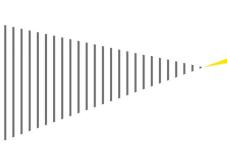
# CUSTODIAN AND ALLIED INSURANCE LIMITED

FINANCIAL CONDITION REPORT FOR NON-LIFE BUSINESS AS AT 31<sup>ST</sup> DECEMBER 2023







## **EXECUTIVE SUMMARY**

This report provides an overview of the Financial Condition of the Company. We also understand that this report will form part of the Company's submission to NAICOM. The report has been prepared in accordance with the General Insurance Business Actuarial Reports Guidance Notes (GN12v5.0) published by the Institute and Faculty of Actuaries.

The following are the key conclusions of the report.

- Overall, this report demonstrates that the Company remains adequately capitalized with a strong and conservative investment portfolio to support current and projected liabilities while maintaining compliance with regulatory requirements.
- As at 31st December 2023, the business had a Net Book Asset Value of N34.67 billion or 1156% of the statutory minimum capital of N3billion. Hence the business is well capitalized from the current regulatory point of view.
- We estimate the economic/risk-based capital required to support the business at 31st December 2023 as N7.21 billion, a coverage of 481% of the shareholder's Funds of N34.67billion. The company thus holds a cushion above its economic capital which enhances its ability to meet its obligations to policyholders in adverse scenarios.
- We noted that the proportion of GWP brought in by the Broker channel is 83%. We advise that the company explores other distributions channels such as digitization and bancassurance to write its business to widen its reach and increase its penetration in the market.
- The highest contributor to total GWP remains Oil & Energy line of business which contributed approximately 35.7% to premiums. We recommend that the company continues to monitor the portfolio to avoid any event of concentration risk in Oil & Energy.
- We note that there is an increasing trend in the reinsurance value for money for Custodian being experienced in the years under review. We encourage that the company to maintain a continuous reinsurance arrangement through a reinsurance optimisation exercise.
- The level of excess capital both on a statutory basis and economic capital basis shows that the company has capacity to write more business and take more risk in search for enhanced return. This can also be achieved by investing in higher-yielding assets to ensure a higher return for investors' capital.



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The Board of Directors
Custodian and Allied Insurance Ltd
16A, Commercial Avenue,
Sabo, Yaba,
Lagos.

May 2024

FINANCIAL CONDITION REPORT FOR NON-LIFE BUSINESS AS AT 31ST DECEMBER 2023

Dear Sir,

Introduction, Purpose and Limitations

1.1 We are pleased to present our Financial Condition Report ("FCR") for Custodian and Allied Insurance Limited ('the Company") as at 31st December 2023.

#### Purpose:

- 1.2 This report sets out the outcome of our assessment of the criteria stipulated in the Guidance note (GN12v5.0), issued by the Institute and Faculty of Actuaries, to the extent relevant to Custodian Insurance Company Limited for the year ended 31st December 2023.
- 1.3 This report is prepared solely for the purpose of providing an overview of the current financial condition of the Company. We understand that this report will form part of your submission to NAICOM. This report is not to be used for any other purpose other than that described above and should not be distributed to any other parties other than NAICOM.

#### Limitations:

- 1.4 Management is solely responsible for the contents and submission of the Financial Conditions Report in accordance with Guidance Note GN12V5.0
- 1.5 Because our assessment does not constitute either an audit or a review made in accordance with International Standards on Auditing or International Standards on Review Engagements (or relevant national standards or practices), we do not express any assurance on the financial statements, the financial conditions or the ability of the entity to continue as a going concern for the foreseeable future.
- 1.6 Had we performed additional procedures, or had we performed an audit or review of the financial statements in accordance with International Standards on Auditing or International Standards on Review Engagements (or relevant national standards or practices), other matters might have come to our attention that would have been reported to you.
- 1.7 Our report has been prepared based on certain assumptions and is subject to certain limitations. These have been described in Appendix 1 Reliance and Limitations.



# 2. Developments in the Business

2.1 We illustrate in the table below how Custodian's books have developed over the year 2022 to 2023.

	2023 N' 000	2022 (Restated) N' 000	YoY Movement
Insurance contract revenue	40,377,128	36,516,475	11%
Insurance service expenses	(22,472,417)	(11,049,789)	103%
Net expenses from reinsurance contracts held	(21,062,783)	(21,840,699)	-4%
Insurance service result	(3,158,072)	3,625,987	-187%
Net Investment income	19,752,911	5,287,134	274%
Net insurance financial result	1,214,313	58,063	1991%
Other Operating expenses	(2,603,393)	(2,975,153)	-12%
Profit before Income tax expense	15,212,733	6,137,539	148%
Income Tax	(4,891,720)	(884,612)	453%
Profit for the year	10,321,013	5,252,927	96%

We note that the Insurance contract revenue increased by 11% and the insurance service expenses increased significantly by 103% from 2022 to 2023.

There was a significant increase in profit mainly as a result of the increase in Net Investment Income by 274%.



## 3. Business Overview

## 3.1 Premium History

Gross Written Premium (GWP) has increased with an average of 11.2% over the years under review.

Line of Dusiness	202	1	2022		2023	
Line of Business	000 ' <del>4</del>	%	M, 000	%	<del>N</del> ' 000	%
Motor	3,538,297	10.3%	4,219,991	11.1%	5,897,582	13.8%
Accident	2,373,088	6.9%	3,971,721	10.5%	5,367,797	12.6%
Bond	20,019	0.1%	32,310	0.1%	24,788	0.1%
Marine	1,415,811	4.1%	1,265,018	3.3%	1,853,440	4.4%
Aviation	268,457	0.8%	186,086	0.5%	252,139	0.6%
Fire	8,150,471	23.7%	9,527,626	25.1%	12,891,835	30.3%
Engineering	563,994	1.6%	707,840	1.9%	1,117,428	2.6%
Oil & Energy	18,107,387	52.6%	18,072,387	47.6%	15,189,475	35.7%
Total	34,437,524	100.0%	37,982,979	100.0%	42,594,486	100.0%
% Increase (YoY)		10.3	3%	12.1	%	

Line of Business	2022 <del>N</del> ' 000	2023 N' 000	YoY Movement
Motor	4,219,991	5,897,582	40%
Accident	3,971,721	5,367,797	35%
Bond	32,310	24,788	-23%
Marine	1,265,018	1,853,440	47%
Aviation	186,086	252,139	35%
Fire	9,527,626	12,891,835	35%
Engineering	707,840	1,117,428	58%
Oil & Energy	18,072,387	15,189,475	-16%
Total	37,982,979	42,594,486	12%

3.1.1 The GWP increased for all the lines of business from 2022 to 2023 except for Bond and Oil & Energy leading to a total increase of 12% between the years.

The main drivers of growth are Engineering, Marine and Motor classes of business.

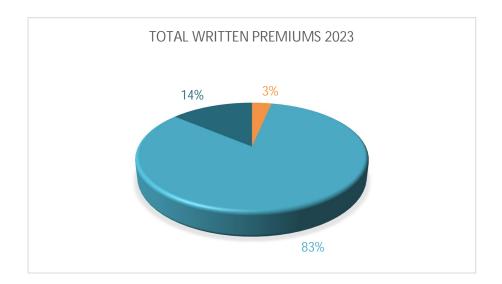


- 3.1.2 The Oil & Energy line of business has consistently contributed the highest to the GWP in the years under review.
- 3.1.3 We note that there is an impeding concentration risk in the Oil and Energy line of business. It is recommended that Custodian writes more businesses in the other lines to help further diversify its portfolio to avoid an impending concentration risk in Oil and Energy line of business.

## 3.2 Distribution Channel

The chart below indicates three channels through which gross written premiums are channeled in.

Experience data shows that a significant proportion of business written by Custodian came through Brokers which contributed 83% of the total Gross Written Premiums, Agents contributed 3% and Marketers brought in 14% of the total GWP.



## 3.3 Financial Performance

3.3.1 We illustrate below that the company's return on equity as published in the Annual Financial Statements has been consistently higher than the risk-free rate over the 3 years under review.

Year	Shareholders Fund N'000	Return on Equity (As published in the Accounts) %	Risk Free Rate %
2021	22,393,443	20%	12%
2022	25,114,280	21%	14%
2023	34,667,732	30%	19%



# 4. Pricing & Premium Adequacy

We illustrate in the table below how premium income has been utilized from 2022 to 2023.

	2022 (Restated)	2023
	N′000	N′000
Net Insurance Revenue	25,461,240	17,902,225
Net Claims Incurred & Attributable expenses	(5,699,588)	(8,386,949)
Acquisition Expense	(3,151,034)	(4,136,758)
Investment Income Claims & Attributable Ratio	5,428,642 22%	19,759,884 47%
Acquisition Expense Ratio	12%	23%
Combined Ratio	35%	70%
Investment Income (% NPI)	21%	110%

We illustrate in the table above that claims and attributable ratio alongside Acquisition expense ratio increased from 22% (2022) to 47% (2023) and from 12% (2022) to 23% (2023) respectively.

This resulted in a significant increase in the combined ratio from 35% (2022) to 70% (2023).

Based on the above analysis over a 2-year period, it is noted that Custodian has managed to achieve combined ratios below 100% in the last 2 years which demonstrates pricing adequacy.

The investment income as a percentage of Net Premium Income increased to 110% (2023) from 21% (2022).

Metrics	Definition
Claims and Attributable Ratio	Net Claims Incurred & Attributable expenses/ Net Insurance Revenue
Acquisition Expense Ratio	Acquisition Expense / Net Insurance Revenue.
Combined Ratio	Sum of Claims & Attributable Ratio and Acquisition Expense Ratio
Investment Income (%NPI)	Investment Income / Net Insurance Revenue



# 5. Assets, Liabilities Management

## 5.1 Insurance Liability

We illustrate in the tables below the Gross Reserves of N24.08 billion, Reinsurance Contract Assets of N12.27 billion giving a Net Reserve of N11.81 billion.

Reserves	Gross Reserve (N'000)	Reinsurance Contract Assets (N'000)	Net Reserve (N'000)
LFRC	10,234,332	(6,704,988)	3,529,344
LIC	13,847,191	(5,569,600)	8,277,591
Total	24,081,523	(12,274,588)	11,806,935

#### 5.2 Insurance Assets

We illustrate below that the company holds short-term assets i.e. Cash and Cash equivalents with leading banks and financial institutions to back its insurance fund. Custodian also majorly has reinsurance assets from which are expected payments from leading reinsurers in respect of the technical reserves stated in section 3.1.

			Insurance Funds	
Assets	2023 (N'000)	%	Regulatory Maximum	Meet Requirement
Cash and cash equivalents	6,107,091	22%	No limit	Yes
Investment securities:				
Equities	51,388	0%	Maximum of 30% of Policyholders fund.	Yes
FGN Bonds	6,524,476	24%	Minimum of 35% of Policyholders fund.	No
State Government Bonds	250,407	1%	Maximum of 20% of Policyholders fund.	Yes
Corporate Bonds	565,787	2%	Maximum of 10% of Policyholders fund.	Yes
Investment properties	1,513,600	6%	Maximum of 25% of Policyholders fund.	Yes
Reinsurance Contract Assets	12,274,588	45%	No Limit	Yes
Total	27,287,337	100%		

The asset mix is compliant with asset admissibility requirements.



# 6. Capital Management & Adequacy

## 6.1.1 Balance Sheet Solvency

We illustrate in the table below that from 2021 to 2023, the company has a more than sufficient balance sheet solvency ratio.

Year	2021 (N'000)	2022 (N'000)	2023 (N'000)
Technical Liabilities (Net of Reinsurance)	5,468,173	6,361,149	11,806,935
Shareholders Fund (Free Assets)	22,393,443	25,114,280	34,667,732
Balance Sheet Solvency Ratio	410%	395%	294%

The solvency ratios gives comfort that liability obligations will be met when they fall due. We highlight the regulatory solvency position below and discuss risk-based solvency in section 8.

## 6.1.2 Regulatory Solvency

We show in the table below that the company's admissible assets exceeded the regulatory capital requirement of N3bn throughout the 3 years under review.

Year	2021 ( <del>N</del> '000)	2022 ( <del>N</del> '000)	2023 ( <del>N</del> '000)
Technical Liabilities (Net of Reinsurance)	5,468,173	6,361,149	11,806,935
Free Assets (allowing for admissible rules)	20,330,456	22,872,975	35,689,909
Minimum Capital Requirement	3,000,000	3,000,000	3,000,000
Capital Adequacy Ratio (CAR)	678%	762%	1190%
Regulatory Solvency Ratio	372%	360%	302%



The below table demonstrates how the Capital Adequacy Ratio and Regulatory Solvency ratio would be materially impacted should claim ratio increase by 20%.

Year	2023 - Stressed (N'000)	2023 ( <del>N</del> '000)
Technical Liabilities (Net of Reinsurance)	14,471,693	11,806,935
Free Assets (allowing for admissible rules)	33,111,898	35,689,909
Minimum Capital Requirement	3,000,000	3,000,000
Capital Adequacy Ratio (CAR)	1104%	1190%
Regulatory Solvency Ratio	229%	302%

While the regulatory solvency ratio falls to 229%, the Company would still meet its minimum capital requirement in the event of this extreme scenario.

## **DEFINITIONS**

Metric	Definition
Capital Adequacy Ratio (CAR)	Free Assets/Minimum Capital Requirement
Balance Sheet Solvency Ratio	Shareholders' Funds/Technical Reserves
*Regulatory Solvency Ratio	Free Assets/Technical Reserves

<sup>\*</sup>Free assets include allowance for admissibility rules



## 6.2 Stress Scenario for 2023 Results

6.2.1 The below table demonstrates that the solvency margin would be materially impacted should the net claim ratio increase by 5%, 10% and 20% respectively.

Year	2023 - Stressed (\frac{\Pmatrix}{000})	2023 ( <del>\</del> '000)
Technical Liabilities (Net of Reinsurance)	12,451,438	11,806,935
Shareholders Fund (Free Assets)	34,023,229	34,667,732
Balance Sheet Solvency Ratio	273%	294%

Year	2023 - Stressed (\text{\Pi}'000)	2023 ( <del>N</del> '000)
Technical Liabilities (Net of Reinsurance)	13,740,443	11,806,935
Shareholders Fund (Free Assets)	32,734,224	34,667,732
Balance Sheet Solvency Ratio	238%	294%

Year	2023 - Stressed ( <del>\\</del> '000)	2023 ( <del>\</del> 4'000)
	(++ 000)	( <del>M</del> 000)
Technical Liabilities (Net of Reinsurance)	16,318,454	11,806,935
Shareholders Fund (Free Assets)	30,156,213	34,667,732
Balance Sheet Solvency Ratio	185%	294%

The above stress tests shows that the Company's Balance Sheet Solvency ratio would still be above 180% even at a 20% net increase in loss ratio across the whole account, which is considered an extreme scenario. This shows the resilience of the Company's Balance Sheet to short-term shocks, demonstrating a strong financial condition.



## 6.3 Economic Capital

- 6.3.1 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.
- 6.3.2 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 the corresponding risk capital, called economic capital. This is the amount of capital that a financial company requires to stay solvent given the riskiness of its assets and operations.
- 6.3.3 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.
- 6.3.4 We have calculated for each of the risks, the amount of capital required as at year end 2023 at 95%, 99% and 99.5% level of confidence.
- 6.3.5 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 2023. 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 20year event) and 99% (1 in a 100year event) are shown in appendix 5 and 6 of the report.
- 6.3.6 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

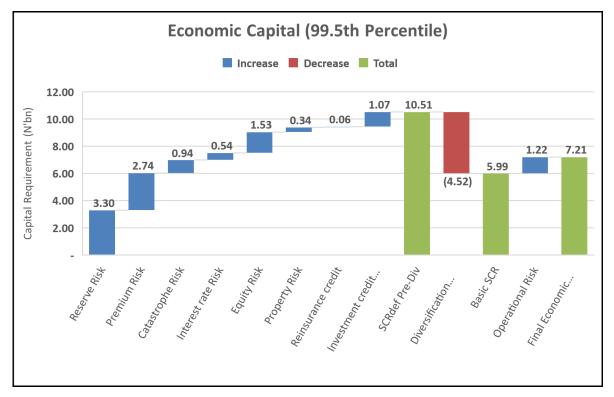
Detailed explanation of each of the risks including derivation of the stresses applied are given in appendix 6 of the report.

- 6.3.7 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.
- 6.3.8 The calculations were based on same data used to prepare the IFRS valuation as at 31 December 2023 and asset information shown in section 2.3 of this report.
- 6.3.9 The following results at 99.5% confidence level were obtained.



	Risk Type	Capital Requirement (N)
Non-Life Insurance Risk	Reserve Risk Premium Risk	3,298,073,733 2,736,073,184
e Insu Risk	Catastrophe Risk Lapse Risk	944,331,980
Life	SCR <sub>nl</sub> Pre-Div	6,978,478,898
on-	SCR <sub>nl</sub> Div Credit	2,349,365,604
Ž	SCR <sub>nl</sub> Post Div	4,629,113,294
	Interest Rate Risk	537,670,862
	Equity Risk	1,531,016,873
×	Property Risk	338,743,680
<u> </u>	Spread Risk	-
ket	Currency Risk	-
Market Risk	Concentration Risk	-
≥	SCR <sub>mkt</sub> Pre-Div	2,407,431,414
	SCR <sub>mkt</sub> Div Credit	673,314,623
	SCR <sub>mkt</sub> Post Div	1,734,116,791
sk t	Reinsurance credit	57,199,580
Counterparty Default Risk	Investment credit & Debtors	1,071,576,199
ter	SCR <sub>def</sub> Pre-Div	1,128,775,779
oun efa	SCR <sub>def</sub> Div Credit	-
ى ك	SCR <sub>def</sub> Post Div	1,128,775,779
Undive	rsified BSCR	7,492,005,864
Diversi	fication Credit	1,498,038,671
Basic S	CR	5,993,967,194
Operat	ional Risk	1,216,080,842
Final E	conomic capital	7,210,048,035
Shareh	olders' Funds	34,667,732,000
% of Fc	onomic Capital	481%
51 20		10170





- 6.3.10 As shown in the table above, the total Economic Capital required in connection with the business profile at 31st December 2023 was N7.21billion which is less than the shareholders' funds of N34.67billion.
- 6.3.11 This implies Custodian has capital excess which provides the management with capital flexibility to conduct its business plan over the forward-looking period considering inherent material risks (such as catastrophes) and in anticipation of continued difficult operating conditions in insurance, credit and financial markets.



## 7. Reinsurance Management Strategy

7.1 The Company's reinsurance arrangements are summarized in section 7.2.

For each line of business, we illustrate the 'value for money' being the ratio of total reinsurance inflow (i.e., commission income, reinsurance recoveries) to total reinsurance outflow/cost.

#### 2022 Accident Year

#### ₩' 000

Class of Business	Motor	Accident	Bond	Marine	Aviation	Fire	Engineering	Oil & Energy	Total
Outflow									
Cash paid to reinsurers	171,090	2,236,321	8,404	432,042	25,475	7,096,836	446,416	15,933,735	26,350,320
Inflow									
Reinsurance Contract Assets	73,382	488,588	4,447	266,488	10,106	3,150,617	341,283	3,602,877	7,937,788
Value for Money Ratio	43%	22%	53%	62%	40%	44%	76%	23%	30%

#### 2023 Accident Year

#### ₩, 000

Class of Business	Motor	Accident	Bond	Marine	Aviation	Fire	Engineering	Oil & Energy	Total
Outflow									
Cash paid to reinsurers	76,524	2,872,496	6,522	891,960	48,402	9,804,172	544,756	14,118,902	28,363,736
Inflow									
Reinsurance Contract Assets	316,999	612,967	2,828	630,077	19,012	5,277,579	1,085,588	4,329,538	12,274,588
									•
Value for Money Ratio	414%	21%	43%	71%	39%	54%	199%	31%	43%

There was an overall increase in the value for money ratio from 30% (2022) to 43% (2023).

- 7.1.1 There was a significant increase in the value for money ratio for all lines of business except Bond.
- 7.1.2 The value for money ratios, however, does not take cognizance of other benefits reinsurance provides e.g. granting the company capacity to underwrite bigger risks than it would ordinarily have been able to take on due to its limited capital resources.
- 7.1.3 The above suggests that the treaty arrangement are optimal. Details of the current reinsurance arrangement are provided in Appendix 2.



## 7.2 Reinsurance Management

## 7.2.1 Basis and Methods of Retention Levels

The retention limit and the associated product lines were established in liaison with the reinsurers. In setting these limits, the following were taken into consideration:

- The nature and quality of the business
- Regulations imposed the regulatory body
- Risk appetite of Custodian

While Custodian reinsures Ten (10) reinsurers, majority of its businesses are with Continental Reinsurance and African Reinsurance which have stable ratings.

Illustrated in the table below is the list of Reinsurers and their ratings:

Reinsurer	Credit Rating
SWISS REINSURANCE PLC	AA-
AFRICA REINSURANCE CORP.	А
CONTINENTAL REINSURANCE PLC	BBB-
MUNICH REIN. CO. LTD.	A+
ZEP RE	BBB+
WAICA	B+
AFRICAN REINSURANCE	А
CONTINENTAL RE	BBB-
WAICA RE	B+
FBS REINSURANCE LIMITED	A-



## 8. Financial Condition as at 31st December 2023

- We have illustrated above that the company has enough funds to meet its insurance contract liabilities under stressed conditions.
- The investment portfolio is highly liquid and broadly matches the profile of the company's liabilities.
- The company has a beneficial reinsurance agreement in place, given the good value for money ratios.
- We are thus of the opinion that the company would be able to meet policyholder obligations if they fall due and is able to withstand stressed scenarios as evidenced by the stress tests.

#### 8.1.1 We recommend that the company should:

- Explores other distributions channels such as digitization and bancassurance to write its business to widen its reach and increase its penetration in the market.
- Continue to monitor the portfolio to avoid any event of concentration risk in Oil & Energy line of business.



## 9. New Business Plans

## 9.1 Business Plan Production

The table below indicates the year-on-year growth for the various lines of businesses.

Custodian has plans to grow at about 34.9% and 10% in 2024 and 2025 respectively. We illustrate the forecast in the table below. This seems quite reasonable due to the current economic constraints.

Line of Duciness	2023	20	2024		25
Line of Business	₩' 000	₩' 000	YoY Growth	₩' 000	YoY Growth
Motor	5,897,582	8,603,857	45.9%	9,464,242	10.0%
Accident	5,367,797	9,923,044	84.9%	10,915,348	10.0%
Bond	24,788	41,354	66.8%	45,490	10.0%
Marine	1,853,440	2,632,287	42.0%	2,895,515	10.0%
Aviation	252,139	290,651	15.3%	319,716	10.0%
Fire	12,891,835	15,689,671	21.7%	17,258,638	10.0%
Engineering	1,117,428	1,298,802	16.2%	1,428,682	10.0%
Oil & Energy	15,189,475	18,982,202	25.0%	20,880,422	10.0%
Total	42,594,486	57,463,892	34.9%	63,208,055	10.0%



## 10. Conclusion and Recommendations

- 10.1 Overall, this report demonstrates that the Company remains adequately capitalized with a strong and conservative investment portfolio to support current and projected liabilities while maintaining compliance with regulatory requirements.
- 10.2 As at 31st December 2023, the business had a Net Book Asset Value of N34.67 billion or 1156% of the statutory minimum capital of N3billion. Hence the business is well capitalized from the current regulatory point of view.
- 10.3 We estimate the economic/risk-based capital required to support the business at 31st December 2023 as N7.21 billion, a coverage of 481% of the shareholder's Funds of N34.67 billion. The company thus holds a cushion above its economic capital which enhances its ability to meet its obligations to policyholders in adverse scenarios.
- We noted that the proportion of GWP brought in by the Broker channel is 83%. We advise that the company explores other distributions channels such as digitization and bancassurance to write its business to widen its reach and increase its penetration in the market.
- The highest contributor to total GWP remains Oil & Energy line of business which contributed approximately 35.7% to premiums. We recommend that the company continues to monitor the portfolio to avoid any event of concentration risk in Oil and Energy.
- We note that there is an increasing trend in the reinsurance value for money for Custodian being experienced in the years under review. We encourage the company to maintain a continuous reinsurance arrangement through a reinsurance optimisation exercise.
- 10.7 The level of excess capital both on a statutory basis and economic capital basis shows that the company has capacity to write more business and take more risk in search for enhanced return. This can also be achieved by investing in higher-yielding assets to ensure a higher return for investors' capital.
- 10.8 We are delighted to have conducted this Financial Conditioning Report for Custodian Insurance. We hope you find this helpful for preparing and submitting a report to NAICOM.
- 10.9 We will naturally be delighted to discuss it with you and make necessary presentations.

Yours sincerely,

Miller Kingsley, FNAS, FSA Fellow, Nigerian Actuarial Society Fellow, Society of Actuaries, USA FRC/2012/NAS/00000002392



## APPENDIX 1- RELIANCE & LIMITATIONS

#### 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 Custodian and Allied Insurance Limited. The liability information used was the same as that used in the IFRS actuarial valuations. Where stated in this report we have reviewed this data for reasonableness, but we have not verified the accuracy of the information provided to us.

This report takes into account data made available as at 31 December 2023.

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.

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

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The report may be distributed to the Senior Management of Custodian and Allied Insurance Limited 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.

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



# Appendix 2 - Reinsurance Arrangement

YEAR 2023		RETENTION (%)					
NON OIL	REINSURER	FIRE	ENG & M/CARGO	MOTOR, BONDS M/HULL & ACCIDENT			
	SWISS REINSURANCE PLC	15.00%	25.00%				
	AFRICA REINSURANCE CORP.	42.50%	38.50%				
	CONTINENTAL REINSURANCE PLC	20.00%	14.00%				
	MUNICH REIN. CO. LTD.	0	7.00%				
	ZEP RE	9.00%	6.00%				
	WAICA	8.50%	4.50%				
	AFRICAN REINSURANCE			45.00%			
	CONTINENTAL RE			35.00%			
	WAICA RE			5.00%			
	FBS REINSURANCE LIMITED	5.00%	5.00%	15.00%			
		100.00%	100.00%	100.00%			
		EXCESS OF LOSS	MULTILINE				
OIL & ENERGY	CHUBB EUROPEAN GROUP		7.50%				
	WR BERKLEY		19.00%				
	HANNOVER RE	10.00%					
	SWISS RE	40.00%					
	TA IPING RE	7.00%					
	TRIGLA V RE	2.50%					
	AFRICA REINSURANCE CORP.		2.50%				
	AXIS SPECIALTY - A9505		7.50%				
	TAMESIS 212	11.00%	13.00%				
	KILN SYNDICATE & TOKIO MARINE KLIN	11.00%					
	REASEGURADORA PATRIA SA	10.00%					
	BARENTS REINS. SA		7.50%				
	MARKEL INT'L INSURANCE CO. LTD	6.00%					
	CONTINENTAL RE	1.00%					
	INTERNATIONAL GENERAL INS CO. (UK) LTD		3.75%				
	CHAUCER, SYNDICATE 1084		16.00%				
	HARDY SYNDICATE HDU 382		12.25%				
	ARK SYNDICATE 4020		3.50%				
	FBS REINSURANCE LTD	1.50%	7.50%				
		100.00%	100.00%				



## APPENDIX 3 - PROJECTION ASSUMPTIONS

## a. Commission Rates

Class	AGENTS	BROKERS	MARKETERS
Motor	10.00%	20.00%	0.00%
Accident	10.00%	20.00%	0.00%
Bond	10.00%	20.00%	0.00%
Marine	10.00%	20.00%	0.00%
Aviation	10.00%	20.00%	0.00%
Fire	10.00%	20.00%	0.00%
Engineering	6.25%	12.50%	0.00%
Oil & Energy	10.00%	20.00%	0.00%

## b. Reinsurance Commission

Year	Motor	Accident	Bond	Marine	Aviation	Fire	Engineering	Oil & Gas
Commission Income	12%	11%	17%	27%	17%	10%	13%	4%



## APPENDIX 4 - COMBINED RATIO TABLE

	Year	Motor	Accident	Bond	Marine	Aviation	Fire	Engineering	Oil & Energy
	2010	110/	1.40/	20%	100/	1.00/	100/	220/	. 0/
	2019	11%	14%	28%	19%	10%	10%	23%	6%
Comm Rate (Income)	2020	13%	15%	39%	19%	20%	10%	30%	6%
	2021	11%	12%	27%	18%	0%	8%	23%	5%
	2022	10%	9%	-26%	19%	17%	10%	22%	4%
	2023	-5%	13%	51%	44%	16%	11% 10%	-21%	4%
	Ave	12%	11%	17%	27%	17%		13%	4%
	2019	14%	26%	11%	18%	14%	29%	71%	11%
	2020	15%	36%	12%	27%	11%	36%	40%	4%
OCR(Gross)/GEP	2021	16%	41%	8%	21%	6%	34%	43%	5%
	2022	19%	34%	7%	36%	11%	23%	42%	5%
	2023	22%	37%	10%	31%	31%	25%	136%	34%
	Ave	21%	30%	8%	29%	31%	24%	103%	34%
	2019	63%	28%	2%	25%	23%	20%	45%	8%
	2020	27%	7%	18%	54%	0%	32%	43%	4%
OCR(Rein)/Rein Cost	2021	61%	4%	8%	29%	0%	28%	34%	3%
` '	2022	19%	7%	6%	45%	0%	19%	44%	4%
	2023	-16%	5%	9%	108%	0%	33%	-166%	9%
	Ave	23%	6%	7%	59%	23%	26%	40%	6%
	2019	42%	25%	4%	22%	56%	55%	30%	6%
	2020	39%	20%	13%	16%	3%	20%	35%	13%
Gross Claims /GEP	2021	46%	21%	0%	19%	0%	36%	18%	3%
	2022	54%	27%	0%	12%	24%	27%	59%	1%
	2023	36%	20%	0%	15%	9%	19%	29%	11%
	Ave 2019	45% 5%	24% 1%	0% 23%	16% 86%	24% 0%	62%	59% 53%	5% 52%
	2020	5% 6%	9% 6%	35% 114%	67% 59%	O% O%	55% 41%	60% 54%	32% 25%
Recovery rate	2021 2022	6%	15%	0%	59%	0%	53%	76%	12%
	2022	6%	4%	0%	50%	0%	28%	38%	0%
	Ave	6%	9%	34%	63%	3%	41%	56%	23%
	2019	7%	34%	21%	31%	13%	75%	84%	88%
	2020	4%	35%	15%	27%	32%	67%	74%	85%
	2021	2%	42%	12%	38%	16%	69%	74%	86%
Ceded Proportion	2022	3%	54%	10%	37%	7%	70%	49%	87%
	2023	-4%	44%	25%	13%	13%	49%	-38%	84%
	Ave	2%	49%	15%	29%	12%	63%	49%	86%
	2019	2%	1%	1%	2%	0%	1%	1%	1%
	2020	2%	1%	1%	3%	0%	1%	1%	1%
	2021	2%	1%	0%	3%	0%	1%	1%	1%
Maintenance Expense	2022	2%	1%	1%	3%	0%	1%	3%	1%
	2023	2%	1%	0%	2%	0%	1%	2%	1%
	Ave	2%	1%	1%	3%	0%	1%	2%	1%

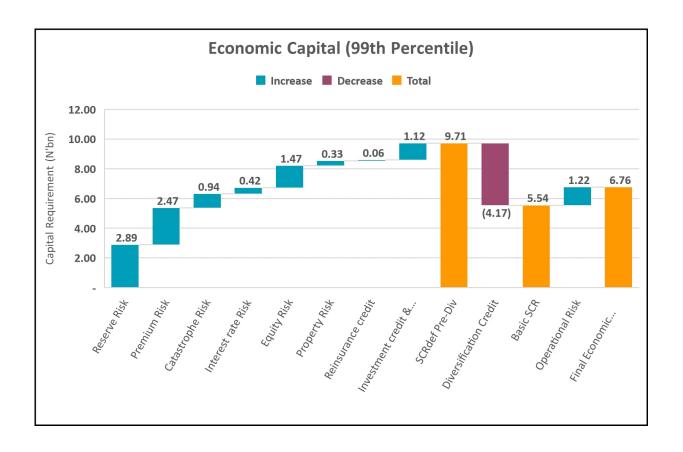


## APPENDIX 5: ECONOMIC CAPITAL RESULTS AT 99% CONFIDENCE LEVEL

Should the confidence level be lowered our confidence level to 99%, the total economic capital requirement reduces to N6.76 billion which represents about 513% of the shareholder funds as at December 31, 2023.

Risk Type		Capital Requirement (N)			
e O	Reserve Risk	2,892,955,165			
Non-Life Insurance Risk	Premium Risk	2,470,504,847			
	Catastrophe Risk	944,331,980			
e Ins Risk	Lapse Risk	-			
Life	SCR <sub>nl</sub> Pre-Div	6,307,791,992			
-uc	SCR <sub>nl</sub> Div Credit	2,145,442,620			
ž	SCR <sub>nl</sub> Post Div	4,162,349,372			
	Interest Rate Risk	424,990,321			
	Equity Risk	1,470,429,296			
×	Property Risk	327,543,040			
Ris	Spread Risk	-			
ket	Currency Risk	-			
Market Risk	Concentration Risk	-			
Σ	SCR <sub>mkt</sub> Pre-Div	2,222,962,658			
	SCR <sub>mkt</sub> Div Credit	582,573,078			
	SCR <sub>mkt</sub> Post Div	1,640,389,580			
ty sk	Reinsurance credit	57,199,580			
Counterparty Default Risk	Investment credit & Debtors	1,122,340,608			
ter	SCR <sub>def</sub> Pre-Div	1,179,540,189			
oun	SCR <sub>def</sub> Div Credit	-			
S O	SCR <sub>def</sub> Post Div	1,179,540,189			
Undiver	rsified BSCR	6,982,279,140			
Diversit	fication Credit	1,441,666,027			
Basic S	CR	5,540,613,113			
Operati	ional Risk	1,216,080,842			
Final Economic capital		6,756,693,955			
Shareh	olders' Funds	34,667,732,000			
% of Ec	onomic Capital	513%			





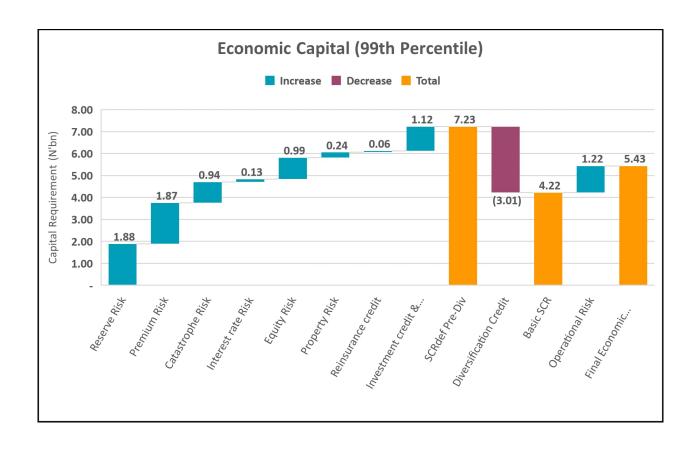


## APPENDIX 6: ECONOMIC CAPITAL RESULTS AT 95% CONFIDENCE LEVEL

Should the confidence level be lowered our confidence level to 95%, the total economic capital requirement reduces to N5.43billion which represents about 638% of the shareholder funds as at December 31, 2023.

Risk Type		Capital Requirement (N)		
~	Reserve Risk	1,880,645,748		
Non-Life Underwriting Risk	Premium Risk	1,873,880,901		
	Catastrophe Risk	944,331,980		
	Lapse Risk	-		
Noi	SCR <sub>nl</sub> Pre-Div	4,698,858,628		
nde	SCR <sub>nl</sub> Div Credit	1,640,803,218		
$\supset$	SCR <sub>nl</sub> Post Div	3,058,055,410		
	Interest Rate Risk	130,290,062		
	Equity Risk	985,728,684		
×	Property Risk	237,937,920		
RS	Spread Risk	-		
Market Risk	Currency Risk	-		
	Concentration Risk	-		
≥	SCR <sub>mkt</sub> Pre-Div	1,353,956,666		
	SCR <sub>mkt</sub> Div Credit	275,753,480		
	SCR <sub>mkt</sub> Post Div	1,078,203,185		
% ₹	Reinsurance credit	57,199,580		
Counterparty Default Risk	Investment credit & Debtors	1,122,340,608		
ter	SCR <sub>def</sub> Pre-Div	1,179,540,189		
oun efz	SCR <sub>def</sub> Div Credit	-		
	SCR <sub>def</sub> Post Div	1,179,540,189		
Undive	rsified BSCR	5,315,798,784		
Diversi	fication Credit	1,097,133,847		
Basic E	conomic Capital	4,218,664,936		
Operat	ional Risk	1,216,080,842		
Final E	conomic Capital	5,434,745,778		
Shareh	olders'Funds	34,667,732,000		
Faans:	[			
Econon	nic Capital as a % of SF	638%		







## Appendix 7: Economic Capital Methodology & Stress Level Derivation.

We present below, detailed explanation on how each of the risk were modelled including stress levels derivation.

## A. MARKET RISKS

- 1.1 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.
- 1.2 The company's insurance funds are mainly invested in money market instrument and hence have a very low exposure to market risks.
- 1.3 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

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

Asset class	Stress level @ 95%	Stress level @ 99%	Stress level @ 99.5%
Equity	24.06%	35.90%	37.38%
Property	15.72%	21.64%	22.38%
Interest rate	29.1%	40.12%	41.5%

- 1.5 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 the Solvency II widely used stress levels.
- 1.6 The details of the derivation and computation are contained below for each sub-risk module.



## 1.7 Equity risk

- I. This is the sensitivity of assets, liabilities and financial investments to fluctuations in the level or volatility of the market prices for equities.
- II. The company is invested in both quoted and unquoted equities. Both types of equities were stress tested.
- III. 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.
- IV. 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 24%, 35% and 37% for confidence levels of 95%,99% and 99.5% respectively.
- V. We also checked how frequently historical annual returns have fallen or been close to the 24.06%, 35.90% and 37.38% levels. In 2008, the stock index fell by about 46% and in 2011 also fell by about 23%.
- VI. 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.

## 1.8 Interest Rate risk

- I. 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.
- II. 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.
- III. The historical returns were fitted to distributions to determine the best fit distribution. The normal distribution was a good fit. The normal distribution was used instead in order to apply some consistency with the other market risk stresses.
- IV. As the local term structure of interest rates show a flat yield curve; a flat stress level was applied to bonds of varying durations.
- V. 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.
- VI. The stressed yields were applied using the formula: current yield x (1+Upward stress) OR current yield x (1+Downward stress).
- VII. 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}

1.9 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)

- 1.10 The correlation matrix used is shown in Appendix 8
- 1.11 Non-Life Insurance risks

The non-life insurance risks modelled were:

- Reserving risk
- Premium risk
- Catastrophe risk
- I. 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 used the bootstrap approach to calculate the mean and standard deviation of losses.
- We then used the mean and standard deviation to derive the parameters of the lognormal distribution which was used to estimate the 95th, 99th and 99.5th percentiles of the reserve distribution.
- Reserve capital is the difference between each of the following percentiles; 95th-percentile, 99th-percentile or 99.5th-percentile of the distribution and the 50th -percentile (Best estimate).



#### II. 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 lognormal distribution was fit (which was the best fit) to the deviations

## III. 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 2023 loss ratios were increased by 1000% for all lines of business to resemble a catastrophic-like event
- A 1% probability of occurrence was applied to determine the final capital requirement.

## **B. CREDIT RISK**

- I. Credit risk arises as a result of the unexpected default, or deterioration in credit standing, of an insurer's counterparties or debtors.
- II. 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.
- III. The following exposures to counterparties were used:
  - Banks → cash and cash equivalent holdings
  - Reinsurers  $\rightarrow$  estimated reinsurance recoveries over the next 12 months
  - Debtor → amounts owed.



IV. 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 agencies and the S&P default rates were used for the bank holdings as per the following table:

Table 5

Rating Scale	Default Probability
AAA	0.00%
AA+	0.00%
AA	0.02%
AA-	0.03%
A+	0.05%
Α	0.05%
A-	0.06%
BBB+	0.09%
BBB	0.15%
BBB-	0.24%
BB+	0.32%
BB	0.48%
BB-	0.96%
B+	1.98%
В	3.13%
B-	6.52%
Unrated	26.53%

- V. The above default rates were applied to both the banks and reinsurers' counterparties to the Company.
- VI. The formula used was: Estimated exposure x Probability of Default x Loss Given Default.
- VII. We assumed a 100% loss given default, which is a conservative assumption.



## C. OPERATIONAL RISK

- I. This is the risk of loss arising from inadequate or failed internal processes, or from personnel and systems, or from external events.
- II. Operational risk is generally a material risk and one of the major causes of organizational failure.
- III. 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.
- IV. 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.
- V. The formula used to compute the capital requirement was as follows:

$$C_{op} = Min\{0.3 * BSCR, BOp\} + 0.25 \times Exp_{nl}$$

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

BSCR is the preliminary capital required before allowing operational risk and, for the risk requirements it is defined as:

$$CROp = \sum (C_{ins} + C_{Mkt} + C_{credit})$$

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

$$BOp = Max \left\{ Op_{premiums}; \ Op_{provisions} \right\}$$
 Where 
$$Op_{premiums} = 0.03 \times Earn_{nl} + Max \left\{ 0,0.03 \times [Earn_{nl} - 1.1 \times pEarn_{nl}] \right\}$$
 and 
$$Op_{provisions} = 0.03 \times Max \left\{ 0, Tp_{nl} \right\}$$

 $Earn_{nl}$  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

- VI. 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 8 - CORRELATION MATRICES

Correlations for Market risks have been derived using actuarial judgement 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

		F	Parameters	6		
Corr <sub>ij</sub>	Mkt <sub>int</sub>	Mkt <sub>eq</sub>	Mkt <sub>prop</sub>	Mkt <sub>sp</sub>	Mktconc	Mkt <sub>fx</sub>
Mkt <sub>int</sub>	100%	0%	0%	0%	0%	25%
Mkt <sub>eq</sub>	0%	100%	25%	75%	0%	25%
Mktprop	0%	25%	100%	50%	0%	25%
Mktsp	0%	75%	50%	100%	0%	25%
Mktcond	0%	0%	0%	0%	100%	0%
Mktfx	25%	25%	25%	25%	0%	100%

## Comments:

- Equity vs Property the local stock and property markets have seen low correlations.
- The drop 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.

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