# Sunu Assurances Nigeria Plc

# Financial Condition Report as at 31st December 2024

# Prepared by



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#### **Executive Summary**

This report discusses the adequacy of the company's resources (capital, reinsurance arrangements) in meeting its contracted obligations, especially if adverse situations arise.

#### The following are the key conclusions of the report.

- o The company is in a sound Financial Condition as at report date.
- O We estimate that the economic/risk-based capital required to support the business as of 31st December 2024 as №4.87billion. This is about 62% higher than the current minimum statutory requirement of №3billion. The business, however, has Shareholders' Fund of №12.9billion or 264% of the required Risk Based Capital. Hence, the business is well capitalized and is likely to meet all obligations as when due.
- O The company's Capital Adequacy Ratio (CAR) has increased to 338% in 2024 from 229% in 2023; increase in Free Assets to ca N10.1bn in 2024 from ca N6.9bn in 2023. However, the recapitalization program by the insurance regulator requiring a minimum capital requirement of N15bn, still implies that the company requires an additional capital injection of ca N5bn to meet up with the new capital requirements.
- The company's combined ratio sat at 89% in 2024 compared with 72% in 2023. There was a deterioration in business performance at underwriting level considering the current's CR; this is largely associated to a significant increase in expenses with an expense ratio of 58% in 2024.
  - In contrast, there is a slight increase in claims ratio to 31% in 2024 from 34% in 2023 which was due to extremely high claims experience on the General Accident as a proportion of the earned premiums. The low expense ratio is associated to low expense on Oil & Gas, Motor, and Aviation lines of business in 2024. Since this could be a one-off experience, we continue to recommend that the company reduce the expense whilst monitoring the underwriting performance of all lines of business and ensuring adequate reinsurance protection is in place.
- O Since the company is currently in the process of recapitalization, an in-depth business planning exercise to inform capital allocation to profitable business lines should be carried out.

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March 16, 2025

The Board of Directors,

Sunu Assurances Nigeria Plc,

Plot 1196, Bishop Oluwole Street,

Victoria Island,

Lagos, Nigeria.

Attention: Mr. Samuel Ogbodu (Managing Director)

Dear Sir,

Financial Condition Report as at 31st December 2024 – Sunu Assurances Nigeria Plc

1. Introduction

1.1 We are pleased to present our Financial Condition Report ("FCR") for Sunu Assurances

Nigeria Plc ('the Company'') as at 31st December 2024.

1.2 The aim of the Financial Condition Report is to present a non-technical easy to read

document detailing the recent business and operational trends, the current financial status as

well as an assessment of the business remaining solvent in the near future basing the future

projections on different risk scenarios.

1.3 The report, as well as meeting Management's need to continuously appraise themselves of

the status of the business; will fulfill the requirement to submit a Financial Condition Report

as stipulated by NAICOM in the roadmap to Risk Based Solvency regime issued in October

2018.

1.4 This report discusses the adequacy of the company's resources (capital, reinsurance

arrangements) in meeting its contracted obligations, especially if adverse situations arise.

1 | P a g e

#### 1 Business Overview

### 1.1 **Premium History**

1.1.1 The company realized a 60% growth in gross written premiums in 2024 when compared with 2023 performance. There is a general growth across all lines of business as presented below:

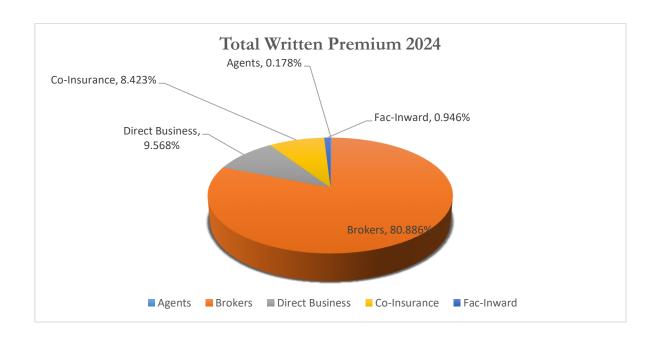
Table 1.0 - Gross Written Premiums (2019 - 2024)

Line of Business	2019		2	020	2	021	2	022	20	023	20	24
	<b>₹</b> '000	Percentage	<b>₹'</b> 000	Percentage	<b>₹'</b> 000	Percentage	₩ '000	Percentage	₹ '000	Percentage	<b>₹</b> '0002	Percentage2
Bond	3,025	0%	-	0%	-	0%	-	0%	-	0%	-	0%
Oil & Gas	151,253	5%	730,725	26%	1,293,134	27%	1,297,806	22%	2,180,115	27%	4,209,119	32%
Engineering	151,253	5%	224,163	8%	176,382	4%	249,335	4%	426,730	5%	596,369	5%
Motor	907,515	30%	224,163	8%	680,882	14%	949,952	16%	1,351,911	17%	1,801,769	14%
Aviation	-	0%	173,081	6%	440,441	9%	365,332	6%	512,209	6%	1,052,424	8%
Marine	601,985	20%	378,874	13%	530,661	11%	689,970	12%	724,756	9%	1,087,509	8%
Fire	605,010	20%	658,161	23%	1,119,778	23%	1,444,996	25%	2,165,432	27%	3,104,017	24%
General Accident	605,010	20%	472,818	17%	629,866	13%	776,514	13%	800,249	10%	1,176,669	9%
Total	3,025,050	100%	2,861,984	100%	4,871,144	100%	5,773,905	100%	8,161,402	100%	13,027,875	100%

- 1.1.2 From the table above, the following are observed:
  - In terms of premiums contribution in 2024, Oil & Gas and Fire lines of business were the largest contributors which seem to be at par, each being a contributor at approximately 32%, whilst Motor was the second largest contributor at 24%.
  - Oil & Gas, and Fire account for 56% of total premiums written in 2024; in excess of
     Note that the second seco
  - Other lines of business account for only about 40% of the premiums written in 2024.
  - There is a general increase in the volume of business written on all classes of business, with a significant YoY growth on Oil & Gas at 93%, Aviation at 105%, Marine at 50%, General Accident at 47%.

- Precisely from 2020, the company has stopped writing Bond business.
- 1.1.3 With this distribution, in our view, the business needs to reconcile the performance with the planned product mix as Fire and Oil & Gas seem to be slightly higher than projected. There is, however, largely no undue concentration risk by business type over the review period.
- 1.1.4 Figure 1.1 illustrates the sources of new business by distribution channel. There is slightly more granularity in terms of distribution channel contribution. However, brokers remain the main source of new business acquired whilst new businesses written via Co-insurance & Direct business have a combined level of ca 18%. This continues to place a greater need to nurture the relationship with the brokers in order to keep new business volumes. However, the company should also consider targeted business development activities that aim to cover other distribution channels and consequently increase their contributions.

Fig 1.1 Gross Written Premium - 2024



# 2 Experience Analysis, Asset Mix and Capital Adequacy

2.1.1 We discuss in this section, some metrics that illustrate the profitability and investment returns on the portfolio.

Table 2.1 – Definition of Key Metrics

Metric Claims Ratio	Definition Net Claims Incurred/ Net Earned Premium
	{Underwriting Expenses (excl claims expenses + Management
Expense Ratio	Expenses – Commission Income}/ Net Written Premium
Combined Ratio	Claims Ratio + Expense Ratio
Capital Adequacy Ratio	Free Assets/Higher of 15% of Net written premiums or N3bn
Solvency Ratio	(Free Assets+ Policyholders Funds)/Technical Reserves

2.1.2 The table below shows recent experience of Claims, Expense and Combined Ratios.

Table 2.2 – Key Performance Ratios (2015 – 2024)

Year	Claims Ratio	Expense Ratio	Combined Ratio	Investment Income as a % of NWP
2015	24%	152%	176%	12%
2016	80%	184%	264%	11%
2017	30%	88%	118%	13%
2018	35%	118%	153%	27%
2019	20%	123%	143%	44%
2020	17%	107%	124%	14%
2021	27%	70%	99%	5%
2022	33%	65%	99%	6%
2023	34%	38%	72%	5%
2024	31%	58%	89%	15%

<sup>\*</sup>breakdown of combined ratio by line of business is shown in appendix 4 of the report

- 2.1.3 The combined ratio deteriorated in 2024 following a significantly improvement in previous years. This was a result of significant increase in operating expenses during the year. Claims ratio remains relatively stable. We also note the significant increase in the company's investment income in 2024.
- 2.1.4 There was an increase in both General Accident claims as a proportion of net earned premiums which led to an increase in the claims' ratio. The expense ratio improved in 2024 due to a combined contributions from topline growth and significant reduction in expenses.
- 2.1.5 We recommend that the company continue to review underwriting on all lines of business and monitor the General Accident line claims with a view to potentially reviewing the pricing of this line of business.
- 2.1.6 In addition, the company should continue to leverage on all efficiencies being realized in recent years to keep expenses low whilst continuing to scale up on premium income. As before, we continue to recommend a target expense ratio of 50% in order to enhance the returns to shareholders.

Year	Profit After Tax	Underwriting Profit *	Investment Income
Tear	<b>№</b> °000	<b>№</b> '000	№'000
2015	(745,930)	1,061,134	409,581
2016	(251,785)	(124,029)	306,444
2017	(28,464)	850,910	444,082
2018	(60,212)	651,848	449,273
2019	(277,279)	781,507	661,934
2020	181,180	1,154,467	321,953
2021	126,775	1,480,402	222,160
2022	330,031	1,489,801	330,320
2023	2,504,826	1,823,342	571,255
2024	3,586,461	3,870,948	1,330,041

<sup>\*</sup>Excludes Management Expenses

2.1.7 The company's return on equity turns remains high in 2024. The Company continues to maintain good expense discipline with an improved flow of both gross and net written premiums. Management should continue to monitor expenses and the overall underwriting performance in the short to medium term.

Table 2.4 – Shareholders' Fund and Return on Equity (2016 – 2024)

Year	Shareholders' Fund	Return on Equity
2016	4,921,015	-5.0%
2017	3,660,169	-1.0%
2018	3,757,942	-2.0%
2019	3,479,415	-8.0%
2020	3,660,596	5.0%
2021	6,722,327	2.0%
2022	7,052,201	5.0%
2023	9,703,869	26.0%
2024	12,928,325	27.7%

2.1.8 The ROE in 2024 increased slightly from 2023 directly associated with the significant increase in investment income during the year.

#### 2.2 Asset Mix

2.2.1 We illustrate below the assets mix backing the technical provisions in the periods 2021 – 2024 as follows:

Table 2.5 – Assets Backing Technical Liabilities (2021 – 2024)

Assets N°000	Insurance	Funds						
1135015 11 000	2021	%	2022	%	2023	%	2024	%
Cash and Cash Equivalent	2,890,949	55%	3,732,292	66%	7,744,591	76%	1,331,147	81%
Financial Assets	251,019	5%	37,184	1%	315,000	3%	-	0%
Investment Properties	347,590	7%	354,969	6%	355,875	3%	465,000	3%
Reinsurance Assets	1,730,084	33%	1,526,736	27%	1,794,449	18%	2,113,142	15%
Total	5,219,642	100%	5,651,181	100%	10,209,915	100%	3,909,289	100%

- 2.2.2 The company continues to hold mainly cash and cash equivalent to back its liability pool.Cash or cash-like investments help with liquidity.
- 2.2.3 Financial assets are now an insignificant part of the assets backing liabilities due to the continued disposal of FBN Bonds and CBN Special Bills. The company advised the movement in the financial assets & cash was because of arrangements in the land and building assets. The company reallocated part of the assets into shareholders fund during year.
- 2.2.4 We recommend this continue to be monitored closely and the correct categorisation of assets be reported accompanied by adequate narrative describing the asset position.

# 2.3 Capital Adequacy

### 2.3.1 Balance Sheet Solvency

2.3.1.1 We illustrate in the table below that for most years, the company had sufficient buffer to meet technical liabilities.

Table 2.6 – Balance Sheet Solvency (2018 – 2024)

<b>№</b> '000	2018	2019	2020	2021	2022	2023	2024
Technical Liabilities	3,929,261	2,883,079	2,584,605	3,460,109	3,116,444	4,960,022	6,531,610
Shareholders Fund (Free Assets)	3,757,942	3,479,415	3,660,595	6,722,327	7,721,221	9,703,869	10,349,695
Balance Sheet		, ,	, ,	, ,	, ,	, ,	, ,
Solvency Ratio	96%	121%	142%	194%	248%	196%	158%

2.3.1.2 The last 3 years have had reasonably healthy solvency ratios which gives comfort that ordinarily, liabilities are expected to be met as and when due. We highlight regulatory solvency below and discuss risk-based solvency in section 6.

### 2.5 **Regulatory Solvency**

2.4.1 We illustrate below that the company met its regulatory solvency requirements in all the years under review.

Table 2.7 - Regulatory Solvency (2018 - 2024)

Year	2018	2019	2020	2021	2022	2023	2024
Technical Liabilities	3,929,261	2,883,079	2,584,605	3,460,109	3,116,444	4,960,022	6,531,610
Free Assets							
(allowing for							
admissible rules)	3,098,708	3,117,273	3,239,632	3,803,817	4,482,497	6,877,588	10,129,276
Maximum of 15%							
Net premium and							
N3billion	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
Capital Adequacy	103%	104%	108%	127%	149%	229%	338%
Regulatory Solvency							
Ratio	79%	108%	125%	110%	144%	139%	155%

- 2.4.2 The company met statutory capital requirements in all years, and at the review date had 229%, the minimum required capital level, which currently stood at N3bn (a significantly improved position).
- 2.4.3 We note that the Free Assets has increased to ca N10.1bn during the financial year. However, in December 2024, the Nigerian Senate passed the Nigeria Insurance Industry Reform Act, 2024, introducing significant changes to the minimum capital requirements for insurance businesses in the country. The proposed capital requirement for General is business is N15bn, which means the company requires an additional capital injection of about N5bn to meet up with the regulation.

#### 2.6 Reinsurance

- 2.5.1 We note from the schedule of latest reinsurance arrangements (shown in Appendix 2), that in 2021, the company reviewed retention limits to the reinsurance arrangements which is sensible if more capital is to be available to retain those risks. These limits as at 2021 remains in 2024. This needs to be monitored in line with any future capital injections and linked to the risk appetite.
- 2.5.2 We however illustrate in the tables below, the cash flows arising from reinsurance transactions in the last few years.

Table 2.8.a – VFM of 2021 Reinsurance Business

#### N' million

Class of Business	Bond	Oil & Gas	Engineering	Motor	Aviation	Marine	Fire	General Accident	Total
Outflow									
Reinsurance									
Cost	-	375,981	132,489	26,146	98,070	132,647	365,108	198,835	1,329,275
Inflow	-	-	-	-	-	-	-	-	-
Reinsurance									
Commission	-	3,411	33,720	7,073	-	34,785	84,034	54,341	217,364
Reinsurance									
Recoveries (Incl									
IBNR)	-	8,964	129,107	80,626	-	96,876	144,583	228,815	688,970
<b>Total Inflow</b>	-	12,375	162,827	87,699	-	131,661	228,617	283,156	906,335
Value for Money									
Ratio (VFM)	0%	3%	123%	335%	0%	99%	63%	142%	68%

Table 2.8.b - VFM of 2022 Reinsurance Business

# **N**' million

Class of	Bond	Oil &	Engineering	Motor	Aviation	Marine	Fire	General	Total
Business		Gas						Accident	
Outflow									
Reinsurance	-	429,878	91,325	62,285	121,836	182,561	605,481	235,303	1,728,670
Cost									
Inflow	-	-	-	-	-	-	-	-	-
Reinsurance	-	1,067	30,954	8,135	-	55,980	131,245	(76,298)	151,083
Commission									
Reinsurance	-	-	79,172	254,217	-	173,710	531,991	216,053	1,255,143
Recoveries (Incl									
IBNR)									
Total Inflow	-	1,067	110,126	262,352	-	229,690	663,237	139,755	1,406,225
Value for Money	0%	0%	121%	421%	0%	126%	110%	59%	81%
Ratio (VFM)									

Table 2.8.c - VFM of 2023 Reinsurance Business

# **N'** million

Class of	Bond	Oil &	Engineering	Motor	Aviation	Marine	Fire	General	Total
Business		Gas						Accident	
Outflow									
Reinsurance	-	513,327	199,247	77,044	188,144	229,724	994,229	292,674	2,494,388
Cost									
Inflow	-	-	-	-	-	-	-	-	-
Reinsurance	-	137	46,173	10,090	175	48,564	199,807	60,065	365,011
Commission									
Reinsurance	-	-	52,602	308,856	-	92,852	555,501	346,675	1,356,485
Recoveries (Incl									
IBNR)									
Total Inflow	-	137	98,774	318,946	175	141,416	755,308	406,740	1,721,496
Value for Money	0%	0%	50%	414%	0%	62%	76%	139%	69%
Ratio (VFM)									

Table 2.8.d – VFM of 2024 Reinsurance Business

#### N' million

Class of	Bond	Oil &	Engineering	Motor	Aviation	Marine	Fire	General	Total
Business		Gas						Accident	
Outflow							•		
Reinsurance	-	928	240	173	299	330	1,771	339	4,081
Cost									
Inflow	-	-	-	-	-	-	-	-	-
Reinsurance	-	3	79	20	-	104	383	132	720
Commission									
Reinsurance	-	672	267	124	-	128	604	77	1,872
Recoveries (Incl									
IBNR)									
Total Inflow	-	675	347	144	-	232	987	209	2,592
Value for Money	0%	73%	144%	83%	0%	<b>70%</b>	56%	62%	64%
Ratio (VFM)									

- 2.5.3 The tables indicate that the overall value for money ratio averaged about 69% (a decrease compared to 2023) in the period under consideration. Oil & Gas did not provide any value for money in the current reporting period.
- 2.5.4 We also note that the overall reinsurance cost increased in 2024 in line with the increased gross written premiums whilst there is no material difference in recoveries for 2024 when compared with 2023 in line with the lower gross incurred claims. Therefore, the lower value for money in 2024 is potentially reflective of the lower claims in the year.

#### 2.7 Stress Scenario for 2024 Results

- 2.6.1 We applied a 20% stress on the current ultimate loss ratio for each line of business to derive the stressed estimate of outstanding claim reserves. This resulted in total additional outstanding claim reserves of about N962.2 million.
- 2.6.2 We illustrate the revised solvency margin for 2024 in the table below

Table 2.9 – Stressed Solvency Margin

Year	2024 - Stressed	2024
Technical Liabilities	7,837,932	6,531,610
Shareholders Fund (Free Assets)	8,279,756	10,349,695
Balance Sheet Solvency Ratio	106%	158%

2.6.3 The table 2.9 demonstrates that the solvency ratio is expected to remain healthy above 100% should the claims ratio increase by 20%.

#### 3 Financial Condition as at 31st December 2024

- 4.1.1 Based on our discussions above we are of the view that;
  - The business is in a sound financial condition. We have demonstrated that the solvency ratio exceeded 100% of technical liabilities on both the regulatory admissibility basis and IFRS balance sheet basis.
  - We have further demonstrated that on a stressed basis, the balance sheet solvency ratio at the review date exceeds 100% of the liabilities.
- 4.1.2 We continue to advise that the company should:
  - reduce its high expense ratio through continued expansion of new business premiums written and/or business rationalization and leveraging any efficiency gains realized in the recent years.
  - needs to inject an additional capital of at least N5bn to meet with the new statutory minimum capital requirements. The company could also consider merging with another company.
  - monitor closely claims ratios for all lines of business and continue to check reinsurance protection adequacy.
  - as the company prepares to recapitalize/merge, it is important to consider developing a
    quantitative Risk Appetite Statement incorporating its broad objective e.g.
    - Conducting your business in such a way that no more than 20% of your capital is at risk.
    - o Probability of Profits being zero or worse  $\leq 5\%$  (1 year in 20).
    - o Risk Adjusted Returns on capital will always exceed 5% etc.
    - (Credit) Rating Conduct your affairs to achieve/maintain an international credit rating of B etc.

#### 4 New Business Plans

#### 4.1 Business Plan Production

4.1.1 The company experienced an average premium growth rate of ca 20% p.a. over the 2022
2024 period. The yearly growth between 2023 and 2024 was ca.60%. The planned volumes below show on average, ca.16% annual growth over the two projected years. This remains consistent with recent experience including the business mix.

The table below shows the assumed new business volumes and mix by line of business:

Table 2.0 - Business Plan (2025 - 2027)

Line of Business	2025		2026		2027		
	<b>№</b> '000	0/0	<b>N'</b> 000	0/0	<b>№'</b> 000	0/0	
Bond	-	0%	-	0%	-	0%	
Oil & Gas	4,927,530	27%	6,355,696	27%	8,321,532	27%	
Engineering	934,216	5%	1,319,107	6%	1,727,110	6%	
Motor	3,205,642	18%	4,556,914	19%	5,966,381	19%	
Aviation	1,190,667	7%	1,199,188	5%	1,570,100	5%	
Marine	1,831,796	10%	2,398,376	10%	3,140,201	10%	
Fire	4,579,489	25%	5,756,102	24%	7,536,482	24%	
General Accident	1,648,616	9%	2,398,376	10%	3,140,201	10%	
Total	18,317,956	100%	23,983,757	100%	31,402,008	100%	

- 4.1.2 The continued ambition to expand new business volumes had continued to put pressure on management expenses as presumed; management expense in 2024 exceeded that of 2023 by 38%. However, we note that the 2024 gross written premiums were 122% of plan with a modest expense increase. The level of expense discipline shown in the last couple of years could help in achieving planned volumes and achieve profitability.
- 4.1.3 For purposes of the projections, we have assumed expense increases per annum of 25%.

### 5 Solvency Projections

### 5.1 The projection process

- 5.1.1 We have projected the income statements for each of the years 2025 and 2026 assuming claim and expense patterns to date, continue, and adopting the premiums projected for each of the years.
- 5.1.2 The exercise leads to projected technical liabilities at the end of each year and a corresponding balance sheet. We have assumed that new money accruing into the fund will be invested in money market instruments.
- 5.1.3 We report our projected solvency ratios herein, we have also stressed these ratios in anticipation of adverse events and comment accordingly.

#### 5.2 Data and Assumptions

- 5.2.1 The most recent portfolio status and the corresponding valuation dataset forms the base of the projection.
- 5.2.2 Projections of technical reserves i.e. outstanding claims and unexpired premium reserves are based on the projected sales volume and the historical information at our disposal. The target sales volume information is as detailed in Section 4.1.1 and was provided by the Company.
- 5.2.3 The unexpired premium reserves were projected for each line of business assuming risk would occur uniformly throughout the year and the future portfolio would resemble the past written premiums.

- 5.2.4 The outstanding claims reserves were projected using the projected earned premiums and the projected claims settlement patterns as determined in the most recent valuation exercise.
- 5.2.5 The company continues to expect injection of an additional capital of ca N3.2billion through a rights issue and/or private placement in 2024. However, this was excluded in our projections and will certainly improve the projected positions if it materializes.

# 5.3 **Projections results**

# 5.3.1 The following results were obtained.

Table 5.1 – Income Statement Projections (2024 – 2026)

INCOME STATEMENT	2023 - Projected*	2023 - Actual	2024	2025	2026
Gross Written Premium	6,700,000	8,161,402	9,000,000	10,534,176	12,114,302
Gross Premium Income	6,425,505	7,427,223	8,131,257	9,510,258	11,499,967
Reinsurance Cost	(1,957,260)	(2,483,477)	(2,577,742)	(2,924,831)	(3,363,835)
Net Premium Income	4,468,245	4,943,747	5,553,514	6,585,428	8,136,132
Commission income	427,686	364,661	418,368	503,929	572,793
Net Underwriting income	4,895,931	5,308,408	5,971,883	7,089,357	8,708,925
Gross claims incurred	(1,976,850)	(2,669,162)	(3,983,244)	(4,641,095)	(5,471,312)
Claims recoveries	740,479	1,002,275	2,410,821	2,739,639	3,083,923
Net claims incurred	(1,236,371)	(1,666,886)	(1,572,424)	(1,901,456)	(2,387,389)
Underwriting expenses	(1,557,412)	(1,807,267)	(1,899,406)	(2,205,316)	(2,562,177)
Total Underwriting Expenses	(2,793,783)	(3,474,154)	(3,471,830)	(4,106,772)	(4,949,566)
Investment income	335,850	571,255	729,137	810,921	901,879
Other operating income	169,458	2,656,251	270,600	300,952	334,709
Management Expenses	(2,107,794)	(2,488,308)	(2,737,139)	(3,010,853)	(3,311,938)
Profit before income tax	529,251	2,573,452	762,652	1,083,605	1,684,008
Income tax expenses	(68,803)	(68,625)	(20,337)	(92,266)	(218,921)
Profit for the year	460,448	2,504,826	742,314	991,340	1,465,087

5.3.2 The revenue accounts showing the breakdown of underwriting results by line of business for each year is shown in appendix 3.

Table 5.2 – Assets & Liabilities Projections (2024 – 2026)

ASSETS & LIABILITIES	2023 - Projected*	2023 - Actual	2024	2025	2026
TOTAL ASSETS	10,638,677	16,004,416	18,761,969	25,451,611	29,680,428
Liabilities					
Technical Reserves	5,092,837	4,960,022	6,710,339	7,926,841	9,101,988
Deposit for Shares	-	0	0	0	0
Trade payables	1,539,671	1,050,657	1,050,657	4,148,957	5,684,776
Borrowings	313,879	289,868.00	289,868.00	1,362,295.98	1,051,631
Total Liabilities	6,946,386	6,300,547	8,050,864	13,438,094	15,838,395
Ordinary Shares Capital	2,905,400	2,905,400	2,905,400	2,905,400	2,905,400
Share premium	2,453,326	2,453,326	2,453,326	2,453,326	2,453,326
Contingency reserves	1,666,767	1,676,934	1,941,856	2,252,793	2,616,222
Other Reserves	62,807	62,672	62,672	62,807	62,807
Retained earnings/accumulated losses	749,496	2,605,537	3,347,851	4,339,191	5,804,278
Shareholder's equity	7,837,797	9,703,869	10,711,105	12,013,517	13,842,033
Total liabilities and shareholder's equity	10,638,677	16,004,416	18,761,969	25,451,611	29,680,428

### 5.3.3 The projected solvency ratios are as shown below:

Table 5.3 – *Solvency Margins* (2024 – 2026)

Year	2025	2026
Technical Liabilities	7,926,841	9,101,988
Shareholders Fund (Free Assets)	11,999,933	13,844,727
Solvency Margin	151%	152%

5.3.4 Based on our assumptions, there is an expectation of increased profitability in 2025 and 2026 whilst maintaining adequate solvency coverage in both years. This should mean a higher chance of adequate capital to meet the company liabilities as and when due.

5.3.5 We performed projections assuming an absolute 20% increase in loss ratio and the following results were obtained.

Table 5.4 – Income Statement Projections with a 20% increase in Loss Ratio (2024 – 2026)

INCOME STATEMENT	2023 - Projected*	2023 - Actual	2024	2025	2026
Gross Written Premium	6,700,000	8,161,402	9,000,000	10,534,176	12,114,302
Gross Premium Income	6,425,505	7,427,223	8,131,257	9,510,258	11,499,967
Reinsurance Cost	(1,957,260)	(2,483,477)	(3,259,768)	(3,509,797)	(4,036,602)
Net Premium Income	4,468,245	4,943,747	4,871,488	6,000,461	7,463,365
Commission income	427,686	364,661	530,730	604,715	687,352
Net Underwriting income	4,895,931	5,308,408	5,402,218	6,605,176	8,150,717
Gross claims incurred	(1,976,850)	(2,669,162)	(4,768,157)	(5,554,961)	(6,548,005)
Claims recoveries	740,479	1,002,275	3,462,492	3,933,964	4,427,242
Net claims incurred	(1,236,371)	(1,666,886)	(1,305,665)	(1,620,997)	(2,120,763)
Underwriting expenses	(1,557,412)	(1,807,267)	(1,960,883)	(2,277,293)	(2,650,163)
Total Underwriting Expenses	(2,793,783)	(3,474,154)	(3,266,548)	(3,898,290)	(4,770,926)
Investment income	335,850	571,255	729,137	810,921	901,879
Other operating income	169,458	2,656,251	270,600	300,952	334,709
Management Expenses	(2,107,794)	(2,488,308)	(2,737,139)	(3,010,853)	(3,311,938)
Profit before income tax	529,251	2,573,452	398,269	807,908	1,304,440
Income tax expenses	(68,803)	(68,625)	(33,911)	(68,791)	(169,577)
Profit for the year	460,448	2,504,826	364,358	739,117	1,134,863

Table 5.5 – Assets & Liabilities Projections with a 20% increase in Loss Ratio (2024 – 2026)

ASSETS & LIABILITIES	2023 - Projected*	2023 - Actual	2024	2025	2026
TOTAL ASSETS	10,638,677	16,004,416	18,935,024	25,479,222	29,530,933
Liabilities					
Technical Reserves	5,092,837	4,960,022	7,261,351	8,584,631	9,912,897
Deposit for Shares	-	-	-	-	-
Trade payables	1,539,671	1,050,657	1,050,657	4,148,957	5,684,776
Borrowings	313,879	289,868.00	289,868.00	1,362,295.98	1,051,631
Total Liabilities	6,946,386	6,300,547	8,601,876	14,095,884	16,649,304
Ordinary Shares Capital	2,905,400	2,905,400	2,905,400	2,905,400	2,905,400
Share premium	2,453,326	2,453,326	2,453,326	2,453,326	2,453,326
Contingency reserves	1,666,767	1,676,934	1,941,856	2,252,793	2,616,222
Other Reserves	62,807	62,672	62,672	62,807	62,807
Retained earnings/accumulated losses	749,496	2,605,537	2,969,895	3,709,011	4,843,874
Shareholder's equity	7,837,797	9,703,869	10,333,148	11,383,337	12,881,629
Total liabilities and shareholder's equity	10,638,677	16,004,416	18,935,024	25,479,222	29,530,933

#### 6 Economic Capital

- 6.1 The technical figures (technical liabilities, reinsurance assets, etc.) estimated for balance sheet purposes are our 'best' estimate and broadly reflect the 'mean' of possible outcomes. However, in the course of time these estimates may fluctuate adversely as a result of unexpected realities.
- 6.2 It is prudent and best practice to estimate the extent to which the best estimate can be exceeded due to possible adverse situations and establish on the corresponding risk capital, called ECONOMIC CAPITAL.
- 6.3 The key risks the company is exposed to are underwriting risk, market risk, counterparty risk and operational risk, they are described and discussed in appendix 6 of the report.
- 6.4 We have calculated for each of the risks, the amount of capital required as at year end 2024 at 95% and 99.5% level of confidence.
- 6.5 This report discusses in detail capital requirements at 99.5%, which is equivalent to a 1-in-200 event. Put differently, this is the capital required to sustain the company should extreme events that are expected to occur once every 200 years, occur in 2024. Such events would typically lead to large 'unexpected' losses that could significantly affect the fortunes of the company. The results at 95% (1 in a 20-year event) are shown in appendix 5 of the report.
- 6.6 We have adopted the following methods in calculating the Economic capital:
  - Value at Risk → this was applied to Market risk and Credit risk
  - Stochastic approach using bootstrapping → this was applied to Non-Life reserving and premium risks.
  - Solvency II standard formula approach was adopted for operational risk

- 6.7 Detailed explanation of each of the risks including derivation of the stresses applied is given in appendix 6 of the report.
- 6.8 In order to recognize that each individual risk event is unlikely to occur in the same year, aggregation of capital requirements was done. This has the effect of reducing the total required capital technically called a diversification. The assumed correlation matrix is shown in appendix 7.
- 6.9 The calculations were based on same data used to prepare the IFRS valuation as at 31 December 2024 and asset information shown in section 2.3 of this report.
- 6.10 The following results at 99.5% confidence level were obtained.

Table 6.1 - Economic Capital: SCR at 99.5% Confidence level

Risk Sub- module	Risk Type	Capital Requirement (N) - 2024
₩	Reserve Risk	4,772,080,521
Non-Life Underwriting Risk	Premium Risk	828,799,269
ife ng	Catastrophe Risk	1,061,852,022
n-I	Lapse Risk	-
Z S	SCRnl Pre-Div	6,662,731,813
pu∫	SCRnl Div Credit	2,237,737,462
1	SCRnl Post Div	4,424,994,351
	Interest Rate Risk	-
	Equity Risk	-
.∡	Property Risk	189,233,435
Ris	Spread Risk	-
ket	Currency Risk	-
Market Risk	Concentration Risk	-
~	SCRmkt Pre-Div	189,233,435
	SCRmkt Div Credit	-
	SCRmkt Post Div	189,233,435
ty A	Reinsurance credit	22,102,001
Counterparty Default Risk	Investment credit & Debtors	140,799,144
nter	SCRdef Pre-Div	162,901,145
our )efa	SCRdef Div Credit	-
C	SCRdef Post Div	162,901,145
UnDiversified	BSCR	4,777,128,930
Diversification	Credit	216,663,018
Basic SCR		4,560,465,912
Operational Ri	sk	308,405,143
Solvency Cap	ital Requirement	4,868,871,055
Shareholders'	Funds	12,930,476,000
as a % of Sha	reholder's Fund	37.7%

As shown in the table above, the total estimated Economic Capital required in connection with the business profile at 31<sup>st</sup> December 2024 was N4.87billion. This represents 38% of the total shareholders' fund and implies that the company was well capitalized at the review date to meet liabilities (in respect of business on the books) as and at when they arise. Shareholders' fund has continued to increase in the last few years creating a buffer against increased liabilities due to potential adverse impacts.

#### 7 Conclusion and Recommendations

7.1 The company is in a sound Financial Condition as at report date.

We estimate that the economic/risk-based capital required to support the business as of 31st December 2024 as N4.87billion. This is about 62% higher than the current minimum statutory requirement of N3billion. The business, however, has Shareholders' Fund of N12.9billion or 264% of the required Risk Based Capital.

Hence, the business is well capitalized and is likely to meet all obligations as when due.

7.2 The company's Capital Adequacy Ratio (CAR) has increased to 338% in 2024 from 229% in 2023; increase in Free Assets to ca N10.1bn in 2024 from ca N6.9bn in 2023. However, the recapitalization program by the insurance regulator requiring a minimum capital requirement of N15bn, still implies that the company requires an additional capital injection of ca N5bn to meet up with the new capital requirements.

The company's combined ratio sat at 89% in 2024 compared with 72% in 2023. There was a deterioration in business performance at underwriting level considering the current's CR; this is largely associated to a significant increase in expenses with an expense ratio of 58% in 2024.

In contrast, there is a slight increase in claims ratio to 31% in 2024 from 34% in 2023 which was due to extremely high claims experience on the General Accident as a proportion of the earned premiums. The low expense ratio is associated to low expense on Oil & Gas, Motor, and Aviation lines of business in 2024. Since this could be a one-off experience, we continue to recommend that the company reduce the expense whilst monitoring the underwriting performance of all lines of business and ensuring adequate reinsurance protection is in place.

7.3 As the company looks to recapitalize, we advise an in-depth business planning exercise to be carried out to inform capital allocation into profitable business lines.

- 7.4 We thank you for the opportunity to perform a financial condition assessment for the company leading to the production of this report. We hope you will find the report helpful.
- 7.5 We would be happy to discuss the results of these findings and any aspects of the report that might require clarification.

Yours sincerely,



Jonathan Ben Phiri Fellow, Institute and Faculty of Actuaries, UK

For: Logic Professional Services.

#### APPENDIX 1 – RELIANCE & LIMITATION

#### Reliance

In carrying out this work we have relied upon the financial statements, business plans and other information (including discussions with the Management) provided by Sunu Assurances Nigeria Plc. The liability information used was the same as that used in the IFRS actuarial valuation. Where stated in this report we have reviewed this data for reasonableness.

This report takes into account data made available as at 31 December 2024.

In some instances, we were unable to obtain granular information so had to make approximations in certain instances about the composition given knowledge of certain details during the normal end of year valuation process.

#### Limitations

Our understanding is that this is a Board report that could be used to demonstrate regulatory compliance with NAICOM, when requested.

Except with the consent of Logic Professional Services, the report and any written or oral information or advice provided by Logic Professional Services must not be reproduced, distributed or communicated in whole or in part to any other person or relied upon by any other person. The report may be distributed to a third party where there is a legal requirement to do so.

The report may be distributed to the Senior Management of Sunu Assurances Nigeria Plc for the purpose of discussing its contents.

Actuarial estimates are subject to uncertainty from various sources, including changes in claim reporting patterns, claim settlement patterns, judicial decisions, legislation, and economic conditions. It should therefore be expected that the actual emergence of profits will vary, perhaps materially, from any estimates.

This report must be contained in its entirety, as individual sections, if considered in isolation, may be misleading.

The report is subject to the terms and limitations, including limitation of liability, agreed when commencing this exercise.

# APPENDIX 2 – REINSURANCE TREATY PROGRAM

			NO. OF	
CLASS OF BUSINESS	TYPE OF TREATY	RETENTION	LINES	TREATY LIMIT
		=N=		=N=
Fire	Proportional Treaty/Surplus	200,000,000	25	5,000,000,000
Fire	(1st Surplus on a 50% MPL Basis)	400,000,000	25	10,000,000,000
Terrorism Risk	Proportional Treaty/Surplus	40,000,000	15	600,000,000
Fire Working Excess of Loss	Non-Proportional Treaty	100,000,000		100,000,000
Engineering	Proportional Treaty/Surplus	100,000,000	30	3,000,000,000
Marina Cana Samulaa	Description of Toronto	<b>50,000,000</b>	20	1 500 000 000
Marine Cargo Surplus	Proportional Treaty	50,000,000	30	1,500,000,000
Marine Cargo Catastrophe				
XL	Non-Proportional Treaty	60,000,000		300,000,000
	Tron Troportional Tromy	00,000,000		200,000,000
General Accident Surplus	Proportional Treaty	25,000,000	25/35	875,000,000
•				
PA/GPA Catastrophe				
Excess of Loss	Non-Proportional Treaty	25,000,000		40,000,000
Marine Hull Surplus	Proportional Treaty	35,000,000	27	945,000,000
Quota Share Treaty	Proportional Treaty	40,000,000		60,000,000
Motor Excess of Loss	Non-Proportional Treaty:			
Motor Execss of Eoss	1st Layer	5,000,000		15,000,000
	2nd Layer	20,000,000		30,000,000
Motor/WC/EL/TPL/PL		40,000,000		500,000,000
Aviation Excess of Loss	Non-Proportional Treaty:			
	Hull:1st Layer	USD250,000		USD750,000
	:2nd Layer	USD1,000,000		USD2,000,000
	Liability:	USD250,000		USD14,750,000
0 11 0 0 777		************		************
Oil & Gas XL	Non-Proportional Treaty	USD500,000		USD2,750,000
	LINE SLIP - MERIDIAN RE	USD500,000		USD357,000,000
	LINE SLIP - GALLAGHER RE	USD500,000		USD510,000,000
	LINE SLIP - MKE RE	USD500,000		USD350,000,000
	LINE SLIP - HOWDEN RE	USD500,000		USD515,000,000
	LINE STLIP -AHJ BROKERS	USD500,000		USD257,500,000
	LINE STLIP -ES RISKS	USD500,000		USD150,000,000

# APPENDIX 3A – REVENUE ACCOUNTS - BASE SCENARIO

		202	4 PROJECTION	NS ASSUMIN	G FULL BUS	INESS PLAN				
				202	24					
REVENUE & EXPENSES	Bond	Oil & Gas	Engineering	Motor	Aviation	Marine	Fire	General Accident	Total	2023
INCOME										
Gross Written Premium	-	2,286,000	495,000	1,584,000	450,000	945,000	2,250,000	990,000	9,000,000	8,161,402
Gross Earned Premium	-	2,052,896	444,869	1,430,157	449,435	768,964	2,166,437	818,498	8,131,257	7,427,223
Reinsurance Cost	-	(705,617)	(179,753)	(83,961)	(133,428)	(286,889)	(947,862)	(240,233)	(2,577,742)	(2,483,477)
Net Premium Income	-	1,347,279	265,117	1,346,196	316,007	482,075	1,218,575	578,266	5,553,514	4,932,835
Commission income	-	5,300	47,992	13,822	(12)	74,735	211,025	65,507	418,368	364,661
Net Underwriting income	-	1,352,579	313,109	1,360,018	315,995	556,810	1,429,600	643,772	5,971,883	5,297,496
EXPENSES										
Gross claims incurred	-	(657,843)	(187,109)	(692,323)	(77,717)	(278,946)	(1,549,975)	(539,331)	(3,983,244)	(2,669,162)
Claims recoveries	-	789,729	120,763	114,795	(96)	130,680	1,046,978	207,971	2,410,821	1,002,275
Net claims incurred	-	131,886	(66,346)	(577,528)	(77,812)	(148,266)	(502,997)	(331,359)	(1,572,424)	(1,666,886)
Underwriting expenses										
Commision paid	-	(440,859)	(95,462)	(190,923)	(54,743)	(182,245)	(433,916)	(193,875)	(1,592,023)	(1,406,638)
Maintenance expense	-	(56,687)	(14,834)	(55,851)	(19,347)	(41,188)	(96,723)	(22,753)	(307,384)	(400,629)
Total Underwriting Expenses	-	(497,546)	(110,295)	(246,774)	(74,090)	(223,433)	(530,639)	(216,629)	(1,899,406)	(1,807,267)
Total Expenses	-	(365,660)	(176,641)	(824,303)	(151,902)	(371,699)	(1,033,637)	(547,988)	(3,471,830)	(3,474,154)
Underwriting profit	-	986,919	136,468	535,715	164,092	185,111	395,963	95,784	2,500,053	1,823,342

2025 PROJECTIONS ASSUMING FULL BUSINESS PLAN												
	2025											
REVENUE & EXPENSES								General				
	Bond	Oil & Gas	Engineering	Motor	Aviation	Marine	Fire	Accident	Total	2024		
INCOME												
Gross Written Premium	-	2,317,519	632,051	2,106,835	526,709	1,264,101	2,422,860	1,264,101	10,534,176	9,000,000		
Gross Earned Premium	-	2,297,820	544,035	1,764,245	472,326	1,048,038	2,306,480	1,077,315	9,510,258	8,131,257		
Reinsurance Cost	-	(669,447)	(252,904)	(120,218)	(172,015)	(379,409)	(1,001,580)	(329,257)	(2,924,831)	(2,577,742)		
Net Premium Income	-	1,628,373	291,131	1,644,027	300,311	668,629	1,304,900	748,058	6,585,428	5,553,514		
Commission income	-	5,028	67,523	19,791	(16)	98,837	222,984	89,782	503,929	418,368		
Net Underwriting income	-	1,633,400	358,654	1,663,818	300,295	767,465	1,527,884	837,840	7,089,357	5,971,883		
EXPENSES												
Gross claims incurred	-	(736,328)	(228,818)	(854,052)	(81,675)	(380,182)	(1,650,169)	(709,872)	(4,641,095)	(3,983,244)		
Claims recoveries	-	883,949	147,682	141,611	(100)	178,107	1,114,657	273,734	2,739,639	2,410,821		
Net claims incurred	-	147,621	(81,135)	(712,440)	(81,776)	(202,075)	(535,512)	(436,138)	(1,901,456)	(1,572,424)		
Underwriting expenses										-		
Commision paid	-	(446,937)	(121,892)	(253,942)	(64,074)	(243,784)	(467,253)	(247,554)	(1,845,435)	(1,592,023)		
Maintenance expense	-	(63,450)	(18,140)	(68,898)	(20,333)	(56,136)	(102,976)	(29,948)	(359,881)	(307,384)		
Total Underwriting Expenses	-	(510,388)	(140,032)	(322,840)	(84,407)	(299,920)	(570,228)	(277,502)	(2,205,316)	(1,899,406)		
Total Expenses	-	(362,766)	(221,168)	(1,035,280)	(166,183)	(501,995)	(1,105,740)	(713,640)	(4,106,772)	(3,471,830)		
Underwriting profit	-	1,270,634	137,487	628,538	134,112	265,470	422,144	124,200	2,982,585	2,500,053		

2026 PROJECTIONS ASSUMING FULL BUSINESS PLAN										
REVENUE & EXPENSES	Bond	Oil & Gas	Engineering	Motor	Aviation	Marine	Fire	General Accident	Total	2025
INCOME										
Gross Written Premium	-	2,665,146	726,858	2,422,860	605,715	1,514,288	2,725,718	1,453,716	12,114,302	10,534,176
Gross Earned Premium	-	2,447,882	665,972	2,215,783	979,126	1,344,887	2,521,815	1,324,503	11,499,967	9,510,258
Reinsurance Cost	-	(799,875)	(282,988)	(133,765)	(196,631)	(439,498)	(1,144,984)	(366,095)	(3,363,835)	(2,924,831)
Net Premium Income	-	1,648,007	382,984	2,082,018	782,494	905,389	1,376,831	958,409	8,136,132	6,585,428
Commission income	-	6,007	75,555	22,021	(18)	114,490	254,910	99,827	572,793	503,929
Net Underwriting income	-	1,654,014	458,539	2,104,040	782,476	1,019,879	1,631,742	1,058,235	8,708,925	7,089,357
EXPENSES										-
Gross claims incurred	-	(784,415)	(280,103)	(1,072,637)	(169,311)	(487,865)	(1,804,230)	(872,751)	(5,471,312)	(4,641,095)
Claims recoveries	-	941,676	180,783	177,855	(208)	228,554	1,218,722	336,542	3,083,923	2,739,639
Net claims incurred	-	157,262	(99,320)	(894,782)	(169,520)	(259,312)	(585,508)	(536,210)	(2,387,389)	(1,901,456)
Underwriting expenses										-
Commision paid	-	(513,978)	(140,176)	(292,033)	(73,686)	(292,033)	(525,659)	(284,687)	(2,122,251)	(1,845,435)
Maintenance expense	-	(67,594)	(22,206)	(86,532)	(42,150)	(72,036)	(112,589)	(36,820)	(439,927)	(359,881)
Total Underwriting Expenses	-	(581,572)	(162,382)	(378,565)	(115,835)	(364,069)	(638,249)	(321,506)	(2,562,177)	(2,205,316)
Total Expenses	-	(424,310)	(261,702)	(1,273,346)	(285,355)	(623,380)	(1,223,756)	(857,716)	(4,949,566)	(4,106,772)
Underwriting profit	-	1,229,704	196,837	830,694	497,121	396,498	407,985	200,520	3,759,359	2,982,585

# APPENDIX 3B – REVENUE ACCOUNTS - 20% INCREASE IN LOSS RATIO

		2024											
REVENUE & EXPENSES	Bond	Oil & Gas	Engineering	Motor	Aviation	Marine	Fire	General Accident	Total	2023			
INCOME													
Gross Written Premium	-	2,286,000	495,000	1,584,000	450,000	945,000	2,250,000	990,000	9,000,000	8,161,402			
Gross Earned Premium	-	2,052,896	444,869	1,430,157	449,435	768,964	2,166,437	818,498	8,131,257	7,427,223			
Reinsurance Cost	-	(881,151)	(229,059)	(105,783)	(172,725)	(359,667)	(1,204,082)	(307,301)	(3,259,768)	(2,483,477)			
Net Premium Income	-	1,171,745	215,810	1,324,373	276,710	409,298	962,355	511,197	4,871,488	4,932,835			
Commission income	-	6,618	61,157	17,415	(16)	93,694	268,068	83,795	530,730	364,661			
Net Underwriting income	-	1,178,363	276,967	1,341,788	276,694	502,991	1,230,423	594,992	5,402,218	5,297,496			
EXPENSES													
Gross claims incurred	-	(789,411)	(212,795)	(830,788)	(93,260)	(334,735)	(1,859,970)	(647,197)	(4,768,157)	(2,669,162)			
Claims recoveries	-	1,137,210	164,809	165,305	(138)	188,179	1,507,648	299,479	3,462,492	1,002,275			
Net claims incurred	-	347,799	(47,986)	(665,483)	(93,398)	(146,556)	(352,322)	(347,718)	(1,305,665)	(1,666,886)			
Underwriting expenses													
Commision paid	-	(440,859)	(95,462)	(190,923)	(54,743)	(182,245)	(433,916)	(193,875)	(1,592,023)	(1,406,638)			
Maintenance expense	-	(68,025)	(17,801)	(67,021)	(23,217)	(49,425)	(116,068)	(27,304)	(368,861)	(400,629)			
Total Underwriting Expenses	-	(508,883)	(113,262)	(257,945)	(77,960)	(231,670)	(549,984)	(221,179)	(1,960,883)	(1,807,267)			
Total Expenses	-	(161,085)	(161,248)	(923,428)	(171,357)	(378,226)	(902,306)	(568,897)	(3,266,548)	(3,474,154)			
Underwriting profit	-	1,017,278	115,719	418,360	105,336	124,765	328,117	26,095	2,135,671	1,823,342			

2025 PROJECTIONS ASSUMING FULL BUSINESS PLAN										
REVENUE & EXPENSES	Bond	Oil & Gas	Engineering	Motor	Aviation	Marine	Fire	General Accident	Total	2024
INCOME										
Gross Written Premium	-	2,317,519	632,051	2,106,835	526,709	1,264,101	2,422,860	1,264,101	10,534,176	9,000,000
Gross Earned Premium	-	2,297,820	544,035	1,764,245	472,326	1,048,038	2,306,480	1,077,315	9,510,258	8,131,257
Reinsurance Cost	-	(803,337)	(303,485)	(144,261)	(206,418)	(455,291)	(1,201,896)	(395,109)	(3,509,797)	(3,259,768)
Net Premium Income	-	1,494,483	240,550	1,619,983	265,908	592,747	1,104,584	682,206	6,000,461	4,871,488
Commission income	-	6,033	81,028	23,749	(19)	118,604	267,581	107,738	604,715	530,730
Net Underwriting income	-	1,500,517	321,578	1,643,733	265,888	711,351	1,372,165	789,945	6,605,176	5,402,218
EXPENSES										
Gross claims incurred	-	(883,593)	(260,228)	(1,024,862)	(98,010)	(456,218)	(1,980,202)	(851,847)	(5,554,961)	(4,768,157)
Claims recoveries	-	1,272,886	201,547	203,920	(145)	256,473	1,605,106	394,177	3,933,964	3,462,492
Net claims incurred	-	389,293	(58,682)	(820,942)	(98,155)	(199,745)	(375,097)	(457,670)	(1,620,997)	(1,305,665)
Underwriting expenses										-
Commision paid	-	(446,937)	(121,892)	(253,942)	(64,074)	(243,784)	(467,253)	(247,554)	(1,845,435)	(1,592,023)
Maintenance expense	-	(76,140)	(21,769)	(82,678)	(24,399)	(67,363)	(123,571)	(35,938)	(431,857)	(368,861)
Total Underwriting Expenses	-	(523,078)	(143,661)	(336,619)	(88,474)	(311,147)	(590,823)	(283,491)	(2,277,293)	(1,960,883)
Total Expenses	-	(133,784)	(202,342)	(1,157,561)	(186,629)	(510,892)	(965,920)	(741,161)	(3,898,290)	(3,266,548)
Underwriting profit		1,366,732	119,236	486,172	79,260	200,459	406,245	48,784	2,706,887	2,135,671

2026 PROJECTIONS ASSUMING FULL BUSINESS PLAN										
REVENUE & EXPENSES	Bond	Oil & Gas	Engineering	Motor	Aviation	Marine	Fire	General Accident	Total	2025
INCOME										
Gross Written Premium	-	2,665,146	726,858	2,422,860	605,715	1,514,288	2,725,718	1,453,716	12,114,302	10,534,176
Gross Earned Premium	-	2,447,882	665,972	2,215,783	979,126	1,344,887	2,521,815	1,324,503	11,499,967	9,510,258
Reinsurance Cost	-	(959,850)	(339,586)	(160,518)	(235,958)	(527,397)	(1,373,981)	(439,313)	(4,036,602)	(3,509,797)
Net Premium Income	-	1,488,032	326,386	2,055,266	743,168	817,489	1,147,834	885,190	7,463,365	6,000,461
Commission income	-	7,209	90,666	26,426	(22)	137,388	305,893	119,792	687,352	604,715
Net Underwriting income	-	1,495,241	417,052	2,081,691	743,146	954,877	1,453,727	1,004,982	8,150,717	6,605,176
EXPENSES										-
Gross claims incurred	-	(941,297)	(318,554)	(1,287,164)	(203,174)	(585,438)	(2,165,076)	(1,047,302)	(6,548,005)	(5,554,961)
Claims recoveries	-	1,356,014	246,720	256,111	(300)	329,117	1,754,960	484,620	4,427,242	3,933,964
Net claims incurred	-	414,716	(71,835)	(1,031,053)	(203,474)	(256,321)	(410,116)	(562,682)	(2,120,763)	(1,620,997)
Underwriting expenses										-
Commision paid	-	(513,978)	(140,176)	(292,033)	(73,686)	(292,033)	(525,659)	(284,687)	(2,122,251)	(1,845,435)
Maintenance expense	-	(81,113)	(26,648)	(103,838)	(50,580)	(86,443)	(135,107)	(44,183)	(527,912)	(431,857)
Total Underwriting Expenses	-	(595,091)	(166,823)	(395,871)	(124,265)	(378,476)	(660,766)	(328,870)	(2,650,163)	(2,277,293)
Total Expenses	-	(180,374)	(238,658)	(1,426,924)	(327,739)	(634,797)	(1,070,883)	(891,552)	(4,770,926)	(3,898,290)
Underwriting profit	-	1,314,867	178,395	654,767	415,407	320,080	382,844	113,430	3,379,791	2,706,887

# APPENDIX 4 – COMBINED RATIO TABLE

Item	Voor	Bond	Oil & Gas	Engineering	Motor	Aviation	Marine	Fire	General Accident	Total
Gross Written Premiums	2015	106,224 114,433	620,499 512,987	88,256	621,014	Aviation	360,290	335,189 290,521	344,575	2,476,047
	2016 2017	34,862	739,815	68,677 122,370	494,109 502,407	-	273,472 504,268	416,781	259,879 352,267	2,014,077
	2018 2019	228 940	601,780 451,746	141,767 131,744	446,498 451,350	-	496,843 285,937	412,257 496,155	403,009 422,981	2,502,382 2,240,853
	2020 2021	1 1	730,725 1,293,134	224,163 176,382	632,643 680,882	173,081 440,441	378,874 530,661	658,161 1,119,778	472,818 629,866	3,270,464 4,871,144
	2022 2023	1 1	1,297,806 2,180,115	249,335 426,730	949,952 1,351,911	365,332 512,209	689,970 724,756	1,444,996 2,165,432	776,514 800,249	5,773,905 8,161,402
Reinsurance Cost	2015	(29,456)	(451,297)	(44,152)	(74,054)	-	(169,030)	(152,429)	(68,700)	(989,118)
	2016 2017	(50,721) (22,549)	(139,989) (205,479)	(23,497) (29,865)	(153,682) (46,298)	-	(97,396) (125,949)	(136,462) (215,751)	(91,710) (97,519)	(693,457) (743,411)
	2018 2019	(8,512)	(195,207) (109,648)	(53,140) (65,434)	(50,090) (25,941)	-	(205,546) (136,782)	(208,542) (239,098)	(141,959) (112,229)	(862,996)
	2020 2021	(360)	(213,932) (375,981)	(64,083) (132,489)	(66,774) (26,146)	(79,480) (98,070)	(96,361) (132,647)	(302,663) (365,108)	(104,351) (198,835)	(928,004) (1,329,275)
	2022	-	(429,878) (513,327)	(91,325) (199,247)	(62,285) (77,044)	(121,836) (188,144)	(182,561) (229,724)	(605,481) (994,229)	(235,303) (292,674)	(1,728,670) (2,494,388)
		-			` / - /	(188,144)				
Gross Earned Premium	2015 2016	123,600 117,189	785,081 523,479	126,225 64,601	713,534 475,245	-	421,544 270,125	444,471 250,096	341,074 256,041	2,955,530 1,956,775
	2017 2018	63,010 12,967	701,744 639,683	100,315 137,814	511,626 481,499	-	474,329 510,392	421,539 422,199	350,708 397,285	2,623,272 2,601,839
	2019 2020	470 728	429,556 709,721	146,264 149,200	445,023 640,513	147,312	306,833 325,851	455,236 646,105	398,540 465,924	2,181,922 3,085,352
	2021 2022	1 1	1,189,229 1,228,121	196,016 220,943	615,473 793,589	405,254 392,332	524,242 664,711	989,603 1,304,943	596,866 768,985	4,516,683 5,373,624
	2023	-	1,753,532	392,709	1,296,612	467,064	680,252	2,099,147	737,906	7,427,223
Net Earned Premium	2015	94,145	333,783	82,073	639,480	_	252,515	292,042	272,374	1,966,412
Net Earned Fremium	2016	66,468	383,490	41,104	321,563	-	172,729	113,634	164,331	1,263,319
	2017 2018	40,461 4,455	496,265 444,476	70,450 84,674	465,328 431,409	-	348,380 304,845	205,788 213,657	253,189 255,327	1,879,861 1,738,842
	2019 2020	351 367	319,908 495,788	80,830 85,116	419,081 573,739	67,832	170,052 229,490	216,139 343,441	286,312 361,574	1,492,673 2,157,348
	2021 2022	-	813,248 798,242	63,527 129,618	589,327 731,305	307,184 270,496	391,595 482,150	624,496 699,462	398,031 533,682	3,187,408 3,644,954
	2023	-	1,240,205	193,462	1,219,568	278,921	450,528	1,104,918	445,232	4,932,835
Incurred Claims (Gross)	2015 2016	1,133 (52,183)	8,512 (265,589)	(26,297) (11,371)	(278,209) (206,835)	-	(100,043) (210,013)	(204,888) (473,388)	(60,212) (67,810)	(660,005) (1,287,190)
	2017 2018	1,382 (295,611)	(635,124) (956,735)	(22,312) (98,248)	(141,470) (258,067)	-	(155,413) (339,853)	(458,566) 15.535	(124,857) (176,975)	(1,536,358) (2,109,953)
	2019 2020	41,208 1,028	(46,545) 161,302	13,464 (38,786)	(123,498) (258,934)		(53,242) (117,401)	(97,653) (405,408)	(52,905) (207,285)	(319,171) (865,483)
	2021	1,028	(98,035)	(122,548)	(384,494)	(48,526)	(90,095)	(1,645,826)	(393,255)	(2,782,779)
	2022 2023	(221,398)	(78,396) (97,028)	(105,097) (125,602)	(433,046) (467,266)	(30,732) (149,618)	(291,344) (324,471)	(333,127) (661,795)	(335,905) (804,765)	(2,851,944)
Incurred Claims (Net)	2015	1,787	53,138	(17,375)	(271,459)	-	(77,723)	(150,735)	(10,983)	(473,351)
	2016 2017	(27,177) (4,508)	(332,624) (101,086)	(12,869) 10,547	(133,859) (112,074)	-	(195,181) (41,775)	(287,905) (271,785)	(24,914) (41,687)	(1,014,528) (562,368)
	2018 2019	(77,911) 27,814	(246,356) (88,632)	(57,538) (7,219)	(240,920) (96,737)	-	(92,931) (31,464)	217,649 (87,376)	(111,968) (9,477)	(609,975) (293,091)
	2020 2021	1,028	20,849 32,025	(8,072) (22,186)	(208,755) (345,358)	(48,526)	(14,654) (59,552)	(64,994) (304,881)	(118,007) (110,201)	(392,606) (858,679)
	2022 2023	- (221,291)	(72,195) 147,201	(42,844) (77,810)	(352,118) (382,479)	(30,732)	(172,972) (241,624)	(261,662) (109,385)	(281,556) (618,764)	(1,214,079) (1,655,613)
Commission Received	2015	4.639	1.313	5.484	5.893	(101,101)	11.350	34.651	18,327	81.658
COMMISSION RECEIVED	2016	12,565	9,132	5,895	9,385	-	17,049	41,416	23,193	118,636
	2017 2018	7,375 1,856	5,942 1,961	7,944 21,359	6,625 6,575	-	21,838	49,378 30,894	23,910 32,244	123,011 124,928
	2019 2020	70 113	781 3,898	16,461 15,558	5,629 8,208	-	27,733 25,220	42,402 73,438	23,579 29,374	116,655 155,809
	2021 2022	-	3,411 1,067	33,720 30,954	7,073 8,135	-	34,785 55,980	84,034 131,245	54,341 76,298	217,364 303,679
	2023	-	137	46,173	10,090	(175)	48,564	199,807	60,065	364,661
Underwriting expenses	2015 2016	(22,978) (22,980)	(174,243) (136,788)	(26,818) (16,706)	(47,222) (122,411)	-	(68,907) (57,474)	(96,315) (73,780)	(77,103) (61,316)	(513,585) (491,455)
	2017 2018	(11,851) (3,232)	(164,881) (173,483)	(24,286) (35,323)	(74,288) (91,865)	-	(110,144) (123,108)	(92,320) (107,231)	(82,334) (99,270)	(560,104) (633,513)
	2019 2020	(35) (145)	(117,990) (182,679)	(35,747) (44,601)	(81,973) (116,696)	(46,072)	(77,179) (87,785)	(121,581) (171,819)	(100,224) (116,289)	(534,729) (766,084)
	2021 2022	-	(274,607) (296,465)	(48,150) (53,096)	(105,657) (134,986)	(96,310) (92,773)	(130,606) (158,448)	(265,535) (330,747)	(144,826) (178,239)	(1,065,691) (1,244,754)
	2023	-	(467,797)	(74,817)	(206,886)	(112,295)	(164,253)	(544,213)	(180,161)	(1,750,423)
Management expenses	2015	-	-	-	-	-	-	-	-	(1,832,542)
	2016 2017	-	-	-	-	-	-	-	-	(2,054,218) (1,253,764)
	2018 2019	-	-	-	-	-	-	-		(1,418,214) (1,489,725)
	2020 2021	-	-		-	-	-	-	-	(1,408,879) (1,639,378)
	2022 2023	-		= =		-	-	-		(1,673,543) (2,470,099)
Claims Ratio (Net)	2015	2%	16%	21%	42%	0%	31%	52%	4%	24%
	2016 2017	41% 11%	87% 20%	31% 15%	42% 24%	0% 0%	113% 12%	253% 132%	15% 16%	80% 30%
	2018	1749% 7924%	55% 28%	68% 9%	56% 23%	0%	30% 19%	-102% 40%	44% 3%	35% 20%
	2020	-280% 0%	-4% -4%	9% 35%	36% 59%	0% 16%	6% 15%	19% 49%	33% 28%	18% 27%
	2022	0%	9%	33%	48%	11%	36%	37%	53%	33%
	2023	0%	-12%	40%	31%	54%	54%	10%	139%	34%
Expense Ratio	2015 2016	24% 16%	102% 34%	48% 24%	8% 33%	0% 0%	30% 23%	34% 21%	21% 23%	152% 184%
	2017 2018	36% -17%	30% 42%	18% 16%	15% 22%	0% 0%	23% 32%	21% 37%	23% 26%	88% 118%
	2019 2020	-4% 5%	34% 54%	29% 40%	18% 71%	0% 36%	33% 55%	31% 49%	25% 66%	123% 86%
	2021 2022	0% 0%	42% 38%	37% 42%	59% 47%	47% 45%	55% 50%	45% 38%	49% 49%	70% 65%
	2023	0%	28%	53%	19%	35%	43%	64%	53%	38%
Combined Ratio	2015 2016	43% 33%	127% 57%	76% 45%	12% 55%	0% 0%	46% 41%	60% 43%	41% 43%	176% 264%
	2017	69%	51%	36%	26%	0%	44%	42%	45%	118%
	2018 2019	1067% 8%	65% 55%	38% 54%	37% 31%	0% 0%	54% 55%	60% 51%	48% 45%	153% 143%
	2020 2021 2022	5% 0% 0%	76% 62% 96%	57% 62% 109%	86% 71% 65%	55% 67% 112%	74% 75% 104%	71% 64% 113%	88% 69% 113%	104% 97% 98%

### \*Combined ratios:

- The combined ratios by line of business exclude management expenses.
- The combined ratios in the total column include management expenses and are a true reflection of the profitability of the business.

# APPENDIX 5 – ECONOMIC CAPITAL RESULTS AT 95% CONFIDENCE LEVEL

At a lower confidence level of 95%, the total economic capital requirement reduces to  $\aleph$ 2.53billion which represents 26.1% of the shareholder funds as at December 31 2024.

Table 5.1 - Economic Capital: SCR at 99.5% Confidence level

Risk Sub- module	Risk Type	Capital Requirement (N) - 2023	
Non-Life Underwriting Risk	Reserve Risk	2,394,560,363	
	Premium Risk	460,431,230	
	Catastrophe Risk	496,300,920	
	Lapse Risk	-	
N S	SCRnl Pre-Div	3,351,292,514	
þuſ	SCRnl Div Credit	1,149,438,340	
7	SCRnl Post Div	2,201,854,174	
	Interest Rate Risk	-	
	Equity Risk	-	
*	Property Risk	109,004,513	
Ris	Spread Risk	-	
ket	Currency Risk	-	
Market Risk	Concentration Risk	-	
~	SCRmkt Pre-Div	109,004,513	
	SCRmkt Div Credit	-	
	SCRmkt Post Div	109,004,513	
ty K	Reinsurance credit	19,228,120	
Counterparty Default Risk	Investment credit & Debtors	122,491,302	
nter	SCRdef Pre-Div	141,719,422	
our )efa	SCRdef Div Credit	-	
O	SCRdef Post Div	141,719,422	
Undiversified BSCR		2,452,578,108	
Diversification Credit		146,086,459	
Basic SCR		2,306,491,650	
Operational Risk		223,073,435	
Solvency Capital Requirement		2,529,565,084	
, , ,			
Shareholders'Funds		9,703,869,000	
as a % of Shareholder's Fund		26.1%	

# APPENDIX 6 – ECONOMIC CAPITAL METHODOLOGY & STRESS LEVEL DERIVATION.

This appendix provides a detailed explanation on how each of the risks were modelled including stress levels derivation. Worthy to note that these comprehensive explanations are provided whether or not SUNU is exposed to these risks.

#### Market Risks

Market risk is defined as the potential for adverse change in the net assets (Market value of assets less Market value of liabilities) due to movements in market factors such as equity prices, interest rates, property prices and foreign exchange.

The company's insurance funds are mainly invested in money market instruments and hence have a very low exposure to market risks.

Credit spread and liquidity risks have not been explicitly calculated for the following reasons:

- Credit spread the company has no corporate bond holdings as part of assets backing technical provisions and hence no credit risk exposure.
- Liquidity risk this is a difficult risk to quantify within the economic calculations. The Company is recommended to ensure that a robust Liquidity management policy is in place in order to be able to monitor this risk (not sure this has been executed as previously advised).

The market risk capital requirement  $C_{Mkt}$  for each risk was calculated using the following formula:

$$C_{Mkt} = (A_{Mkt} - A_0)$$

where,

 $C_{Mkt}$  – capital calculation for market risk

 $A_{Mkt}$  - stressed assets value

 $A_0$  base market value of assets

The stresses applied for the market risk module were as follows:

Table 6.1 – Stress Levels by Asset Class

Asset class	Stress level @ 95%	Stress level @ 99.5%
Equity	29.10%	41.50%
Property	30.60%	39.50%
Interest rate	24.00%	35.00%
Currency	29.00%	13.00%

The above stresses were obtained by using a combination of fitting historical data of various market indices (were available) to find the appropriate stress level and benchmarking against Solvency II widely used stress levels.

The details of the derivation and computation are contained below for each sub-risk module.

# **Equity Risk**

This is the sensitivity of assets, liabilities and financial investments to fluctuations in the level or volatility of the market prices for equities.

The company is invested in both quoted and unquoted equities. Both types of equities were stress tested.

The level of stress was derived by considering the historical distribution of the total return Nigerian Stock Exchange ("NSE") index and fitting a distribution to determine the stress level at the various confidence levels.

We fitted the NSE historical index values from January 1985 to December 2020. The normal distribution was a good fit for the data. Using the normal distribution, we determined stress levels of 29% and 41% for Confidence levels of 95% and 99.5% respectively.

We also checked how frequently historical annual returns have fallen or been close to the 29.1% and 41.5% levels. In 2008, the stock index fell by about 46% and in 2011 also fell by about 23%.

Both the quoted and unquoted equities were assumed to be similarly affected by any declines in stock market. This assumption would need to be revisited in the next assessment.

## **Property Risk**

This is the sensitivity of assets, liabilities and financial investments to fluctuations in the level or volatility of the market prices for properties.

The main downside risk is the fall in property values.

The local market level of stress for this risk was difficult to obtain given the non-existence of property indices or well defined historical property values in the local market.

In order to derive an appropriate stress, we assumed the property returns would follow closely equity returns but slightly better and less risky. This is a unique feature of the local market. The recent past has shown m positive performance of property investments whilst equity returns have been negative in some instances.

We then assumed annual property returns of 15% with standard deviation of 9.5%. Assuming a normal distribution of returns, we then calculated the relevant stress levels at 95%, 99.5%, 99.75% and 99.95% confidence levels as shown in the table 3 above respectively.

To support the notion of better property returns is the fact that the company is invested in properties mainly in the Lagos State. Property values have been on an increase over the last 20

years, so it is hoped that the trend will continue in the near to medium term. However, this assumption will continue to be monitored in the future computation of economic capital.

#### **Interest Rate Risk**

Interest rate risk is caused by the sensitivity of the value of any assets, liabilities and financial investments to fluctuations in the term structure of interest rates or interest rate volatility, whether valued by mark-to-model or mark-to-market techniques.

Stresses were determined by constructing the term structure of interest rates by referencing the 12 month, 3 year, 5 year, 7 year, 10 year and 20 year yields from the Federal Government Bonds.

The historical returns were fitted to distributions to determine the best fit distribution. The Uniform and Normal distributions were both good fit. The normal distribution was used instead in order to apply some consistency with the other market risk stresses.

As the local term structure of interest rates show a flat yield curve; a flat stress level was applied to bonds of varying durations.

The stresses used are shown in table 3 above at various confidence levels to all bond yields of varying duration according to the Company bond holdings.

The stressed yields were applied using the formula: current yield x (1+Upward stress) OR current yield x (1+Downward stress).

The capital requirement was then determined by adopting the stress level (between the upward and the downward stress) that resulted in a higher capital requirement i.e. Interest Rate capital requirement = Max {0; Upward stress capital; Downward stress capital}

# Overall Market Risk Capital

The overall market risk capital was then derived by combining the equity, property and interest rate risk capital using the suggested correlation matrix below.

$$C_{Mkt} = \sqrt{\sum CorrMkt_{ij} * C_{Mkt_i} * C_{Mkt_j}}$$

where  $C_{Mkt}$  overall market risk capital calculation including equity, property and interest rate

 $C_{Mkt_i}$  – capital for i-th risk (i could be any of the three risks)

 $C_{Mkt_i}$  - capital for j-th risk (j could be any of the three risks)

The correlation matrix used is shown in Appendix 7

#### Non-Life Insurance Risks

The non-life insurance risks modelled were:

- Reserving risk
- Premium risk
- Catastrophe risk

## Reserving Risk

This is one of the sources of underwriting risk for general insurance.

Reserve risk results from fluctuations in the timing and amount of claim settlements.

The reserve risk methodology was as follows:

 We fitted a log-normal distribution (best fit) to the historical link ratios for each claims development year

- For each accident year, claims were projected to the ultimate position using a factor derived from the parameters of the fitted model and randomly generated numbers
- We then used the bootstrap approach to derive a distribution of ultimate claims
- Reserve capital is the difference between the 95<sup>th</sup>-percentile of the distribution and the 50<sup>th</sup> percentile (Best estimate)
- Because the volume of data available was not credible enough for the bootstrap approach, capital values for Bond and Oil & Gas were calculated using the expected ultimate loss ratio method. The VaR approach was used in calculating the required capital at various confidence levels.

#### Premium Risk

This is another source of underwriting risk for general insurance.

Premium risk results from fluctuations in the timing, frequency and severity of insured events. It relates to the unexpired risks on existing contracts. Premium risk includes the risk that premium provisions turn out to be insufficient to compensate claims or need to be increased.

The premium risk methodology was as follows:

- Average loss ratios were derived from the expected loss ratio in the business plan (pricing)
- Historical loss ratios were investigated and deviations from the mean studied.
- The normal distribution was fit (which was the best fit) to the deviations
- The VaR approach was then used to compute the capital requirement at 95% confidence level.

## Catastrophe risk

This is Catastrophe for the general insurance business.

It covers mainly high severity and low frequency catastrophic events e.g. floods, hurricanes, large accidents impacting on all general insurance lines of business insured by the Company.

There have been no major catastrophic events in Nigeria recently hence the data to use in determining the risk capital was scarce.

The catastrophe risk methodology was therefore as follows:

- The 2018 loss ratios were increased by 500% for all lines of business to resemble a catastrophic-like event
- A 0.5% probability of occurrence was applied to determine the final capital requirement.

#### Credit Risk

Credit risk arises as a result of the unexpected default, or deterioration in credit standing, of an insurer's counterparties or debtors.

The scope of the calculation under this risk module covered possible defaults by banks; where cash and cash equivalents are held by the Company, defaults by reinsurers compromising reinsurance recoveries and the inability by debtors to pay their dues.

The following exposures to counterparties were used:

- Banks  $\rightarrow$  cash and cash equivalent holdings
- Reinsurers → estimated reinsurance recoveries over the next 12 months
- Debtor  $\rightarrow$  amounts owed.

The expected losses given default were calculated using the latest credit ratings and associated probabilities of default for the different counterparties. A combination of local ratings agencies' and the S&P default rates were used for the bank holdings as per the following table:

Table 5.4 – Default Probability by Counterparty's Rating

Rating Scale	Default Probability
AAA	0.01%
AA+	0.01%
AA	0.02%

AA-	0.03%
A+	0.06%
A	0.09%
A-	0.11%
BBB+	0.16%
BBB	0.22%
BBB-	0.39%
BB+	0.54%
BB	0.81%
BB-	1.39%
B+	2.54%
В	5.37%
В-	8.72%
Unrated	26.53%

The above default rates were applied to both the banks and reinsurers' counterparties to the Company.

The formula used was: Estimated exposure x Probability of Default.

# **Operational Risk**

This is the risk of loss arising from inadequate or failed internal processes, or from personnel and systems, or from external events.

Operational risk is generally a material risk and one of the major causes of organizational failure.

There are several approaches used to assess Operational risk namely;

- Basic indicators or some Standard Formula this is a simpler approach and largely defined by regulatory bodies. It is transparent and a well-known approach.
- Scenario approach qualitative scenario assessments of the operational risks as defined by management through the risk heat map are transformed into quantitative assessments to determine the overall operational risk capital
- Statistical or Loss Distribution Approach this uses a lot of statistics. The amount of
  possible losses and frequency of losses are modelled separately and then combined to

determine the overall capital requirement. This approach relies on the availability of credible historical and forward-looking data.

■ The Structural or Causal approach — this is the most complex and recently researched approach. It also relies on understanding the interdependencies across risks in addition to the data availability.

We adopted the standard formula approach due to limited quantity of data available. The approach took into account the earned premium, technical provisions and Base capital calculated before operational risk.

The formula used to compute the capital requirement was as follows:

$$C_{op} = \min\{0.3 * CR_{OP}, BOp\} + 0.25 \times Exp_{nl}$$

 $Exp_{nl}$  is the amount of annual expenses incurred during the previous 12 months in respect of non-linked business

 $CR_{op}$  is the preliminary capital required before allowing operational risk and, for the risk requirements it is defined as:

$$CR Op = \sum (C_{ins} + C_{Mkt} + C_{Credit})$$

Bop is the basic operational risk requirement for all business and is determined as follows:

BOp= 
$$Max \{Op_{premiums}; Op_{provisions}\}$$

where,

$$Op_{premiums} = 0.04 \times Earn_{nl} + Max\{0, 0.04 \times [Earn_{nl} - 1.1 \times pEarn_{nl}]\}$$

and

$$Op_{provisions} = 0.0045 \times Max \{0, Tp_{nl}\}$$

 $Earn_{nl}$  are the gross premiums earned during the previous 12 months.

 $pEarn_{nl}$  are the gross premiums earned during the 12 months prior to the previous 12 months.

 $TP_{nl}$  are the technical provisions

In the future, we recommend the following be recorded at granular level:

Frequency of occurrence of all risk scenarios captured in the Risk Heat Map

Identification of new exposures and new likelihood percentages after mitigation efforts have been applied.

This would improve how operational risk is quantified.

# **APPENDIX 7 – CORRELATION MATRICES**

Correlations for Market risks have been derived using actuarial judgment and referencing correlations being used in other jurisdictions for new solvency regimes.

Local market relevance was taken into account before applying these correlations.

As a rule of thumb, the following thought process was applied:

Correlation coefficient	Interpretation	
0%	Independent	
25%	Weakly correlated	
50%	Moderately correlated	
75%	Strongly correlated	
100%	Dependent	

The correlation matrices used for diversification are shown below.

## **Market Risk Correlations**

Parameters						
Corr <sub>ij</sub>	Mkt <sub>int</sub>	$Mkt_{eq}$	$Mkt_{prop}$	$Mkt_{sp}$	Mkt <sub>conc</sub>	$Mkt_{fx}$
Mkt <sub>int</sub>	100%	0%	0%	0%	0%	25%
$Mkt_{eq}$	0%	100%	25%	75%	0%	25%
Mkt <sub>prop</sub>	0%	25%	100%	50%	0%	25%
$Mkt_{sp}$	0%	75%	50%	100%	0%	25%
Mkt <sub>conc</sub>	0%	0%	0%	0%	100%	0%
$Mkt_{f \times}$	25%	25%	25%	25%	0%	100%

## **Comments:**

• Equity vs Property – the local stock and property markets have seen low correlations.

- The drops in equity values seem not to affect the property values, hence a weak correlation assumption.
- Interest rate vs Equity/Property no correlation was assumed if under the interest rate stress an increase in interest rates triggered a capital requirement (as opposed to a decrease in interest rates). 50% correlation was assumed if the decrease in interest rates would trigger a capital requirement under the interest rate stress.
- Spread, concentration and foreign exchange risks were not modelled.