(11,068,788)	(10,939,497)	(11,068,788)	(10,939,497)
Net Total Tier 1 Capital (A)	516,090,874.7	486,753,797.2	417,240,193.1	371,223,134
Tier 2 capital				
Fair Value Reserves	1,411,977	(1,622,642)	1,411,977	(1,622,642)
Net Total Tier 2 Capital (B)	1,411,977	(1,622,642)	1,411,977	(1,622,642)
Total Qualifying Capital (C= A+B)	517,502,852	485,131,155	418,652,170	369,600,492

3.2 Capital Requirements

3.2.1 Minimum capital requirements

The CBN specifies the approach for determining minimum capital requirements for banks and financial services holding companies. This is expressed in the form of a Capital to Risk (Weighted) Assets Ratio commonly known as Capital Adequacy Ratio (CAR). The CBN prescribes a CAR of 10% for national/regional banks and 15% for banks with international banking licence, while for Domestic Systemically important Banks (D-SIB), a higher CAR of 16% is applicable. As one of the D-SIBs, the Bank complies with the regulatory CAR of 16%. The Bank adopts Standardised approach for the estimation of its credit and market risk while Basic Indicator approach is adopted for the computation of its operational risk.

The table below shows the Bank's capital requirement for each of the Pillar 1 risks.

Table 4: Minimum Regulatory Capital Requirement for Pillar 1 risks

<i>In thousands of naira</i>	Transitional Arrangement Impact		Full Impact	
	Dec-19		Dec-19	
	Risk Weighted Assets	Minimum Capital Requirements	Risk Weighted Assets	Minimum Capital Requirements
Credit Risk	1,631,274,034	261,003,846	1,565,783,315	250,525,330
Operational Risk	454,625,285	36,370,023	454,625,285	36,370,023
Market Risk:				
-Interest Rate Risk	3,433,563	274,685	3,433,563	274,685
-Foreign Exchange Risk	2,560,399	204,832	2,560,399	204,832
Aggregate Risk Weighted Assets (A)	2,091,893,281	297,853,385	2,026,402,562	287,374,870

A summary of the composition of Qualifying capital and Risk weighted assets as at Dec. 31st, 2019 is shown in the table below.

Table 5: Summary of Risk Weighted Assets (RWA), Regulatory Capital & Capital Adequacy Ratio

In thousands of naira	Dec-19		Dec-18	
	Transitional Arrangement Impact	Full Impact	Transitional Arrangement Impact	Full Impact
RWA for Credit Risk	1,631,274,034	1,565,783,315	1,393,082,592	1,327,591,873
RWA for Operational Risk	454,625,285	454,625,285	423,792,502.5	423,792,503
RWA for Market Risk	5,993,961	5,993,961	14,559,720.9	14,559,721
Aggregate Risk Weighted Assets-(A)	2,091,893,281	2,026,402,562	1,831,434,816	1,765,944,097
Tier 1 Capital-(B)	516,090,875	417,240,193	486,753,797.2	371,223,134
Tier 2 Capital	1,411,977	1,411,977	(1,622,642)	(1,622,642)
Total Regulatory Capital-(C)	517,502,852	418,652,170	485,131,155	369,600,492
Tier 1 Risk-Based Capital Ratio (B/A)	24.67%	20.59%	26.58%	21.02%
Total Risk-Weighted Capital Ratio (C/A)	24.74%	20.66%	26.49%	20.93%

3.2.2 Internal Capital Adequacy Assessment Process (ICAAP)

Internal Capital Adequacy Assessment Process introduced under Pillar 2 of Basel II Accord emphasises better risk management practices that aids financial institutions in considering a broader array of risks in addition to the Pillar 1 credit, market and operational risks. These additional risks include fraud, concentration, strategic, compliance, reputation etc. which are inherent in its operations. The internal assessment process involves risk identification, assessment, measurement and determination of economic capital required to absorb unexpected losses that might arise from its business strategy. The ICAAP requires that Banks put in place internal procedures and processes to ensure that it maintains adequate capital resources in the long term to cover all of its identified material risks (Pillar 1 and Pillar 2 risks).

Guaranty Trust Bank produces the ICAAP report annually in line with requirements of the CBN Guidance Note on Supervisory Review, Basel II Accord and Guidelines from reputable regulatory authorities. The document identifies, assesses and quantifies the various risks the Group is exposed to as a result of its business strategy and determines the appropriate amount of capital required to be held against the identified risks for a three-year future period (both under stressed and business

as usual scenarios). In addition, the document provides an overview of the Group’s operations, governance structure and key financial metrics.

The Bank’s ICAAP report is reviewed and approved on an annual basis by the Board of Directors in the light of changes in market situations and the development in risk management practices globally.

In determining the Bank’s Internal Capital Requirement (ICR), the Bank adopts the Standardized Approach (SA) for determining its Pillar 1 Risks while models are developed for determining quantifiable Pillar 2 Risks. The Bank applies a 17% capital charge to the credit and market risk weighted assets for estimating the internal capital required which is more stringent than the 16% and 8% specified by CBN for computation of capital charge. The internal assessment of the Bank’s capital shows that the Bank has enough capital to withstand the severe stress modelled in the internal capital assessment and is therefore ahead of what continues to be a stressed and challenging financial environment.

The table below discloses the amount of capital the Bank needs to set aside to cover for pillar 1 and Pillar 2 risks in the event that it crystallizes.

Table 6: Internal assessment of Capital required for Pillar 1 and Pillar 2 Risks

In millions of naira	'Dec-2019	'Dec-2018	'Dec-2019	'Dec-2018
	Transitional Arrangement	Transitional Arrangement	Full Impact	Full Impact
Pillar 1:				
Credit Risk	277,317	236,824	266,183	225,691
Market Risk	1,019	2,475	1,019	2,475
Operational Risk	38,844	35,873	38,844	35,873
Pillar 2:				
Concentration Risk	12,362	8,821	12,362	8,821
Strategic Risk	10,188	8,563	10,188	8,563
Reputational Risk	3,502	3,486	3,502	3,486
Liquidity Risk	2,462	3,015	2,462	3,015
Fraud Risk	239	120	239	120
Compliance Risk	82	14	82	14
Model Risk	202	249	202	249
Internal Capital Requirement (A)	346,217	299,440	335,084	288,306
Eligible / Qualifying Capital	517,503	485,131	418,652	369,600
Headroom Against Capital Requirements	171,286	185,691	83,569	81,294

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, placements with Banks, or any other transaction which exposes the Banks funds to counterparties. Credit risk also arises as a result of off-balance sheet guarantees and commitments as well as through the Bank's investment in financial instruments. Risk weights are assigned to individual credit exposure classes based on the perceived level of riskiness.

As stipulated in the Basel II implementation document of the Central Bank, the Bank classified its various credit exposures into appropriate Basel II exposure classes – corporate exposures, retail exposures, exposures to public sector entities, exposures secured by residential mortgages and mortgages on commercial properties, exposures to Federal Government of Nigeria, State governments, Central Bank of Nigeria, Supervised Institutions (local and foreign banks), High Risk exposures (Investments in equity instruments of other entities), and other exposures.

The Bank has adopted the Standardised Approach for assessing its capital requirements for credit risk for regulatory and internal capital assessment purposes.

4.2 Credit Quality of Exposures

The Credit quality of an exposure is an important criterion for classification of loans and advances into the different stages as required by IFRS 9 – Financial Instruments. Management considers several factors, one of which is the credit quality of the exposure at the assessment date. The credit quality is a function of the future losses associated with that exposure. IFRS 9 accounting standard has been adopted as a proactive way of determining the extent of such future losses associated with the risk exposures in the Bank's portfolio.

4.2.1 Loan Categorization – The Staging approach

Following the implementation of IFRS 9 Expected Credit Loss (ECL) methodology, the Bank adopted a three-stage approach in the categorization of its loan portfolio based on the changes in credit quality since initial recognition. The ECL model reflects the present value of cash shortfalls related to default events either over the following twelve months or over the expected life of the financial instrument depending on credit deterioration from inception.

The three-stage approach are explained below:

- **Stage 1:**

These are loans and advances that have neither experienced significant increase in credit risk (SICR) since origination nor have a low credit quality at the reporting date. At origination, all loans and advances are in Stage 1, as these are assigned ratings 1-6. In addition, the Bank observes a credit migration of obligors during the reporting period and all obligors with downward movement in credit rating of less than 3 notches are retained in Stage 1.

- **Stage 2:**

These are loans and advances that have experienced significant increase in credit risk subsequent to origination but are not credit impaired. The Bank observes a credit migration of obligors during the period and all obligors with downward movement in credit rating more than 3 notches are moved from Stage 1 to Stage 2, even if the credit rating is less than 7. All loans and advances assigned Rating 7 are allocated to stage 2.

- **Stage 3:**

These are loans and advances that have objective evidence of credit impairment. Stage 3 allocation is driven by either evidence of credit impairment or an exposure being downgraded to rating 8-10 and classified as defaulted.

Ratings 1 Exceptional capacity
 Ratings 2 Very strong capacity
 Ratings 3-5 Strong repayment capacity
 Ratings 6 Acceptable Risk
 Ratings 7 Stage 2 Loans and advances
 Ratings 8-10 Stage 3 Loans and advances

Definition of Default and Credit Impaired Financial Assets

At each reporting date, the Bank assesses whether financial assets carried at amortised cost and debt financial assets carried at FVOCI are credit-impaired. A financial asset is ‘**credit-impaired**’ when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Evidence that a financial asset is credit-impaired includes the following observable data:

- Significant financial difficulty of the borrower or issuer;
- A breach of contract such as a default or past due event;
- The lender(s) of the borrower, for economic or contractual reasons relating to the borrower’s financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider;
- It is becoming probable that the borrower will enter bankruptcy or other financial reorganisation; or

- The disappearance of an active market for a security because of financial difficulties.
- The purchase or origination of a financial asset at a deep discount that reflects the incurred credit losses.
- Others include death, insolvency, breach of covenants, etc.

A loan that has been renegotiated due to a deterioration in the borrower's condition is usually considered to be credit-impaired unless there is evidence that the risk of not receiving contractual cash flows has reduced significantly and there are no other indicators of impairment. In addition, loans that are more than 90 days past due are considered impaired except for certain specialized loans (Project Finance, Object Finance and Real Estate Loans as specified by the Central Bank of Nigeria) in which the Bank has rebutted the 90 DPD presumptions in line with the CBN Prudential Guidelines.

In making an assessment of whether an investment in sovereign debt is credit-impaired, the Bank considers the following factors.

- The market's assessment of creditworthiness as reflected in the bond yields.
- The rating agencies' assessments of creditworthiness.
- The country's ability to access the capital markets for new debt issuance.
- The probability of debt being restructured, resulting in holders suffering losses through voluntary or mandatory debt forgiveness.
- The international support mechanisms in place to provide the necessary support as 'lender of last resort' to that country, as well as the intention, reflected in public statements, of governments and agencies to use those mechanisms. This includes an assessment of the depth of those mechanisms and, irrespective of the political intent, whether there is the capacity to fulfil the required criteria.

4.2.2 Methodology for determining Expected Credit Loss

Expected Credit losses are probability-weighted estimate of credit losses over the expected life of a financial instrument. Credit losses are the present value of expected "cash shortfalls" calculated as the difference between the cash flows that are due to an entity in accordance with the contractual terms of a financial instrument and the cash flows that the entity expects to receive. The allowance for credit losses reflects an unbiased, probability-weighted outcome which considers multiple scenarios based on reasonable and supportable forecasts.

Probability of Default (PD), Exposure at Default (EAD), and Loss Given Default (LGD) are key risk parameters used to estimate expected credit losses. These parameters are modelled based on macroeconomic variables that are most closely related with credit losses in the relevant portfolio.

Details of these parameters/inputs are as follows:

- **Probability of Default (PD)** – The probability of default is an estimate of the likelihood of default over a given time horizon. A default may only happen at a certain time over the remaining estimated life, if the facility has not been previously derecognized and is still in the portfolio.
 - 12-month PDs – This is the estimated probability of default occurring within the next 12 months (or over the remaining life of the financial instrument if that is less than 12 months). This is used to calculate 12-month ECLs.
 - Lifetime PDs – This is the estimated probability of default occurring over the remaining life of the financial instrument. This is used to calculate lifetime ECLs for ‘stage 2’ and ‘stage 3’ exposures. PDs are limited to the maximum period of exposure required by IFRS 9.
- **Exposure at Default (EAD)** – The exposure at default is an estimate of the exposure at a future default date, considering expected changes in the exposure after the reporting date, including repayments of principal and interest, whether scheduled by contract or otherwise, expected drawdowns on committed facilities, and accrued interest from missed payments.
- **Loss Given Default (LGD)** – The loss given default is an estimate of the loss arising in the case where a default occurs at a given time. It is based on the difference between the contractual cash flows due and those that the lender would expect to receive, including from the realization of any collateral. It is usually expressed as a percentage of the EAD.
- **Discount Rate** – This is used to discount the expected loss to a present value at the reporting date using the effective interest rate (EIR) at initial recognition.
- **Credit Conversion Factor (CCF)** – This is a model assumption which represents the proportion of any undrawn exposure that is expected to be drawn prior to a default event occurring. It is a factor that converts an off-balance sheet exposure to its credit exposure equivalent. In modelling CCF, the Bank considers its account monitoring and payment processing policies including its ability to prevent further drawings during periods of increased credit risk. CCF is applied on the off-balance sheet exposures to determine the EAD and the ECL impairment model for financial assets is applied on the EAD to determine the ECL on the off-balance sheet exposures.

Forward-looking information

The measurement of expected credit losses for each stage and the assessment of significant increases in credit risk considers information about past events and current conditions as well as reasonable and supportable forecasts of future events and economic conditions. The estimation and application of forward-looking information requires significant judgement.

Macroeconomic factors

The Bank relies on a broad range of forward-looking information as economic inputs, such as: GDP growth, unemployment rates, central bank base rates, crude oil prices, inflation rates and foreign exchange rates. The inputs and models used for calculating expected credit losses may not always capture all characteristics of the market at the date of the financial statements. To reflect this, qualitative adjustments or overlays may be made as temporary adjustments using expert credit judgement.

Multiple forward-looking scenarios

The Bank determines allowance for credit losses using three probability-weighted forward-looking scenarios. The calculation considers both internal and external sources of information in order to achieve an unbiased measure of the scenarios used. The Bank prepares the scenarios using forecasts generated by credible sources such as Business Monitor International (BMI), International Monetary Fund (IMF), Nigeria Bureau of Statistics (NBS), World Bank, Central Bank of Nigeria (CBN), Financial Markets Dealers Quotation (FMDQ), and Trading Economics.

The Bank estimates three scenarios for each risk parameter (LGD, EAD, CCF and PD) – Normal, Upturn and Downturn, which in turn is used in the estimation of the multiple scenario ECLs. The ‘normal case’ represents the most likely outcome and is aligned with information used by the Bank for other purposes such as strategic planning and budgeting. The other scenarios represent more optimistic and more pessimistic outcomes. The Bank has identified and documented key drivers of credit risk and credit losses for each portfolio of financial instruments and, using an analysis of historical data, has estimated relationships between macro-economic variables, credit risk and credit losses.

Assessment of significant increase in credit risk (SICR)

At each reporting date, the Bank assesses whether there has been a significant increase in credit risk for exposures since initial recognition by comparing the risk of default occurring over the remaining expected life from the reporting date and the date of initial recognition. The assessment considers borrower-specific quantitative and qualitative information without consideration of collateral, and the impact of forward-looking macroeconomic factors. The common assessments for SICR on retail and non-retail portfolios include macroeconomic outlook, management

judgement, delinquency and monitoring. Forward looking macroeconomic factors are a key component of the macroeconomic outlook. The importance and relevance of each specific macroeconomic factor depends on the type of product, characteristics of the financial instruments, the borrower and the geographical region.

The Bank adopts a multi factor approach in assessing changes in credit risk. This approach considers: Quantitative (primary), Qualitative (secondary) and Back stop indicators which are critical in allocating financial assets into stages.

The quantitative models consider deterioration in the credit rating of obligor/counterparty based on the Bank's internal rating system or External Credit Assessment Institutions (ECAI) while qualitative factors consider information such as expected forbearance, restructuring, exposure classification by licensed credit bureau etc.

A backstop is typically used to ensure that in the (unlikely) event that the primary (quantitative) indicators do not change and there is no trigger from the secondary (qualitative) indicators, an account that has breached the 30 days past due criteria for SICR and 90 days past due criteria for default is transferred to stage 2 or stage 3 as the case may be except there is a reasonable and supportable evidence available without undue cost to rebut the presumption.

The following amongst others shall necessitate rebuttal of the backstop indicators for SICR and Default:

1. Where the exposure is classified as specialised lending e.g. project finance, real estate finance, object finance etc. The bank shall apply 60 days past due for SICR and 180 days past due for default criteria.
2. Payments are not made due to administrative delays e.g. inability to evacuate crude oil due to militant attacks in Niger Delta, delay in passing budget etc.

Probationary Period

In line with the CBN Guidance Note specifying applicable probationary periods before upgrading financial assets to a lower (improved) stage.

The Bank shall observe the following probationary period in transferring financial asset back to a lower stage following a significant reduction in credit risk:

- When there is evidence of a significant reduction in credit risk for a financial instrument in stage 2, a probationary period of 90 days will be applied to confirm if the risk of default on such financial instrument has decreased sufficiently before upgrading such exposure to stage 1.

- When there is evidence that a financial asset in stage 3 (other than originated or purchased credit impaired financial asset) is no longer credit impaired and also that there is a significant reduction in credit risk for a financial instrument in stage 3, a probationary period of 90 days will be applied to confirm if the risk of default on such financial instrument has decreased sufficiently before upgrading such exposure to stage 2.

In summary, when there is evidence that a financial asset in stage 3 is no longer credit impaired and also that there is a significant reduction in credit risk for a financial instrument in stage 3, a total probationary period of 180 days will be applied to confirm if the risk of default on such financial instrument has decreased sufficiently before upgrading such exposure to stage 1.

Presentation of allowance for ECL in the statement of financial position

Loan allowances for ECL are presented in the statement of financial position as follows:

- Financial assets measured at amortised cost: as a deduction from the gross carrying amount of the assets;
- Loan commitments and financial guarantee contracts: generally, as a provision;
- Where a financial instrument includes both a drawn and an undrawn component, and the Bank cannot identify the ECL on the loan commitment component separately from those on the drawn component, the Bank presents a combined loss allowance for both components. The combined amount is presented as a deduction from the gross carrying amount of the drawn component. Any excess of the loss allowance over the gross amount of the drawn component is presented as a provision; and
- Debt instruments measured at FVOCI: no loss allowance is recognised in the statement of financial position because the carrying amount of these assets is their fair value. However, the loss allowance is disclosed and is recognised in the fair value reserve.

4.2.3 Write off Policy

The Bank writes off an impaired financial asset (and the related impairment allowance), either partially or in full, with no reasonable expectation of recovery as set out in IFRS 9, paragraph 5.4.4. After a full evaluation of a non-performing exposure, in the event that either one or all of the following conditions apply, such exposure shall be recommended for write-off (either partially or in full):

- Continued contact with the customer is impossible;
- Recovery cost is expected to be higher than the outstanding debt;
- The Bank's recovery method is foreclosing collateral and the value of the collateral is such that there is reasonable expectation of recovering the balance in full.

All credit facility write-offs shall require endorsement at the appropriate level, as defined by the Bank. Credit write-off approval shall be documented in writing and properly initialled by the approving authority.

A write-off constitutes a de-recognition event. However, financial assets that are written off could still be subject to enforcement activities in order to comply with the Bank's procedures for recovery of amount due. Whenever amounts are recovered on previously written-off credit exposures, such amount recovered is recognised as income on a cash basis only.

4.3 Credit Risk Exposures

The Gross exposure, Average exposure over the period and Capital Requirement in the banking and trading book as at Dec. 31st, 2019 are set out in the table below.

Table 7: Total and Average Gross Credit Risk Exposures with Capital Requirement per Counterparty

<i>In thousands of Nigerian Naira</i>	Dec-19		
	Regulatory Capital Requirement	Gross Exposure	Average exposure
<i>Credit Risk exposures/Counterparty</i>			
Federal Government and CBN	-	1,151,518,288	1,003,331,064
State & Local Government	11,084,519	70,931,192	54,836,894
Supervised Institutions	7,903,201	292,609,642	430,099,889
Corporate and Other Persons	85,187,998	674,684,184	652,321,702
Corporate and Other Persons (Upstream Sector)	84,475,203	379,485,592	279,567,168
Regulatory Retail Portfolio	15,202,350	126,756,643	109,522,347
Secured by Residential Mortgages	184,123	1,534,356	1,830,936
Secured by Commercial Mortgages	2,647,911	16,549,443	19,253,127
Past Due Exposures	5,397,764	32,955,272	32,955,272
High Risk Exposures (Equity Investments)	1,064,526	4,435,527	4,033,399
Other Balance Sheet Exposures	29,689,679	269,359,280	224,289,906
Sub-total (On-balance Sheet Exposures)	242,837,273	3,020,819,419	2,812,041,704
Off Balance sheet exposures			
Public Sector Entities	-	-	-
Supervised Institutions	38,220	2,926,194	2,905,810
Corporate and Other Persons	25,378,694	166,495,942	181,168,181
Regulatory Retail Portfolio	480	4,550	14,550
Sub-total (Off-balance sheet Exposures)	25,417,394	169,426,686	184,088,541
Regulatory Adjustments	(7,250,821)		
Total (On and Off-balance Sheet Exposures)	261,003,846	3,190,246,105	2,996,130,245

4.3.1 Geographical Analysis of Exposures as at Dec. 31st, 2019

The geographical distribution as required under Basel II is reported by analysing the counterparty based on location and the corresponding exposure amount. With the exception of placements with foreign banks and subsidiaries and balances with foreign banks, all other exposures to counterparties are within Nigeria.

Table 8: Geographical analysis of Exposures as at Dec. 31st 2019

Credit Risk Exposure Classes	North Central	North East	North West	South East	South South	South West	Outside Nig.	TOTAL
On Balance sheet exposures								
Federal Government and CBN	1,151,518,288	-	-	-	-	-	-	1,151,518,288
State & Local Government	-	20,773,467	-	-	-	50,157,725	-	70,931,192
Supervised Institutions	-	-	-	-	-	-	292,609,642	292,609,642
Corporate and Other Persons	23,681,275	6,919,579	4,929,764	4,277,030	331,628,631	303,247,904	-	674,684,184
Corporate and Other Persons (Upstream Sector)	-	-	-	-	-	379,485,592	-	379,485,592
Regulatory Retail Portfolio	26,482,445	3,598,441	5,311,315	2,568,727	24,958,431	63,837,284	-	126,756,643
Secured by Residential Mortgages	139,683	16,933	7,522	-	74,841	1,295,376	-	1,534,356
Secured by Commercial Mortgages	-	-	-	-	-	16,549,443	-	16,549,443
Past Due Exposures	1,629,570	885,065	1,675,028	1,750,944	3,556,740	23,457,925	-	32,955,272
High Risk Exposures (Equity Investments)	-	-	-	-	-	4,435,527	-	4,435,527
Other Balance Sheet Exposures	41,325,397	4,163,185	11,005,121	6,764,846	16,075,166	176,668,074	13,357,490	269,359,280
Sub-total (On-balance Sheet Exposures)	1,244,776,658	36,356,670	22,928,750	15,361,548	376,293,809	1,019,134,851	305,967,133	3,020,819,419
Off Balance sheet Credit Equivalent Exposures								
Public Sector Entities	-	-	-	-	-	-	-	-
Supervised Institutions	26,332	-	-	-	-	2,899,862	-	2,926,194
Corporate and Other Persons	114,908,818	1,959,948	7,804,384	40,144,336	-	1,678,456	-	166,495,942
Regulatory Retail Portfolio	-	-	-	-	-	4,050	-	4,550
Sub-total (Off-balance sheet Exposures)	114,935,150	1,959,948	7,804,884	40,144,336.74	-	4,582,368	-	169,426,686
Total (On and Off-balance Sheet Exposures)	1,359,711,809	38,316,617	30,733,634	55,505,884.16	376,293,809	1,023,717,219	305,967,133	3,190,246,105

4.3.2 Industry Analysis of Exposures

Table 9: Industry Analysis of Exposures (On and off-balance sheet Credit Equivalent Amount) as at Dec. 31st, 2019

In thousands of Nigerian naira												
Credit Risk exposure classes	Cap. Mkt. & Fin.		Construction &		General			Info. Telecoms &			Total Exposure	
	Agriculture	Inst.	Real Estate	Education	Commerce	Government	Individual	Transport.	Manufacturing	Oil & Gas		Others
On Balance Sheet Exposures:												
Federal Government and CBN	-	-	-	-	-	1,151,518,288	-	-	-	-	-	1,151,518,288
State & Local Government	-	-	-	-	-	70,922,472	-	-	-	-	8,720	70,931,192
Supervised Institutions	-	292,609,642	-	-	-	-	-	-	-	-	-	292,609,642
Corporate and Other Persons	12,109,530	45,247,140	4,943,206	5,721,100	30,959,429	-	16,733,322	65,985,761	245,191,363	217,235,249	30,558,085	674,684,184
Corporate and Other Persons (Upstream Sect	-	-	-	-	-	-	-	-	-	379,485,592	-	379,485,592
Regulatory Retail Portfolio	-	-	38,330	-	1,366	-	126,699,423	-	-	-	17,524	126,756,643
Secured by Residential Mortgages	-	-	-	-	-	-	1,509,869	-	-	-	24,487	1,534,356
Secured by Commercial Mortgages	-	-	16,549,443	-	-	-	-	-	-	-	-	16,549,443
Past Due Exposures	137,975	127,729	2,732,966	453,164	6,297,976	-	4,055,281	895,885	5,965,337	2,293,687	9,995,272	32,955,272
High Risk Exposures (Equity Investments)	-	4,435,527	-	-	-	-	-	-	-	-	-	4,435,527
Other Balance Sheet Exposures	-	269,106,977	-	-	5,021	-	-	136,480	110,802	-	-	269,359,280
Sub-total (On-balance Sheet Exposures)	12,247,505	611,527,015	24,263,945	6,174,264	37,263,792	1,222,440,760	148,997,894	67,018,126	251,267,502	599,014,528	40,604,088	3,020,819,419
Off Balance sheet Credit Equivalent Exposures												
Public Sector Entities	-	-	-	-	-	-	-	-	-	-	-	-
Supervised Institutions	-	2,926,194	-	-	-	-	-	-	-	-	-	2,926,194
Corporate and Other Persons	235,095	1,762,052	142,287,920	-	2,218,108	-	-	271,577	2,621,437	7,567,573	9,532,180	166,495,942
Regulatory Retail Portfolio	-	-	-	-	-	-	-	-	-	-	4,550	4,550
Sub-total (Off-balance sheet Exposures)	235,095	4,688,246	142,287,920	-	2,218,108	-	-	271,577	2,621,437	7,567,573	9,536,730	169,426,686
Total (On and Off-balance Sheet Exposures)	12,482,600	616,215,261	166,551,865	6,174,264	39,481,900	1,222,440,760	148,997,894	67,289,703	253,888,939	606,582,101	50,140,818	3,190,246,105

4.3.3 Credit exposures by maturity

Table 10: Residual maturity of credit exposures (On-balance and off-balance sheet) as at Dec. 31st, 2019.

In thousands of Nigerian naira									
Credit Risk exposures/Counterparty	Less than 30 days	Up to 3 months	3-6 months	6-12 months	1-3 years	3-5 years	5-10 years	> 10 years	Total Exposures
On Balance Sheet Exposures:									
Federal Government and CBN	619,716,038	36,899,822	58,889,974	423,093,833	-	-	49,855	12,868,766	1,151,518,288
State & Local Government	10,362,857	1,734,758	2,598,909	5,099,549	25,025,712	17,671,870	8,364,350	73,187	70,931,192
Supervised Institutions	214,143,310	40,166,281	35,102,038	2,652,479	545,533	-	-	-	292,609,642
Corporate and Other Persons	118,875,801	181,270,747	81,878,480	50,096,972	134,733,984	62,632,069	45,196,132	-	674,684,184
Corporate and Other Persons (Upstream Sector)	71,196,715	13,098,416	76,491,863	23,013,579	87,495,123	87,464,899	20,724,997	-	379,485,592
Regulatory Retail Portfolio	15,426,498	15,453,518	16,516,601	17,246,827	43,100,538	18,999,585	13,076	-	126,756,643
Secured by Residential Mortgages	187,651	44,232	56,117	124,005	460,395	259,096	400,664	2,195	1,534,356
Secured by Commercial Mortgages	2,489,967	103,551	3,431,183	3,645,100	6,879,643	-	-	-	16,549,443
Past Due Exposures	32,955,272	-	-	-	-	-	-	-	32,955,272
High Risk Exposures (Equity Investments)	-	-	-	-	-	-	-	4,435,527	4,435,527
Other Balance Sheet Exposures	67,337,332	1,026,379	768,080	23,744,050	9,689,233	30,074,257	24,841,917	111,878,033	269,359,280
Sub-total (On-balance Sheet Exposures)	1,152,691,441	289,797,704	275,733,245	548,716,395	307,930,161	217,101,775	99,590,990	129,257,708	3,020,819,419
Off Balance sheet Credit Equivalent Exposures:									
Public Sector Entities	-	-	-	-	-	-	-	-	-
Supervised Institutions	-	-	-	128,000	-	-	2,798,194	-	2,926,194
Corporate and Other Persons	56,820,538	11,611,887	41,957,748	6,428,786	9,408,525	-	40,268,458	-	166,495,942
Regulatory Retail Portfolio	-	-	-	-	-	-	4,550	-	4,550
Sub-total (Off-balance sheet Exposures)	56,820,538	11,611,887	41,957,748	6,556,786	9,408,525	-	43,071,202	-	169,426,686
Total (On & Off-balance Sheet Exposures)	1,209,511,979	301,409,590	317,690,993	555,273,181	317,338,686	217,101,775	142,662,192	129,257,708	3,190,246,105

4.3.4 Credit exposures and their Value adjustments

Table 11a: Gross Exposure and Total value adjustments on On- Balance Sheet Exposures (in line with IFRS 9)

In thousands of Nigerian Naira	Loan Exposures (Corporates, Retail, and Exposures Secured by Residential and Commercial Mortgages)			High Risk Exposures (Equity Securities @ Fair Value)	Other Balance Sheet Exposures (Other Assets)	Federal Government and CBN	State & Local Government	Supervised Institutions	Grand Total
	Stage 1	Stage 2	Stage 3						
Gross Exposure	969,017,307	235,704,282	83,498,253	4,435,527	269,622,280	1,151,577,681	70,935,746	292,986,132	3,077,777,209
Impairment	(5,184,579)	(5,557,794)	(45,511,980)	-	(263,001)	(59,393)	(4,554)	(376,489)	(56,957,790)
Balance at 31st December 2019	963,832,728	230,146,488	37,986,273	4,435,527	269,359,280	1,151,518,288	70,931,192	292,609,642	3,020,819,419

Table 11b: Gross Exposure and Total value adjustments on Credit Equivalent Amounts of Off- Balance Sheet Exposures (in line with IFRS 9)

In thousands of Naira	₦
Gross Exposure	175,581,528
Impairment	(6,154,842)
Balance at 31 December, 2019	169,426,686

Table 11c: Movement in Value adjustments on all balance sheet exposures as at Dec. 31st, 2019

In thousands of Nigerian Naira	Loan Exposures			High Risk Exposures (Equity Securities)	Other Balance Sheet Exposures	Federal Government and CBN	State & Local Government	Supervised Institutions	Total On-balance sheet impairment	Off Balance sheet
	Stage 1	Stage 2	Stage 3	Impairment						Impairment
Balance as at 1 January, 2019 (IFRS 9 impairment)	5,179,320	11,134,508	74,670,620	-	320,375	-	-	-	91,304,823	-
Foreign currency translation and other adju	-	-	182,274	-	-	-	-	-	182,274	-
Increase in impairment allowances	5,259	(5,576,714)	(436,789)	-	(57,374)	59,393	4,554	376,489	(5,625,182)	6,154,842
Reversal of impairment	-	-	-	-	-	-	-	-	-	-
Recoveries	-	-	-	-	-	-	-	-	-	-
Reclassification	-	-	-	-	-	-	-	-	-	-
Financial assets derecognised	-	-	(28,904,125)	-	-	-	-	-	(28,904,125)	-
Balance as at 31st December 2019	5,184,579	5,557,794	45,511,980	-	263,001	59,393	4,554	376,489	56,957,790	6,154,842

Table 11d: Geographical distribution of Stage 3 loans and Total impairment taken as at Dec. 31st,2019

In thousands of naira	Abuja & N.Central	North East	North West	South East	South South	South West	Grand Total
Impaired Exposures	3,368,613	3,064,758	6,222,218	6,850,681	13,907,974	50,084,009	83,498,253
Value Adjustments	(2,463,868)	(2,247,452)	(4,370,812)	(1,976,740)	(4,138,918)	(30,314,191)	(45,511,980)
Net Amount of Impaired Loans	904,745	817,306	1,851,407	4,873,940	9,769,057	19,769,818	37,986,273

4.4 Credit Risk Exposures under the Standardized Approach

The Bank uses standardised approach for quantifying credit risk. This involves the application of regulatory determined risk weights to the exposure types. All balance sheet exposure amounts weighted for credit risk are presented net of impairment taken on the assets. The Risk-weights applied are based on counterparty credit rating grades made available by recognized External Credit Assessment Institutions (ECAIs) or fixed risk-weights as provided in the CBN guideline and are broadly aligned with the supervisory view of the likelihood of counterparty default. The credit quality assessment scale assigns a credit quality step to each rating provided by the ECAIs, as set out in the table below.

Table 12: 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%

A risk weight one category less favourable than the sovereign rating shall be assigned to Banks incorporated in other countries¹

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 where 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 either 150% - where specific provisions are less than 20% or 100% - where specific provisions are equal to or greater than 20% of the outstanding amount. Qualifying residential mortgage loans that are past due are risk weighted 100% where specific provisions are less than 20% or 50% - where specific provisions are equal to or greater than 20% of the outstanding amount.

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

Table 13: Analysis of exposures with or without CRM and the risk weights applied (On-Balance Sheet)

In thousands of Nigerian Naira		Dec-19	
Credit Risk exposures/Counterparty	Risk Weight	Exposure value	Exposure after CRM & on-balance sheet netting
Federal Government and CBN	0.0%	1,151,518,288	1,151,518,288
State & Local Government	20.0%	2,003,583	2,003,583
	100.0%	68,927,609	68,877,528
Supervised Institutions	20.0%	262,775,275	246,975,045
	100.0%	29,834,367	-
Corporate and Other Persons	100.0%	674,684,184	532,424,985
Corporate and Other Persons (Upstream loans)	150.0%	379,485,592	351,980,011
Regulatory Retail Portfolio	75.0%	126,756,643	126,686,248
Secured by Residential Mortgages	75.0%	1,534,356	1,534,356
Secured by Commercial Mortgages	100.0%	16,549,443	16,549,443
Past Due Exposures	Vary according to Asset Class	32,955,272	32,909,431
High Risk Exposures (Equity Investments)	150.0%	4,435,527	4,435,527
Other Balance Sheet Exposures:			
Cash and gold bullion held in bank's own vault	0.0%	38,649,960	38,649,960
Cheques and other items in transit	20.0%	12,147,561	12,147,561
Any other assets not specified above	100.0%	183,130,983	183,130,983
Derivative	0%	35,430,775	33,115,235
Grand Total		3,020,819,419	2,802,938,183

Table 14: Analysis of Off-balance sheet Exposures (Credit equivalent amount) before and after CRM and the Risk weight applied

In thousands of Nigerian Naira		Dec-19	
Off Balance sheet Exposure classes	Risk Weight	Credit Equivalent Amount	Exposure Amount after CRM
Public Sector Entities	100.0%	-	-
Supervised Institutions	100.0%	2,926,194	238,874
Corporate and Other Persons	100.0%	166,495,942	158,616,836
Regulatory Retail Portfolio	75.0%	4,550	4,000
Total		169,426,686	158,859,711

4.5 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 decrease 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.

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, eligible guarantee and credit derivatives that meet certain conditions to be used to obtain capital relief from balance sheet exposures. Financial collaterals are restricted to cash, gold, qualifying debt securities and equities after applying standard supervisory haircuts.

The Bank accepts a wide range of guarantees as collateral for credit exposures, these include: personal guarantee, corporate guarantee, sovereign guarantee, bank guarantees. However, only sovereign and bank guarantees qualify as eligible credit risk mitigant for capital adequacy assessment.

The following criteria are considered in assessing the credit worthiness of a guarantor:

- Number of years of existence
- Analysis of the key quantitative and qualitative metrics e.g. liquidity, profitability, leverage ratios, management profile etc.
- Amount of unencumbered net worth
- Investment grade credit rating
- Positive track record (no history of default)

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;

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

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

4.6 Collateral Evaluation and Management

The Bank ensures that each credit is reviewed and granted based on the strength of the borrowers' cash flow. However, it ensures its credit facilities are well secured as a contingency option. The policies that guide collateral for facilities are discussed in this section.

Loans to individuals or sole proprietors must be secured by tangible, marketable collaterals that have a market value supported by a valuation report from a registered estate valuer who is acceptable to the Bank. This collateral must be in the possession of, or pledged to, the Bank. The value of the collateral

must be adequate to cover the exposure to the client.

All collateral offered must have the following attributes:

- There must be good legal title
- The title must be easy to transfer
- It should be easy and relatively cheap to value
- The value should be appreciating or at least stable
- The security must be easy to sell.

All collateral must be protected by insurance. Exceptions include cash collateral, securities in safe keeping, indemnity or guarantees, or where our interest is general (for instance in a negative pledge). The insurance policy has to be issued by an insurer acceptable to the Bank. All cash collateralized facilities shall have a 20% margin to provide cushion for interest and other charges i.e. only 80% of the deposit or cash collateral may be availed to an obligor.

The main collateral types acceptable to the Bank for loans and advances include:

- Mortgages over residential properties
- Charges over business premises, fixed and floating assets as well as inventory.
- Charges over financial instruments such as equities, treasury bills etc.

The fair values of collaterals are based upon last annual valuation undertaken by independent valuers on behalf of the Bank. The valuation techniques adopted for properties are based upon fair values of similar properties in the neighbourhood taking into cognizance the advantages and disadvantages of the comparatives over the subject property and any other factor which can have effect on the valuation e.g. subsequent movements in house prices after making allowance for dilapidations. The fair values of non-property collaterals (such as equities, bond, treasury bills, etc.) are determined with reference to market quoted prices or market values of similar instrument.

The same fair value approach is used in determining the collateral value in the course of sale or realisation. The Bank uses external agents to realize the collateral as soon as practicable, generally at auction, to settle indebtedness. Any surplus funds are returned to the borrower.

After disbursement and over the life of the facility, the Bank regularly monitors the effectiveness of the existing collaterals through the following means;

- 1) Valuation of pledged collateral regarding the extension of loans and advances to customers. This is done periodically usually every three (3) years with annual revalidation by the bank's appointed valuer.
- 2) The Loan Relationship manager is saddled with the responsibility to ensure that the insurance policies are always kept current while physical custody resides with Credit Administration. To protect itself, where the borrower fails to or is unable to renew the insurance, the Bank will renew an expired policy and debit the account of the Borrower with the premium if the renewal is not done within a specified period.
- 3) Loan officers and/or appraisers perform on-site visits to check the quality and condition of the provided collateral. Collateral of significant value is re-evaluated annually through on-site visits by internal appraisers.

For the purpose of Capital Adequacy computation, the Bank adheres strictly to Basel II and CBN's Guidance on eligible financial collaterals and standard supervisory haircuts as shown in the table below.

Table 15: 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	

The table below discloses for each exposure class, the total exposure covered by financial collaterals, on- balance sheet netting and eligible guarantees. The Bank's total credit risk mitigant from on and off- balance sheet exposures amounted to N265.2bn as at June 2019.

Table 16: Exposure values covered by eligible financial collaterals, On-balance sheet netting and eligible guarantees as at Dec. 31st, 2019;

In thousands of Nigerian Naira					
Credit Risk exposures/Counterparty	Gross Exposure	On-Balance Sheet Netting	Financial Collaterals	Eligible Guarantees	Total CRM
Federal Government and CBN	1,151,518,288	-	-	-	-
State & Local Government	70,931,192	-	50,081	-	50,081
Supervised Institutions	292,609,642	45,634,597	-	-	45,634,597
Corporate and Other Persons	674,684,184	99,550,765	42,708,434	-	142,259,199
Corporate and Other Persons (Upstream loans)	379,485,592	-	27,505,581	-	27,505,581
Regulatory Retail Portfolio	126,756,643	-	70,395	-	70,395
Secured by Residential Mortgages	1,534,356	-	-	-	-
Secured by Commercial Mortgages	16,549,443	-	-	-	-
Past Due Exposures	32,955,272	-	45,842	-	45,842
High Risk Exposures (Equity Investments)	4,435,527	-	-	-	-
Other Balance Sheet Exposures	269,359,280	2,315,541	-	-	2,315,541
Sub-Total (On-Balance Sheet Exposures)	3,020,819,419	147,500,903	70,380,333	-	217,881,236
Off Balance sheet exposures (Credit Equivalent Amount)					
Public Sector Entities	-	-	-	-	-
Supervised Institutions	2,926,194	-	26,332	2,660,988	2,687,319
Corporate and Other Persons	166,495,942	-	42,701,342	3,697,366	46,398,708
Regulatory Retail Portfolio	4,550	-	600	-	600
Sub-Total (Off Balance Sheet Exposures)	169,426,686	-	42,728,274	6,358,354	49,086,628
Grand Total (On & Off-Balance Sheet Exposures)	3,190,246,105	147,500,903	113,108,607	6,358,354	266,967,864

Table 17: Breakdown of Financial Collaterals as at Dec. 31st, 2019

In thousands of Nigerian Naira				
	Cash	Equities	Government Securities	Total
On Balance Sheet Exposure:				
Supervised Institutions	-	-	-	-
Secured by Commercial Mortgages	-	-	-	-
Corporate and Other Persons	21,599,482	21,108,952	-	42,708,434
Corporate and Other Persons (Upstream Loans)	27,505,581	-	-	27,505,581
State & Local Government	50,081	-	-	50,081
Secured by Residential Mortgages	-	-	-	-
Regulatory Retail Portfolio	64,236	21	6,137	70,395
Past Due Exposures	3,280	8,428	34,134	45,842
Sub-Total (On-Balance Sheet Exposures)	49,222,662	21,117,400	40,271	70,380,333
Supervised Institutions	26,332	-	-	26,332
Secured by Commercial Mortgages	-	-	-	-
Corporate and Other Persons	42,668,083	33,259	-	42,701,342
State & Local Government	-	-	-	-
Secured by Residential Mortgages	-	-	-	-
Regulatory Retail Portfolio	600	-	-	600
Sub-Total (Off-Balance Sheet Exposures)	42,695,015	33,259	-	42,728,274
Grand Total (On & Off-Balance Sheet Exposures)	91,917,677	21,150,659	40,271	113,108,607

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 including legal risk but exclude reputation & strategic risk. 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 18 – 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 Op-Risk exposures ≤ 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 involve five out of the eight Basel defined business lines as depicted in the table below:

Table 19 – Basel Business lines and Capital Charge

BASEL BUSINESS LINES		IN-HOUSE BUSINESS LINES	CAPITAL CHARGE (%)
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 requirement. The Capital requirement under this approach is obtained by applying 15% to the average of the prior three years positive gross income of the Bank. As at December 2019,

the minimum regulatory capital required to cover for unexpected losses arising from operational risk was ₦36.4bn.

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 outsourced 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 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

Market risk is defined as the risk of losses in on and off-balance-sheet positions arising from movements in market prices.

The Bank's exposure to market risk comprises interest rate risk (trading & banking book) and foreign exchange risk. The Standardised approach is adopted in determining the capital requirement for market risk exposures.

The table below highlights the Bank's market risk components

Table 20: Market Risk Components

Scope	Composition	Capital Charge (%)	Risk Weight	Comments
A. Interest Rate Risk				
1. Trading Book	General Risk: This is the risk of loss in the value of a Bank's trading position held in debt securities arising from changes in market interest rates	As defined within the zones based on the maturity bands	12.5	Capitalized
	Specific Risk: This is the risk of loss in the value of a Bank's trading position held in debt securities arising from factors related to the issuers of the debt instrument	0	0%	Capitalized
2. Banking Book	Earnings at Risk (Discounted Earning Impact). To enable management to ascertain the likely impact on earnings & capital, if interest rate changes are not properly managed. In doing this, the gap between the rate sensitive assets and liabilities are multiplied by interest rate change and roll over periods/intervals of 30days and divided by the period covered/horizon of 365 days. The outcome is multiplied by a discount factor.	N/A	N/A	Not Capitalized for determination of CAR
B. Foreign Exchange Risk				
Trading/Banking Book	The Bank determines its capital charge on FX Risk using the short hand method by computing its overall net open position and selecting the higher of the aggregate long or absolute short position and applying the appropriate capital charge of 8% as specified by the CBN.	8%	12.5	Capitalized

* The Bank's exposure to FGN debt securities is assigned a specific risk weight of 0% in line with CBN's specification for Central Bank and Federal government issued debt securities to be assigned a 0% risk weight.

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.

Interest rate risk can affect both the trading and banking book.

Interest rate risk on the trading book

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. The assessment of the interest rate risk on the trading book is performed on a daily basis using the Value at Risk (VaR) and Mark to Market methodology.

To calculate the capital requirement for interest rate risk on the trading book, the Bank uses the Standardized Approach as required by Basel II. The capital required to cover unexpected loss arising from interest rate risk using the above-mentioned approach as at December 2019 was ₦ 173.7mm.

Interest rate risk on the Banking book

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-months into the future. This assessment is conducted on a monthly basis.

Another measurement methodology which the Bank uses to measure interest rate risk in the banking book is Sensitivity analysis. The tables below shows the outcome of a sensitivity analysis that was performed to determine the impact on net interest income if a change of +/-100 basis point is applied to the interest rate on interest earning assets, and a change of 100 basis point is applied to the interest rate on borrowed funds, financial liabilities held for trade and Term deposit, 30bps change in interest rate on savings deposit and 15bps change in interest rate on interest bearing current deposits.

Table 21a: Unfavourable Impact of a 1% reduction in interest rate on Pre-tax net interest income as at Dec. 31st, 2019

In thousands of Nigerian naira	NGN	USD	GBP	EUR	OTHERS	Total
Interest income on Asset	(10,232,553)	(10,002,845)	(171,903)	(490)	-	(20,407,791)
Interest expense on Liabilities	6,804,389	782,995	4,132	2,413	0.01	7,593,930
	(3,428,164)	(9,219,850)	(167,771)	1,923	0.01	(12,813,861)

Table 21b: Favourable impact of a 1% increase in interest rate on Pre-tax Net interest income as at Dec. 31st, 2019

In thousands of Nigerian naira	NGN	USD	GBP	EUR	OTHERS	Total
Interest income on Asset	10,232,553	10,002,845	171,903	490	-	20,407,791
Interest expense on Liabilities	(6,804,389)	(782,995)	(4,132)	(2,413)	(0.01)	(7,593,930)
	3,428,164	9,219,850	167,771	(1,923)	(0.01)	12,813,861

Table 21c: Unfavourable impact of a 1% reduction in interest rate on Post-tax Net interest income as at Dec. 31st, 2019

In thousands of Nigerian naira	NGN	USD	GBP	EUR	OTHERS	Total
Interest income on Asset	(8,974,972)	(8,773,495)	(150,776)	(430)	-	(17,899,674)
Interest expense on Liabilities	5,968,130	686,765	3,624	2,117	0.01	6,660,636
	(3,006,842)	(8,086,730)	(147,152)	1,687	0.01	(11,239,038)

Table 21d: Favourable Impact of a 1% increase in interest rate on Post-tax net interest income as at Dec. 31st 2019

In thousands of Nigerian naira	NGN	USD	GBP	EUR	OTHERS	Total
Interest income on Asset	8,974,972	8,773,495	150,776	430	-	17,899,674
Interest expense on Liabilities	(5,968,130)	(686,765)	(3,624)	(2,117)	(0.01)	(6,660,636)
	3,006,842	8,086,730	147,152	(1,687)	(0.01)	11,239,038

Foreign Exchange Risk: Foreign Exchange risk arises when fluctuations in the exchange rates of the Bank's foreign currency 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 adopts the following methodologies in determining its Foreign Exchange Risk:

- Monitoring of its Net Open Foreign Exchange position to ensure it remains within the regulatory limit of 10% of Shareholder's Funds unimpaired by losses.
- Sensitivity analysis of its foreign currency position to determine the impact of fluctuations in exchange rates on its earnings.

The Bank determines its capital charge on foreign exchange risk using the Standardized Approach in line with the requirements of Basel II. The capital charge on FX Risk is determined using the short hand method which entails selecting the higher of the aggregate long or absolute short position and applying the appropriate capital charge factor of 8%. As at December 2019, the minimum capital required to cover unexpected losses arising from the fluctuations in exchange rate was ₦204.8mm.

In line with CBN regulatory requirement, the Bank submits detailed computation of its Risk Weighted Assets (RWA) for credit, market and operational risks and its Capital Adequacy Ratio to Central Bank of Nigeria (CBN) on a monthly basis.

7 Equity exposures

7.1 Overview

Equity instruments are instruments that meet the definition of equity from the issuer's perspective; that is, any contract that evidences a residual interest in the issuer's net assets.

The equity investments in the Bank's books are largely holdings 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 as part of credit risk weighted assets.

The other category of equity investments are investments in Unquoted small and medium enterprises. These investments were made in compliance with the CBN's directive in 2006 which required Deposit Money Banks to set aside a specified portion of their Profit after Tax for investment in Small and Medium Enterprises under the Small and Medium Enterprises Equity Investment Scheme. The impact of the risk on the Bank's investment in unquoted equity instruments is deemed immaterial as it constitutes only 0.1 per cent of the Bank's balance sheet.

7.2 Accounting Technique: Classification and Measurement

The Bank classifies and measures its investment in unquoted equity securities in line with IFRS 9 – Financial instruments. In accordance with the provisions of the standard, the Bank's investment in equity instruments are shown below.

The tables below provide 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 22: Exposure Amount of Equity Securities

Fair Value of Equity Investments according to IFRS 9 Classification			
In thousands of Naira	Dec-19	Dec-18	
FVOCI equity instrument	1,185,527	1,081,215	
FVTPL equity instrument	3,250,000	2,620,200	
Total Equity investments	4,435,527	3,701,416	

Table 23: Unrealized Gains/Losses on Equity Instruments

Unrealized Revaluation gains (losses) in the reporting period		
In thousands of Naira	Dec-19	Dec-18
Net change in fair value of FVOCI equity investments *	104,310	83,794
Net change in fair value of FVTPL equity investments	629,800	605,975
Total realized gains (losses) from equity investments	734,110	689,769

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

Table 24: Unrealized Gains/Losses recognized in the Statement of Financial position

In thousands of Nigerian Naira	Dec-19
FVOCI equity instrument	
Historical cost of unquoted equities carried at FVOCI	201,831
Unrealized Fair Value Gain	983,696
Fair Value	1,185,527
FVTPL equity instrument	
Historical cost of unquoted equities carried at FVPL	636,048
Unrealized Fair Value Gain	2,613,952
Fair Value	3,250,000

The fair value measurement of the Bank's unquoted equity investments is determined using the valuation methodology described in the subsequent section.

7.3 Valuation Methodology and Assumptions

IFRS 13 - Fair Value Measurement outlines three approaches for valuing unquoted equity instruments; market approach, the income approach and the cost approach. The Bank opted to estimate the fair value of its investment in each of the unquoted equity securities at the end of the financial year using the income approach.

The fair value of the other unquoted equity securities is 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 is made (see (a) below for the definition, explanation and derivation of FCFF).

Step 2: The yearly FCFF forecasts is 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 the end of year five is estimated by dividing the forecasted FCFF of the fifth year by the capitalization rate (please see (c) below)

Step 4: The terminal value is discounted to present value using the company's WACC.

Step 5: The firm value is 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 is 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 is 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 is 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 (Profit After Tax)

NCC = Non-Cash Charges (Depreciation, Amortisation, etc)

Int. = Interest expense

T= Tax rate

FCI = Fixed Capital Investment

WCI = Working Capital Investment

b. Weighted average Cost of Capital (WACC):

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

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

Where:

D = Value of Debt

E = Equity value

K_e = Cost of equity

K_d = Cost of debt

T = Tax rate

c. Capitalization Rate= WACC – g

$$\text{Terminal value} = \frac{FCFF_5 * (1+g)}{(WACC - g)}$$

Where:

FCFF₅ = Forecasted FCFF for Y5

g = Growth rate

WACC = Weighted average cost of capital

Valuation Assumptions – Discounted Cash flow

1. Risk free rate (R_f) = Yield on 10-year Bond issued by the Federal Government
2. Beta = 1 or Less than 1.
3. Market premium = Based on trend analysis and research of market premiums across the globe by Aswath Damodaran.
4. Earnings growth is the growth in earnings between the latest year and prior period.
5. Terminal growth rate (g) is the growth rate in GDP averaged over a 10-year period

8 Regulatory Standards in issue but not yet effective

In December 2017, the Basel Committee of Banking Supervision finalised Basel III for Banks with majority of the changes expected to be implemented by 1st Jan 2022.

The Basel III accord is a set of financial reforms that was developed by the Basel Committee on Banking Supervision (BCBS), with the aim of strengthening regulation, supervision, and risk management within the Banking industry. Due to the impact of the 2008 Global Financial Crisis on Banks, Basel III was introduced to improve the ability of Banks to handle shocks from financial stress and strengthen their transparency and disclosure. The objective of this new standard is to strengthen the regulatory capital framework and to introduce new capital and liquidity standards.

Whereas Basel II focused on the asset side of the balance sheet, Basel III mostly addresses the liabilities, i.e. Capital and Liquidity.

As part of efforts to enhance the resilience of Deposit Money Bank's in the Nigerian Banking system, the Central Bank of Nigeria has developed guidelines in line with the principles of Basel III which Banks would endeavour to comply with. These guidelines have been formulated while considering the level and nature of risks inherent in the Nigerian Banking system.

8.1 CBN's Guidance for Domestic Banks in line with the Key Principles of Basel III

8.1.1 Minimum Capital Requirements

The Basel III accord raised the minimum capital requirements for Banks and introduced new eligibility requirement for capital resources.

To improve the **Quality**, **Consistency** and **Transparency** of the capital base, the following changes are proposed under the new Basel III framework:

- Increase in the standards for instruments to qualify as Tier 1 capital.
- Introduction of capital buffers over and above the regulatory CAR

In adhering to the principles of Basel III, the Central Bank of Nigeria has released guidelines that sets out supervisory requirements for Banks operating in Nigeria in relation to: Minimum regulatory capital, Adjustments to the components of regulatory capital, Transitional arrangements, Disclosure requirements and the Additional capital buffers above the minimum requirements.

Table 25: Regulatory Capital Ratios for D-SIBs under Basel III

Regulatory Capital Ratio for D-SIBs	As a % of Risk weighted assets
CET 1 Ratio* (Inclusive of HLA)	11.50%
Additional Tier 1 Ratio (AT1)	1.00%
Tier 1 Ratio (CET1 + AT1)	12.50%
Tier 2 Ratio	3.50%
Total CAR (Tier 1 + Tier 2)	16.00%
Buffers	
Capital Conservation Buffer (CCB1):	1.00% above CET1 Ratio
Countercyclical Capital Buffer (CCB2):	Ranging from 0% - 2.5% as determined by the CBN

* Common equity Tier 1 comprises a Bank's core capital and includes ordinary share capital, share premium resulting from the issue of ordinary shares, retained earnings, Non-controlling interest, and accumulated other comprehensive income (AOCI) and other disclosed reserves as determined by the CBN.

Banks are also expected to maintain a Capital conservation buffer (CCB1) and Countercyclical capital buffers (CCB2) which should be in the form of CET1 capital and should be above the minimum CET1, Tier 1 and Total Capital Adequacy levels. Banks can use the buffer when faced with financial stress but doing so can lead to even more financial constraints when paying dividends.

The Bank will comply with the guidelines issued by the Central Bank and endeavour to remain at comfortable levels above the regulatory minimum.

8.1.2 Leverage Ratio (LeR)

The accumulation of excessive on- and off- balance sheet leverage in the banking system was a fundamental cause of the global financial crisis. This necessitated the introduction of a simple, transparent and non-risk-based leverage ratio to act as a credible supplementary measure to the risk-based capital requirements. To address this, Basel III introduced a **non-risk-based leverage ratio** to serve as a backstop and supplementary measure to the risk-based capital requirement. The non-risk-based leverage ratio is calculated by dividing Tier 1 capital by the average total consolidated assets of a Bank.

In conformance with the requirements of Basel III, the Central Bank of Nigeria released a guideline for Banks to maintain a minimum leverage ratio of **4%**. Domestic Systemically Important Banks (D-SIBs) however, are expected to meet an enhanced leverage ratio requirement given their size, complexity and the impact that their potential failure could pose to the Nigerian banking system and the real economy. In

this regard, entities that have been classified as D-SIBs by the CBN are required to maintain an additional leverage ratio buffer of 1% above the minimum and this should be in form of Tier 1 capital.

The leverage ratio is intended to achieve the following:

- Constrain the build-up of excessive on-balance-sheet and off-balance-sheet leverage (i.e debt load) in the banking system to avoid destabilizing effects of the deleveraging processes which can damage the broader financial system and the economy; and
- Fortify the risk-based capital requirement with a simple, non-risk based “backstop” measure.

The Leverage ratio (LeR) is calculated by dividing the capital measure by the exposure measure, where

Capital measure = Tier 1 capital after taking into consideration the transitional arrangement in place

Exposure measure = On balance sheet exposures, derivatives, securities financing exposures and off-balance sheet exposures

As a proactive measure, the Bank has estimated its leverage ratio in line with CBN's guidance.

Table 26: Leverage Ratio as at December 31st, 2019

S/N	Item	Amount
On-balance sheet exposures		
1	On-balance sheet items (excluding derivatives and SFTs, but including collateral).	2,985,388,644
2	(Asset amounts deducted in determining Basel III Tier 1 capital)	(87,229,030)
3	Total on-balance sheet exposures (excluding derivatives and SFTs) (sum of lines 1 and 2)	2,898,159,614
Derivative exposures		
4	Replacement cost associated with all derivatives transactions (i.e. net of eligible cash variation margin)	-
5	Add-on amounts for PFE associated with all derivatives transactions	-
6	Gross-up for derivatives collateral provided where deducted from the balance sheet assets pursuant to the operative accounting framework	-
7	(Deductions of receivables assets for cash variation margin provided in derivatives transactions)	-
8	(Exempted CCP leg of client-cleared trade exposures)	-
9	(Adjusted effective notional amount of written credit derivatives).	-
10	Fair Value of Derivative Instruments	33,115,235
11	Total derivative exposures (sum of lines 4 to 10)	33,115,235

S/N	Item	Amount
Securities financing transaction exposures		
12	Gross SFT assets (with no recognition of netting), after adjusting for sales accounting transactions	-
13	(Netted amounts of cash payables and cash receivables of gross SFT assets)	-
14	CCR exposure for SFT assets	-
15	Agent transaction exposures	-
16	Total securities financing transaction exposures (sum of lines 12 to 15)	-
Other off-balance sheet exposures		
17	Off-balance sheet exposure at gross notional amount	336,655,098
18	(Adjustments for conversion to credit equivalent amounts)	(167,228,412)
19	Off-balance sheet items (sum of lines 17 and 18)	169,426,686
20	Exposure Measure (sum of lines 3, 11, 16 and 19)	3,100,701,534
Capital Measure		
21	Tier 1 capital – Fully phased-in definition	406,440,236
22	Tier 1 capital - Transitional definition	505,290,918
23	Regulatory adjustments - Tier 1 - fully phased-in definition	(152,719,749)
24	Regulatory adjustments - Tier 1 - transitional definition	(53,869,067)
Leverage ratio		
25	Leverage Ratio - using a Fully phased-in definition of Tier 1	13.11%
26	Leverage Ratio - using a Transitional definition of Tier 1	16.30%

The Bank will continue to comply with the guidelines issued by the Central Bank and endeavour to remain at comfortable levels above the regulatory minimum.

8.1.3 New Liquidity Requirements

Liquidity risk management is a fundamental aspect of the Bank's operations, as insufficient liquidity poses an immediate threat to its ability to meet short term maturing obligations. To address this, Basel III introduced two quantitative metrics for measuring liquidity – *Liquidity Coverage Ratio and the Net Stable Funding Ratio*.

The Principles require Banks to establish a robust liquidity risk management framework that ensures they maintain sufficient liquidity, including a cushion of unencumbered high-quality liquid assets (HQLA) to withstand a range of stress events.

In line with the expectation of the BCBS Principles, the Central Bank of Nigeria (CBN) expects all Banks to adequately manage their liquidity and funding risk and has issued Guidelines on Liquidity Risk Management and Internal Liquidity Adequacy Assessment Process (ILAAP) with the aim of setting out the minimum supervisory expectation.

8.1.3.1 Liquidity Coverage Ratio

The Liquidity Coverage Ratio (LCR) aims to promote the short-term resilience of the liquidity risk profile of Banks by ensuring that they have an adequate stock of unencumbered high-quality liquid assets (HQLA) that can be converted easily and immediately in private markets into cash to survive a significant stress scenario lasting 30 calendar days.

The CBN requires all reporting Banks to hold and maintain a stock of HQLA that is at least equal to total net cash outflows. In other words, Banks must maintain an LCR of at least 100% on an on-going basis.

The liquidity coverage ratio is calculated as follows,

$$LCR = \frac{\text{Stock of HQLA}}{\text{Total Net Cash Outflows}} \geq 100\%$$

As at December 31st, 2019 GTBank's LCR was estimated at 165.85%.

8.1.3.2 Net Stable Funding Ratio

During the financial crisis of 2007–2008, several banks, suffered a liquidity crisis, due to their over-reliance on short-term wholesale funding from the interbank lending market. To address this, the BCBS came up with the Net stable funding ratio as one of its liquidity monitoring tools.

The Net Stable Funding Ratio (NSFR) was designed to address liquidity mismatch and thus requires Banks to maintain a stable funding profile in relation to the composition of their asset and off-balance sheet activities. The objective is to limit over reliance of Banks on short-term wholesale funding from the interbank lending market as its major funding source.

The Net stable funding ratio is calculated as follows,

$$NSFR = \frac{\text{Available amount of Stable funding}}{\text{Required amount of Stable funding}} \geq 100\%$$

As at December 31st, 2019 GTBank's NSFR was estimated at 166.39%.

The Bank will comply with the guidelines issued by the Central Bank and endeavour to remain at comfortable levels above the regulatory minimum.

9 ABBREVIATIONS

The following abbreviated terms are used throughout this document

Currencies

- ₦/NGN Nigerian Naira
- \$/USD United States Dollar
- £/GBP British Pound Sterling

A

AGSMIES- Agricultural Small and Medium Enterprises Investment Scheme

ALM Assets and Liability Management

B

BCBS Basel Committee on Banking Supervision

BCMS Business Continuity Management System

BCP Business Continuity Plan

BIA Basic Indicator Approach

BMI Business Monitor International

BSI British Standard Institute

C

CAR Capital Adequacy Ratio

CBN Central Bank of Nigeria

CCF Credit Conversion Factor

C

CEA Credit Equivalent Amount

CRM Credit Risk Mitigant

CRO Chief Risk Officer

D

DPD Days Past Due

D-SIB Domestic Systemically Important Bank

E

EAD Exposure at Default

EaR Earnings at Risk

ECAI External Credit Assessment Institutions

ECL Expected Credit Loss

ERM Enterprise-wide Risk Management

F

FCFF	Free Cash flow to Firm
FMDQ	Financial Markets Dealers Quotation
FVOCI	Fair Value Other Comprehensive Income
FX	Foreign Exchange

I

IAS	International Accounting Standards
ICAAP	Internal Capital Adequacy Assessment Process
ICR	Internal Capital Requirement
IEC	International Electro technical Commission
IFRS	International Financial Reporting standards
IMF	International Monetary Fund
ISO	International Organization for Standardization
IT	Information Technology

K

KRI	Key Risk Indicators
KYC	Know Your Customer
LCR	Liquidity Coverage Ratio
LGD	Loss Given Default
MDAs	Ministries, Departments and Agencies
MRC	Management Risk Committee
NBS	Nigeria Bureau of Statistics
NSFR	Net Stable Funding Ratio

O

OCI	Other Comprehensive Income
OFSAA	Oracle Financial Services Analytical Application
OHS	Occupational Health & Safety
Op Risk	Operational Risk

P

PCI DSS	Payment Card Industry Data Security Standard
PD	Probability of Default

R

RCSAs	Risk and Control Self Assessments
RRR	Regulatory Risk reserve
RWA	Risk Weighted Assets

S

S&P	Standard & Poor's
SA	Standardized Approach
SICR	Significant Increase in Credit Risk
SME	Small and Medium Enterprise
SMEEIS	Small and Medium Enterprises Equity Investment Scheme
SREP	Supervisory Review and Evaluation Process

W

WACC	Weighted Average Cost of Capital
-------------	----------------------------------