# ACTUARIAL VALUATION REPORT 2018







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#### **EXECUTIVE SUMMARY**

#### **Financial Position**

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

	31-Mar-18 (N\$ 000)	31-Mar-15 (N\$ 000)
Total Liabilities	83 472 092	58 741 718
Active Members	61 595 247	47 296 399
Pensioners	20 574 496	10 619 377
Disability Income Recipients	1 302 349	825 942
Total Reserve Accounts	25 972 194	23 029 025
Longevity Reserve	8 347 209	6 344 106
Employer Contribution Reserve	13 929 270	12 191 761
Data Reserve	1 539 881	1 182 410
AIDS Reserve	2 155 834	3 310 748
Total Liabilities	109 444 286	81 770 743
Value of Assets	110 207 779	88 562 349
Surplus/(Deficit)	763 493	6 791 606
Funding Level	100.70%	108.31%
Contingency Reserves as a Percentage of Liabilities	31.11%	39.20%

- 2. Based on the above results, we certify that the Fund was financially sound as at the valuation date.
- 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 given below:

	Required Contribution Rate		
	31-Mar-18	31-Mar-15	
Retirement Benefits	21.45%	20.96%	
Disability Benefits	1.04%	1.08%	
Death Benefits	8.35%	8.42%	
Resignation Benefits	0.56%	0.59%	
Funeral Benefits	0.10%	0.10%	
Fund Expenses	1.40%	1.40%	
Total Required Contribution Rate	32.89%	32.55%	
Less Member Contribution Rate	7.00%	7.00%	
Total required Employer(s) Contribution Rate	25.89%	25.55%	

#### **Membership Summary**

4. The active membership of the Fund as at 31 March 2018 and 31 March 2015 was as follows:

Item	31-Mar-18	31-Mar-15
Number of Active Members	106 335	106 092
Salary Weighted Average Age	41 years 12 months	41 years 8 months
Salary Weighted Average Past Service	13 years 12 months	13 years 1 month
Total Annual Salaries (N\$)	16 550 289 426	13 774 485 508
Average Annual Salaries (N\$)	155 643	129 835

The pensioners' membership under the Fund as at 31 March 2018 and 31 March 2015 was as follows (the 31 March 2018 data excludes children):

Item	31-Mar-18	31-Mar-15
Number of Members	27 862	23 136
Total Annual Pensions (N\$)	1 326 688 765	721 500 308
Pension Weighted Average Age	63 years 5 months	62 years 1 month
Average Annual Pensions (N\$)	47 616	31 185

6. The disability income membership under the Fund as at 31 March 2018 and 31 March 2015 was as follows:

Item	31-Mar-18	31-Mar-15
Number of Members	854	721
Total Disability Income (N\$)	75 291 809	46 992 064
Income Weighted Average Age	52 years 5 months	52 years 2 months
Average Annual Disability Income (N\$)	88 531	65 176

#### **Conclusions and Recommendations**

#### Conclusions

- The valuation results show a funding level of 100.70% as at the valuation date, and we can consequently certify that the Fund is currently in a financially sound condition. This, however, is a deterioration from a funding level of 108.31% as at the previous valuation date.
- The internal guideline of the GIPF is 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 falls below this ideal range. This is attributed to the investment performance over the last
  three years, which was low relative to the funding valuation interest rate of 12% p.a.
- The valuation revealed liabilities and reserves of N\$ 109.94 billion whilst the actuarial value of the assets was N\$ 110.20 billion. The actuarial surplus amounted to just under N\$ 0.76 billion as at valuation date.
- 10. Since 1 April 2016, the excess of contribution income of the Fund over the actual expenditure (before allowance of investment income) has shown a declining trend. If the growth in active membership of the Fund is expected to stay low as observed over the valuation period, then this situation is likely to worsen over time resulting in a reduction of investible assets of the Fund.
- The year-on-year increase in administration expenses of the Fund averaged 14.3% over the valuation period (19.6% in the year 2016, 12.0% in 2017 and 11.3% in 2018). The level of administrative expenses compared to salaries averaged 1.25% over the period (within the funding allowance of 1.40%).
- 12. We have examined the assets in relation to the liabilities, and in our opinion, except for the high cash position of the Fund, the balance of the assets are suitable for the nature of the liabilities of the Fund.

#### Recommendations

- 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).
- 14. A number of data anomalies have been noted in the membership information provided for this valuation, especially the data from participating employers which are not government departments (these, however, are significantly fewer than government departments). The queries and anomalies have been analysed in a separate report to be shared with the management of the GIPF. Suitable mitigating strategies will be shared with the management to enable more accurate valuation data to be collated for purposes of future valuations of the Fund. Overall, the Fund's improved data management processes have resulted in more credible data for valuation purposes. We have, therefore, recommended a reduction in the level of data reserves as a proportion of liabilities.
- 15. Considering the aforementioned, and allowing for prudence, Data Reserve continue 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.
- 16. The Fund's current practice is to pay additional amounts to exits from the Fund, which reflect the proportion of surplus after allowing for recommended contingency reserves. Based on the disclosed results, we recommend that an additional amount of 0.70% of liabilities be paid to any exits from the Fund after the valuation date. This will be reviewed at the next statutory valuation date or earlier if financial conditions change drastically in a way that the Valuator deems such a review appropriate.
- In terms of the Fund's current practice, an interim valuation would be carried out as at 30 September 2019 with the next statutory valuation due as at 31 March 2021.
- 18. We certify that the Fund was financially sound as at the valuation date.

Robert Oketch BSc (Hons) FIA FASSA

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

January 2019

Vilho Natangwe Mutileni BSc BCom (Hons)

In My Capacity as the Fund's Actuarial Consultant and as a Managing Consultant of Humanity Employee Benefits Co (Pty) Ltd

#### INTRODUCTION AND OBJECTIVES

#### Introduction

- 19. We have pleasure in presenting the results of the actuarial valuation of the Government Institutions Pension Fund (GIPF or the Fund interchangeably) as at 31 March 2018 (the valuation date). The previous statutory actuarial valuation of the Fund was performed as at 31 March 2015 (the previous valuation date).
- 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 NAMFISA.
- 21. The valuation has been carried out in accordance with section 10.8 of the Fund's Rules.
- 22. For the purpose of this valuation report, "valuation period" represents the period from 1 April 2015 to 31 March 2018.
- 23. 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

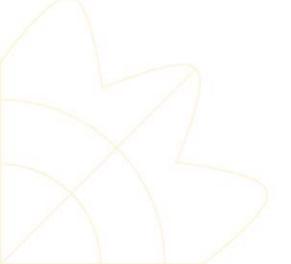
- 24. The main objectives of this valuation are to:
  - Assess the financial position of the Fund as at the valuation date;
  - b. Review whether the future contributions are adequate to meet the future accrual of benefits stipulated in the Rules of the Fund;
  - c. Determine whether the nature of the assets of the Fund match the nature of the liabilities of the Fund;
  - d. To recommend the levels of the different contingency reserves held by the Fund; and
  - e. To analyse and comment on the sources of surplus and deficit since the previous statutory valuation date.

#### **Professional Guidance**

25. 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

- 26. The objective of the Fund is to provide retirement, death and ancillary benefits for the Members and beneficiaries as described in the Rules.
- 27. The Fund evolved from the Statutory Institutions Pension Fund ("the Old Fund") with effect from 1 October 1989.
- 28. There are currently about 79 sponsoring employers registered under the Fund. The largest proportion of employees is from government ministries. These constitute about 94% of the total active membership as at the valuation date.
- 29. The funded benefits provided are on a defined benefit basis. Under a defined benefits arrangement, the individual's pension is calculated according to a formula. The pension is calculated as 2.4% of final salary multiplied by a member's Pensionable Service.
- 30. All pensions and cost of increases are paid directly by the Fund and are not outsourced.
- 31. Members on disability income make retirement contributions into the Fund.
- 32. As at valuation date, the Fund employed over 200 officers and administrators who undertake the Fund's operations under the Trustees' guidance. The Trustees manage and control the Fund's affairs according to its Rules.
- 33. 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.
- 34. Each member contributes to the Fund at the rate of 7.00% of Pensionable Emoluments.



#### THE INTER-VALUATION PERIOD

#### Administration

35. The Fund was self-administered over the valuation period.

#### **Contribution Rates**

36. The required contribution rate set out at the previous valuation date was 32.55% of Pensionable Emoluments. The employer and employees contributed at a rate of 16.0% and 7.0% of Pensionable Emoluments respectively, over the period since the last valuation as noted above.

#### Investment Return

37. The net return earned on the assets of the Fund since 1 April 2012 as per the Fund's monthly returns provided is some 109.22% (i.e. 13.09% per annum) made up as follows: (The figures in brackets show the returns over the valuation period, i.e. 1 April 2015 to 31 March 2018)

Period (Over the Valuation Period)	Return
Year ended 31-Mar-13	24.28%
Year ended 31-Mar-14	18.64%
Year ended 31-Mar-15	16.46%
Year ended 31-Mar-16	4.76%
Year ended 31-Mar-17	4.93%
Year ended 31-Mar-18	10.84%
Total	109.22% (21.91%)
Average per annum	13.09% (6.81%)

- 38. We have checked the reasonability of the returns provided by calculating the returns for each financial year over the 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.
- 39. The pension and disability income increases awarded since 1 April 2013 were as shown in the table below. (Totals shown in brackets are related to the current valuation period only, i.e. from 1 April 2015 to 31 March 2018):

Date	Pension Increases	Disability Income 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	6.20%	
Total	48.30% (21.59%)	21.00% (10.0%)
Average per annum	6.78% (6.73%)	3.23% (3.23%)

 A comparison of the pension increases granted against inflation as measured by the growth in the Consumer Price Index (CPI) for each of the sixteen financial years to 1 April 2018 is shown in Appendix 2 to this report.

#### Expenses

41. The expenses of running the Fund are met from the employer contributions. The expenses incurred in this regard over the valuation period approximate to 1.25% of payroll. We have retained the reserving allowance for expenses at 1.40% of payroll in the valuation.

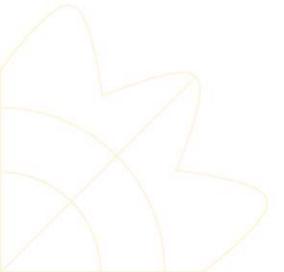
#### **Rule Amendments**

- 42. The following rule amendments were proposed in the inter-valuation period and only received regulatory approval post the current valuation date.
  - Rule amendment No 2; replacing the old Rule 10,3 (f). This amendment was approved on the 15th of June 2018 to enable the granting or guarantees of loans for purposes of member housing and
  - Rule amendment No 3: consisting of changes to a number of definitions in the rules and appointment of Trustees. This amendment was approved on the 30th of August 2018.

#### **Previous Actuarial Valuation**

43. The previous statutory valuation of the Fund was carried out as at 31 March 2015. The valuation revealed the following results:

	31-Mar-15 N\$ 000's
Total Liabilities	58 741 718
Active Members	47 296 399
Pensioners	10 619 377
Disability Income Recipients	825 942
Total Reserve Accounts	23 029 025
Longevity Reserve	6 344 106
Employer Contribution Reserve	12 191 761
Data Reserve	1 182 410
AIDS Reserve	3 310 748
Total Liabilities	81 770 743
Value of Assets	88 562 349
Surplus/(Deficit)	6 791 606
Funding Level	108.31%
Contingency Reserves as a Percentage of Liabilities	39.20%



#### MEMBERSHIP AND VALUATION DATA

- 44. The valuation was based on data supplied by the Administrator, GIPF. The following information was provided as at the valuation date:
  - Excel spreadsheet "ActiveMembersAsAt-31March2018.xls", an extraction of 104 634 individual member records from the GIMIS system showing biographic information, salary details and the government ministry employing the member;
  - A spreadsheet extract from the government payroll "GVT Payroll March 2018.xls", indicated as at 31 March 2018 for some 104 163 members showing member biographic data, e.g. dates of birth, gender, admission dates to the Fund, the position held and grading.
  - Similarly, spreadsheets extracted from the Parastatals and Regional Councils payrolls combined to form "Parastatals Payroll March 2018
    Consolidated.xls" with a total number of entries equal to 3220.
  - Excel spreadsheet "Active Annuities September 2018.xls" showing individual data for all pensions in payment as at 31 March 2018. The
    individual information provided included that in respect of some pensioners whose annuities commenced after the valuation date.
  - Disability income members' data (included in the "Active Annuities September 2018.xls)" spreadsheet above;
  - The assets' summary: extracted from a copy of the combined investment accounting report as at 31 March 2018;
  - An extract of all members that exited in the "inter-valuation" period, showing the reason for exiting the active membership, the cash benefits
    paid and date the new status was activated.
  - · Annual Financial Statements for the years ending 2016, 2017 and 2018;
  - · Details of pension increases granted over the valuation period;
  - · Details of disability income increases granted over the valuation period; and
  - Approval letters from the regulator of all rule amendments proposed in the inter-valuation period, and subsequently approved after 31 March 2018.
- 45. We also relied on the Rules as currently approved and applied in relation to the operations of the Fund.
- 46. 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 have been raised and are addressed in a separate data report prepared for the management of GIPF
- 47. As at the valuation date, there were 106 335 active members (after reconciliation of the GIMIS records and the payroll data).
- 48. The active membership as at the current valuation date are summarised as follows:

Item	31-Mar-18			
	Females	Males	Total	
Number of Active Members	54 120	52 215	106 335	
Salary Weighted Average Age	41 years 10 months	42 years 2 months	41 years 12 months	
Salary Weighted Average Past Service	13 years 8 months	14 years 4 months	13 years 12 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	

49. The active membership statistics as at the previous valuation date were as follows:

Item		31-Mar-15	
	Females	Males	Total
Number of Active Members	51 763	54 329	106 092
Salary Weighted Average Age	41 years 8 months	41 years 8 months	41 years 8 months
Salary Weighted Average Past Service	13 years 1 months	13 years 1 months	13 years 1 months
Total Annual Salaries (N\$)	6 798 161 045	6 976 324 463	13 774 485 508
Average Annual Salaries (N\$)	131 332	128 409	129 835

- 50. The change in the membership number from 106 092 to 106 335 represents a marginal increase in the active membership of the Fund.
- 51. The salary weighted average age for all members slightly increased from 41 years and 8 months to 41 years and 12 months.
- 52. The salary weighted average past service for all members slightly increased from 13 years and 1 month to 13 years and 12 months.
- 53. The total annual salary bill increased by N\$ 2.776 billion, from N\$ 13.774 billion to N\$ 16.550 billion since the last valuation. This represents a 20.2% increase in the total annual salary bill, which translates into a compounded growth rate of 6.3% per annum over the valuation period.
- 54. The average salary increased by N \$25 808, from N\$ 129 835 to N\$ 155 643 since the last statutory valuation. This represents a 19.9% increase in the average annual salary, which translates into a compounded growth rate of 6.2% per annum over the valuation period.

55. The pensioner statistics as at the current valuation date were as follows:

Item	31-Mar-18					
	Females				Males	
	Former Member	Spouses	Children	Former Member	Spouses	Children
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	65 years 7 months	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

56. The pensioner statistics as at the previous statutory valuation date were as follows:

Item	31-Mar-15					
	Females		Males			
	Former Member	Spouses	Children	Former Member	Spouses	Children
Number of Members	6 015	7 059	5 837	8 343	998	5 380
Total Annual Pensions (N\$)	203 349 457	194 956 607	60 679 495	242 175 987	34 026 193	56 226 308
Pension Weighted Average Age	66 years 5 months	54 years 5 months	17 years 4 months	67 years 2 months	57 years 10 months	17 years 1 month
Average Annual Pensions (N\$)	33 807	27 618	10 396	29 027	34 094	10 451

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

Item		31-Mar-18	
	Females	Males	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 months	52 years 4 months
Average Annual Disability Income (N\$)	89 976	87 085	88 531

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

Item	31-Mar-15		
	Females	Males	Total
Number of Members	290	431	721
Total Disability Income (N\$)	19 423 111	27 568 952	46 992 064
Income Weighted Average Age	52 years 4 months	52 years 1 month	52 years 2 months
Average Annual Disability Income (N\$)	66 976	63 965	65 176

- 59. There were 156 active members (208 as at the previous statutory valuation date) aged over the Normal Retirement Age of 60 years. Eleven of the active member are 67 years of age. We believe these members could have been allowed to retire in terms of the Public Service Act, 1995 (Act No. 13 of 1995). However, we could not confirm 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.
- 60. A more detailed membership breakdown is given in Appendix 4 to this report.

#### ASSETS OF THE FUND

- 61. The market value of the assets was used for valuation purposes. This value was obtained from the asset statements and the audited financial accounts provided as at 31 March 2018. 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 last actuarial valuation of the Fund.
- 62. The value, as at 31 March 2018 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-Mar-18	100000000000000000000000000000000000000
	31-Mar-15 (N\$ 000)
110 444 453	88 818 779
94 508	76 174
582 300	482 243
(4)	2
523 987	156 422
31 244	310 344
27 069	15 477
(674 562)	(504 189)
(111 319)	(106 124)
(563 243)	(398 065)
(238 920)	(310 658)
(215 359)	(278 957)
(23 561)	(31 701)
110 207 779	88 562 349
	94 508  582 300  - 523 987 31 244 27 069  (674 562) (111 319) (563 243) (238 920) (215 359) (23 561)

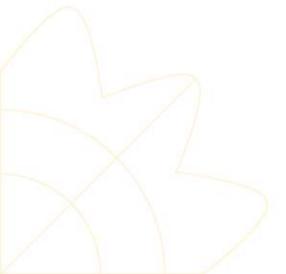
- 63. A summary of the assets split per investment manager is shown in the balance sheet in Appendix 5 to this report. Assets have been taken into account at their market values, with no allowance for any investment fluctuation reserves.
- 64. The build-up of the assets from the previous valuation date is as follows:

		2016-2018 (N\$ 000)
Opening balance as at 1 April 2015		88 562 349
Income		31 345 724
Member Contributions	3 527 531	
Employer Contributions	8 123 569	
Net Investment Income	19 622 732	
Other Income	71 892	
Adjustments		
Outgo		(9 700 294
Refund on Contributions	(6 426)	
Administration	(634 706)	
.ump sum – Death	(473 868)	
Lump sum – Retirements	(2 778 563)	
ump sum – Withdrawals	(1 671 491)	
Funeral Benefits	(28 165)	
Pensions Paid	(4 092 023)	
Dissolution Benefits	(15 052)	
Closing Balance as at 31 March 2018		110 207 779

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

#### ASSET/LIABILITY PROFILE

- 66. The liabilities of the Fund can be grouped into two based on how they react to inflation. Inflation in this context either means the Consumer Price Inflation or inflation-related salary increases.
- 67. 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. There is, therefore, a high likelihood that they will be granted, albeit with no guarantee.
- 68. 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.
- 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.
- 70. 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 Increases thereafter; 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.
- 71. We have estimated that about 36.0% of the Fund's liabilities (excluding reserves) fall in this category.
- 72. 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
- 73. The Fund can, therefore, maximise its long-term return, subject to minimising the risk of not being able to meet its liabilities by investing 30% to 35% of its assets in interest-bearing securities and cash, with the balance of 65% to 70% invested in growth assets. The Fund currently holds in excess of 10% of its assets in cash and near-cash instruments. The implication of holding a large portion of the assets in such instruments on the risk of not achieving long-term return objectives needs to be appreciated.
- 74. As at the valuation date, the Fund held 27.3% of its assets in interest-bearing securities and 11.1% in cash and other current assets. The remaining 61.8% of assets were held in growth assets (equities, property and other). We have also noted that the Fund has a negative position in derivatives. Unless this is for tactical purposes, it is not commendable for the Fund to hold strategic positions in this asset class.
- 75. Notwithstanding the current cash allocation (and in light of the prevailing market conditions and local legislation requirements), we are overall satisfied that the Fund's asset mix is a satisfactory match for the Fund's liabilities.
- 76. A summary of the asset split per asset class as at the valuation date is shown in Appendix 7 to this report.



#### RESERVE ACCOUNTS

#### **Longevity Reserve**

- 77. The reserve has been kept, since internationally most defined benefit funds and schemes are still experiencing increasing strains caused by increased life expectancy. Pensioners are living significantly longer than expected, based on historical experience and research.
- 78. It has been observed that within the past 20 years globally, pensioners are living up to an average of 10 years longer. The rate of new pensioners has also increased since the year 2000, which has led to higher average pensions and, as a result, there is a need to project an increasing Longevity Reserve going forward. For this valuation, we continue to retain the Longevity Reserve so as to allow the Fund to hedge against this risk.
- 79. Increased life expectancy has been experienced in the developed world, however, its impact has not yet been fully felt in Sub-Saharan Africa. Africa is likely to experience the same life expectancy due to medical advancements and socio-economic development. In the Fund case, there is an increased number of pensioners over the age of 90.
- 80. 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 ravages 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.
- Surviving spouses, just as retired members, are also expected to live longer than expected. This is due to the introduction of free HIV/AIDS treatment and therapy for most surviving spouses infected with HIV/AIDS in most SADC countries, including Namibia.
- 82. 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 by gender and age, but the range was found to be in the region of 10 to 13%.
- 83. We have recommended a reserve of N\$8 347 209 000 reflecting 10.0% of the liabilities of the Fund. This will be reviewed at the next valuation.

#### **Employer Contribution Reserve**

- 84. 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 funds; the industry norm is estimated at 10%.
- 85. The Employer Contribution Reserve has been set up to fund the difference between the actual contribution rate and the required contribution rate on a best-estimate basis. We have recommended a gradual build-up of this reserve to cover the value of 10 years' contributions shortfall. For this valuation, we propose a value of N\$ 13 929 270 000 representing 16.69% of the value of total liabilities before allowance for contingencies. It is essential that Trustees monitor the experience of this reserve over time to measure its adequacy in stabilising and smoothing contribution rates for all stakeholders.

#### **Data Reserve**

86. 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 eligible employees whose records are neither on the GIMIS system nor part of the valuation data. We have reduced the level to 2.5% of active and disabled members' liabilities. This is because all records on GIMIS and Payroll have been accounted for and there is reduced discrepancy between the two. However, there remains some concern which relates to parastatal and regional council members and areas where insufficient data are provided for the valuation. These are addressed in a separate report for the attention of GIPF management.

#### **AIDS Reserve**

- 87. 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 the 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. However, in this valuation, we reduced this to 3.5% of total 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.
- 88. The following table summarises the above reserve accounts:

Reserve Account	Current Valuation as at 31-Mar-18 (N\$' 000)	% of Total Liabilities	Previous Valuation as at 31-Mar-15 (N\$' 000)	% of Total Liabilities
Longevity Reserve	8 347 209	10.00%	6 344 106	10.80%
Employer Contribution Reserve	13 929 270	16.69%	12 191 761	20.75%
Data Reserve	1 539 881	1.84%	1 182 410	2.01%
AIDS Reserve	2 155 834	2.58%	3 310 748	5.64%
Total	25 972 194	33.00%	23 029 025	39.20%

89. The Data Reserve of 1.84% of total liabilities is equivalent to 2.50% of active member liabilities. Similarly, the AIDS reserve of 2.58% of total liabilities is equivalent to 3.50% of active member liabilities.

#### VALUATION METHOD AND ASSUMPTIONS

- 90. 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 of being open to new entrants.
- 91. The projected unit credit method determines the required future contribution rate as the cost of benefits accruing in the following year, the valuation date, which is expressed as a percentage of Pensionable Emoluments as at the valuation date.
- 92. 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 future salary increases, investment return, 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%.
- The methodology used in this valuation is consistent with that used in the previous valuation and deemed appropriate to the nature of the Fund.
- 94. 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, earlier death, withdrawal or disability.
- 95. For members in receipt of disability income benefits, the past service liability is determined as the present value of the future disability income benefits plus the discounted expected present value of retirement benefits that have accrued.
- 96. For pensioners, the past service liability is determined as the present value of expected future pension payments. The pension increase granted as at 1 April 2018 has been taken into account when determining the liability.
- 97. 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.
- 98. The same assumptions as those used in the valuation have been used for assessing the contribution rate required for the year following the valuation date.
- 99. 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

- 100. 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 8 to this report.
- 101. The important characteristics of a valuation basis are:
  - 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.
- 102. 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.
- 103. It should be noted that the relationships between the various financial assumptions are more important than the nominal value of each individual assumption.
- 104. The main financial assumptions are the same as in the previous valuation, and they are as follows:

	Assumption	Figure
Pre-Retirement	Inflation	8.0 %
	Investment returns	12.0 %
	Salary Increases	9.5 %
Post-Retirement	Investment returns	12.0 %
	Pension Increases	8.0 %

105. Pension increases are thus expected to equal inflation over the long-term.

#### **VALUATION RESULTS**

106. The results of the valuation as at 31 March 2018 (compared to that at the previous statutory valuation) are set out below. The funding level is determined by expressing the total value of assets as a percentage of the total accrued liabilities.

	31-Mar-18	31-Mar-15
	N\$ 000's	N\$ 000's
Total Liabilities	83,472,092	58 741 718
Active Members	61,595,247	47 296 399
Pensioners	20,574,496	10 619 377
Disability Income Recipients	1,302,349	825 942
Total Reserve Accounts	25,972,194	23 029 025
Longevity Reserve	8,347,209	6 344 106
Employer Contribution Reserve	13,929,270	12 191 761
Data Reserve	1,539,881	1 182 410
AIDS Reserve	2,155,834	3 310 748
Total Liabilities	109,444,286	81 770 743
Value of Assets	110,207,779	88 562 349
Surplus/(Deficit)	763 493	6 791 606
Funding Level	100.70%	108.31%
Contingency Reserves as a Percentage of Liabilities	31.11%	39.20%

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

108. 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-Mar-18	31-Mar-15	
Retirement Benefits	21.45%	20.96%	
Disability Benefits	1.04%	1.08%	
Death Benefits	8.35%	8.42%	
Resignation Benefits	0.56%	0.59%	
Funeral Benefits	0.10%	0.10%	
Fund Expenses	1.40%	1.40%	
Total Required Contribution Rate	32.89%	32.55%	
Less Member Contribution Rate	(7.00%)	(7.00%)	
Total Required Employer(s) Contribution Rate	25.89%	25.55%	

109. The total required contribution rate has increased marginally from 25.55% to 25.89%. This is due to a slight increase in the required contribution rate for Retirement benefits.

110. The employer(s) are currently contributing 16.0%. The Employer Contribution Reserve has been set up in order to reserve for the shortfall in funding.



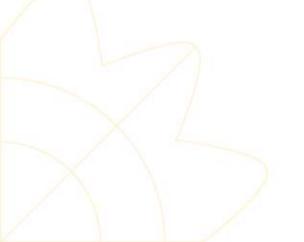
#### SENSITIVITY ANALYSIS OF RESULTS

111. 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 table below (except for retaining the level of the Employer Contribution Reserve) were recalculated to illustrate the impact that the changes in the investment return assumption will have on the liabilities:

	31-Mar-18		
	11%	12%	13%
Total Liabilities	98,838,432	83,472,092	71,430,417
Active Members	74,799,669	61,595,247	51,380,150
Pensioners	22,736,414	20,574,496	18,747,918
Disability Income Recipients	1,302,349	1,302,349	1,302,349
Total Reserve Accounts	28,301,093	25,972,194	24,155,121
Longevity Reserve	9,883,843	8,347,209	7,143,042
Employer Contribution Reserve	13,929,270	13,929,270	13,929,270
Data Reserve	1,869,992	1,539,881	1,284,504
AIDS Reserve	2,617,988	2,155,834	1,798,305
Total Liabilities	127,139,525	109,444,286	95,585,538
Value of Assets	110,207,779	110,207,779	110,207,779
Surplus/(Deficit)	(16,931,746)	763,493	14,622,241
Funding Level	86.68%	100.70%	115.30%
Contingency Reserves as a % of Liabilities	28.63%	31.11%	33.82%

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

	31-Mar-18		
	11%	12%	13%
Retirement Benefits	27.13%	21.45%	17.20%
Disability Benefits	1.12%	1.04%	0.97%
Death Benefits	9.04%	8.35%	7.74%
Resignation Benefits	0.61%	0.56%	0.51%
Funeral Benefits	0.10%	0.10%	0.10%
Fund Expenses	1.40%	1.40%	1.40%
Total Required Contribution Rate	39.40%	32.89%	27.93%
Less Member Contribution Rate	(7.00%)	(7.00%)	(7.00%)
Total required Employer(s) Contribution Rate	32.40%	25.89%	20.93%



#### ANALYSIS OF SURPLUS

113. An analysis of the main items accounting for the change in the financial position of the Fund from 31 March 2015 to 31 March 2018 is set out below:

Ite	m ·	Surplus/(Deficit) (N\$000)
a.	Surplus/(Deficit) as at 31 March 2015	6 791 606
b.	Interest on surplus/(deficit)	2 750 111
C.	Pension Increases	741 636
d.	Contributions	(4 924 801)
e.	Salary Increases	11 173 203
f.	GIMIS & Parastatal Members not valued last valuation	(1 605 313)
g.	Investment Income	(16 666 802)
h.	Expenses	103 552
i.	Disability Benefits Increases	252 102
j.	Release from reserve accounts	2 308 714
k.	Miscellaneous Items	(160 515)
Sui	plus/(Deficit) as at 31 March 2018	763 493

- 114. The above items are explained briefly below:
  - a. This is the value of the surplus revealed as at the 31 March 2015 valuation.
  - b. Interest on the surplus as at the previous valuation date calculated at the expected valuation rate of return of 12% amounted to N\$ 2 750 111 000.
  - c. Pension increases below the rate assumed at the last valuation resulted in a surplus of some N\$ 741 636 000 in the Fund.
  - d. The employer contributed at a rate of 16% as opposed to the recommended rate of 25.55% of Pensionable Emoluments. This resulted in a deficit of N\$ 4 924 801 000 in the Fund.
  - e. Salary increases below the rate assumed at the last valuation date resulted in a surplus of N\$ 11 173 203 000 in the Fund.
  - f. There are members appearing on the GIMIS system who joined the Fund prior to the last valuation, and were not valued. This led to a deficit of N\$ 1 605 313 000 in the Fund.
  - g. The last valuation assumed an investment return of 12% per annum. Returns below this over the valuation period resulted in a deficit of N\$ 16 666 802 000 in the Fund.
  - h. An expense allowance of 1.4% of Pensionable Emoluments was made as at the last valuation. Actual average expenses below this allowance resulted in a surplus of some N\$ 103 552 000 in the Fund.
  - i. Increases in disability benefits less than assumed at the last valuation resulted in a surplus of some N\$ 252 102 000 in the Fund.
  - There was release (N\$ 2 308 714 000) of Data and AIDS reserves, being held at lower levels as % of liability compared to the previous statutory valuation date, and
  - Miscellaneous item was (N\$ 160 515 000) from other experience over the valuation period.

#### CONCLUSIONS AND RECOMMENDATIONS

#### Conclusions

- 115. The valuation results show a funding level of 100.70% as at the valuation date, and we can consequently certify that the Fund is currently in a financially sound condition. This, however, is a deterioration from a funding level of 108.31% as at the previous valuation date.
- 116. The internal guideline of the GIPF is 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 falls below this ideal range. This is attributed to the investment performance over the last three years, which was low relative to the funding valuation interest rate of 12% p.a.
- 117. The valuation revealed liabilities and reserves of N\$ 109.94 billion, whilst the actuarial value of the assets was N\$ 110.20 billion. The actuarial surplus amounted to just under N\$ 0.76 billion as at the valuation date.
- 118. Since 1 April 2016, the excess of contribution income of the Fund over the actual expenditure (before allowance of investment income) has shown a declining trend. If the growth in active membership of the Fund is expected to stay low as observed over the valuation period, then this situation is likely to worsen over time and reduce investible assets of the Fund.
- 119. The year-on-year increase in administration expenses of the Fund averaged 14.3% over the valuation period (19.6% in 2016, 12.0% in 2017 and 1.3% in 2018). The level of administrative expenses compared to salaries averaged 1.25% over the period (within the funding allowance of 1.40%).
- 120. We have examined the assets in relation to the liabilities, and in our opinion, except for the high cash position of the Fund, the balance of the assets are suitable for the nature of the liabilities of the Fund.

#### Recommendations

- 121. 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).
- 122. A number of data anomalies have been noted in the membership information provided for this valuation, especially the data from participating employers, which are not government departments (these are significantly fewer than government departments). The queries and anomalies have been analysed in a separate report to be shared with the management of GIPF. Suitable mitigating strategies will be shared with the management to enable more accurate valuation data to be collated for purposes of future valuations of the Fund. Overall, the Fund's improved data management processes have resulted in more credible data for valuation purposes. We have recommended a reduction in the level of data reserves as a proportion of liabilities due to the improved data.
- 123. Arising from the above and allowing 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.
- 124. The Fund's current practice is to pay additional amounts to exits from the Fund, which reflect the proportion of surplus after allowing for recommended contingency reserves. Based on the disclosed results, we recommend that an additional amount of 0.70% of liabilities be paid to any exits from the Fund after the valuation date. This will be reviewed at the next statutory valuation date or earlier if financial conditions change drastically in a way that the valuator deems such a review appropriate.
- 125. In terms of the Fund's current practice, an interim valuation would be carried out as at 30 September 2019 with the next statutory valuation due as at 31 March 2021.

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

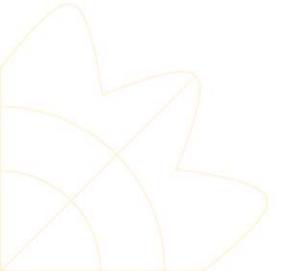
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Robert Oketch BSc (Hons) FIA FASSA In My Capacity as Fund Valuator and Director of Humanity Employee Benefits Co (Pty) Ltd

January 2019

Vilho Natangwe Mutileni BSc BCom(Hons)

In My Capacity as the Fund's Actuarial Consultant and as a Managing Consultant of Humanity Employee Benefits Co (Pty) Ltd





# APPENDIX 1: SUMMARY OF RULES

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 the law and which:
	<ul> <li>a. was declared to be a statutory institution for the purposes of the Old Fund; or</li> <li>b. has applied to the Trustees for membership and been admitted by the 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 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 upon the recommendation of the Commission.
Normal Retirement Date	The last day of the month in which a member retires.
Pensionable 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 Service	All uninterrupted service as a member of the Fund, plus the period of service under the Old Fund, which has beer transferred to the Fund, and a period during which the member has worked for an Employer or elsewhere and which is recognised for pension purposes by the 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.
Benefit	Description
Normal Retirement	A pension equal to 2.4 % of the member's Final Salary for each year of Pensionable Service.
Early Age 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 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.
Early Retirement other than Age or III Health	A member may, subject to Trustees approval, be retired due to dismissal to allow reorganisation of employer or to improve efficiency of employer, dismissal in terms of section 24(4)(h) of public service Act of 1995, or after serving at least 10 years, inability or unsuitability for or inability to carry out duties in an efficient manner.
	The service applied to calculate the pension in respect of the dismissal or reorganisation cases may be increased by the shortest of:
	<ul> <li>One-third of pensionable service, or</li> <li>Outstanding period to normal retirement date, or</li> <li>5 years.</li> </ul>
Retirement at the expiry of the term of office for Members of Commissions and Permanent Secretaries	Member is entitled to a pension calculated as 2.4% of pensionable salary times service.  The service applied to calculate the pension in respect of the dismissal or reorganisation cases is increased by the shortest of:  • One-third of pensionable service; or  • Outstanding period to normal retirement date; or  • 5 years.  Plus

Benefit	Descriptio	on				
Leaving Service		r who is not qualified to retire and leav ne will become entitled to a benefit eq	es the Service of his own will or as a result of having bee al to A + B, where:	n		
	The formula	a for "A" (applicable to service rende	ed prior to 1 April 1992) is:			
	[1+(0,0275	x T)] x C x T x K + I, where -				
		sum of the member's Pensionable En r Pensionable Emoluments on 31 Marc	oluments on the commencement of his/her Pensionable n 1992;	Service		
	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	he Fund;			
		on "A" before the inclusion of "I", calc val from service;	lated at a rate of 10% per annum from 1 April 1992 to the	e date		
	Formula for	r "B" (applicable to service rendered	on or after 1 April 1992) is:			
	[0,07 x (1+0	0,05T)] x C x T, where;				
			oluments on 1 April 1992 and his/her Pensionable Emol se of a member who became a member prior to 1 April 1			
	or					
	Service and		oluments on the commencement of his/her Pensionable the date of withdrawal from the Fund, in the case of a me			
	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 may elect to have his/her withdrawal benefit preserved in the Fund or by transferring the benefit to an approved pension fund or retirement annuity fund of his/her choice.					
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:					
	b. Pension before c. A pens	his/her death; plus sion in respect of qualifying children of	isionable Emoluments; plus 40% of the member's Pensionable Emoluments immedia the member equal in total to a percentage of the member his/her death, in accordance with the following table:			
		Number of Qualifying Children	Percentage of Pensionable Emoluments			
		1	10%			
		2 3+	20%			
			30%			
Death After 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	Upon the death of an active member or pensioner member or disability pension member or upon the death of a member's qualifying spouse or child prior to such member's normal retirement age, the following is payable:					
	Member- R 8 000 Spouse - R 8 000 Child (above 1 year) - R 3 000 Child (below 1-year including stillborn) - R 1 000					
Disability	An income equal to 75% of the member's Pensionable Emoluments.					
		st twenty-four months of disablement e Emoluments as at the date of becom	the disability income benefit will be reduced to 50% of ng disabled.			
Commutation	A member n		nt Date opt to commute up to 1/3 of their pension, to be			
	The full Pen	sion Benefit can be commuted for a lu	mp sum if the annual Pension is less than N\$ 50 000.			
Contribution rates		7.0% of Pensionable Emoluments Balance of the cost.				

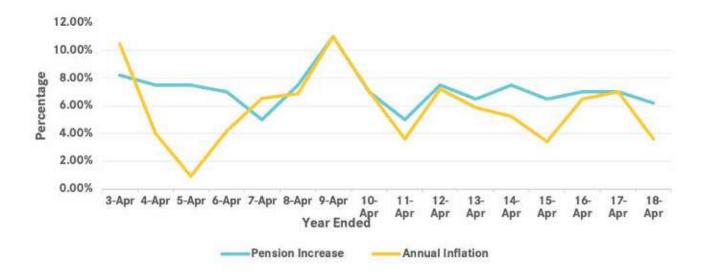
#### APPENDIX 2: PENSION INCREASES HISTORY

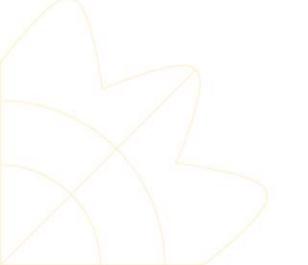
The table below shows the comparison of the pension increases granted and the inflation rate as measured by the growth in the consumer price index (CPI) for each of the thirteen financial years to 1 April 2018:

Year Started	Pension Increase	Annual Inflation
Apr-03	8.20%	10.50%
Apr-04	7.50%	4.00%
Apr-05	7.50%	0.92%
Apr-06	7.00%	4.20%
Apr-07	5.00%	6.53%
Apr-08	7.50%	6.87%
Apr-09	11.00%	11.02%
Apr-10	7.00%	7.05%
Apr-11	5.00%	3.63%
Apr-12	7.50%	7.22%
Apr-13	6.50%	5.88%
Apr-14	7.50%	5.24%
Apr-15	6.50%	3.40%
Apr-16	7.00%	6.50%
Apr-17	7.00%	7.00%
Apr-18	6.20%	3.60%
Total	200.14%	147.13%
Average	7.11%	5.82%

The graphical presentation of the above comparisons is shown below:

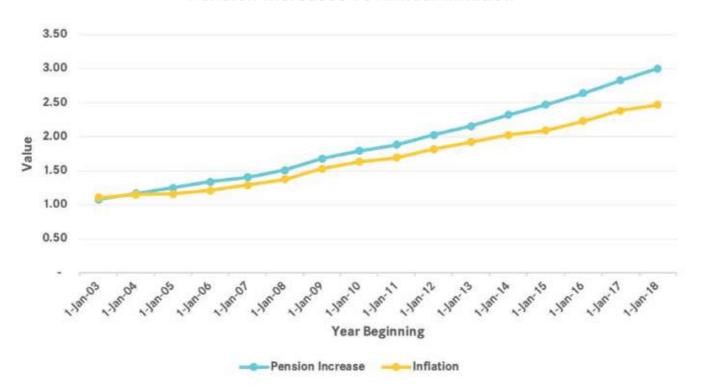
# Pension Increases and Annual Inflation





The graph below demonstrates that the Fund has awarded Pension increases to members that were consistently superior to inflation in the past 16 years. Pensions grew by N\$1 per annum as at 1 April 2018.

# Pension Increases vs Annual Inflation





#### 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 2015 pension/disability income with granted increases in the intervaluation 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 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, which are not on the payroll system relate to exits not yet reported to the Fund (mostly deaths and withdrawals), individuals on leave (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.

#### Data Reconciliation - Between the 2018 and 2015 Valuations Data

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

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

Ite	m	Number
a.	Number of Active Members as at 31 March 2015	106 092
	add	
b.	New entrants	15 400
	Exits	
c.	Deaths	(3 277)
d.	Normal Retirements	(5 992)
e.	Special Retirements	(13)
f.	III-health Retirements	(271)
g.	Withdrawals and Transfers	(5 074)
h.	Unreconcilable membership	(530)
Nu	imber of Active Members as at 31 March 2018	106 335

Similarly, we have done an exercise for pensioners and disabled members.

#### Reconciliation - GIMIS Data and Accounting Information

We have checked the benefits paid according to the GIMIS system against the entries made in the Income Statement in respect of these benefits.

A detailed data report, setting out all the checks carried out on the data and our findings, is prepared for the management of the Fund. This would assist Fund management to follow-up on data concerns identified as well as to provide guidance on the appropriate approach to rectify the concerns raised.

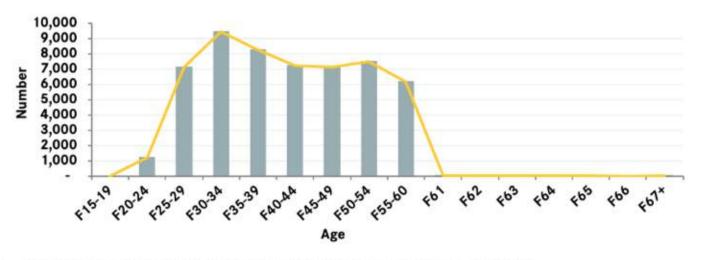
#### APPENDIX 4: MEMBERSHIP DATA

a. A summary of the female active membership statistics of the Fund is indicated below:

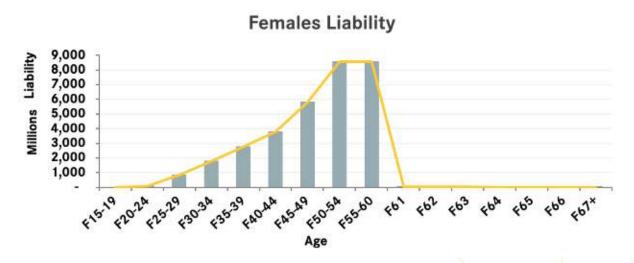
Age Band	Number of members	Total Liabilities	Average Liability	%Breakdown of Tota Liabilities
F15-19	-	-	-	0.00%
F20-24	1,224	83,932,281	68,572	0.27%
F25-29	7,125	806,864,603	113,244	2.57%
F30-34	9,447	1,739,364,998	184,118	5.53%
F35-39	8,275	2,687,115,724	324,727	8.54%
F40-44	7,206	3,686,597,329	511,601	11.72%
F45-49	7,116	5,662,276,621	795,711	18.01%
F50-54	7,485	8,371,161,669	1,118,392	26.62%
F55-60	6,186	8,350,483,518	1,349,900	26.55%
F61	15	24,180,931	1,612,062	0.08%
F62	10	12,098,758	1,209,876	0.04%
F63	10	11,626,065	1,162,607	0.04%
F64	8 7	4,269,329	533,666	0.01%
F65	7	4,113,860	587,694	0.01%
F66	1	502,818	502,818	0.00%
F67+	5	2,795,362	559,072	0.01%
Totals	54,120	31,447,383,865	581,068	100.00%

b. The graphical presentation of the female active membership profile of the Fund is indicated below:

# **Number of Female Members**



c. The graphical presentation of the female active membership liability profile of the Fund is indicated below:

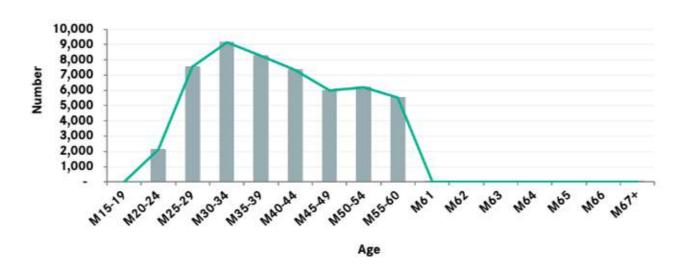


d. A summary of the male active membership statistics of the Fund is indicated below:

Age Band	Number of members	Total Liabilities	Average Liability	%Breakdown of Total Liabilities
M 15-19	÷	-	E	0.00%
M20-24	2,102	167,486,306	79,679	0.56%
M25-29	7,541	958,063,073	127,047	3,189
M30-34	9,156	1,861,190,534	203,276	6.179
M35-39	8,277	2,851,685,585	344,531	9.469
M40-44	7,345	3,998,999,955	544,452	13.269
M45-49	6,000	5,000,402,201	833,400	16.599
M50-54	6,182	7,178,447,901	1,161,185	23.819
M55-60	5,511	8,029,057,900	1,456,915	26.639
M61	22	30,867,471	1,403,067	0.109
M62	20	26,171,723	1,308,586	0.099
M63	17	15,694,188	923,188	0.059
M64	15	7,459,039	497,269	0.029
M65	10	10,565,443	1,056,544	0.049
M66	4	2,096,861	524,215	0.019
M67+	13	9,674,454	744,189	0.039
Totals	52,215	30,147,862,635	577,379	100.009

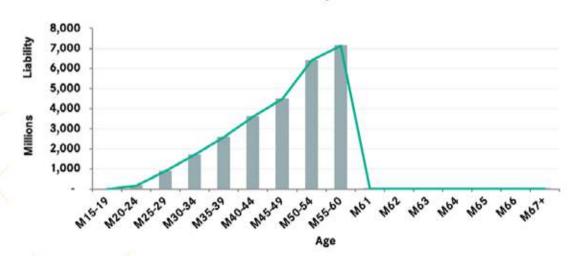
e. The graphical presentation of the male active membership profile of the Fund is indicated below:

#### Number of Male Members



f. The graphical presentation of the male active membership liability profile of the Fund is indicated below:

# **Males Liability**

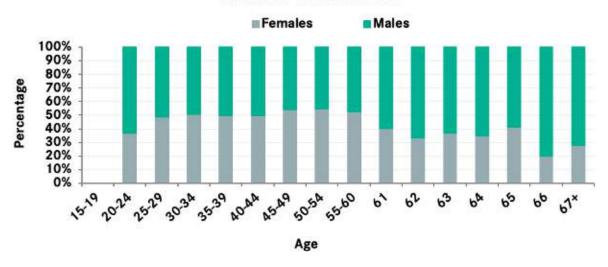


g. A summary of the total active membership of the Fund is indicated below:

Age Band	Number of members	Total Liabilities	Average Liability	%Breakdown of Total Liabilities
				0.00%
15-19	3,326	*	2,640	0.41%
20-24	14,666	251,418,587	23,513	2.87%
25-29	18,603	1,764,927,676	36,437	5.85%
30-34	16,552	3,600,555,531	49,470	8.99%
35-39	14,551	5,538,801,309	71,188	12.48%
40-44	13,116	7,685,597,283	99,079	17.31%
45-49	13,667	10,662,678,822	126,437	25.24%
50-54	11,697	15,549,609,570	132,182	26.59%
55-60	37	16,379,541,418	150,784	0.09%
61	30	55,048,402	162,643	0.06%
62	27	38,270,482	162,644	0.04%
63	23	27,320,253	162,645	0.02%
64	17	11,728,368	162,646	0.02%
65	5	14,679,303	162,647	0.00%
66	18	2,599,680	162,648	0.02%
67+		12,469,816	162,649	17577120
Totals	106,335	61,595,246,499	579,257	100.00%

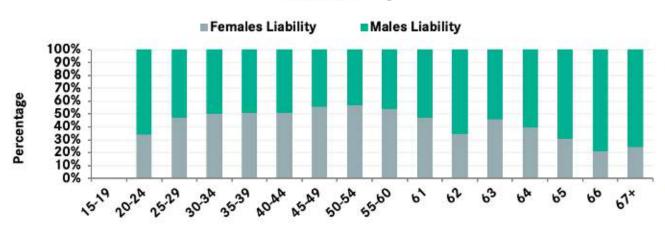
h. The graphical presentation of the Fund's total active membership profile is as follows:





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

# **Total Liability**

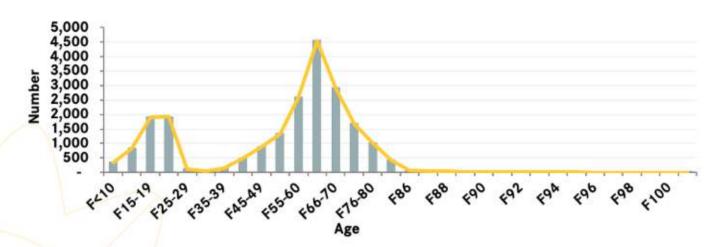


j. A summary of the Fund's female pensioners statistics is indicated below:

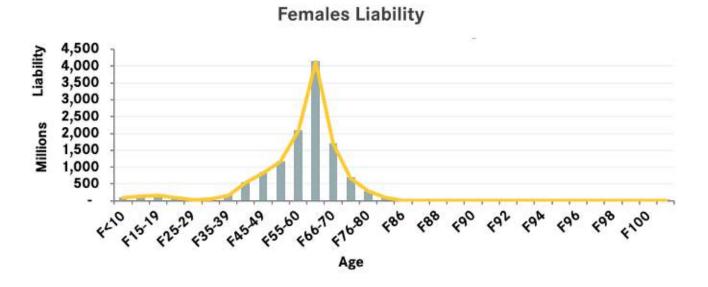
Age Band	Number of members	Total Liabilities	Average Liability	%Breakdown of Total Liabilities	Total Annual Pensions
F<10	348	82,578,537	237,295	0.68%	6,224,208
F10-14	829	125,428,760	151,301	1.03%	12,479,657
F15-19	1,915	166,708,821	87,054	1.36%	24,651,258
F20-24	1,920	87,093,787	45,361	0.71%	29,046,093
F25-29	122	16,964,466	139,053	0.14%	2,689,493
F30-34	35	51,981,250	1,485,179	0.43%	2,216,245
F35-39	140	166,836,035	1,191,686	1.37%	7,335,811
F40-44	488	532,373,760	1,090,930	4.36%	24,401,272
F45-49	885	831,561,977	939,618	6.81%	40,186,242
F50-54	1,329	1,154,314,676	868,559	9.45%	59,583,954
F55-60	2,587	2,081,083,833	804,439	17.04%	118,865,426
F61-65	4,553	4,130,309,310	907,162	33.81%	264,445,307
F66-70	2,928	1,695,998,894	579,235	13.88%	124,282,543
F71-75	1,681	676,390,867	402,374	5.54%	58,648,316
F76-80	1,012	276,920,584	273,637	2.27%	29,189,645
F81-85	431	94,525,125	219,316	0.77%	12,125,605
F86	63	9,556,332	151,688	0.08%	1,410,560
F87	43	7,567,264	175,983	0.06%	1,161,399
F88	53	8,838,791	166,770	0.07%	1,408,632
F89	29	4,958,453	170,981	0.04%	819,251
F90	19	3,561,685	187,457	0.03%	608,954
F91	21	2,846,587	135,552	0.02%	502,577
F92	9	1,324,789	147,199	0.01%	240,979
F93	13	846,794	65,138	0.01%	158,307
F94	14	2,069,606	147,829	0.02%	396,636
F95	6	899,840	149,973	0.01%	176,326
F96	4	539,178	134,795	0.00%	107,747
F97	1	106,656	106,656	0.00%	21,681
F98	4	268,774	67,193	0.00%	55,442
F99	4	464,022	116,006	0.00%	96,911
F100		215,314	107,657	0.00%	45,435
F101+	2 2	137,390	68,695	0.00%	29,873
	0	0	0.5585055		77-200-12-3
Totals	21,490	12,215,272,158	568,417	100.00%	823,611,784

k. The graphical presentation of the Fund's female pensioners' profile is indicated below:

# **Number of Female Members**



I. The graphical presentation of the Fund's female pensioners' liability profile is indicated below:

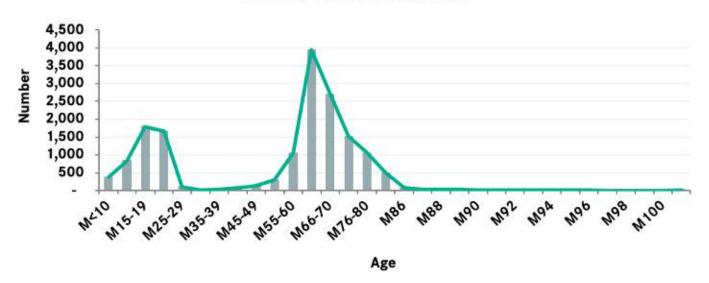


m. A summary of the Fund's male pensioners statistics is indicated below:

Age Band	Number of members	Total Liabilities	Average Liability	%Breakdown of Total Liabilities	Total Annual Pensions
M<10	378	92,601,690	244,978	0.76%	6,990,216
M 10-14	836	118,659,920	141,938	0.97%	11,715,201
M 15-19	1,788	162,141,296	90,683	1.33%	23,765,699
M20-24	1,654	75,897,213	45,887	0.62%	25,344,871
M25-29	102	714,485	7,005	0.01%	1,702,341
M30-34	7	1,629,926	232,847	0.01%	71,970
M35-39	30	20,526,361	684,212	0.17%	954,111
M40-44	65	47,251,132	726,940	0.39%	2,294,567
M45-49	132	114,236,593	865,429	0.94%	5,936,102
M50-54	296	238,403,087	805,416	1.95%	13,339,197
M55-60	1,045	982,149,884	939,856	8.04%	61,000,614
M61-65	3,946	3,906,662,529	990,031	31.98%	268,678,775
M66-70	2,698	1,560,120,456	578,251	12.77%	121,195,354
M71-75	1,520	600,723,224	395,213	4.92%	54,036,278
M76-80	1,051	295,222,535	280,897	2.42%	31,365,684
M81-85	502	105,744,317	210,646	0.87%	13,196,024
M86	64	16,689,987	260,781	0.14%	2,360,421
M87	32	4,503,044	140,720	0.04%	659,238
M88	27	3,979,133	147,375	0.03%	602,626
M89	25	3,659,311	146,372	0.03%	572,831
M90	13	1,467,191	112,861	0.01%	237,163
M91	6	1,252,703	208,784	0.01%	208,847
M92	6	2,080,676	346,779	0.02%	357,285
M93	4	301,472	75,368	0.00%	53,239
M94	3	359,685	119,895	0.00%	65,215
M95	5	491,797	98,359	0.00%	91,386
M96	7	597,737	85,391	0.00%	113,619
M97	2	106,740	53,370	0.00%	20,714
M98	2	137,841	68,921	0.00%	27,254
M99	1	401,889	401,889	0.00%	80,801
M100	(	10 Sec.		0.00%	
M101+	3	510,158	170,053	0.00%	105,557
Totals	16,250	8,359,224,007	514,414	68.43%	647,143,197

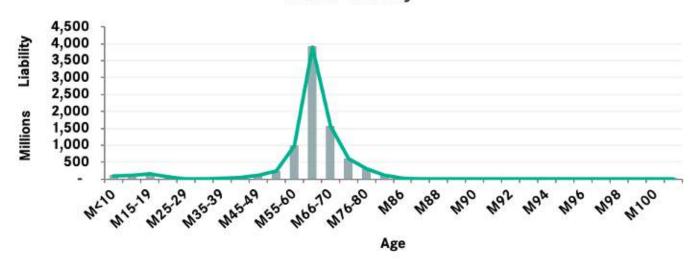
n. The graphical presentation of the Fund's male pensioners' profile is indicated below:

### **Number of Male Members**



o. The graphical presentation of the Fund's male pensioners liability profile is indicated below:

# **Males Liability**



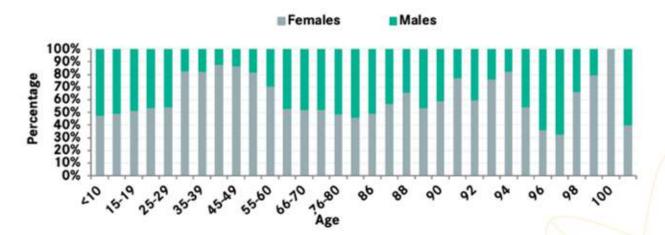


p. A summary of the total pensioners of the Fund is indicated below:

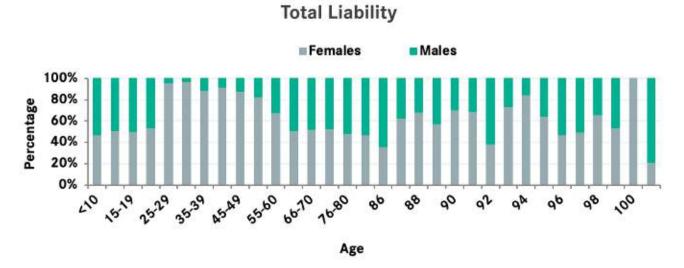
Age Band	Number of members	Total Liabilities	Average Liability	%Breakdown of Total Liabilities	Total Annual Pensions
<10	726	175,180,227	241,295	0.85%	13,214,423
10-14	1,665	244,088,680	146,600	1.19%	24,194,858
15-19	3,703	328,850,117	88,806	1.60%	48,416,956
20-24	3,574	162,991,000	45,605	0.79%	54,390,964
25-29	224	17,678,951	78,924	0.09%	4,391,834
30-34	42	53,611,176	1,276,457	0.26%	2,288,215
35-39	170	187,362,395	1,102,132	0.91%	8,289,921
40-44	553	579,624,892	1,048,146	2.82%	26,695,839
45-49	1,017	945,798,570	929,989	4.60%	46,122,343
50-54	1,625	1,392,717,763	857,057	6.77%	72,923,152
55-60	3,632	3,063,233,717	843,401	14.89%	179,866,041
61-65	8,499	8,036,971,839	945,637	39.06%	533,124,082
66-70	5,626	3,256,119,350	578,763	15.83%	245,477,897
71-75	3,201	1,277,114,091	398,973	6.21%	112,684,594
76-80	2,063	572,143,119	277,335	2.78%	60,555,329
81-85	933	200,269,443	214,651	0.97%	25,321,629
86	127	26,246,319	206,664	0.13%	3,770,981
87	75	12,070,308	160,937	0.06%	1,820,636
88	80	12,817,924	160,224	0.06%	2,011,258
89	54	8,617,764	159,588	0.04%	1,392,081
90	32	5,028,875	157,152	0.02%	846,116
91	27	4,099,290	151,826	0.02%	711,424
92	15	3,405,465	227,031	0.02%	598,264
93	17	1,148,266	67,545	0.01%	211,546
94	17	2,429,290	142,899	0.01%	461,851
95	11	1,391,636	126,512	0.01%	267,713
96	11	1,136,915	103,356	0.01%	221,365
97	3	213,396	71,132	0.00%	42,394
98	6	406,615	67,769	0.00%	82,696
99	5	865,911	173,182	0.00%	177,712
100	2	215,314	107,657	0.00%	45,435
101+	5	647,547	129,509	0.00%	135,430
Totals	37,740	20,574,496,165	545,164	100.00%	1,470,754,982

q. The graphical presentation of the total pensioners' profile of the Fund is indicated below:

#### **Number of Members**

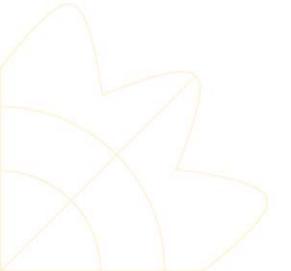


r. The graphical presentation of the total pensioners' liability profile of the Fund is indicated below:



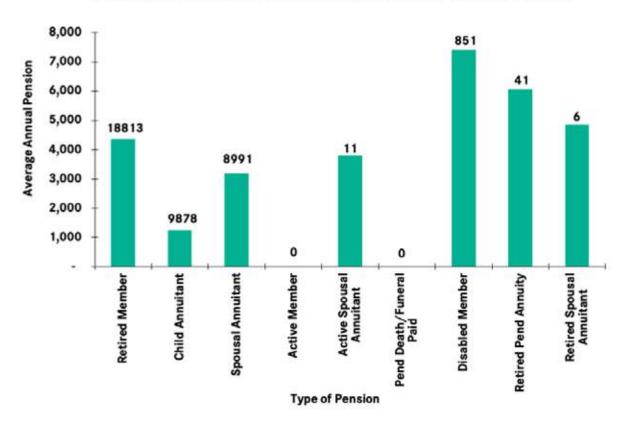
s. The summary of pensioners and disability income under the Fund by type of pensioner is as follows:

Туре	No. of pensioners	Total pension per month	Total age	Average pension per month	Average age at valuation date
Retired Member	18813	81,767,048.94	1,263,275.00	4,346.31	67 years 2 months 17
Child Annuitant	9878	12,005,518.08	171,945.00	1,215.38	years 5 months
Spousal Annuitant	8991	28,472,169.40	536,607.00	3,166.74	59 years 8 months
Active Member	0	-		0	5 10 10 <b>8</b> 10 10 10 10 10 10 10 10 10 10 10 10 10
Active Spousal Annuitant	11	41,528.74	560.00	3,775.34	50 years 11 months
Pend Death/Funeral Paid	0	-	-		50.00 Telephone (10.00
Disabled Member	851	6,274,317.43	44,557.00	7,372.88	52 years 4 months
Retired Pend Annuity	41	247,706.23	2,600.00	6,041.62	63 years 5 months
Retired Spousal Annuitant	6	28,943.74	453.00	4,823.96	75 years 6 months
TOTAL	38,591	128,837,232.56	2,019,997.00	3,338.53	52 years 4 months



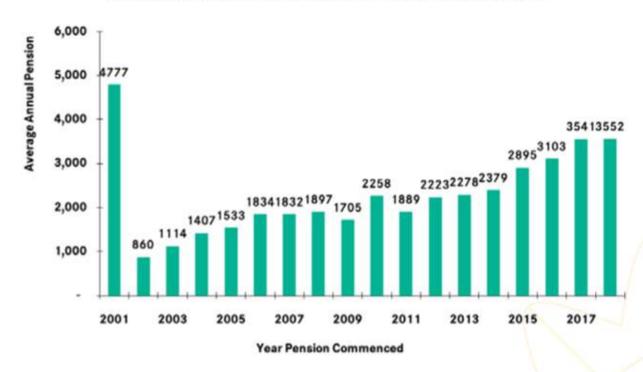
t. The graphical presentation of data for pensioners and disability income members under the Fund by type of pensioner is as follows:

# Average Pension Per Month and Number of Pensioners



u. The summary of total pensioners under the Fund by year of commencement is as follows:

# **Number of Pensioners Per Year of Commencement**



# **APPENDIX 5: BALANCE SHEET**

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

	31-Mar-18 (N\$)	31-Mar-15 (N\$)
Market Value of Investments	110,538,961,000	88,770,775,000
Abax Investment	5,290,255,000	3,351,637,000
Abraaj Investment Management Limited	74,802,000	-
Absa Capital	24,412,000	11,470,000
All Seasons Capital Management	1,690,294,000	2,185,059,000
Allan Gray Namibia	6,479,487,000	3,853,951,000
Bank of Namibia	6,352,369,000	-
Baobab Capital (Pty) Ltd	22,314,000	4
BFS Nampro Fund Manager (Pty) Ltd	246,471,000	165,461,000
Blackrock Investment Management	3,641,679,000	8,733,867,000
Catalyst Property Fund Ltd	817,683,000	5 <del>.*</del> *
Credit Partners (Pty) Ltd	-	227,878,000
EOS Capital (Pty) Ltd	93,780,000	-
Ethos Mezzanine Partners	102,093,000	
First Capital Treasury Solutions (Pty) Ltd	1,227,945,000	365,563,000
Future Growth Asset Management (Pty) Ltd	367,670,000	*
Hosking Partners LLP	4,621,975,000	
IJG Private Equity (Pty) Ltd	38,500,000	58,059,000
Investec Asset Management	13,338,006,000	12,338,647,000
Kongalend Financial Services (Pty) Ltd	84,746,000	79,293,000
Konigstein Capital (Pty) Ltd	273,090,000	128,015,000
Mazi Capital	1,229,553,000	817,426,000
Momentum Asset Management		3,318,399,000
Musa Capital Namibia (Pty) Ltd	51,945,000	4
Namibia Asset Management	14,023,688,000	13,845,207,000
Old Mutual Asset Management	8,682,628,000	9,941,838,000
Old Mutual Infrastructure Fund		79,294,000
Old Mutual Tunga Fund		212,217,000
Preferred Management Services (Pty) Ltd	262,562,000	240,116,000
Property Plant & Equipment	94,508,000	76,000
Prudential Portfolio Managers	1,451,173,000	2,503,247,000
RMB Morgan Stanley (Pty) Ltd	5,204,000	5
Safland Property Services	244,468,000	
Sanders Capital LLL	4,971,727,000	
Sands Capital Management (Pty) Ltd	3,044,675,000	
Sanlam Investment Management	4,998,827,000	8,962,544,000
Sim Real Estate Fund	· · · · · · · · · · · · · · · · · · ·	-1,368,000
South Suez Capital	2,371,631,000	1,446,083,000
Sovereign Asset Management	2,850,175,000	1,952,197,000
Taquanta Asset Managers		537,212,000
The Frontier Property Trust		241,036,000
Transition		539,000
Tri-Alpha		1,210,032,000
VISCO Capital	3,303,928,000	2,279,492,000

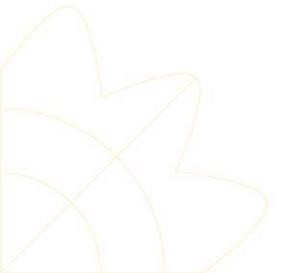
# APPENDIX 5: BALANCE SHEET CONT'D

	31-Mar-18 (N\$)	31-Mar-15 (N\$)
VPB Namibia (Pty) Ltd	61,268,000	34,720,000
Wellington Management International LLP	4,373,532,000	9,493,260,000
Direct Investments	2,397,036,000	158,308,000
GIPF Treasury Portfolio	11,332,862,000	
Plus Current Assets	582,300,000	485,932,000
Kuleni Administrators		
Cash at bank	523,987,000	156,759,000
Contributions Receivable	31,244,000	314,914,000
Accounts Receivable	27,069,000	14,259,000
Less Current Liabilities	(674,562,000)	(420,522,000)
Accounts Payable	(111,319,000	(105,897,000)
Benefits Payable	(563,243,000	(314,625,000)
Less Non-Current Liabilities	(238,920,000)	(273,836,000)
Benefits Payable	(215,359,000)	(242,603,000)
Unclaimed Benefits		(31,233,000)
Bank Rejections	(23,561,000)	
Total Asset Value	110,207,779,000	88,562,349,000



# APPENDIX 6: INCOME STATEMENT:

	2016 N\$	2017 N\$	2018 N\$	2016-2018 N\$
Opening balance as at 1 April (PRIOR YEAR)	88,562,349,000	93,596,143,000	98,981,933,000	88,562,349,000
Income	7,787,595,000	8,506,872,000	15,051,257,000	31,345,724,000
Member Contributions**	1,051,189,000	1,161,717,000	1,314,625,000	3,527,531,000
Employer Contributions**	2,483,257,000	2,681,603,000	2,958,709,000	8,123,569,000
Net Investment Income	4,234,641,000	4,637,128,000	10,750,963,000	19,622,732,000
Other Income	18,508,000	26,424,000	26,960,000	71,892,000
Adjustments*				
Outgo	2,753,801,000	3,121,082,000	3,825,411,000	9,700,294,000
Refund on Contributions	38,000	2,367,000	4,021,000	6,426,000
Administration	188,524,000	211,210,000	234,972,000	634,706,000
Lump Sum - Death	190,292,000	121,175,000	162,401,000	473,868,000
Lump Sum - Retirements	779,451,000	852,897,000	1,146,215,000	2,778,563,000
Lump Sum - Withdrawals	470,405,000	555,492,000	645,594,000	1,671,491,000
Funeral Benefits	9,473,000	9,130,000	9,562,000	28,165,000
Pensions Paid	1,115,618,000	1,360,898,000	1,615,507,000	4,092,023,000
Dissolution Benefits		7,913,000	7,139,000	15,052,000
Closing Balance as at 31 March (Current Year)	93,596,143,000	98,981,933,000	110,207,779,000	110,207,779,000



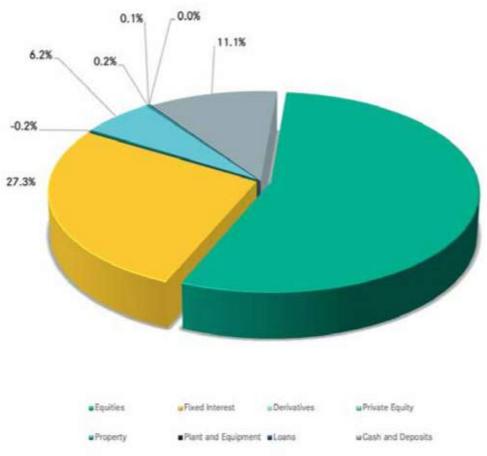
# **APPENDIX 7: ASSET ALLOCATION**

The split of the assets held by the Fund as at the valuation date is shown in the table below:

Asset Class	Fair Value of Assets (N\$)	Percentage Holding
Equities	61 104 473 000	55.3%
Fixed Interest	30 219 053 000	27.3%
Derivatives	(220 708 000)	(0.2%)
Private Equity	6 879 420 000	6.2%
Property	212 263 000	0.2%
Plant and Equipment	94 508 000	0.1%
Loans	41 000	0.0%
Cash and Deposits	12 249 911 000	11.1%
Total	110,538,961,000	100.0%

The graphical presentation of the above split is as follows:

# **Asset Allocation**



Aubor and Deputies

#### **APPENDIX 8: 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:

	Assumptions	Current Valuation 31-Mar-18	Previous Valuation 31-Mar-15
Pre-Retirement	Inflation	8.0 %	8.0 %
	Investment Returns	12.0 %	12.0 %
	Salary Increases	9.5 %	9.5 %
Post-Retirement	Investment Returns	12.0 %	12.0 %
	Pension Increases	8.0 %	8.0 %

The Pensionable Emoluments increase and investment return assumptions reflect a pre-retirement 'real return' of 2.3% p.a. (i.e. investment return fewer salary increases). This is the same as the previous valuation, as depicted in the table above.

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

Age	Males (%)	Females (%)
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 decide 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 an interest rate of 4% p.a. This is the same approach as in the previous valuation.

This effectively means that all investment returns in excess of 4% 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 1.4% of Pensionable Earnings.

#### **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)-1

Sample rates are shown below at specific ages:

	Active Members			Pensioners	
Age	Males (%)	Females (%)	Age	Males (%)	Females (%)
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	Males (%)	Females (%)
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 and III-Health Retirement (Disabilities)

The reduction in the monthly pension of 0.25% for Early Retirement ensures that Early Retirement will not have an adverse financial impact on the Fund. Therefore no explicit provision for Early Retirement was deemed necessary.

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	Males (%)	Females (%)
30	0.10	0.10
35	0.10	0.10
40	0.10	0.10
45	0.15	0.10
50	0.25	0.15
55		(*)
60	전 1	

#### **Family Statistics**

Based on similar funds, and as per the basis in the previous valuation, it was assumed that 95% of Members are married at retirement and that husbands are 5 years older than their wives.













