



STATUTORY ACTUARIAL VALUATION REPORT 2021



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TO OUR STATUTORY ACTUARIAL VALUATION REPORT



Report on The Statutory Actuarial Valuation of the Government Institutions Pension Fund as at 31 March 2021



# Content

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Government Institutions Pension Fund

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#### **Financial Position**

The financial position of the Fund at the current and the previous valuation date assuming the Trustees accept the recommendations in this report is as follows:

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Based on the above results, we certify that the Fund was financially sound as at the valuation date.

	31 March 2021 (N\$ 000's)	31 March 2018 (N\$ 000's)
Total Liabilities	97 560 150	83 472 092
Active Members	64 002 136	61 595 247
Pensioners	32 395 029	20 574 496
Disability Income Recipients	426 731	1 302 349
Provision of Unclaimed Benefits	736 254	-
Total Reserve Accounts	21 399 743	25 972 194
Longevity Reserve	9 756 015	8 347 209
Employer Contribution Reserve	7 803 600	13 929 270
Data Reserve	1 600 053	1 539 881
AIDS Reserve	2 240 07 <b>5</b>	2 155 834
Total Liabilities	118 959 893	109 444 286
Market Value of Assets	135 482 032	110 207 779
Surplus/(Deficit)	16 522 139	763 493
Funding Level	113.89%	100.70%
Contingency Reserves as a % of Liabilities	<b>21.93</b> %	31.11%

The total employer contribution rate required over the next year (compared to that at the previous valuation date) to meet the cost of funded benefits accruing is:

	Required Contribution Rate	
	31 March 2021	31 March 2018
Retirement Benefits	19.46%	21.45%
Disability Benefits	2.63%	1.04%
Death Benefits	3.60%	8.35%
Resignation Benefits	0.67%	0.56%
Funeral Benefits	0.06%	0.10%
Fund Expenses	1.50%	1.40%
<b>Total Required Contribution Rat</b>	<b>27.92</b> %	32.89%
Less Member Contribution Rate	(7.00%)	(7.00%)
Total required Employer(s) Contribution Rate	20.92%	25.89%

#### Membership Summary

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The active membership of the Fund as at 31 March 2021 and 31 March 2018 was as follows:

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The pensioners' membership (excluding child annuitants) under the Fund as at 31 March 2021 and 31 March 2018 was as follows:

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The disability income membership under the Fund as at 31 March 2021 and 31 March 2018 was as follows:

Item	31 March 2021	31 March 2018
Number of Active Members	104 501	106 335
Salary Weighted Average Age	41 years 11 months	42 years 0 months
Salary Weighted Average Past Service	14 years 2 months	14 years 0 months
Total Annual Salaries (N\$)	18 854 275 261	16 550 289 426
Average Annual Salaries (N\$)	180 422	155 643

ltem	31 March 2021	31 March 2018
Number of Members	37 409	27 862
Total Annual Pensions (N\$)	2 255 146 258	1 326 688 765
Pension Weighted Average Age	64 years 0 months	63 years 5 months
Average Annual Pensions (N\$)	60 284	47 616

ltem	31 March 2021	31 March 2018
Number of Members	705	854
Total Disability Income (N\$)	63 939 511	75 291 809
Income Weighted Average Age	52 years 1 months	52 years 5 months
Average Annual Disability Income (N\$)	90 694	88 531

#### Conclusions

- **07** The valuation revealed liabilities and reserves of N\$ 118.960 billion whilst the actuarial value of the assets was N\$ 135.482 billion. The actuarial surplus amounted to N\$ 16.522 billion as at valuation date.
- **08** The valuation results show a funding level of 113.89% as at the valuation date and we can consequently certify that the Fund is currently in a financially sound condition. This is an increase from a funding level of 100.70% as at the previous valuation date.
- **09** The Fund's practice over previous valuations has been to pay additional amounts to exits from the Fund, reflecting a proportion of surplus determined from the funding level, which is 13.89% of the Fund. Should the practice be followed then additional amounts of 13.89% of liabilities will be payable any exits from the Fund after the valuation date.

We note that the current internal Funding policy guideline of the GIPF sets out the Board's intent to implement a benefit security margin of between 1% to 5% if liabilities, after contingency reserves. While there has not yet been a formal implementation in the Fund's reserve and liability structure and Rules, the additional amount that can be allocated could be reduced to 8.89% (13.89% less 5%) of liabilities should this be implemented.

The internal Funding policy guideline of the GIPF is further to target a funding level (after contingency reserves) of between 105% and 115% over time. We note that as at the current valuation date, the funding level is within this ideal range. 11 The valuation revealed Reserves held of N\$ 21.4 billion, which is 21.93% of liabilities, a decrease from 31.11% of liabilities as at the previous valuation.

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12 To allow for prudence, in line with the GIPF's internal Funding policy guidelines, a Data Reserve continues to be retained in the Fund in respect of erroneous or missing active membership data at a level of 2.5% of the active member liabilities (1.64% of total liabilities). In this valuation a number of data anomalies have been noted in the membership information provided for the valuation exercise.

> As with the previous valuation, we have maintained the level of this reserve to 2.5% of active members' liabilities since the quality of the data provided has not improved since the previous valuation. We are, therefore, of the opinion that this level is still appropriate and should be maintained.

13 We have valued the Employer Contribution Reserve at N\$ 7 803 600 000, representing 8.0% of the value of total liabilities before allowance for contingencies. This is lower than the N\$ 13 929 270 000 set aside at the previous valuation which represented 16.69% of total liabilities before allowance for contingencies.

> The decrease in the employer contribution reserve is a direct result of change in the methodology of modelling the spouse and children death in service pension for active members and disability income recipients, the overall impact was a reduction in the required future contribution rate, which in turn led to a reduced cost of these benefits going forward. Although this reserve

requirement has declined, it is essential that Trustees monitor the experience over time to measure the adequacy of the reserve in stabilising and smoothing contribution rates for all stakeholders.

14 Over the inter-valuation period, benefit payments exceeded contributions received (see Appendix 9 for details). If the growth in active membership of the Fund is expected to stay low as observed over the inter-valuation period, then this situation is likely to worsen over time resulting in a reduction of investible assets of the Fund – and in extreme events having to realise invested assets at inopportune times in order to meet cashoutflow requirements.

**15** The level of administration expenses compared to salaries averaged 1.58% in the inter-valuation period, which is above the funding allowance of 1.40% assumed in the previous valuation. We have therefore, have marginally increased the reserving allowance for expenses from 1.40% of payroll to 1.50% of payroll in the valuation.

We have examined the assets in relation to the liabilities, and in our opinion, the balance of the assets is suitable for the nature of the liabilities of the Fund. Interest-bearing assets are slightly underweight when considering the risk to the Fund of failing to meet the Fund's guaranteed liabilities. 17 We are satisfied that the investment strategy, while targeting a slightly underweight proportion in interestbearing securities compared to the level of the Fund's guaranteed liabilities, is still appropriate to the Fund's investment objectives and Fund liabilities.

- The Fund has achieved annualised net 18 investment returns of 8.05% per annum over the inter- valuation period to 31 March 2021, which falls short of the fund valuation interest rate assumption of 12% per annum. The investment strategy previously adopted by the Fund has consistently performed poorly over the past years, probably on the back of poor general economic environments both locally and globally and recently as a result of the COVID pandemic. The Fund had undertaken a full asset liability modelling ("ALM") review as part of a review of the investment strategy.
- 19 Member benefits are calculated using annuity and withdrawal factors (for more detail Analysis of Surplus paragraph (m)). The current set of factors have been in used without revision for the past several valuations, and need to be reviewed to monitor whether these are aligned with current and recent long-term Fund valuation assumptions.

#### Recommendations

**20** Given the surplus in the Fund, we recommend that the Trustees consider additional amounts to all exits from the Fund effective from the valuation date.

Based on past practice we recommend that the additional amounts be set in the range from 8.89% to 13.89% of liabilities, depending on the implementation of the benefit security margin according to the internal GIPF funding guidelines in place.

- 21 The Trustees should continue to monitor the Employer Contribution Reserve over time to assess its suitability for financing the subsidy and smoothing the required contribution rate(s).
- To allow for prudence, a Data Reserve continues to be retained in the Fund in respect of erroneous or missing active membership data although at a much lower level than has historically been the case. At this valuation, we recommend that the reserves be maintained at the same level of reserves as a proportion of liabilities as was held at the previous valuation date.
- 23 Benefit payments exceeded contributions received in the inter-valuation period. We recommend that the Trustees align the investment strategy to allow for the generation of liquid income that can be used to cover the contributions shortfall.
- **24** The expenses incurred over the intervaluation period approximates to 1.58% of payroll. We therefore recommend to

marginally increase the reserving allowance for expenses from 1.40% of payroll to 1.50% of payroll in the valuation. We recommend that the Trustees monitor the expenses to ensure that the level of administration expenses compared to salaries does not exceed the budgeted levels.

- 25 We recommend the Trustees consider reviewing the annuity and withdrawal factors that are used to calculate member benefits in order to align them with the revised long assumptions. We further recommend that the Trustees consider establishing a formal governance policy which will set out the formal actions and outcomes from the review of these factors on a triennial basis.
- 26 We recommend that the Trustees, in line with the Investment Policy requirements, regularly review and monitor the impact of the investment strategy with regards to:
  - a) the risks of not meeting the Fund's liabilities.
  - **b)** the performance of the Fund against the key objectives as outlined in the investment strategy.
  - c) liquidity funding risks related to the liquidity of different asset classes and liquidity transactional risks related to needing funds available to meet benefit payments and obligations as they arise.

It is recommended that the AIDS Reserve be renamed to Mortality Reserve to cover a wide variety of mortality risks not only limited to AIDS.

In terms of the Fund's current practice, this is a statutory actuarial valuation carried out as at 31 March 2021 with the next interim actuarial valuation due as at 30 September 2022 and the next statutory valuation due as at 31 March 2024.

We certify that the Fund was financially sound as at the valuation date.

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## INTRODUCTION AND OBJECTIVES

#### Introduction

- We have pleasure in presenting the results of the statutory actuarial valuation of the Government Institutions Pension Fund ("GIPF" or "the Fund" interchangeably) as at 31 March 2021 (the valuation date). The previous statutory actuarial valuation of the Fund was performed as at 31 March 2018 (the previous valuation date).
- 2. This report is addressed to the Trustees of the Fund and representatives of the Sponsoring Employers. Since this is a statutory valuation, a copy of this report will need to be submitted to Namibia Financial Institutions Supervisory Authority ("NAMFISA").
- 3. The valuation has been carried out in accordance with section 10.8 of the Fund's Rules.
- 4. For the purpose of this valuation report, "inter-valuation period" represents the period from 1 April 2018 to 31 March 2021.
- 5. The Fund is governed by its Rules. The liabilities of the Fund towards its Active Members and Annuitants were calculated in accordance with these Rules. A summary of the Fund structure and of specific benefits and conditions applicable to Members is set out in Appendix 1 to this report.



#### **Objectives**

- 6. The main objectives of this valuation are to:
  - a) Assess the financial position of the Fund as at the valuation date;
  - b) Review whether the future contributions are adequate to meet the future accrual of benefits stipulated in the Rules of the Fund;
  - c) Determine whether the nature of the assets of the Fund is suitable to match the nature of the liabilities of the Fund;
  - d) To recommend the levels of the different contingency reserves held by the Fund;
  - e) To analyse and comment on the sources of surplus and deficit since the previous valuation date; and
  - f) To assess the financial position of the Fund using a Market Consistent Basis. The current valuation basis allows for long term best estimates of assumptions.

#### **Professional Guidance**

7. This report adheres to the Standards Actuarial Practice Note SAP201 of the Actuarial Society South Africa ("ASSA") applicable to statutory valuations being carried out in the Republic of South Africa where practical: The ASSA practice notes are recommended for valuations in Namibia since the Society of Actuaries of Namibia ("SAN") is affiliated to ASSA and is yet to come up with its own practice notes.

#### PARTICULARS OF THE FUND

8. The objective of the Fund is to provide retirement, death and ancillary benefits for the Members and beneficiaries as described in the Rules.

- 9. The Fund evolved from the Statutory Institutions Pension Fund ("the Old Fund") with effect from 1 October 1989.
- There are currently over a 100 Sponsoring Employers registered under the Fund. The largest proportion of Employees is from Government ministries. These constitute about 95% of the total active membership as at the valuation date.
- 11. The funded benefits are provided on a defined benefit basis. Under a defined benefit arrangement, the individual's pension is calculated according to a formula. The pension is calculated as 2.4% of the Member's Final Salary multiplied by the Member's Pensionable Service.
- 12. All pensions and cost of increases are paid directly by the Fund and are not outsourced.
- 13. Members on disability income make retirement contributions into the Fund.
- 14. As at the valuation date, the Fund employs officers and administrators who administer the Fund's operations under the Trustees' guidance. The Trustees manage and control the Fund's affairs according to its Rules.
- 15. The Employer currently contributes to the Fund at the rate of 16.0% of Pensionable Emoluments. The total Employer contribution rate includes an allowance for the cost of risk benefits and the contributions earmarked for administration expenses.
- 16. Each Member contributes to the Fund at the rate of 7.0% of Pensionable Emoluments.

#### **THE INTER-VALUATION PERIOD**

#### Administration

17. The Fund was self- administered over the inter-valuation period.

#### **Contribution Rates**

 The required contribution rate set out at the previous valuation date was 32.89% of Pensionable Emoluments. The required rate has reduced to 27.92% of Pensionable Emoluments as at the current valuation date.

The employer and employees contributed at a rate of 16.0% and 7.0% of Pensionable Emoluments respectively, over the period since the previous valuation as noted above. The shortfall arising from the actual contribution rate when compared with the required contribution rate, is funded through the Fund's Employer Contribution Reserve.

The Employer Contribution Reserve is expected to be able to fund the difference between the actual contribution rate and the required contribution rate on a best estimate basis over a period of 10 years of contributions shortfall.

#### **Investment Return**

19. The net return earned on the assets of the Fund since 1 April 2012 as per the Fund's monthly returns provided is some 163.91% (i.e. 11.39% averaging per annum) made up as follows: (The figures in bracket show the returns over the inter-valuation period i.e. 1 April 2018 to 31 March 2021).

Period	Return
Year ended 31 March 2013	24.28%
Year ended 31 March 2014	18.64%
Year ended 31 March 2015	16.46%
Year ended 31 March 2016	4.76%
Year ended 31 March 2017	4.93%
Year ended 31 March 2018	10.84%
Year ended 31 March 2019	5.86%
Year ended 31 March 2020	(5.92%)
Year ended 31 March 2021	26.64%
Total	63.91% (26.14%)
Average per annum	11.39% (8.05%)

20. We have checked the reasonability of the returns provided by calculating the returns for each financial year over the inter-valuation period on the basis of the information provided in the respective financial statements. On this basis, we found the returns provided to be reasonable.

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21. The pension and disability income increases awarded since 1 April 2013 were as shown in the table below. (Totals shown in brackets relate to the current inter-valuation period only i.e. from 1 April 2018 to 31 March 2021):

Date	Pension increases	Disability Invomce Increases
1 April 2013	6.5%	-
1 April 2014	7.5%	10.0%
1 April 2015	6.5%	-
1 April 2016	7.0%	10.0%
1 April 2017	7.0%	-
1 April 2018	5.5%	-
1 April 2019	5.0%	-
1 April 2020	3.5%	-
1 April 2021	3.0%	-
Total	64.9% (14.7%)	21.0% (0.0%)
Average per annum	5.7% (4.7%)	2.1% (0.0%)

22. A comparison of the pension increases granted against inflation as measured by the growth in the consumer price index (CPI) for each of the nineteen financial years to 1 April 2021 is shown in Appendix 2 to this report.

#### **Expenses**

23. The expenses of running the Fund are met from the employer contributions. The expenses incurred in this regard over the inter-valuation period approximates to 1.58% of payroll. We have therefore, have marginally increased the reserving allowance for expenses from 1.40% of payroll 1.50% of payroll in the valuation. We recommend that the Board monitors the Fund's expenses on a regular ongoing basis.

#### **Rule Amendments**

- 24. Rule amendment number 2 was approved on 15 June 2018. Rule amendment number 2 is effective from the date of approval and provides for conditions under which the Fund can grant a loan or provide a guarantee under pension backed lending.
- 25. Rule amendment number 3 was approved on 30 August 2018. Rule amendment number 3 provides for the treatment of unclaimed monies, composition of the Board of Trustees and revises some of the definitions in the Rules, with effect from 01 April 2018.

#### **Previous Actuarial Valuation**

26. The previous statutory valuation of the Fund was carried out as at 31 March 2018. The valuation revealed the following results:

	31 March 2018 (N\$ 000's)
Total Liabilities	83 472 092
Active Members	61 595 247
Pensioners	20 574 496
Disability Income Recipients	1 302 349
Total Reserve Accounts	25 972 194
Longevity Reserve	8 347 209
Employer Contribution Reserve	13 929 270
Data Reserve	1 539 881
AIDS Reserve	2 155 834
Total Liabilities	109 444 286
Value of Assets	110 207 779
Surplus/(Deficit)	763 493
Funding Level	100.70%
Contingency Reserves as a % of Liabilities	31.11%

#### **Membership And Valuation Data**

The valuation was based on data supplied by the Administrator, GIPF. 27. The table below reflects the membership data that was provided for the valuation:

Data reference/ document name	Key Description	Content
(a) "Active Members March 2021 updated.xlsx", updated by "Active Members (System).xlsx"	An extraction of individual member records from the GIMIS system showing biographic information, salary details and the Government ministry a member is employed, and including a Member Number and payroll number for each record	99 067 individual records
(b) "Outstanding Admissions March 2021.xlsx"	An extract of individual records not yet loaded on the payroll system. Salary details are not included, and no member numbers included.	3 490 individual records (198 admitted post 31 March 2021)
(c) GRN Payroll March 2021. xlsx	A spreadsheet extract from the Government payroll "GRN Payroll March 2021.xlsx", indicated as at 31 March 2021 for members showing member biographic data, e.g. dates of birth, gender, admission dates to the Fund, position held and grading; does not include Member Numbers	101 666 individual records
<ul> <li>(d) Updated Parastatals and Regional Councils data, supplemented by 42</li> <li>spreadsheets for individual regional councils and parastatal</li> </ul>	An extract of records of members employed by parastatal and regional council entities; showing biographic information, salary details and the Government ministry a member is employed, and including a Member	4 714 individual records
(e) Unclaimed Benefits spreadsheet	Number and payroll number for each record A list of members classified as unclaimed benefits, for whom no provision is as yet made in the financials under benefits due. showing biographic information, salary details and the Government ministry a	2 768 individual records
(f) Several claims data files, a cashbook file and extracts covering the valuation period	Several files containing claims records of Number and payroll number for each record members including effective date of exit, and amount of benefit, as well as cashbook of individual transaction payments	Includes but not limited to exits in April 2018 to March 2021 valuation period
(g) Disability Data March2021. xlsx (h) Active Pensioner Data March 2021.xlsx	A list of members classified as disability income recipients benefits individual records and data for all pensions in payment as at 31 March 2021	697 individual records 44 534 individual records

#### Furthermore, financial data was supplied by GIPF as follows:

- Excel spreadsheet "GIPF Consolidated Report Pack 31 March 2021. xlsx" showing the assets' summary as at 31 March 2021;
- Audited Financial Statements for the years ending 31 March 2019, 31 March 2020 and 31 March 2021 as well as Management accounts for the year ended 31 March 2021.
- Details of pension increases and disability increases granted over the valuation period.
- 28. We also relied on the final member, pensioner and disability valuation data files from the previous valuation to check and reconcile the current member valuation data supplied by GIPF.
- 29. Integrity checks were performed on the reasonability and consistency of the data as outlined in Appendix 3 to this report. The data was found to be suitable for purposes of the valuation. However, some queries were raised and addressed in separate submissions to the GIPF Administrator.

Where queries pertaining to unreconciled or incomplete records with respect to member status, salaries, dates of entry and dates of birth, remained unresolved, then reasonable assumptions were applied to enable the valuation of as many incomplete records as possible.

- 30. In addition to incomplete records, remains data anomalies in the membership data provided, such as members in service previously allowed for in the previous valuation, and records allowed for in the previous valuation with no corresponding claim record or active member record in the current data provided.
- 31. Suitable mitigating strategies will be shared with the GIPF management to enable more accurate valuation data to be collated for purposes of future valuations of the Fund.
- 32. More detail on data checks and reconciliations is provided in Appendix 3.
- 33. We also relied on the Rules as currently approved and applying in relation to the operations of the Fund.
- As at the valuation date, there were 104 501 active members, including 705 members who were on disability, (after reconciliation of the GIMIS records and the payroll data).

35. The active membership as at the current valuation date can be summarised as follows:

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	3 March 2021		
Item	Female	Male	Total
Number of Active Members	54 784	49 717	104 501
Salary Weighted Average Age	41 years 6 months	42 years 4 months	41 years 11 months
Salary Weighted Average Past Service	13 years 7 months	14 years 9 months	14 years 2 months
Total Annual Salaries (N\$)	9 948 330 552	8 905 944 709	18 854 275 261
Average Annual Salaries (N\$)	181 592	179 133	180 422

\*Includes 705 disability members, who in terms of the GIPF Rules, would continue to accrue pensionable service, and contribute to the fund until Normal retirement. These disability members were previously valued only as disability income recipients for life.

### 36. The active membership statistics as at the previous valuation date was as follows:

	3 March 2018				
Item	Female	Male	Total		
Number of Active Members	54 120	52 215	106 335		
Salary Weighted Average Age	41 years 10 months	42 years 2 months	42 years 0 months		
Salary Weighted Average Past Service	13 years 8 months	14 years 4 months	14 years 0 months		
Total Annual Salaries (N\$)	8 450 516 418	8 099 773 008	16 550 289 426		
Average Annual Salaries (N\$)	156 144	155 123	155 643		

- 37. The change in the membership number from 106 335 to 104 501 represents a marginal net decrease in the active membership of the Fund.
- 38. The salary weighted average age for all Members has decreased marginally from 42 years to 41 years and 11 months.
- 39. The salary weighted average past service for all Members has increased marginally from 14 years to 14 years and 2 months.
- 40. The total annual salary bill has increased by N\$2.304 billion, from N\$16.550 billion to N\$18.854 billion since the last valuation.

This represents a 13.9% increase in the total annual salary bill, which translates into a compounded rate of growth of 4.4% per annum over the inter-valuation period.

- 41. The average salary has increased by N\$ 24 779, from N\$155 643 to N\$180 422 since the last statutory valuation. This represents a 15.9% increase in the average annual salary, which translates into a compounded rate of growth of 5.0% per annum over the inter-valuation period.
- 42. The pensioner statistics as at the current valuation date was as follows:

	3 March 2021					
ltem	Females			Males		
	Former Spouses Childre member		Children	Former Member	Spouse	Children
Total Number of Members	12 907	9 132	3 648	13 695	1 675	3 477
Total Annual Pensions (N\$)	867 278 103	377 236 832	64 879 830	921 501 767	89 129 557	60 911 864
Pension Weighted Average Age (N\$)	65 years 1 month	58 years 4 months	18 years 4 months	65 years 6 months	61 years 3 months	16 years 9 months
Average Annual Pensions (N\$)	67 194	41 309	17 785	67 287	53 212	17 519

43. The pensioner statistics as at the previous statutory valuation date was as follows:

	3 March 2018					
ltem	Females			Males		
	Former Spouses Children member		Former Member	Spouse	Children	
Total Number of Members	8 472	7 892	5 126	10 382	1 116	4 752
Total Annual Pensions (N\$)	458 801 082	290 232 209	74 578 494	525 375 980	52 279 494	69 487 723
Pension Weighted Average Age (N\$)	65 years 7 month	56 years 3 months	17 years 7 months	65 years 9 months	60 years 0 months	17 years 2 months
Average Annual Pensions (N\$)	54 155	36 775	14 549	50 605	46 845	14 623

44. The pensioner statistics as at the previous statutory valuation date was as follows:

Item	31 March 2021			
	Female	Male	Total	
Number of Members	338	367	705	
Total Disability Income (N\$)	31 087 757	32 851 754	63 939 511	
Income Weighted Average Age	53 years 3 months	50 years 12 months	52 years 1 month	
Average Annual Disability Income (N\$)	91 976	89 514	90 694	

Item	31 March 2018			
	Female	Male	Total	
Number of Members	409	442	851	
Total Disability Income (N\$)	36 800 117	38 491 692	75 291 809	
Income Weighted Average Age	52 years 9 months	52 years 1 month	52 years 4 months	
Average Annual Disability Income (N\$)	89 976	87 085	88 475	

45. The statistics for members receiving a disability income as at the previous valuation date are as follows:

46. There were 53 active members (156 as at the previous statutory valuation date) aged over the Normal Retirement Age of 60 years.

Eight of these members have ages of at least 67 years. We believe that these Members could have been allowed to retire in terms of the Public Service Act, 1995 (Act No. 13 of 1995). However, we could notconfirm if their employment contracts were revised to allow them to continue as members of the Fund. These members have been included as active members for purposes of this valuation.

47. A more detailed membership breakdown is given in Appendix 4 of this report.

#### **ASSETS OF THE FUND**

- 48. The market value of the assets was used for valuation purposes. This value was obtained from the audited financial statements as at 31 March 2021, the GIPF Consolidated Report pack, as well as management accounts as at 31 March 2021, as provided. We consider this method consistent with the method used to establish the value of the Fund's liabilities. The method of valuing assets is similar to that adopted at the previous actuarial valuation of the Fund.
- 49. The value, as at 31 March 2021 of the assets of the Fund (compared to that at the previous statutory valuation) and on which this valuation was based, is as follows:

	31 March 2021 (N\$ '000))	31 March 2018 (N\$ '000)
Non-current Assets	135 584 964	110 538 961
Market Value of Investments	135 442 116	110 444 453
Property Plant & Equipment	142 848	94 508
Current Assets	606 964	582 300
Cash at bank	563 207	523 987
Contributions Receivable	6 176	31 244
Accounts Receivable	37 581	27 069
Non-Current Liabilities	-	(215 359)
Benefits Payable	-	(215 359)
Current Liabilities	(709 896)	(698 123)
Benefits Payable	(605 129)	(563 243)
Accounts Payable	(102 997)	(111 319)
Bank Rejections	(1 770)	(23 561)
Unclaimed benefits	-	-
Total Asset Value	135 482 032	110 207 779

50. A summary of the assets as at 31 March 2019 and 31 March 2020 is shown in the balance sheet in Appendix 5 to this report. Assets have been taken into account at their market values, with no allowance for any investment fluctuation reserves.

	April 2018 to 31 March 2021 (N\$ '000)	
Opening balance as at 1 April 2018		110 207 779
Income		40 745 075
Member Contributions	4 004 642	
Employer Contributions	9 158 553	
Contribution Refunds	(25 202)	
Net Investment Income	27 549 031	
Other Income	58 051	
Outgo		(15 470 822)
Dissolution benefits	(6 084)	
Administration	(904 495)	
Lump sum – Death	(333 927)	
Lump sum – Retirements	(5 382 307)	
Lump sum – Withdrawals	(2 229 903)	
Funeral Benefits	(28 759)	
Pensions Paid	(6 585 347)	
Closing Balance as at 31 March 2021		135 482 032

The build-up of the assets from the previous valuation date is as follows: 51.

A detailed breakdown is shown in Appendix 6 to this report. 52.

#### **ASSET/LIABILITY PROFILE**

- 53. The liabilities of the Fund can be separated into two groups based on how they react to inflation. Inflation is here taken to mean either Consumer Price Inflation or inflation-related salary increases.
- 54. It should be noted that we value the liabilities of the Fund treating pension increases as a liability, although we realise that these are not guaranteed. Pension increases are granted subject to affordability, in terms of the Fund's Pension Increase policy. There is, therefore, a high likelihood that they will be granted, albeit with no guarantee. However, once granted, the amount of the pension increases.
- 55. If we valued the Fund's liabilities with no allowance for pension increases but treated these as purely discretionary, there would be a substantial decrease in Fund liabilities.
- 56. Liabilities which do not increase with inflation are best backed by assets which have known income payments and maturity values, e.g. cash and fixed interest securities.
- 57. Examples of this guaranteed portion of the Fund's liabilities are:
  - The liability in respect of Pensioners to secure the current level of pension with no further increases;
  - The present value of Active Members' accrued service pension with no provision for future salary increases to Date of Retirement and Pension Increasesthereafter; and
  - The liability in respect of Active Members whose benefits are to be paid in the near future on Retirement, III-Health, Death or Withdrawal.
- 58. We have estimated that about 43.6% of the Fund's liabilities (excluding reserves) fall in this category.
- 59. The balance of the Fund's liabilities, that increase with inflation and are not guaranteed, are best matched by growth assets, e.g. equities and property. Examples of these liabilities are:

The liability in respect of Pensioners to secure inflation-related pension increases in future; The liability in respect of Active Members reflecting the long-term provision of salary related Retirement Benefits; and The liability in respect of pension increases of the Active Members' accrued pension rights.

The Fund can therefore maximise its long-term return, subject to 60. minimising the risk of not being able to meet its liabilities by investing 35% to 45% of its assets in interest-bearing securities and cash, with the balance of 55% to 65% invested in growth assets.

61. The split of the non-current assets held by the Fund as at the current and the previous valuation date, available from the GIPF Consolidated Report Pack is shown in the table below:

	31 March	2021	31 March	2018
ASSET CLASS	Value (N\$ '000)	Percentage	Value (N\$ '000)	Percentage
Equities	58 838 734	43.4%	61 104 473	55.3%
Fixed Interest	35 565 762	26.3%	30 219 053	27.3%
Private Equity	18 675 616	13.7%	6 879 420	6.2%
Collective Investment	7 665 388	5.7%	-	0.0%
Property	7 357 871	5.4%	212 263	0.2%
Derivatives	1 776 449	1.3%	(220 708)	(0.2%)
Cash and Deposits	5 562 297	4.1%	12 249 911	11.1%
Plant and Equipment	142 848	0.1%	94 508	0.1%
Loans	-	0.0%	41	0.0%
TOTAL	135 584 964	100%	110 538 961	100%

62. The graphical presentation of the above split is as follows:



- 63. The Fund's private equity and property holdings has seen a significant increase from 6.4% as at the previous valuation date to approximately 19.1% as at the valuation date. Private equity and property investments are significantly less liquid than bond, cash and listed equity instruments. In addition, such assets are infrequently traded in markets which are less deep and liquid in nature, and therefore the fair value pricing and valuation of these holding are more difficult to achieve. Therefore, we recommend that the Trustees ensure that the investment policy framework includes effective measures to monitor, review and address the liquidity and valuation risks that arise from holding such assets, including due diligence on the valuation and pricing methodology of the managers of such assets.
- 64. As at the valuation date, the Fund held 26.2% of its assets in interestbearing securities and 4.1% in cash and deposits, which includes a N\$5.5 billion money market portfolio which the Fund actually invested as Bills. This liquid money market portfolio, monthly contributions together with interest from investment can be used to manage the liquidity risk.
- 65. The remaining 69.7% of assets were held in growth assets (equities, property, private equity and other).
- 66. The current actual split between growth and non-growth assets differs slightly from the recommended split in assets which aims to minimise the risk of the Fund not meeting the guaranteed portion of the Fund's liabilities.
- 67. We are however, satisfied overall, that the Fund's asset mix is broadly a suitable match for the Fund's liabilities. Interest-bearing assets are slightly underweight when considering the risk to the Fund of failing to meet the Fund's guaranteed liabilities.
- 68. We therefore, recommend that the Trustees, in line with the Investment Policy requirements, regularly review and monitor the impact of the investment strategy with regards to the risks of not meeting the Fund's liabilities.

#### **INVESTMENT STRATEGY**

69. Trustees of the GIPF previously carried out a review of the Fund's investment strategy/policy document in July 2019. The document is maintained on a "live" basis, and all changes incorporated on an ongoing basis. The strategy is reviewed every 18 months or sooner.

- 70. The investment strategy follows a liability driven investment approach, guided by the GIPF's Asset Liability Model (ALM) that is used to stochastically model an asset structure to suit the liabilities of the Fund. The results aim to provide a solid platform on which to make informed decisions regarding appropriate investment strategy for the Fund.
- 71. The primary long-term objective of the Fund is to meet its benefit obligations as set out in the Rules of the Fund, having due regard to the term and nature of the members' obligations, and the associated investment risks.
- 72. A few key objectives of the Fund are as follows:
  - (a) to ensure that the Pension Fund is fully funded;
  - (b) to target of net investment returns at least 3% p.a.
     higher than the greater of Salary Inflation and Inflation in line with the Fund's valuation assumptions;
  - (c) to ensure that the investment risk is managed effectively through a balanced and diversified investment approach at Fund level, a prudent allocation of assets to portfolio managers and careful investment monitoring; and
  - (d) to ensure the longer-term financial viability of the Fund rather than meet a short-term capital protection needs.
- 73. Key elements from the April 2021 Review of Investment Strategy of GIPF (by LCP) are set out below:
  - a) It was proposed to reduce the proportion of assets invested in Namibia to the regulated minimum of 45% of Fund assets, along with increasing the proportion invested in South African assets to 20% -mainly via increasing the percentage of assets in South African inflation linked bonds
  - b) When it comes to overall allocation, maintaining approximately 60% invested in equities, increasing investment in inflation linked bonds to 10%, while reducing the nominal bond allocation to 21%, as follows:
    - Equities allocation -58%.
    - Bonds allocation -21% (including cash).

- Inflation linked bonds 10%.
- Property allocation 7%.
- Infrastructure allocation -4%.
- c) Remaining assets can be invested globally with a limited proportion in the rest of Africa; and
- d) The investment strategy review proposed that the long-term net target investment return be set at 5% above inflation.
- 74. When taking into account the proportion of the Fund's liabilities that are considered guaranteed (43.6% of total Fund liabilities), it is noted that the Fund can target minimising the risk of not being able to meet its actuarial liabilities as they fall due, by investing 35% to 45% of its assets in interest-bearing securities and cash, with the balance of 55% to 65% invested in growth assets (such as equities, property and infrastructure)
- 75. The current and proposed strategic asset allocation is slightly underweight interest-bearing assets when compared to the recommended split of interest-bearing assets and growth assets to meet Fund's guaranteed and discretionary liabilities.
- 76. The proposed long-term investment return objective of 5% above inflation is comparable to the Investment Policy objective of 3% above salary inflation, as the Fund's valuation assumptions allowing for salary inflation, 1.5% in excess of inflation.
- 77. We are satisfied that the investment strategy, while targeting a slightly underweight proportion in interest-bearing securities, is still appropriate to the Fund's investment objectives and Fund liabilities. It is recommended that the Trustees continue to regularly monitor and review the impact of the investment strategy, in line with the requirements of the Fund's Investment Policy.
- 78. The Fund has achieved annualised net investment returns of 8.05% per annum over the intervaluation period to 31 March 2021, which falls short of the fund valuation interest rate longterm assumptions of 12% per annum, as well as the current long-term assumptions. The investment strategy previously adopted by the Fund has consistently performed poorly over the past years, probably on the back of poor general economic environments both locally and globally and recently as a result of the COVID pandemic. The Fund has undertaken a full asset liability modelling ("ALM") review as part of a review of the investment strategy, as set out above.

79. Given the historical performance of the Fund's assets prior to the adoption of the recent investment strategy, we recommend the Trustees to continue monitoring the performance of the Fund against the key objectives as outlined in the investment strategy.

#### **RESERVE ACCOUNTS**

#### **Longevity Reserve**

- 80. The reserve has been kept since, internationally most defined benefit funds and schemes are still exposed to experiencing increasing strains caused by increased life expectancy. Pensioners tend to live significantly longer than expected, based on historic experience and research.
- 81. It has been experienced internationally that pensioners are living up to an average of 10 years longer and this change has been experienced rapidly, within a time-period of 20 years. We have also observed an increasing rate of new pensioners commencing since the year 2000 (see Appendix 4) and at higher average pensions and therefore a need to project an increasing Longevity Reserve going forward. For this valuation, we continue to retain the Longevity Reserve in order to enable the Fund to hedge against this risk.
- 82. Increased life expectancy has been the experience in the developed world; its impact has not yet been fully felt in Sub-Saharan Africa. However, one must expect that medical advancements and general progress will also lead Africa to observe similar experience. With regards to the Fund, an increasing number of pensioners over the age of 90 is now being observed.
- 83. Pensioners within the Fund should be seen as a select group. Therefore, despite the fact that recent experience has seen deteriorating life expectancy in Southern Africa, Fund pensioners are individuals who have already survived through the possible vicissitudes of youth (notably the impact of HIV/AIDS) and are individuals who typically managed to achieve relatively long service with their erstwhile employers. Therefore, their life expectancy from the time of their retirement should be expected to be superior to that of the general population of Namibia. The introduction of free HIV/AIDS treatment and therapy for most of the population exposed to HIV/AIDS in most SADC countries including Namibia, has contributed to ameliorating the impact of HIV/AIDS on life expectancy in Southern Africa.

- 84. Surviving spouses, just as retired members, are also expected to live longer than expected.
- 85. We have in the recent past performed scenario analyses whereby we estimated the impact of pensioners surviving longer than expected, based on international norms. The increased cost varies for males and females and for different ages, but the range was found to be in the region of 10% to 13%.
- 86. We have recommended a reserve of N\$ 9 756 015 000, reflecting 10.0% of total liabilities before allowance for contingency reserves. This will be reviewed again at the next valuation.

#### **Employer Contribution Reserve**

- 87. The Employer(s) have for over 20 years been paying a stable 16% rate towards the Fund. This is relatively high compared to what other Employers typically pay towards retirement fund arrangements, the industry norm for Defined Contribution Fund would be roughly 10%.
- 88. The Employer Contribution Reserve has been set up, which is expected to be able to fund the difference between the actual contribution rate and the required contribution rate on a best estimate basis. We recommend an Employer Contribution Reserve able to cover the value of 10 years' contributions shortfall. For this valuation, we propose a value of N\$ 7 803 600 000 representing 8.0% of the value of total liabilities before allowance for contingencies. This is lower than the N\$ 13 929 270 000 set aside at the previous valuation which represented 16.69% of total liabilities before allowance for contingencies.
- 89. A decrease in the employer contribution reserve is a direct result of change in the methodology of modelling the spouse and children death in service pension for active members and disability income recipients, the overall impact was a reduction in the required future contribution rate, which in turn led to a reduced cost of these benefits going forward.
- 90. Although this reserve requirement has declined, it is essential that Trustees monitor the experience over time to measure the adequacy of the reserve in stabilising and smoothing contribution rates for all stakeholders.

#### **Data Reserve**

91. The Data Reserve has historically been set at 5% of the Fund's past service liabilities in respect of active and disabled members to fund for any possible increase in liabilities resulting from possible data errors and ad hoc admissions to membership of those Eligible employees whose records are neither on the GIMIS system nor part of the valuation data.

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The GIPF has been working on a data project which has been running for the past three years to ensure that data is reasonably accurate for any investigations. Historically there have been cases of participating employers delaying registering new employees with the Fund, which resulted in an increase of the liability when those omitted members are included.

As at the previous valuation, we have reduced the level of this reserve to 2.5% of active members' liabilities due to an improvement in the data quality. We are of the opinion that this level is still appropriate and should be maintained. We have recommended a reserve of N\$1 600 053 000, reflecting 1.64% of total liabilities before allowance for contingency reserves. This will be reviewed again at the next valuation.

92. Although there remain some concerns which relate to parastatal and regional councils members and areas where insufficient data are provided for the valuation, most of the records on GIMIS and Payroll have been accounted for and reconciled and there is reduced discrepancy between the two sources of data.

#### **AIDS Reserve**

- 93. An AIDS Reserve is held to act as a buffer against the impact of deteriorating Mortality and Morbidity experience caused by HIV/AIDS. This was previously determined using a statistical model to assess the impact of worsening HIV/AIDS experience in Namibia. In the past, this reserve has been maintained at 7% of the Fund's liability in respect of Active Members.
- 94. However, at the previous valuation, we reduced this to 3.5% of active members' liabilities to reflect that to a large extent suitable intervention programs are currently in place in Namibia and most employees would ordinarily then manage normal working lives. We believe that the reserve should be maintained at this level.

We have recommended a reserve of N\$2 240 075 000, reflecting 2.30% of total liabilities before allowance for contingency reserves.

We further recommend that the Trustees continue to monitor and review the level of the AIDS Reserve in the light of the potential future improvements and developments in the interventions to counter the ongoing impact of HIV/AIDS.

95. The following table summarises the above reserve accounts:

Reserve Account	Current Valuation as at 31 March 2021 (N\$' 000)	% of Total Liabilities	Previous Valuation as at 31 March 2018 (N\$' 000)	% of Total Liabilities
Longevity Reserve	9 756 015	10.00%	8 347 209	10.00%
Employer Contribution Reserve	7 803 600	8.00%	13 929 270	16.69%
Data Reserve	1 600 053	1.64%	1 539 881	1.84%
AIDS Reserve	2 240 075	2.30%	2 155 834	2.58%
Total	21 399 743	21.93%	25 972 194	31.11%

- 96. The Data Reserve of 1.64% of total liabilities is equivalent to 2.50% of active member liabilities.Similarly, the AIDS reserve of 2.30% of total liabilities is equivalent to 3.50% of active member liabilities.
- 97. It is recommended that the AIDS Reserve be renamed to Mortality Reserve to cover a wide variety of mortality risks not only limited to AIDS.

#### VALUATION METHOD AND ASSUMPTIONS

98. The method used to place a value on the past service liabilities and the required future contribution rate is known as the projected unit credit method. This method is suitable given the nature of the Fund, being open to new entrants.

- 99. The projected unit credit method determines the required future contribution rate as the cost of benefits accruing in the next 3 years following the valuation date, expressed as a percentage of Pensionable Emoluments as in the next 3 years following the valuation date. The next statutory actuarial valuation due as at 31 March 2024 (3 years after the current valuation date).
- 100. Under this method the present value of benefits that have accrued to Members in respect of service prior and up to the valuation date is compared with the value of the Fund's assets. Allowance is made in the valuation of the accrued benefits for estimated or expected future salary increases, investment returns, retirements, withdrawals, deaths and disabilities. The projected unit method assumes a steady flow of new entrants to the Fund, which is expected to result in the overall structure with respect to age and gender - remaining reasonably stable over time. It is explicitly assumed that the Fund is a going concern and does not make provision for the Fund to be discontinued. The objective is to aim for a funding level, (the ratio of the value of the Fund's assets to that of the accrued benefits), of at least a 100%.
- 101. The methodology used in this valuation is consistent with that used in the previous valuation and deemed appropriate to the nature of the Fund. However, in the previous valuation, the future contribution rate was set as the cost of benefits accruing in the next year following the valuation date expressed as a percentage of Pensionable Emoluments as at the valuation date.
- 102. For active Members, the past service liability is determined as the discounted expected present value of retirement, withdrawal, death and disability benefits that have accrued up to the valuation date based on projected salaries to the date of retirement or earlier death or withdrawal or disability.
- 103. For Members in receipt of disability income benefits, the past service liability is determined as the present value of the future disability income benefits until retirement plus discounted expected present value of retirement benefits that have accrued.

- 104. In our results, the present value of the future disability income benefits until retirement is represented under the label "Disability Income Recipients" and the discounted expected present value of retirement benefits that have accrued is presented under the label "Active Members". We have adopted this approach because disability members continue to accrue service while receiving disability income, and are eligible to retire at Normal retirement in the same manner as Active Members.
- 105. For pensioners, the past service liability is determined as the present value of expected future pension payments. The Pension increase of 3.0% granted as at 1 April 2021 has been taken into account when determining the liability. Therefore, the pension liability represents a liability after allowing for the 3.0% pension increase that was declared on 1 April 2021.
- 106. The Fund's financial position has been determined using the Projected Unit Credit Method and based on a "best estimate" valuation basis. This funding method was also used at the previous valuation.
- 107. The required future contribution rate will remain relatively stable provided the Membership of the Fund remains stable. This assumes that exits are replaced by new entrants with age and salary profiles that keep the membership stable.

#### Valuation Basis

- 108. In order to calculate the value of the assets and liabilities, it is necessary to make assumptions. The set of assumptions is termed the valuation basis and is briefly described below. It is described in more detail in Appendix 7 to this report.
- 109. The important characteristics of a valuation basis are that:
  - The assumptions take into account the expected long-term experience of the Fund.
  - The assumptions aim to produce a stable estimate of the required future contribution rate of the Fund.
  - The assumptions produce a stable funding level of the Fund over time.
  - The assumptions lead to a smooth emergence of the surplus of the Fund over time.
- 110. Neither the method nor the assumptions used affect the ultimate cost of providing the benefits promised by the Fund. They only affect the timing of how this ultimate cost is met.

111. It should be noted that the relationships between the various financial assumptions are more critical than the nominal value of each individual assumption.

#### **Long Term Valuation Basis**

112. The main financial assumptions for the current and previous valuation are as follows:

	Assumption	Current Valuation 31 March 2021	Current Valuation 31 March 2018
Pre-Retirement	Inflation	6.00 %	8.00 %
	Investment returns	11.00 %	12.00 %
	Salary Increases	7.50 %	9.50 %
	Disability Income Increases	7.50 %	8.00 %
	Net pre-retirement interest rate	3.30%	2.29 %
Post-Retirement	Investment returns	11.00 %	12.00 %
	Pension Increases	7.00%	8.00 %
	Net post-retirement interest rate	3.73%	3.71%

- 113. Since 1 April 2003, the pension increases, and inflation rates averaged 6.58% p.a. and 5.42% p.a. respectively. We have therefore reduced the inflation rate assumptions from 8% p.a. to 6% p.a. Pension increases are expected to equal inflation+1% over the long-term. Salary increases and disability income increases are expected to equal inflation+1.5% over the long-term.
- 114. The net return earned on the assets of the Fund since 1 April 2012 as per the Fund's monthly returns is an average of 11.39% p.a. and 8.05% p.a. over the inter-valuation period i.e., 1 April 2018 to 31 March 2021). We have therefore reduced the investment return assumptions from 12% pa. to 11% p.a.
#### **Market Consistent Valuation Basis**

- 115. The trustees have requested that we carry out the assessment of the financial soundness of the Fund using a different set of assumptions, in order to provide more insights into the variability of the results.
- 116. The basis used is termed a "Market Consistent Valuation Basis". A market consistent valuation is the one in which balance sheet entries are valued at prices they will fetch in an "at arms-length" transaction as at the valuation date.
- 117. Namibia does not have a deep market for government bonds, we have therefore used the South African bonds as a proxy for the Market consistent approach.
- 118. The GC50 bond issued by the Namibian Government is comparable with the R2048 bond issued by the South African Government. The yields to maturity for these bonds are 13.83% and 11.33% respectively.

According to the GIPF investment report as at 31 March 2021, 45.56% of the GIPF assets were invested in Namibia and 18.83% were invested in South Africa. It should be noted that the GIPF investment report does not include Plant and Equipment and Cash that are presented in the Management Accounts as at 31 March 2021.

119. Method used to determine the Market Consistent Basis - as guided by the South African Board notice 270 of 2013 regarding assumptions for the determination of minimum individual reserves of members of defined benefit categories of pension Funds, with some minor changes.

# Determination of the discount rate: Index-Linked Gilt Yield (ILG) Method

The discount rate derived from the use of index-linked gilt yield method is the annualised yield on long-dated index-linked gilts (bonds) with reference to the 10-year rate on the real government zero yield curve as published by the Johannesburg Stock Exchange (JSE) and adjusted as follows:

- +1.35%, being allowance for risk premium;
- 1.50%, being an allowance for salary increases in excess of the change in consumer price index; and
- 0.30%, being an allowance for asset management fees

Resulting in an adjustment of -0.45% (1.35%-1.50%-0.3%) to the ILG yield.

The ILG yield as at 31 March 2021 was 3.87%.

The net pre-retirement rate as at 31 March 2021 is therefore 3.42% i.e., 3.87%-0.45%.

#### Determination of the assumption for general price inflation

As guided by the ASSA SAP 201 practice notes -the assumption for general price inflation must be based on information about market expectations at the valuation date commensurate with the duration, nature and currency of the liabilities, for both the bond-based approach and the risk premium approach. An inflation risk premium not exceeding 0.5% per annum may be used in the determination of this assumption considering the difference between bond yields and inflation-linked bond yields.

## Determination of the assumption regarding future pension increases and salary increases

As guided by the ASSA SAP 201 practice notes-in order to arrive at an assumption regarding expected future pension increases, the valuator must ensure consistency between the pension increase assumption, the discount rate ... and the assumption regarding future general price inflation ..., subject to the fund's pension increase policy ...

Similarly, the assumption regarding expected future salary increases for in-service members must be consistent with the assumption regarding general price inflation

Financial Assumption	Long Tem Basis	Best Estimate Basis as at 31 March 2021
R2048 Bond yield		11.33% p.a.
I2046 bond yield		4.25% p.a.
Inflation	6.0% p.a.	(11.33% - 4.25%) = 7.08% p.a.
Inflation Risk Premium		0.00%
Salary Increase rate/Disability income increase rate	7.5% p.a. plus merit scale	7.08% + 1.50% = 8.58% p.a.
Pension Increase provision	7.0% p.a.	7.08% + 1.00% = 8.08% p.a
Discount Rate	11.0% p.a.	1+3.42%)*(1+8.58%)-1 = 12.29%
Post Retirement Interest rate	3.74% p.a.	3.90% p.a.
Real Gap Salary Inflation	3.26% p.a.	3.42% p.a.

120. The following table summarizes the bases.

#### **VALUATION RESULTS**

121. The results of the valuation as at 31 March 2021 (compared to that at the previous statutory valuation) -using the long-term valuation basis, are set out below. The funding level is determined by expressing the total value of assets as a percentage of the total liabilities and reserves.

	31 March 2021 N\$ 000's	31 March 2018 N\$ 000's
Total Liabilities	97 560 150	83 472 092
Active Members	64 002 136	61 595 247
Pensioners	32 395 029	20 574 496
Disability Income Recipients	426 731	1 302 349
Unclaimed benefits provision	736 254	
Total Reserve Accounts	21 399 743	25 972 194
Longevity Reserve	9 756 015	8 347 209
Employer Contribution Reserve	7 803 600	13 929 270
Data Reserve	1 600 053	1 539 881
AIDS Reserve	2 240 075	2 155 834
Total Liabilities and Reserves	118 959 893	109 444 286
Market Value of Assets	135 482 032	110 207 779
Surplus/(Deficit)	16 522 139	763 493
Funding Level	113.89%	100.70%
Contingency Reserves as a % of Liabilities	21.93%	<b>31.11</b> %

122. Based on the above results, we certify that the Fund was financially sound as at the valuation date.

123. The total employer contribution rate required over the next year to meet the cost of funded benefits accruing (compared to those at the two previous valuations) is given below:

	Required Contribution Rate	
	31 March 2021	31 March 2018
Retirement Benefits	19.46%	21.45%
Disability Benefits	2.63%	1.04%
Death Benefits	3.60%	8.35%
Resignation Benefits	0.67%	0.56%
Funeral Benefits	0.06%	0.10%
Fund Expenses	1.50%	1.40%
Total Required Contribution Rate	27.92%	32.89%
Less Member Contribution Rate	(7.00%)	(7.00%)
Total required Employer(s) Contribution Rate	20.92%	<b>25.89</b> %

- 124. The total required employer contribution rate has decreased from 25.89% to 20.92%. This is due to change in assumptions and a significant decrease in the required contribution rate for Death Benefits, resulting from a change in the valuation methodology of this category of benefits, as suggested by a peer review of the previous valuation results.
- 125. The Employer(s) are currently contributing at 16.0% of payroll, which falls short of the required employer contribution rate. The Employer Contribution Reserve has been set up in order to reserve for the shortfall in funding.

#### SENSITIVITY ANALYSIS OF RESULTS

126. As described in the report, the liabilities were determined using various assumptions. The actual liability faced by the Fund in the future will depend on the actual experience for each assumed item.

The liabilities in the tables below were recalculated to illustrate the impact that changes in the investment return assumption will have on the liabilities: (Results of other sensitivities are presented in Appendix 8 of this report).

	Investment Return		
	10%	11%	12%
Total Liabilities	114 248 959	97 560 150	84 369 632
Active Members	77 246 233	64 002 137	53 728 465
Pensioners	35 657 401	32 395 029	29 621 036
Disability Income Recipients	450 814	426 731	405 094
Provision for Unclaimed Benefits	894 511	736 254	615 037
Total Reserve Accounts	32 628 779	21 399 743	13 325 400
Longevity Reserve	11 424 896	9 756 015	8 436 963
Employer Contribution Reserve	16 569 109	7 803 600	1 664 729
Data Reserve	1 931 156	1 600 053	1 343 212
AIDS Reserve	2 703 618	2 240 075	1 880 496
Total Liabilities	146 877 738	118 959 893	97 695 032
Market Value of Assets	135 482 032	135 482 032	135 482 032
Surplus/(Deficit)	(11 395 706)	16 522 139	37 787 000
Funding Level	92.24%	113.89%	138.68%
Contingency Reserves as a % of Liabilities	28.56%	<b>21.93</b> %	<b>15.79</b> %

	Investment Retun		ın
	10% 11% 12		<b>12</b> %
Retirement Benefits	24.31%	19.46%	15.80%
Disability Benefits	2.80%	2.63%	2.49%
Death Benefits	3.58%	3.60%	3.61%
Resignation Benefits	0.70%	0.67%	0.64%
Funeral Benefits	0.06%	0.06%	0.06%
Fund Expenses	1.50%	1.50%	1.50%
Total Required Contribution Rate	32.95%	<b>27.92</b> %	<b>24.10</b> %
Less Member Contribution Rate	(7.00%)	(7.00%)	(7.00%)
Total required Employer(s) Contribution Rate	25.95%	20.92%	1 <b>7.10</b> %

127. The variability in the required future contribution rate would be as follows:

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128. As shown in the table above, the results are extremely sensitive to the future investment return.

#### **ANALYSIS OF SURPLUS**

129. An analysis of the main items accounting for the change in the financial position of the Fund from 31 March 2018 to 31 March 2021 is set out below:

Item	Surplus/(Deficit) (N\$000's)
(a) Surplus as at 31 March 2018	763 493
(b) Interest on surplus	309 160
(c) Contributions	(5 649 337)
(d) Investment Income	(16 650 779)
(e) Administration Expenses	(104 791)
(f) Salary Increases	10 967 588
(g) Pension Increases	2 745 477
(h) Disability Benefits Increases	204 643
(i) Change in basis/assumptions (liability)	7 525 226
(j) Release from reserve accounts	13 993 312
(k) Change in valuation methodology	152 438
(I) Data adjustments, additions & corrections	(2 814 950)
(m) Release/Strain in Exits	4 554 692
(n) Miscellaneous Item	525 967
Surplus as at 31 March 2021	16 522 139

#### 130. The above items are explained briefly below:

- (a) This is the value of the surplus revealed as at the 31 March 2018 valuation.
- (b) Interest on the surplus as at the previous valuation date calculated at the expected previous valuation rate of return of 12% p.a., i.e. (40.5% over 3 years).
- (c) The employer contributed at a rate of 16% as opposed to the recommended rate of 25.89% of Pensionable Emoluments. This resulted in a deficit to the Fund.
- (d) The previous valuation assumed an investment return of 12% per annum. Over the intervaluation period, the Fund returns averaged 8.05% per annum, which was below the assumed level, resulting in a deficit.
- (e) The level of administration expenses compared to salaries averaged 1.58% in the intervaluation period, which is above the funding allowance of 1.40% assumed in the previous valuation. This resulted in a deficit to the Fund.
- (f) The previous valuation assumed a salary escalation of 9.5% per annum. Over the intervaluation period, the salary increases declared averaged 5.1% per annum, resulting in a surplus to the Fund.
- (g) The previous valuation assumed pension increases of 8.0% per annum.Over the intervaluation period, the awarded pension increases averaged 4.7% per annum, resulting in a surplus to the Fund.
- (h) The previous valuation assumed a disability income escalation of 8.0% per annum. Over the inter-valuation period, there was no increases to disability income members, resulting in a surplus.
- (i) The overall effect of the change in the investment rate and salary and pension increases from the previous valuation the current valuation, was a net increase in the pre-retirement interest rate from 2.28% p.a. as at the previous valuation to 3.30% p.a. currently; and a marginal increase in the post-retirement interest rate from 3.71% p.a. to 3.74% per annum currently. The increase in discount rates resulted in a surplus to the Fund.
- (j) The change in the expected value of the reserves held in the Fund as at the previous valuation date, compared to the reserves required as at the current valuation date led to a release from the reserves accounts, and resulted in a surplus to the Fund. A significant element of the release

from the reserves is a decrease in the employer contribution reserve required as a direct result of change in the methodology of modelling the spouse and children death in service pension for active members and disability income recipients.

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- (k) Changes in the valuation methodology with respect to the disability income recipients, as well as allowing for the valuation of a funeral benefit for pensioners resulted in a net surplus to the Fund. Disability members continue to accrue service while receiving disability income and are eligible to retire at Normal retirement in the same manner as Active Members. Disability income recipients were valued in a manner similar to pensioners in the previous valuation
- (I) Data adjustments, additions and corrections to the valuation data provided resulted in a deficit to the Fund. The data adjustments were mainly with respect to members who joined the Fund before 1 April 2018, but who had not been previously included in the valuation liability results.
- (m) The release in actuarial reserves held in respect of exits were greater than expected compared to the benefits paid, resulting in a surplus to the Fund. Member benefits are calculated using annuity and withdrawal factors. The current set of factors have been used without revision for the past several valuations and need to be reviewed to monitor whether these are aligned with current and recent long-term Fund valuation assumptions.

While the long-term valuation basis is designed to be broadly neutral between the modes of exit (i.e., neutral to exit by retirement, death resignation or transfer), should the factors routinely used to calculate the members benefits payable not be aligned to this basis, then surpluses or strains will continue to arise over future valuation periods.

We therefore recommend that the Trustees consider reviewing the factors that are used to calculate member benefits in order to align them with the revised long-term assumptions. We further recommend that the Trustees consider establishing a formal governance policy which will set out the formal actions and outcomes from the review of these factors on a triennial basis.

(n) Miscellaneous item was a surplus of N\$ 525 967 000 resulting from other experience over the inter-valuation period.

### MARKET CONSISTENT VALUATION RESULTS

#### **Financial Position**

	Valuation Results as at 31 March 2021 (N\$ 000's)		Valuation Results as at 31 March 2018 (N\$ 000's)
	Long term Best Estimate Basis	Market Consistent Basis	Long term Best Estimate Basis
Total Liabilities	97 560 150	94 268 767	83 472 092
Active Members	64 002 137	61 255 921	61 595 247
Pensioners	32 395 029	31 887 941	20 574 496
Disability Income Recipients	426 731	422 745	1 302 349
Provision for Unclaimed Benefits	736 254	702 160	-
Total Reserve Accounts	21 399 743	19 244 976	25 972 194
Longevity Reserve	9 756 015	9 426 877	8 347 209
Employer Contribution Reserve	7 803 600	6 142 744	13 929 270
Data Reserve	1 600 053	1 531 398	1 539 881
AIDS Reserve	2 240 075	2 143 957	2 155 834
Total Liabilities	118 959 893	113 513 743	109 444 286
Market Value of Assets	135 482 032	135 482 032	110 207 779
Surplus/(Deficit)	16 522 139	21 968 289	763 493
Funding Level	113.89%	119.35%	100.70%
Contingency Reserves as a % of Liabilities	21.93%	20.42%	31.11%

#### **Required contribution rate**

	Valuation Results as at 31 March 2021		Valuation Results as at 31 March 2018
	Long term Best Estimate Basis	Market Consistent Best Estimate Basis	Long term Best Estimate Basis
Retirement Benefits	19.46%	18.56%	21.45%
Disability Benefits	2.63%	2.60%	1.04%
Death Benefits	3.60%	3.56%	8.35%
Resignation Benefits	0.67%	0.62%	0.56%
Funeral Benefits	0.06%	0.06%	0.10%
Fund Expenses	1.50%	1.50%	1.40%
Total Required Contribution Rate	27.92%	26.90%	32.89%
Less Member Contribution Rate	(7.00%)	(7.00%)	(7.00%)
Total required Employer(s) Contribution Rate	20.92%	<b>19.90</b> %	<b>25.89</b> %

# CONCLUSIONS AND RECOMMENDATIONS

#### Conclusions

- 131. The valuation revealed liabilities and reserves of N\$ 118.960 billion whilst the actuarial value of the assets was N\$ 135.482 billion. The actuarial surplus amounted to N\$ 16.522 billion as at valuation date.
- 132. The valuation results show a funding level of 113.89% as at the valuation date and we can consequently certify that the Fund is currently in a financially sound condition. This is an increase from a funding level of 100.70% as at the previous valuation date.
- 133. The Fund's practice over previous valuations has been to pay additional amounts to exits from the Fund, reflecting a proportion of surplus determined from the funding level, which is 13.89% of the Fund. Should the practice be followed then additional amounts of 13.89% of liabilities will be payable any exits from the Fund after the valuation date.

We note that the current internal Funding policy guideline of the GIPF sets out the Board's intent to implement a benefit security margin of between 1% to 5% if liabilities, after contingency reserves. While there has not yet been a formal implementation in the Fund's reserve and liability structure and Rules, the additional amount that can be allocated could be reduced to 8.89% (13.89% less 5%) of liabilities should this be implemented.

- 134. The internal Funding policy guideline of the GIPF is further to target a funding level (after contingency reserves) of between 105% and 115% over time. We note that as at the current valuation date, the funding level is within this ideal range.
- 135. The valuation revealed Reserves held of N\$ 21.4 billion, which is 21.93% of liabilities, a decrease from 31.11% of liabilities as at the previous valuation.
- 136. To allow for prudence, in line with the GIPF's internal Funding policy guidelines, a Data Reserve continues to be retained in the Fund in respect of erroneous or missing active membership data at a level of 2.50% of the active member liabilities (1.64% of total liabilities).

In this valuation several data anomalies have been noted in the membership information provided for the valuation exercise. As with



the previous valuation, we have maintained the level of this reserve to 2.50% of active members' liabilities since the quality of the data provided has not improved since the previous valuation. We are, therefore of the opinion that this level is still appropriate and should be maintained.

137. We have valued the Employer Contribution Reserve at N\$ 7 803 600 000, representing 8.0% of the value of total liabilities before allowance for contingencies. This is lower than the N\$ 13 929 270 000 set aside at the previous valuation which represented 16.69% of total liabilities before allowance for contingencies.

The decrease in the employer contribution reserve is a direct result of change in the methodology of modelling the spouse and children death in service pension for active members and disability income recipients, the overall impact was a reduction in the required future contribution rate, which in turn led to a reduced cost of these benefits going forward.

Although this reserve requirement has declined, it is essential that Trustees monitor the experience over time to measure the adequacy of the reserve in stabilising and smoothing contribution rates for all stakeholders.

- 138. Over the inter-valuation period, benefit payments exceeded contributions received (see Appendix 9 for details). If the growth in active membership of the Fund is expected to stay low as observed over the inter-valuation period, then this situation is likely to worsen over time resulting in a reduction of investible assets of the Fund and in extreme events having to realise invested assets at inopportune times in order to meet cashoutflow requirements.
- 139. The level of administration expenses compared to salaries averaged 1.58% in the inter-valuation period, which is above the funding allowance of 1.40% assumed in the previous valuation. We have, therefore, have marginally increased the reserving allowance for expenses from 1.40% of payroll to 1.50% of payroll in the valuation.
- 140. We have examined the assets in relation to the liabilities, and in our opinion, the balance of the assets is suitable for the nature of the liabilities of the Fund. Interest-bearing assets are slightly underweight when considering the risk to the Fund of failing to meet the Fund's guaranteed liabilities.

141. We are satisfied that the investment strategy, while targeting a slightly underweight proportion in interest-bearing securities compared to the level of the Fund's guaranteed liabilities, is still appropriate to the Fund's investment objectives and Fund liabilities.

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- 142. The Fund has achieved annualised net investment returns of 8.05% per annum over the intervaluation period to 31 March 2021, which falls short of the fund valuation interest rate assumption of 12% per annum. The investment strategy previously adopted by the Fund has consistently performed poorly over the past years, probably on the back of poor general economic environments both locally and globally and recently as a result of the COVID pandemic. The Fund had undertaken a full asset liability modelling ("ALM") review as part of a review of the investment strategy.
- 143. Member benefits are calculated using annuity and withdrawal factors (for more detail Analysis of Surplus paragraph (m)). The current set of factors have been in used without revision for the past several valuations, and need to be reviewed to monitor whether these are aligned with current and recent long-term Fund valuation assumptions.

#### Recommendations

- 144. Given the surplus in the fund, we recommend that the Trustees consider additional amounts to all exits from the Fund effective from the valuation date. Based on past practice, we recommend that the additional amounts be set in the range from 8.56% to 13.56% of liabilities, depending on the implementation of the benefit security margin according to the internal GIPF funding guidelines in place.
- 145. The Trustees should continue to monitor the Employer Contribution Reserve over time to assess its suitability for financing the subsidy and smoothing the required contribution rate(s).
- 146. To allow for prudence, a Data Reserve continues to be retained in the Fund in respect of erroneous or missing active membership data although at a much lower level than has historically been the case. At this valuation, we recommend that the reserves be maintained at the same level of reserves as a proportion of liabilities as was held at the previous valuation date.
- 147. Benefit payments exceeded contributions received in the inter-valuation period. We recommend that the Trustees align the investment strategy to allow for the generation of liquid income that can be used to cover the contributions shortfall.
- 148. The expenses incurred over the inter-valuation period approximates to 1.58% of payroll. We therefore recommend to marginally increase the reserving allowance for expenses from 1.40% of payroll to 1.50% of payroll in the valuation. We recommend that the Trustees monitor the expenses

to ensure that the level of administration expenses compared to salaries does not exceed the budgeted levels.

- 149. We recommend the Trustees consider reviewing the annuity and withdrawal factors that are used to calculate member benefits in order to align them with the revised long assumptions. We further recommend that the Trustees consider establishing a formal governance policy which will set out the formal actions and outcomes from the review of these factors on a triennial basis.
- 150. We recommend that the Trustees, in line with the Investment Policy requirements, regularly review and monitor the impact of the investment strategy with regards:
  - (a) to the risks of not meeting the Fund's liabilities.
  - (b) the performance of the Fund against the key objectives as outlined in the investment strategy.
  - (b) liquidity funding risks related to the liquidity of different asset classes and liquidity transactional risks related to needing funds available to meet benefit payments and obligations as they arise.
- 151. It is recommended that the AIDS Reserve be renamed to Mortality Reserve to cover a wide variety of mortality risks not only limited to AIDS.
- 152. In terms of the Fund's current practice, this is a statutory actuarial valuation carried out as at 31 March 2021 with the next interim actuarial valuation due as at 30 September 2022 and the next statutory valuation due as at 31 March 2024.
- 153. We certify that the Fund was financially sound as at the valuation date.

Subedra Reddy BBusSc FASSA In My Capacity as the Fund Valuator and Consultant to Humanity Employee Benefits Co (Pty) Ltd

Sudhir Ramdass BSc FIA FASSA In My Capacity as an Actuary and Consultant to Humanity Employee Benefits Co (Pty) Ltd

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08 March 2022





## **APPENDIX 1: SUMMARY OF RULES**

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| Definition                     | Description                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fund                           | The Government Institutions Pension Fund                                                                                                                                                                                                                                                                                                                                       |
| Old Fund                       | The Statutory Institutions Pension Fund introduced under the Statutory Institutions Pensions Act, 1980 (Act No. 3 of 1980).                                                                                                                                                                                                                                                    |
| Member                         | An eligible employee who has been admitted to membership in terms of Rule 2 as long as he/she remains a Member in terms of these Rules.                                                                                                                                                                                                                                        |
| Employer                       | In relation to any Member, the employer in whose Service he/she is, which shall be the Government of the Republic of Namibia and an institution or body established by or under law and which:                                                                                                                                                                                 |
|                                | a) was declared to be a statutory institution for the purposes of the Old<br>Fund; or                                                                                                                                                                                                                                                                                          |
|                                | <ul> <li>b) has applied to the Trustees for membership and been admitted by the<br/>Trustees as an Employer, and which therefore participates in the Fund.</li> </ul>                                                                                                                                                                                                          |
|                                | Any Employer which withdraws from the Fund shall simultaneously cease to be an Employer for the purposes of the Rules.                                                                                                                                                                                                                                                         |
| Commission                     | The Public Service Commission established under section 2(1) of the Public Service Commission Act, 1990 (Act No. 2 of 1990).                                                                                                                                                                                                                                                   |
| Normal<br>Retirement Age       | The age of 60 years or, in the case of a member of a specific class, or category, the age determined in terms of the Public Service Act, 1995 (Act No. 13 of 1995) in respect of such Member or approved by the Prime Minister on recommendation of the Commission.                                                                                                            |
| Normal<br>Retirement Date      | The last day of the month in which a Member retires.                                                                                                                                                                                                                                                                                                                           |
| Pensionable<br>Emoluments      | The Member's basic annual salary or wages and any other regular amounts which are regarded as pensionable by the Trustees at the request of the Employer.                                                                                                                                                                                                                      |
| Pensionable<br>Service         | All uninterrupted service as a member of the Fund, plus the period of Service under the Old<br>Fund which has been transferred to the Fund, and a period during which the Member has<br>worked for an Employer or elsewhere and which is recognised for pension purposes by the<br>Trustees, and in respect of which contributions to the Fund, as determined by the Trustees. |
| Final Salary                   | The annualised average of the Member's Pensionable Emoluments during the 12 successive months immediately preceding his/her retirement, or if less than 12, during the number of months completed in his/her term of Pensionable Service.                                                                                                                                      |
| Normal<br>Retirement           | A pension equal to 2.4 % of the Member's Final Salary for each year of Pensionable Service.                                                                                                                                                                                                                                                                                    |
| Early Age<br>Retirement        | A Member may, with the agreement of his Employer, retire on the last day of any month during the five-year period ending on his Normal Retirement Date.                                                                                                                                                                                                                        |
|                                | The benefit payable is as per Normal Retirement, reduced by 0.25% for every complete month by which the Member's Pensionable Service is terminated prior to his/her Normal Retirement Date.                                                                                                                                                                                    |
|                                | Any Member dismissed from service after attaining age 55 receives a similar benefit.                                                                                                                                                                                                                                                                                           |
| III-Health Early<br>Retirement | Subject to satisfactory medical evidence, if a Member becomes totally and permanently incapable of efficiently carrying out his own occupation the Trustees may agree to his retirement at any time prior to his Normal Retirement Date. The benefit payable is as per Normal Retirement.                                                                                      |

| Definition                                                                    | Description                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Early Retirement<br>other than Age or<br>Ill health                           | <ul> <li>Member may subject to Trustees approval be retired due to dismissal to allow<br/>reorganisation of employer or to improve efficiency of employer, dismissal in terms<br/>of section 24(4)(h) of public service Act of 1995, or after serving at least 10 years,<br/>inability or unsuitability for or inability to carry out duties in an efficient manner.</li> </ul> |
|                                                                               | <ul> <li>The service applied to calculate the pension in respect of the dismissal or<br/>reorganisation cases may be increased by the shortest of:</li> </ul>                                                                                                                                                                                                                   |
|                                                                               | <ul><li>One third of pensionable service, or</li><li>Outstanding period to normal retirement date, or 5 years.</li></ul>                                                                                                                                                                                                                                                        |
| Retirement at<br>expiry of term<br>of office for<br>Members of<br>Commissions | <ul> <li>Member is entitled to pension calculated as 2.4% of pensionable salary times service.</li> <li>The service applied to calculate the pension in respect of the dismissal or reorganisation cases is increased by the shortest of:</li> <li>One third of pensionable service, or</li> </ul>                                                                              |
| and Permanent<br>secretaries                                                  | <ul> <li>Outstanding period to normal retirement date, or 5 years.</li> <li>Plus</li> <li>Half the period of service in the appointed office</li> </ul>                                                                                                                                                                                                                         |
| Leaving Service                                                               | If a member who is not qualified to retire and leaves the Service of his own will or as a result of having been dismissed, he will become entitled to a benefit equal to A + B, where:                                                                                                                                                                                          |
|                                                                               | Formula for "A" (applicable to service rendered prior to 1 April 1992) is: $[1+(0,0275 \text{ x T})] \times C \times T \times K + I$ , where –                                                                                                                                                                                                                                  |
|                                                                               | C = half the sum of the Member's Pensionable Emoluments on the commencement of his/her Pensionable Service and his/her Pensionable Emoluments on 31 March 1992;                                                                                                                                                                                                                 |
|                                                                               | T = the period of the Member's Pensionable Service to 31 March 1992, excluding any backdated Pensionable Service in respect of which payment by the Member has not yet been made by the Fund;                                                                                                                                                                                   |
|                                                                               | K = the rate all which the Member contributed to the Fund;                                                                                                                                                                                                                                                                                                                      |
|                                                                               | I = interest on "A" before the inclusion of "I", calculated at a rate of 10% per annum from 1 April 1992 to the date of withdrawal from Service;                                                                                                                                                                                                                                |
|                                                                               | Formula for "B" (applicable to service rendered on or after 1 April 1992) is:                                                                                                                                                                                                                                                                                                   |
|                                                                               | [0,07 x (1+0,05T)] x C x T, where;                                                                                                                                                                                                                                                                                                                                              |
|                                                                               | C = half the sum of the Member's Pensionable Emoluments on 1 April 1992 and his/<br>her Pensionable Emoluments on the date of withdrawal from the Fund, in the case of a<br>Member who became a Member prior to 1 April 1992;                                                                                                                                                   |
|                                                                               | or                                                                                                                                                                                                                                                                                                                                                                              |
|                                                                               | C = half the sum of the Member's Pensionable Emoluments on the commencement of his/her Pensionable Service and his/her Pensionable Emoluments on the date of withdrawal from the Fund, in the case of a Member who became a Member on or after 1 April 1992;                                                                                                                    |
|                                                                               | T = the period of the Member's Pensionable Service as from 1 April 1992, excluding any backdated Pensionable Service.                                                                                                                                                                                                                                                           |
|                                                                               | A member who has served at least 10 years of Pensionable Service my elect to have his/<br>her withdrawal benefit preserved in the Fund or by transferring the benefit to an approved<br>pension fund or retirement annuity fund of his/her choice.                                                                                                                              |

| Definition                | Description                                                                                                                                                                                                                                                                                                                                   |                                       |                      |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|----------------------|
| Death in Service          | If a Member dies while in Service before his Normal Retirement Date or while in receipt of a disability benefit, the following benefits are payable:                                                                                                                                                                                          |                                       |                      |
|                           | a) A lump sum equal to twice the Member's Pensionable Emoluments; plus                                                                                                                                                                                                                                                                        |                                       |                      |
|                           | b) Pension to his/her qualifying<br>Emoluments immediately before                                                                                                                                                                                                                                                                             |                                       | lember's Pensionable |
|                           | c) A pension in respect of qualif<br>of the Member's Pensionable Er<br>accordance with the following to                                                                                                                                                                                                                                       | nowluments immediately before         |                      |
|                           | Number of<br>Qualifying Children                                                                                                                                                                                                                                                                                                              | Percentage of<br>Pensionable Emulants |                      |
|                           | 1                                                                                                                                                                                                                                                                                                                                             | 10%                                   |                      |
|                           | 2                                                                                                                                                                                                                                                                                                                                             | 20%                                   |                      |
|                           | 3+                                                                                                                                                                                                                                                                                                                                            | 30%                                   |                      |
| Death After<br>Retirement | On death after retirement within the guarantee period of 60 months, the Member's pension is payable for the balance of the guaranteed period, after which a pension of 50% of the member's post-commutation amount is payable to the eligible spouse.                                                                                         |                                       |                      |
| Funeral Benefits          | On death of an active member or pensioner member or disability pension member or on<br>death of a member's qualifying spouse or child prior to such member's normal retirement<br>age the following is payable:<br>Member- N\$8 000 Spouse – N\$8 000 Child (above 1 year) – N\$3 000 Child (below 1 year<br>including still born) – N\$1 000 |                                       |                      |
| Disability                | An income equal to 75% of the Member's Pensionable Emoluments.                                                                                                                                                                                                                                                                                |                                       |                      |
|                           | After the first twenty-four months of disablement, the disability income benefit will be reduced to 50% of Pensionable Emoluments as at the date of becoming disabled.                                                                                                                                                                        |                                       |                      |
| Commutation               | A Member may at any time prior to their Retirement Date opt to commute up to $1/3$ of their pension, to be received as a lump sum on retirement.                                                                                                                                                                                              |                                       |                      |
|                           | The full Pension Benefit can be commuted for a lump sum if the annual Pension is less than N\$50 000.                                                                                                                                                                                                                                         |                                       |                      |
| Contribution rates:       | Members: 7.0% of Pensionable Emoluments Employer: Balance of the cost.                                                                                                                                                                                                                                                                        |                                       |                      |

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## **APPENDIX 2: PENSION INCREASES HISTORY**

The table below shows the comparison of the pension increases granted and the inflation rate as measured by the growth in the consumer price index (CPI) for each of the eighteen financial years to 1 April 2021:

| Year Ending | Pension Increase | Annual Inflation |
|-------------|------------------|------------------|
| 1-Apr-2003  | 8.20%            | 10.50%           |
| 1-Apr-2004  | 7.50%            | 4.00%            |
| 1-Apr-2005  | 7.50%            | 0.92%            |
| 1-Apr-2006  | 7.00%            | 4.20%            |
| 1-Apr-2007  | 5.00%            | 6.53%            |
| 1-Apr-2008  | 7.50%            | 6.87%            |
| 1-Apr-2009  | 11.00%           | 11.02%           |
| 1-Apr-2010  | 7.00%            | 7.05%            |
| 1-Apr-2011  | 5.00%            | 3.63%            |
| 1-Apr-2012  | 7.50%            | 7.22%            |
| 1-Apr-2013  | 6.50%            | 5.88%            |
| 1-Apr-2014  | 7.50%            | 5.24%            |
| 1-Apr-2015  | 6.50%            | 3.40%            |
| 1-Apr-2016  | 7.00%            | 6.50%            |
| 1-Apr-2017  | 7.00%            | 7.00%            |
| 1-Apr-2018  | 5.50%            | 3.50%            |
| 1-Apr-2019  | 5.00%            | 4.50%            |
| 1-Apr-2020  | 3.50%            | 2.40%            |
| 1-Apr-2021  | 3.00%            | 3.10%            |
| Total       | 233.37%          | 172.38%          |
| Average     | 6.55%            | 5.42%            |

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The graphical presentation of the above comparisons is shown below

The graph below depicts the growth to 1 April 2019 of N\$1 per annum of Pension as at 1 April 2002. This is compared a pension of N\$1 increased with (CPI) from 1 April 2003 to 1 April 2021 (i.e. N\$ 3.34 versus N\$2.72).

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This demonstrate that the Fund has awarded Pension increases to members that were consistently superior to Inflation in the past eighteen years.



## **APPENDIX 3: DATA CHECKS**

In order to validate the data for this valuation, we have performed the following integrity checks:

#### Accuracy checks

- We have verified that there are no unusual values such as impossible dates of birth, retirement ages or start dates.
- We have compared the data against the rules of the Fund in respect of contributions received and benefits paid.
- We have independently calculated sample exited individuals' benefits according to the rules of the Fund at exit due to various causes e.g., death, withdrawals, retirements and compared them to the gross benefits paid recorded by the Fund's administrators.
- Random spot checks of data of individual members.

#### **Reasonability checks**

We have calculated the following members' statistics and checked them for reasonability:

- Average age and salary weighted age;
- Average Pensionable Emoluments; and
- Average Pensionable Service.

We calculated similar statistics for pensioners and members receiving a disability income:

- Average age; and
- Average Pension/disability income.
- Picked a random sample of members in this group, escalated their 2018 pension/disability income with granted increases in the inter-valuation period to assess if it matches current payments.

#### Data Reconciliation - Between Payroll and GIMIS Administration System.

We also carried out a matching exercise, in which we separated those Members who were on both GIMIS and Payroll from those who could not be matched. The administrators have set up their own methods to track unmatched data as a continuous exercise to clean the data.

The matching exercise involved comparing fields on both the GIMIS administration system and Payroll and then extracting records with same details in major fields. The major fields used for the matching exercise were in respect of the Employer Name, National Identity Number, Payroll Number, Names, Date of Birth and Date of Admission.

We understand that the bulk of the GIMIS records not on the payroll system relate to exits not yet reported to the Fund (mostly deaths and withdrawals), individuals on leave (For e.g., unpaid leave) for periods up to 36 months and some members re-activated on the system for purposes of processing the benefit payments. The Fund still has a liability in respect of these individuals and for purposes of this valuation, we have valued these members as active.

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#### Data Reconciliation – between the 2021 and 2018 Valuations data.

We compared the number of active members as at the previous valuation date, allowing for movements in the inter-valuation period (i.e., new entrants and exits) to the number of active members as at the current valuation.

| Item                                                                                                                                                                                                                                                    | Nun                                                                | nber                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------|
| Number of active members as at 31 March 2018                                                                                                                                                                                                            |                                                                    | 106 335                |
| Add<br>New entrants<br>Data additions (previously not valued)<br>Disability income recipients                                                                                                                                                           |                                                                    | 11 023<br>4 423<br>705 |
| Exits<br>Deaths<br>Retirements<br>III health Retirements<br>Resignation/Transfer<br>Unclaimed benefits (mode of benefit unknown)<br>Disability income Benefits<br>Other exits* (mode of exit not known)<br>Unaccounted /unclarified records - removed** | (1 149)<br>(8 443)<br>(27)<br>(4 958)<br>(1 574)<br>(203)<br>(858) | (17 212)<br>(773)      |
| Number of active members as at 31 March 2021                                                                                                                                                                                                            |                                                                    | 104 501                |

The active member movements over the inter-valuation period can be reconciled as follows:

\*Individual records from the previous valuation data were matched to funeral benefit claim records provided, and further no corresponding active member record could be traced in the payroll data and actives system data as at 31 March 2021. Hence these records were classified as exits and excluded from being valued as an active liability.

\*\* Individual records from the previous valuation data could not be matched with any current data provided, nor with any of the claims data provided.

Data additions were included for valuation as part of the active member liabilities corresponding to 4 423 member records that were previously not valued. The value of the additional liability amounted to N\$ 1.42 billion.

Similarly, we have done membership movement exercises for pensioners and the disability income members.

We note that data additions were included in the pensioner liabilities, in respect of 3 696 pensioner records, amounting to N\$ 1.46 billion.

#### **Reconciliation – GIMIS data and Accounting information**

We have compared the overall benefits paid according to the GIMIS system against the entries made in the Income Statement in respect of these benefits. A more detailed check could not be performed as a breakdown of the benefit amounts per individual claim reconciling to the Income statement entries, was not as yet available.

## **APPENDIX 4: MEMBERSHIP DATA**

A summary of the female active membership statistics of the Fund is (a) tabled below:

| Age Band     | Number of<br>member | Total<br>Liabilities | Average<br>Liability | % Breakdown of<br>Total Liabilities |
|--------------|---------------------|----------------------|----------------------|-------------------------------------|
| F15-19       | -                   | -                    | -                    | 0.00%                               |
| F20-24       | 946                 | 60 503 611           | 63 957               | 0.18%                               |
| F25-29       | 6 321               | 742 685 360          | 117 495              | 2.25%                               |
| F30-34       | 9 791               | 1 969 360 042        | 201 140              | 5.97%                               |
| F35-39       | 9 335               | 2 897 146 538        | 310 353              | 8.78%                               |
| F40-44       | 7 929               | 3 849 532 942        | 485 500              | 11.66%                              |
| F45-49       | 6 943               | 5 385 202 908        | 775 631              | 16.31%                              |
| F50-54       | 7 057               | 8 247 222 661        | 1 168 658            | 24.98%                              |
| F55-60       | 6 435               | 9 805 305 227        | 1 523 746            | 29.70%                              |
| F61          | 10                  | 19 152 562           | 1 915 256            | 0.06%                               |
| F62          | 7                   | 13 252 110           | 1 893 159            | 0.04%                               |
| F63          | 6                   | 18 407 790           | 3 067 965            | 0.06%                               |
| F64          | -                   | -                    | -                    | 0.00%                               |
| F65          | -                   | -                    | -                    | 0.00%                               |
| F66          | 1                   | 486 328              | 486 328              | 0.00%                               |
| <b>F67</b> + | 3                   | 5 032 903            | 1 677 634            | 0.02%                               |
| TOTAL        | 54 784              | 33 013 290 982       | 602 608              | 100.00%                             |

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(b) The graphical presentation of the female active membership profile of the Fund is tabled below:



(c) The graphical presentation of the female active membership liability profile of the Fund is tabled below:



(d) Summary of the male active membership statistics of the Fund is tabled below:

Age Band	e Band Number of Total member Liabilities		Average Liability	% Breaktdown of Total Liabilities
M 15-19	-	-	-	0.00%
M20-24	698	53 125 656	76 111	0.17%
M25-29	5 882	742 343 358	126 206	2.40%
M30-34	9 092	1 968 477 407	216 507	6.35%
M35-39	8 741	2 746 206 803	314 175	8.86%
M40-44	8 063	4 318 567 438	535 603	13.94%
M45-49	6 466	5 472 121 070	846 292	17.66%
M50-54	5 633	6 958 713 539	1 235 348	22.46%
M55-60	5 116	8 677 096 925	1 696 071	28.00%
M61	14	30 892 037	2 206 574	0.10%
M62	6	16 355 409	2 725 902	0.05%
M63	1	485 002	485 002	0.00%
M64	1	292 541	292 541	0.00%
M65	-	-	-	0.00%
M66	3	3 722 562	1 240 854	0.01%
M67+	1	445 981	445 981	0.00%
TOTAL	54 784	33 013 290 982	602 608	100.00%



(e) The graphical presentation of the male active membership profile of the Fund is tabled below:

(f) The graphical presentation of the male active membership liability profile of the Fund is tabled below:



Age Band	Number of member	Total Liabilities	Average Liability	% Breaktdown of Total Liabilities
15-19	-	-	-	0.00%
20-24	1 644	113 629 267	69 118	0.18%
25-29	12 203	1 485 028 717	121 694	2.32%
30-34	18 883	3 937 837 449	208 539	6.15%
35-39	18 076	5 643 353 341	312 201	8.82%
40-44	15 992	8 168 100 381	510 762	12.76%
45-49	13 409	10 857 323 978	809 704	16.96%
50-54	12 690	15 205 936 200	1 198 261	23.76%
55-60	11 551	18 482 402 152	1 600 069	28.88%
61	24	50 044 598	2 085 192	0.08%
62	13	29 607 519	2 277 501	0.05%
63	7	18 892 792	2 698 970	0.03%
64	1	292 541	292 541	0.00%
65				0.00%
66	4	4 208 890	1 052 223	0.01%
67+	4	5 478 884	1 369 721	0.01%
TOTAL	104 501	64 002 136 711	612 455	100.00%

(g) A summary of the total active membership of the Fund is tabled below:

(g) A summary of the total active membership of the Fund is tabled below:



(i) The graphical presentation of the Fund's total active membership liability profile is as follows:



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A summary of the Fund's female pensioners statistics is tabled below: (j)

| Age<br>Band | Number of members | Total<br>Liabilities | Average<br>Liability | % Breaktdown<br>of Total<br>Liabilities | Total Annual<br>Pensions |
|-------------|-------------------|----------------------|----------------------|-----------------------------------------|--------------------------|
|             |                   |                      |                      |                                         |                          |
| F<10        | 437               | 119 653 547          | 273 807              | 0.65%                                   | 9 156 996                |
| F10-14      | 821               | 144 781 701          | 176 348              | 0.78                                    | 14 159 892               |
| F15-19      | 1 413             | 162 308 613          | 114 868              | 0.88%                                   | 22 964 665               |
| F20-24      | 820               | 44 094 315           | 53 774               | 0.24%R                                  | 15 807 116               |
| F25-29      | 112               | 5 902 920            | 52 705               | 0.03%                                   | 2 156 183                |
| F30-34      | 34                | 54 764 225           | 1 610 712            | 0.30%                                   | 2 430 764                |
| F35-39      | 138               | 210 600 988          | 1 526 094            | 1.14%                                   | 9 765 376                |
| F40-44      | 379               | 462 961 532          | 1 221 534            | 2.51%                                   | 22 605 806               |
| F45-49      | 847               | 877 803 186          | 1 036 367            | 4.75%                                   | 45 478 975               |
| F50-54      | 1 362             | 1 244 944 223        | 914 056              | 6.74%                                   | 69 436 908               |
| F55-60      | 3 410             | 3 261 603 812        | 956 482              | 17.65%                                  | 200 637 146              |
| F61-65      | 6 948             | 7 112 232 901        | 1 023 637            | 38.50%                                  | 481 301 228              |
| F66-70      | 3 951             | 2 968 605 120        | 751 355              | 16.07%                                  | 228 784 142              |
| F71-75      | 2 402             | 1 092 768 723        | 454 941              | 5.92%                                   | 99 007 838               |
| F76-80      | 1 396             | 450 511 288          | 322 716              | 2.44%                                   | 48 628 548               |
| F81-85      | 747               | 180 837 722          | 242 085              | 0.98%                                   | 23 730 954               |
| F86         | 78                | 17 870 316           | 229 107              | 0.10%                                   | 2 684 601                |
| F87         | 70                | 13 726 502           | 196 093              | 0.07%                                   | 2 123 975                |
| F88         | 49                | 7 879 383            | 160 804              | 0.04%                                   | 1 257 870                |
| F89         | 72                | 9 816 585            | 136 341              | 0.05%                                   | 1 635 839                |
| F90         | 39                | 6 621 545            | 169 783              | 0.04%                                   | 1 134 802                |
| F91         | 52                | 7 366 096            | 141 656              | 0.04%                                   | 1 301 511                |
| F92         | 27                | 4 702 795            | 174 178              | 0.03%                                   | 860 818                  |
| F93         | 16                | 4 860 313            | 303 770              | 0.03%                                   | 904 615                  |
| F94         | 22                | 2 503 715            | 113 805              | 0.01%                                   | 472 538                  |
| F95         | 6                 | 634 030              | 105 672              | 0.00%                                   | 122 660                  |
| F96         | 13                | 780 640              | 60 049               | 0.00%                                   | 153 363                  |
| F97         | 11                | 1 703 365            | 154 851              | 0.01%                                   | 342 636                  |
| F98         | 4                 | 656 846              | 164 211              | 0.00%                                   | 134 959                  |
| F99         | 1                 | 228 310              | 228 310              | 0.00%                                   | 48 092                   |
| F100        | 1                 | 121 892              | 121 892              | 0.00%                                   | 24 268                   |
| F101+       | 9                 | 654 248              | 72 694               | 0.00%                                   | 139 679                  |
| TOTAL       | 125 687           | 118 474 501 398      | 719 216              | 100.00%                                 | 1 309 394 764            |



(k) The graphical presentation of the Fund's female pensioners' profile is tabled below:

(I) The graphical presentation of the Fund's female pensioners' liability profile is tabled below:



| Age<br>Band | Number of<br>member | Total<br>Liabilities | Average<br>Liability | % Breaktdown<br>of Total<br>Liabilities | Total Annual<br>Pensions |
|-------------|---------------------|----------------------|----------------------|-----------------------------------------|--------------------------|
|             |                     |                      |                      |                                         |                          |
| M<10        | 452                 | 124 638 920          | 275 750              | 0.90%                                   | 9 447 298                |
| M 10-14     | 878                 | 160 199 613          | 182 460              | 1.15%                                   | 15 715 392               |
| M 15-19     | 1 472               | 158 704 278          | 107 815              | 1.14%                                   | 22 724 941               |
| M20-24      | 630                 | 31 974 892           | 50 754               | 0.23%                                   | 11 812 011               |
| M25-29      | 102                 | 1 249 581            | 12 251               | 0.01%                                   | 1 943 892                |
| M30-34      | 33                  | 10 839 356           | 328 465              | 0.08%                                   | 490 326                  |
| M35-39      | 31                  | 17 205 511           | 555 016              | 0.12%                                   | 826 622                  |
| M40-44      | 99                  | 80 465 558           | 812 783              | 0.58%                                   | 4 092 602                |
| M45-49      | 132                 | 115 251 909          | 873 121              | 0.83%                                   | 6 315 224                |
| M50-54      | 274                 | 262 638 414          | 958 534              | 1.89%                                   | 15 813 497               |
| M55-60      | 1 633               | 1 807 000 565        | 1 106 553            | 12.98%                                  | 117 302 254              |
| M61-65      | 5 365               | 6 638 753 660        | 1 237 419            | 47.69%                                  | 469 551 100              |
| M66-70      | 3 423               | 2 854 386 754        | 833 885              | 20.50%                                  | 226 481 714              |
| M71-75      | 2 074               | 991 599 341          | 478 110              | 7.12%                                   | 90 995 904               |
| M76-80      | 1 156               | 409 409 962          | 354 161              | 2.94%                                   | 44 056 976               |
| M81-85      | 740                 | 188 457 193          | 254 672              | 1.35%                                   | 23 707 510               |
| M86         | 86                  | 20 736 426           | 241 121              | 0.15%                                   | 2 926 678                |
| M87         | 63                  | 11 923 732           | 189 266              | 0.09%                                   | 1 718 526                |
| M88         | 47                  | 6 306 606            | 134 183              | 0.05%                                   | 933 433                  |
| M89         | 49                  | 12 273 589           | 250 481              | 0.09%                                   | 1 914 777                |
| M90         | 28                  | 4 977 118            | 177 754              | 0.04%                                   | 787 155                  |
| M91         | 23                  | 3 732 597            | 162 287              | 0.03%                                   | 611 653                  |
| M92         | 21                  | 2 843 873            | 135 423              | 0.02%                                   | 471 131                  |
| M93         | 8                   | 1 202 997            | 150 375              | 0.01%                                   | 214 336                  |
| M94         | 5                   | 418 446              | 83 689               | 0.00%                                   | 71 060                   |
| M95         | 5                   | 1 735 864            | 347 173              | 0.01%                                   | 320 907                  |
| M96         | 4                   | 387 435              | 96 859               | 0.00%                                   | 69 740                   |
| M97         | 3                   | 280 691              | 93 564               | 0.00%                                   | 51 970                   |
| M98         | 2                   | 143 905              | 71 952               | 0.00%                                   | 25 634                   |
| M99         | 5                   | 550 105              | 110 021              | 0.00%                                   | 103 377                  |
| M 100       | 1                   | 64 656               | 64 656               | 0.00%                                   | 11 713                   |
| M101+       | 3                   | 173 997              | 57 999               | 0.00%                                   | 33 837                   |
| TOTAL       | 18 847              | 13 920 527 541       | 738 607              | 100.00%                                 | 1 071 543 187            |

(m) Summary of the Fund's male pensioners statistics is tabled below:

Summary of the Fund's male pensioners statistics is tabled below:



(n)



(o) The graphical presentation of the Fund's male pensioners liability profile is tabled below:

#### (p) A summary of the total pensioners of the Fund is tabled below:

| Age Band | Number of | Total          | Average   | % Breaktdown of   | Total Annual |
|----------|-----------|----------------|-----------|-------------------|--------------|
|          | member    | Liabilities    | Liability | Total Liabilities | Pensions     |
|          |           |                |           |                   |              |
| <10      | 889       | 244 292 467    | 274 795   | 0.75%             | 18 604 294   |
| 10-14    | 1 699     | 304 981 314    | 179 506   | 0.94%             | 29 875 284   |
| 15-19    | 2 885     | 321 012 891    | 111 270   | 0.99%             | 45 689 606   |
| 20-24    | 1 450     | 76 069 207     | 52 462    | 0.23%             | 27 619 126   |
| 25-29    | 214       | 7 152 501      | 33 423    | 0.02%             | 4 100 075    |
| 30-34    | 67        | 65 603 581     | 979 158   | 0.20%             | 2 921 091    |
| 35-39    | 169       | 227 806 498    | 1 347 967 | 0.70%             | 10 591 998   |
| 40-44    | 478       | 543 427 090    | 1 136 877 | 1.68%             | 26 698 408   |
| 45-49    | 979       | 993 055 095    | 1 014 357 | 3.07%             | 51 794 200   |
| 50-54    | 1 636     | 1 507 582 637  | 921 505   | 4.65%             | 85 250 405   |
| 55-60    | 5 043     | 5 068 604 378  | 1 005 077 | 15.65%            | 317 939 399  |
| 61-65    | 12 313    | 13 750 986 561 | 1 116 786 | 42.45%            | 950 852 328  |
| 66-70    | 7 374     | 5 822 991 874  | 789 665   | 17.97%            | 455 265 856  |
| 71-75    | 4 476     | 2 084 368 063  | 465 677   | 6.43%             | 190 003 742  |
| 76-80    | 2 552     | 859 921 250    | 336 960   | 2.65%             | 92 685 523   |
| 81-85    | 1 487     | 369 294 915    | 248 349   | 1.14%             | 47 438 464   |
| 86       | 164       | 38 606 741     | 235 407   | 0.12%             | 5 611 279    |
| 87       | 133       | 25 650 234     | 192 859   | 0.08%             | 3 842 501    |
| 88       | 96        | 14 185 989     | 147 771   | 0.04%             | 2 191 303    |
| 89       | 121       | 22 090 174     | 182 563   | 0.07%             | 3 550 616    |
| 90       | 67        | 11 598 664     | 173 114   | 0.04%             | 1 921 957    |
| 91       | 75        | 11 098 693     | 147 983   | 0.03%             | 1 913 164    |
| 92       | 48        | 7 546 668      | 157 222   | 0.02%             | 1 331 949    |
| 93       | 24        | 6 063 310      | 252 638   | 0.02%             | 1 118 951    |
| 94       | 27        | 2 922 161      | 108 228   | 0.01%             | 543 598      |
| 95       | 11        | 2 369 894      | 215 445   | 0.01%             | 443 567      |
| 96       | 17        | 1 168 075      | 68 710    | 0.00%             | 223 102      |
| 97       | 14        | 1 984 056      | 141 718   | 0.01%             | 394 606      |
| 98       | 6         | 800 750        | 133 458   | 0.00%             | 160 593      |
| 99       | 6         | 778 415        | 129 736   | 0.00%             | 151 469      |
| 100      | 2         | 186 549        | 93 274    | 0.00%             | 35 981       |
| 101+     | 12        | 828 245        | 69 020    | 0.00%             | 173 516      |
| TOTAL    | 44 534    | 32 395 028 939 | 727 422   | 100.00%           | 380 937 952  |

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he graphical presentation of the total pensioners' profile of the Fund is (q) tabled below:

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#### The graphical presentation of the total pensioners liability profile of the (r) Fund is tabled below:



| Age<br>Band | Number<br>of<br>member | Total<br>Liabilities | Average<br>Liability | %<br>Breaktdown<br>of Total<br>Liabilities | Total Annual<br>Disability<br>Income |
|-------------|------------------------|----------------------|----------------------|--------------------------------------------|--------------------------------------|
|             |                        |                      |                      |                                            |                                      |
| F<25        | -                      | -                    | -                    | 0.00%                                      | -                                    |
| F25-29      | -                      | -                    | -                    | 0.00%                                      | -                                    |
| F30-34      | 3                      | 8 296 922            | 2 765 641            | 4.48%                                      | 458 562                              |
| F35-39      | 10                     | 15 830 650           | 1 583 065            | 8.54%                                      | 989 220                              |
| F40-44      | 19                     | 25 621 498           | 1 348 500            | 13.83%                                     | 1 944 222                            |
| F45-49      | 31                     | 25 785 504           | 831 790              | 13.91%                                     | 2 417 261                            |
| F50-54      | 98                     | 64 893 995           | 662 184              | 35.02%                                     | 9 206 936                            |
| F55-60      | 174                    | 44 878 933           | 257 925              | 24.22%                                     | 15 624 833                           |
| F61-65      | 3                      | -                    | -                    | 0.00%                                      | 446 723                              |
| F66+        |                        |                      | -                    | 0.00%                                      | -                                    |
|             |                        |                      |                      |                                            |                                      |
| TOTAL       | 338                    | 185 307 502          | 548 247              | 100.00%                                    | 31 087 757                           |

(S) A summary of the Fund's female disability members statistics is tabled below:

(t) The graphical presentation of the Fund's female disability members' profile is tabled below:





(u) The graphical presentation of the Fund's female disability members' liability profile is tabled below:

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A summary of the Fund's male disability members statistics is tabled (v) below:

| Age<br>Band | Number of<br>member | Total<br>Liabilities | Average<br>Liability | % Breaktdown<br>of Total<br>Liabilities | Total Annual<br>Disability<br>Income |
|-------------|---------------------|----------------------|----------------------|-----------------------------------------|--------------------------------------|
|             |                     |                      |                      |                                         |                                      |
| M<25        | -                   | -                    | -                    | 0.00%                                   | -                                    |
| M25-29      | 4                   | 5 809 010            | 1 452 253            | 2.41%                                   | 284 978                              |
| M30-34      | 14                  | 17 825 134           | 1 273 224            | 7.38%                                   | 968 207                              |
| M35-39      | 25                  | 34 751 567           | 1 390 063            | 14.39%                                  | 2 186 829                            |
| M40-44      | 36                  | 43 377 488           | 1 204 930            | 17.97%                                  | 3 239 017                            |
| M45-49      | 42                  | 43 486 985           | 1 035 404            | 18.01%                                  | 4 191 935                            |
| M50-54      | 87                  | 55 847 069           | 641 920              | 23.13%                                  | 7 925 954                            |
| M55-60      | 156                 | 40 326 273           | 258 502              | 16.70%                                  | 13 787 433                           |
| M61-65      | 3                   | -                    | -                    | 0.00%                                   | 267 402                              |
| M66+        | -                   | -                    | -                    | 0.00%                                   | -                                    |
|             |                     |                      |                      |                                         |                                      |
| TOTAL       | 367                 | 241 423 526          | 657 830              | 100.00%                                 | 32 851 754                           |



(W) The graphical presentation of the Fund's male disability members' profile is tabled below:

 The graphical presentation of the Fund's male disability members' liability profile is tabled below:



| Age<br>Band | Number of member | Total<br>Liabilities | Average<br>Liability | % Breaktdown<br>of Total<br>Liabilities | Total Annual<br>Disability<br>Income |
|-------------|------------------|----------------------|----------------------|-----------------------------------------|--------------------------------------|
|             |                  |                      |                      |                                         |                                      |
| <25         | -                | -                    | -                    | 0.00%                                   | -                                    |
| 25-29       | 4                | 5 809 010            | 1 452 253            | 1.36%                                   | 284 978                              |
| 30-34       | 17               | 26 122 056           | 1 536 592            | 6.12%                                   | 1 426 768                            |
| 35-39       | 35               | 50 582 217           | 1 445 206            | 11.85%                                  | 3 176 050                            |
| 40-44       | 55               | 68 998 986           | 1 254 527            | 16.17%                                  | 5 183 238                            |
| 45-49       | 73               | 69 272 489           | 948 938              | 16.23%                                  | 6 609 196                            |
| 50-54       | 185              | 120 741 065          | 652 654              | 28.29%                                  | 17 132 890                           |
| 55-60       | 330              | 85 205 206           | 258 198              | 19.97%                                  | 29 412 266                           |
| 61-65       | 6                | -                    | -                    | 0.00%                                   | 714 125                              |
| 66+         | -                | -                    | -                    | 0.00%                                   | -                                    |
|             |                  |                      |                      |                                         |                                      |
| TOTAL       | 705              | 426 731 028          | 605 292              | 100.00%                                 | 63 939 511                           |

A summary of the total disability members of the Fund is tabled below: (Y)

The graphical presentation of the total disability members' profile of the (Z) Fund is tabled below:




(aa) The graphical presentation of the total disability members liability profile of the Fund is tabled below:

(bb) The summary of pension and disability income recipients under the Fund by type of pensioner is as follows:

| Туре                  | Number of<br>member | Total Monthly<br>Pensions/<br>Disability<br>Payments | Pensions/<br>Disability Payment<br>Weighted<br>Average Age | Average<br>Monthly<br>Pensions/<br>Disability<br>payments |
|-----------------------|---------------------|------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------|
| <b>Retired Member</b> | 26602               | 149,062,809                                          | 66 years 10 months                                         | 5,603                                                     |
| Spousal Annuitant     | 7125                | 10,482,918                                           | 15 years 10 months                                         | 1,471                                                     |
| Child Annuitant       | 10807               | 38,865,769                                           | 61 years 11 months                                         | 3,596                                                     |
| Disabled Member       | 705                 | 5,328,293                                            | 52 years 1 months                                          | 7,558                                                     |
| TOTAL                 | 45,239              | 203,739,789                                          | 57 years 5 months                                          | 4,504                                                     |



(cc) The graphical presentation of data for pensioners and disability income members under the Fund by type of pensioner is as follows:

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#### (dd) The summary of total pensioners under the Fund by year of commencement since 2001 is as follows:



# **APPENDIX 5: BALANCE SHEET**

The balance sheet as at 31 March 2021 and 31 March 2018 is shown in the table below:

	31 March 2018 (N\$ '000))	31 March 2019 (N\$ '000)	31 March 2020 (N\$ '000)	31 March 2021 (N\$ '000)
Non-current Assets	110 538 961	117 639 785	108 600 879	1 <b>35 584 964</b>
Market Value of Investments	110 444 453	117 521 916	108 477 154	135 442 116
Property Plant & Equipment	94 508	117 869	123 725	142 848
Current Assets	582 300	498 941	731 707	606 964
Kuleni Administrators	-	-	-	-
Cash at bank	523 987	111 252	333 568	563 207
Contributions Receivable	31 244	356 177	361 145	6 176
Accounts Receivable	27 069	31 512	36 994	37 581
Less Non-Current Liabilities	(674 562)	(391 748)	(211 229)	(102 997)
Accounts Payable	(111 319)	(208 489)	(126 706)	(102 997)
Benefits Payable	(563 243)	(183 259)	(84 523)	-
Less Non-Current Liabilities	(238 920)	(696 937)	<b>(619 933</b> )	(606 899)
Benefits Payable	(215 359)	(678 190)	(603 468)	(605 129)
Bank Rejections	(23 561)	(18 747)	(16 465)	(1 770)
Unclaimed benefits	-	-	-	-
Total Asset Value	110 207 779	117 050 041	108 501 424	135 482 032

# **APPENDIX 6: INCOME STATEMENT**

	31 March 2019 (N\$ '000)	31 March 2020 (N\$ '000)	31 March 2021 (N\$ '000)	31March 2020 (N\$ '000)
Opening balance as at 1 April (Prior Year)	110 207 779	117 050 041	108 501 424	110 207 779
Income				
Member Contributions	1 317 741	1 331 492	1 355 409	4 004 642
Employer Contributions	3 015 902	3 039 694	3 102 957	9 158 553
Contribution Refunds	(4 334)	(18 797)	(2 072)	(25 202)
Net Investment Income	7 285 209	(7 718 318)	27 982 140	27 549 031
Other Income	19 532	18 822	19 697	58 051
Outgo				
Dissolution benefits	_	(6 084)	_	(6 084)
Administration	(294 845)	(285 182)	(324 468)	(904 495)
Lump sum – Death	(148 153)	(138 391)	(47 383)	(333 927)
Lump sum – Retirements	(1696 167)	(1716642)	(1 969 498)	(5 382 307)
Lump sum – Withdrawals	(728 912)	(869 988)	(631 003)	(2 229 903)
Funeral Benefits	(9 650)	(8 837)	(10 272)	(28 759)
Pensions Paid	(1914 062)	(2 176 386)	(2 494 899)	(6 585 347)
Closing Balance as at 31 March 2021 (Current Year)	117 050 040	108 501 424	135 482 032	135 482 032

# **APPENDIX 7: VALUATION ASSUMPTIONS**

The actuarial assumptions used in determining the liabilities of the Fund are as follows:

#### **Financial Assumptions**

The following annual financial assumptions were used:

	Assumption	Current Valuation 31 March 2021	Current Valuation 31 March 2021
Pre-Retirement	Inflation	6.0 %	8.0 %
	Investment returns Salary	11.0 %	12.0 %
	Increases	7.5 %	9.5 %
	Disability Income Increases	7.5 %	8.0 %
Post-Retirement	Investment returns Pension	11.0 %	12.0 %
	Increases	7.0 %	8.0 %

The Pensionable Emoluments increase and investment return assumptions reflect a pre-retirement 'real return' of 3.30% p.a. (i.e. (1+ investment return)/ (1+salary increases)-1. This is different to the previous valuation.

In addition, we have allowed for promotional salary increases (based on the experience of similar funds) as follows:

Age	Male (%)	Female (%)
20	3.7	4.5
25	3.7	4.4
30	3.7	3.1
35	3.7	1.4
40	0.9	0.1
45+	0.0	0.0

This is identical to the allowance made in the previous valuation.

Historically, the Trustees have decided annual pension increases by considering inflation levels, but subject to investment return performance and the financial strength of the Fund at the time.

We have allowed for pension increases by valuing pensions at a net interest rate of 3.7% p.a. This is the same approach as in the Previous Valuation.

This effectively means that all investment returns in excess of 3.7% p.a. are available to allow for pension increases. This is expected to enable the Trustees (on average) to match pension increases to inflation over the long-term. We have allowed for expenses at 1.5% of Pensionable Earnings, an increase from 1.4% of Pensionable Earnings in the previous valuation.

#### **Demographic Assumptions**

#### Mortality

The following mortality tables were adopted for this valuation:

In- Service: SA 56 / 62 rated down as follows:

Males	No rating
Females	5 years

Pensioners: PA (90) rated down by 1 year

#### Sample rates are shown below at specific ages:

Active members		Pensioners			
Age	Male (%)	Female (%)	Age	Male (%)	Female (%)
30	0.16	0.15	60	1.48	0.62
35	0.20	0.16	65	2.29	1.07
40	0.29	0.20	70	3.54	1.83
45	0.48	0.29	75	5.43	3.12
50	0.79	0.48	80	8.25	5.26
55	1.25	0.79	85	12.34	8.73
60	1.93	1.25	90	18.06	14.14

These assumptions remain broadly unchanged from those used in the previous valuation.

#### Withdrawals

The assumed rates of Withdrawal allowed for are shown in the table below; these are the same as in the Previous Valuation.

Age	Male (%)	Female (%)
20	5.0	5.0
25	4.1	4.1
30	3.1	3.1
35	2.2	2.2
40	1.4	1.4
45	0.7	0.7
50	0.0	0.0

#### Early Retirement

The reduction in pension of 0.25% for each month of Early Retirement ensures that Early Retirement will not have an adverse financial impact on the Fund. Therefore, no explicit provision for the reduction in pension of 0.25% for each month of Early Retirement was deemed to be necessary. The assumed rates of early retirement are shown in the table below; these are the same as in the Previous Valuation.

Age	Male (%)	Female (%)
55	5.0	5.0
56	10.0	10.0
57	15.0	15.0
58	20.0	20.0
59	25.0	25.0

#### Ill-Health Retirement (Disabilities)

The assumed rates of ill-health retirement are shown in the table below; these are the same as in the Previous Valuation. Disability rates were assumed to be 25% of the ill-health retirement rates applicable at all ages.

Age	Male (%)	Female (%)
30	0.10	0.10
35	0.10	0.10
40	0.10	0.10
45	015	0.10
50	0.25	0.15
55	-	-
60	-	-

#### Family Statistics

Based on similar funds and as per the basis in the previous valuation, it was assumed that 80% of Members are married at retirement and that husbands are 5 years older than their wives. The proportion of married members has been reduced from 95% in the previous valuation. The data that that was provided to Humanity indicated a significantly lower proportion of married members.

# **APPENDIX 8: SENSITIVITY ANALYSIS**

As described in the report, the liabilities were determined using various assumptions. The actual liability faced by the Fund in the future will depend on the actual experience for each assumed item. The liabilities in the tables below were recalculated to illustrate the impact that changes in the rates for mortality (pre-retirement and post-retirement), withdrawal and ill health.

#### **Mortality Sensitivity Analysis**

	Central Basis -10%	Central Basis Mortality	Central Basis +10%
Total Liabilities	99 904 544	97 560 150	95 432 391
Active Members	65 484 975	64 002 136	62 655 788
Pensioners	33 241 083	32 395 029	31 627 868
Disability Income Recipients	427 510	426 731	425 955
Unclaimed benefits provision	750 976	736 254	722 780
Total Reserve Accounts	22 149 209	21 399 743	20 756 103
Longevity Reserve	9 990 454	9 756 015	9 543 239
Employer Contribution Reserve	8 229 657	7 803 600	7 453 516
Data Reserve	1 637 124	1 600 053	1 566 395
AIDS Reserve	2 291 974	2 240 075	2 192 953
Total Liabilities	122 053 753	118 959 893	116 188 494
Market Value of Assets	135 482 032	135 482 032	135 482 032
Surplus/(Deficit)	13 428 279	16 522 139	19 293 538
Funding Level	111.00%	113.89%	116.61%
Contingency Reserves as a % of Liabilities	22.17%	21.93%	21.75%

	Central Basis -10%	Central Basis Mortality	Central Basis +10%
Retirement Benefits	20.09%	19.46%	18.87%
Disability Benefits	2.64%	2.63%	2.63%
Death Benefits	3.24%	3.60%	3.95%
Resignation Benefits	0.67%	0.67%	0.67%
Funeral Benefits	0.05%	0.06%	0.06%
Fund Expenses	1.50%	1.50%	1.50%
<b>Total Required Contribution Rat</b>	28.18%	<b>27.92</b> %	27.70%
Less Member Contribution Rate	(7.00%)	(7.00%)	(7.00%)
Market Value of Assets	21.18%	20.92%	20.70%

### Withdrawals Sensitivity Analysis

	Central Basis -10%	Central Basis Mortality	Central Basis +10%
Total Liabilities	97 719 067	97 560 150	97 404 407
Active Members	64 161 053	64 002 136	63 846 393
Pensioners	32 395 029	32 395 029	32 395 029
Disability Income Recipients	426 731	426 731	426 731
Unclaimed benefits provision	736 254	736 254	736 254
Total Reserve Accounts	21 556 392	21 399 743	21 248 107
Longevity Reserve	9 771 907	9 756 015	9 740 441
Employer Contribution Reserve	7 934 822	7 803 600	7 676 882
Data Reserve	1 604 026	1 600 053	1 596 160
AIDS Reserve	2 245 637	2 240 075	2 234 624
Total Liabilities	119 275 459	118 959 893	118 652 514
Market Value of Assets	135 482 032	135 482 032	135 482 032
Surplus/(Deficit)	16 206 573	16 522 139	16 829 518
Funding Level	113.59%	113.89%	114.18%
Contingency Reserves as a % of Liabilities	22.06%	21.93%	21.81%

	Central Basis -10%	Central Basis Mortality	Central Basis +10%
Retirement Benefits	19.57%	19.46%	19.34%
Disability Benefits	2.67%	2.63%	2.60%
Death Benefits	3.59%	3.60%	3.60%
Resignation Benefits	0.61%	0.67%	0.73%
Funeral Benefits	0.06%	0.06%	0.06%
Fund Expenses	1.50%	1.50%	1.50%
<b>Total Required Contribution Rat</b>	28.00%	<b>27.92</b> %	<b>27.84</b> %
Less Member Contribution Rate	(7.00%)	(7.00%)	(7.00%)
Market Value of Assets	21.00%	20.92%	20.84%

#### III- Health Sensitivity Analysis

	Central Basis -10%	Central Basis Mortality	Central Basis +10%
Total Liabilities	97 525 911	97 560 150	97 594 347
Active Members	63 967 897	64 002 136	64 036 333
Pensioners	32 395 029	32 395 029	32 395 029
Disability Income Recipients	426 731	426 731	426 731
Unclaimed benefits provision	736 254	736 254	736 254
Total Reserve Accounts	21 359 686	21 399 743	21 439 739
Longevity Reserve	9 752 591	9 756 015	9 759 435
Employer Contribution Reserve	7 769 022	7 803 600	7 838 124
Data Reserve	1 599 197	1 600 053	1 600 908
AIDS Reserve	2 238 87 <b>6</b>	2 240 075	2 241 272
Total Liabilities	118 885 597	118 959 893	119 034 086
Market Value of Assets	135 482 032	135 482 032	135 482 032
Surplus/(Deficit)	16 596 435	16 522 139	16 447 946
Funding Level	113.96%	113.89%	113.82%
Contingency Reserves as a % of Liabilities	21.90%	21.93%	<b>21.97</b> %

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	Central Basis -10%	Central Basis Mortality	Central Basis +10%
Retirement Benefits	19.43%	19.46%	19.48%
Disability Benefits	2.64%	2.63%	2.63%
Death Benefits	3.59%	3.60%	3.60%
Resignation Benefits	0.67%	0.67%	0.67%
Funeral Benefits	0.06%	0.06%	0.06%
Fund Expenses	1.50%	1.50%	1.50%
Total Required Contribution Rat	27.89%	<b>27.92</b> %	<b>27.94</b> %
Less Member Contribution Rate	(7.00%)	(7.00%)	(7.00%)
Market Value of Assets	20.89%	20.92%	20.94%

## **APPENDIX 9: CONTRIBUTIONS VS BENEFIT**

Over the inter-valuation period, benefit payments exceeded contributions received. The table below presents the level of contributions received in each year, over the inter-valuation period and the corresponding benefit payments.

Year Ended	Contributions	Benefits	Benefits/ Contributions
31 March 2019 31 March 2020	4,329,309 4,352,389	4,496,943 4,916,328	104% 113%
31 March 2021	4,456,294	5,153,055	116%

The graphical presentation of the above is as follows:



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Government Institutions Pension Fund

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Report on The Statutory Actuarial Valuation of the Government Institutions Pension Fund

as at 31 March 2021







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