



**REPORT ON THE
ACTUARIAL VALUATION
OF THE
GOVERNMENT INSTITUTIONS
PENSION FUND
AS AT
31 MARCH 2006**



HOLDINGS

March 2007

CONTENTS

MAIN REPORT	3
INTRODUCTION.....	3
Purpose of the Valuation.....	3
Nature of the Fund.....	4
Financially Significant Changes.....	5
Professional Guidance	5
VALUATION DATA.....	6
LIABILITY VALUATION METHODOLOGY AND BASIS.....	11
Methodology.....	11
Basis.....	12
ASSETS.....	13
Net Asset Value.....	13
Asset Composition	13
Asset Valuation Methodology.....	14
Asset Valuation Results	15
Investment Returns.....	15
VALUATION RESULTS	16
Financial Position	16
Required Contribution Rate	17
Matching of Assets and Liabilities	17
CONCLUSIONS AND RECOMMENDATIONS	19
APPENDICES	22
APPENDIX A: SUMMARY OF RULES, BENEFITS AND CONDITIONS.....	22
APPENDIX B: ANALYSIS OF FUND MEMBERSHIP	25
APPENDIX C: SUMMARY OF DATA CHECKS.....	29
APPENDIX D: FUND ACCOUNT	34
APPENDIX E: ACTUARIAL BASIS	35
APPENDIX F: PROPOSED AMENDMENTS TO RULES	38
APPENDIX G: SENSITIVITY ANALYSIS.....	46
APPENDIX H: ANALYSIS OF SURPLUS.....	49

MAIN REPORT

INTRODUCTION

1. We have carried out a statutory Actuarial Valuation of the Government Institutions Pension Fund (“the Fund”) as at 31 March 2006 (“the Valuation Date”). The previous statutory Actuarial Valuation of the Fund was performed as at 31 March 2003 (“the Previous Valuation Date”) by Alexander Forbes Financial Services.
2. The three-year period separating the Previous Valuation Date and the Valuation Date is referred to as the “Valuation Period”.
3. This report is addressed to the Trustees of the Fund with copies available for the Registrar and Prime Minister of Namibia. The Valuation has been carried out in accordance with section 10.8 of the Current Rules to the Fund as regulated by the Pension Funds Act, Act 24 of 1956 (“the Act”).
4. According to the Act a statutory Actuarial Valuation is required at least every three years. The next statutory Valuation should therefore be carried out no later than 31 March 2009.
5. The Fund is governed by its Rules. The liabilities of the Fund towards its Members 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 A.

Purpose of the Valuation

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) Assess the implications of adopting the Proposed Amendments to the Rules.
 - e) Fulfil the statutory requirements of the Act.

Nature of the Fund

7. The objective of the Fund is to provide Retirement, Death and Ancillary Benefits for the beneficiaries as described in the Rules.
8. The Fund evolved from the Statutory Institutions Pension Fund (“the Old Fund”) with effect from 1 October 1989. The object of the Fund is to provide Retirement and Ancillary Benefits for the beneficiaries as described in the Rules.
9. There are currently about 77 sponsoring Employers registered under the Fund. The largest number of Employees are from government ministries. These constitute about 95% of the Total Active Membership.
10. The Fund employs about 136 officers and administrators who administer the Fund’s operations under the guidance of the Trustees. The Trustees manage and control the Fund’s affairs according to its Rules.
11. The Members currently receive a “Defined Benefit” pension on Retirement. Under a Defined Benefit arrangement the individual’s pension is calculated according to a formula. The pension is calculated as 2.4% of Final Salary multiplied by Member’s Pensionable Service.
12. All pensions are paid from the Fund. Also the costs of all increases to pensions in payment are met from the resources of the Fund.
13. The Fund pays a Resignation Cash Benefit based on a formula which approximately refunds the Member’s own contributions at 5% simple interest. Members leaving the Fund to join another approved Fund can also opt to have their Actuarial Reserve transferred to an Approved Fund of their choice.
14. On Total and Permanent Disability the Member is entitled to an income equal to 75% of Pensionable Emoluments for the first two years reducing to 50% thereafter. However, the current practice starts at the initial level of 75% of Pensionable Emoluments and then updated with any increases awarded from time to time.
15. The Fund pays Death Benefits to the surviving spouse and / or children of an Active Member or Disabled Member or to his / her beneficiaries. These benefits include a once off lump sum of two times Member’s Pensionable Emoluments and Spousal / Children Annuities.
16. The Fund also offers Funeral cover to its Active and Disabled Members together with their qualifying spouses and children. The current level of cover depends on whether it is an adult or a qualifying child who dies.
17. Fund Membership can be broadly divided into three categories according to Normal Retirement Age. The first category is for those Members whose Retirement Age is 60 years. The second category is for those Members whose circumstances have lead to their Retirement Age being accepted as 55 years. The third category is for Members whose Retirement Age is extended beyond age 60 years but not later than 67 years. The circumstances leading to Retirement based on the latter two categories

are not known in advance but Retirement is approved in terms of the Rules and Public Service Act (Act 13 of 1995).

Financially Significant Changes

18. Recent increases Pension and Disability Benefits in payment have been as follows (CPI inflation is shown for comparative purposes):

Date of Increase	Pension Increase	Disability Income Increase	Average Salary Increase	Inflation
1 April 2003	8.2 %	9.6 %	8.0 %	9.8 %
1 April 2004	7.5 %	5.0 %	5.0 %	4.1 %
1 April 2005	7.5 %	5.0 % *	5.0 %	1.7 %
1 April 2006	7.0 %	0.0 %	0.0 %	4.6 %

* Back-dated increase granted after the Valuation Date

Note: The average salary increase is taken as the overall increase awarded to civil servants.

19. There are Proposed Amendments to the Rules which may have financially significant changes to the operations of the Fund. Appendix F has been included to cover more details on the Proposed Amendments.

Professional Guidance

20. This report adheres to the Professional Guidance Note PGN201 of the Actuarial Society of South Africa and to Guidance Note GN9 of the Institute of Actuaries in all respects except the following:

- A termination position of the Fund has not been shown.
- Sections specific to the United Kingdom have been ignored.
- No comment has been made as to whether the use of derivatives has been appropriate.

VALUATION DATA

21. GIPF Benefits Administrators supplied the data for this Valuation and the Previous Valuation. We have checked the data for completeness and reasonability. There were some problems with the data and a summary of the data is given in Appendix B. A summary of the data problems and estimations employed is given in Appendix C.
22. The Membership of the Fund at this Valuation and at the Previous Valuation according to latest data supplied is summarised as follows:

Gender	Number of Members at Current Valuation	Number of Members at Previous Valuation
Males	46 139	46 868
Females	38 442	37 254
Total	84 581	84 122

Note: Active Members' Data include Members who could not be found on GIMIS but are on the Payroll data and vice versa. Details of this and other data issues are covered in Appendix C.

23. There were 386 Members above Normal Retirement Age of 60 years but below the age of 67 years. We suspect these Members could have been allowed to retire in terms of the Public Service Act, 1995 (Act No. 13 of 1995). Therefore the Members have been valued as Actives for the purposes of this Current Valuation. Also, there are 50 Members above age of 67 years. These could be Members who have not claimed their Retirement Benefits thus we have valued them as Pensioners who retired at the Valuation Date.
24. The increase in Membership from 84 122 to 84 581 represents an overall increase of 0.5% in the Membership of the Fund. This represents a compounded rate of increase of 0.2% per year during the Valuation Period. The total annual salaries of Active Members is summarised below:

Gender	Total Annual Salary at Current Valuation (N\$ 000's)	Total Annual Salary at Previous Valuation (N\$ 000's)
Males	2 412 824	2 018 189
Females	2 049 764	1 652 069
Total	4 462 588	3 670 258

25. A comparison of the increase in total annual salary on the basis of the latest data supplied for this Valuation and Previous Valuation was done. The total annual salary bill has increased from N\$3.67 billion to N\$4.46 billion since the last Valuation. This represents a 21.6% increase in the total annual salary bill, which represents a compound rate of growth of 6.7% per annum over the period.
26. The average annual salaries of Active Members is summarised below in Namibian Dollar (N\$):

Gender	Average Annual Salary at Current Valuation	Average Annual Salary at Previous Valuation
Males	52 295	43 061
Females	53 321	44 346
Total	52 761	43 630

27. The average annual salary of the Fund has increased by 20.9% during the Valuation Period. This translates into an average annual increase of 6.5% per annum in the annual salaries of Members.
28. The average age weighted by annual salary for Active Members is summarised below:

Gender	Average age weighted by Annual Salary at Current Valuation	Average age weighted by Annual Salary at Previous Valuation
Males	40 years 11 months	39 years 11 months
Females	40 years 6 months	39 years 4 months
Total	40 years 9 months	39 years 8 months

29. The average age weighted by annual salary for all Members has increased slightly from 39 years and 8 months to 40 years and 9 months.

30. The average service weighted by annual salary is summarised below:

Gender	Average service weighted by Annual Salary at Current Valuation	Average service weighted by Annual Salary at Previous Valuation
Males	11 years 2 months	9 years 7 months
Females	12 years 0 months	10 years 6 months
Total	11 years 7 months	10 years 0 months

31. The average service weighted by annual salary for all Members has increased from 10 years and 0 months to 11 years 7 months.

32. There has been an increase of 1 year 7 months in the average service weighted by annual salary. This represents the fact that generally the Membership of the Fund remains in service and do not change their jobs frequently. Therefore the salary weighted average age will be expected to rise before stabilising when the older higher salaried Members retire and are replaced by the younger ones.

33. There were 6 681, 2 877 and 5 640 Pensioners, Qualifying Spouses and Children respectively receiving a pension as at the Previous Valuation Date. At this Valuation, the number of Pensioners, Beneficiaries and Active Members who are above the age of 67 years are summarised as follows:

Number	Members above 67 years	Pensioners	Spouses	Children	Total
Males	35	5 007	534	4 889	10 465
Females	15	2 746	3 549	5 105	11 415
Total	50	7 753	4 083	9 994	21 880

Notes:

- There are 3 680 Pensioners whose pensions are suspended for various reasons. The value of their Benefits has been provided for under Data Reserve.
- Members above age 67 are assumed to have retired at the Valuation Date.

34. The average ages of the Pensioners is summarised in the following table:

	Members above 67 years	Pensioners	Spouses	Children
Males	70 yrs 5 mths	64 yrs 11 mths	50 yrs 11 mths	13 yrs 5 mths
Females	71 yrs 5 mths	63 yrs 10 mths	47 yrs 7 mths	13 yrs 4 mths
Total	70 yrs 8 mths	64 yrs 6 mths	48 yrs 1 mth	13 yrs 5 mths

35. The total annual pensions in payment for the various categories of Pensioners is summarised below:

	Members above 67 years (N\$ 000's)	Pensioners (N\$ 000's)	Spouses (N\$ 000's)	Children (N\$ 000's)	Total (N\$ 000's)
Males	939	70 674	31 081	11 375	114 069
Females	322	43 345	32 109	62 845	138 621
Total	1 261	114 019	63 190	74 220	252 690

Note: Pension amounts calculated for Actives Members above age 67 are before any cash commutation.

36. The average annual pensions in payment for the various categories of Pensioners is summarised below in Namibian Dollars (N\$):

	Members above 67 years	Pensioners	Spouses	Children
Males	26 826	14 115	21 302	6 357
Females	21 471	15 785	17 708	6 290
Total	25 219	14 706	18 178	6 323

Note: Pension amounts calculated for Active Members above age 67 are before any cash commutation.

37. At the Valuation Date there are 431 (excluding 6 Suspended) Disabled Members receiving a pension and contributing to the Fund compared to 395 (excluding 3 duplicates) at the Previous Valuation. The following is a summary of details for Disabled Members receiving an income:

	Number at Current Valuation	Annualised Disability Income at Current Valuation (N\$ 000's)	Number at Previous Valuation	Annualised Disability Income at Previous Valuation (N\$ 000's)
Males	271	10 416	245	8 685
Females	160	5 711	141	4 387
Total	431	16 127	386	12 072

38. During the Valuation Period a total of 5 656 Funeral Benefits were paid on Death of Active and Disabled Members, qualifying spouses and children. 460 of the Funeral Benefits paid were in respect of Deaths which occurred before Previous Valuation. Out of the 3 246 Funeral Benefits paid on Death of Active and Disabled Members during the Valuation Period, only 628 have had their Death claims also settled. The amounts and actual numbers in respect of Funeral Benefits paid are as summarised below:

	Members	Spouses	Children
Number	3 246	749	1 201
Total amount (N\$ 000's)	16 230	3 745	936
Average Amount (N\$'s)	5 000	5 000	780

LIABILITY VALUATION METHODOLOGY AND BASIS

Methodology

39. 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.
40. The projected unit credit method determines the required future contribution rate as the cost of Benefits accruing in the year following the Valuation Date, expressed as a percentage of Pensionable Salaries as at the Valuation Date.
41. The Methodology used in this Valuation is partially different from that used in the Previous Valuation but consistent with the nature of the Fund.

Past Service

42. 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.
43. For Members in receipt of Disability Income Benefits, the past service liability is determined as the present value of the future Disability Income Benefits.
44. 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 2006 has been taken into account when determining the liability.
45. A Data Reserve equal to 5% of the total of the Active Member, Pensioner and Disability Income liabilities is held.
46. An AIDS Reserve is held to act as a buffer against the impact of deteriorating Mortality and Morbidity experience caused by HIV/AIDS.

Future Service

47. The required future contribution rate is determined as the total cost of Benefits accruing in the year following the Valuation Date expressed as a percentage of the total Pensionable Salaries as at the Valuation Date.
48. 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 profiles that keep the Membership stable.

Basis

49. 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 E.
50. 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.
51. 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.
52. It should be noted that the relationships between the various financial assumptions are more important than the nominal value of each individual assumption.
53. The main financial assumptions are as follows:

	Assumptions	Current Valuation 31/3/2006	Previous Valuation 31/3/2003
Pre-Retirement	Inflation	8.0 %	11.0 %
	Investment returns	12.0 %	15.0 %
	Salary Increases	9.5 %	12.5 %
Post-Retirement	Investment returns	12.0 %	15.0 %
	Pension Increases	8.0 %	11.0 %

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

ASSETS

Net Asset Value

55. The Net Asset Value of the Fund, per the audited Financial Statements, was made up as follows as at the Valuation Date:

	N\$ 000's
Invested Assets:	
Allan Gray	4 902 039
Investec	5 237 736
Namibia	5 809 954
Old Mutual	2 961 008
Stanlib	901 173
Sanlam	3 705 454
Sovereign	1 010 024
Wellington	840 111
Alliance Bernstein	834 909
Prudential	195
GIPF Direct Investment	5 526
Property, Plants & Equipment	64 158
Bank Account	78 003
Contributions Receivable	78 014
Net Accounts Payable	(19 511)
Benefits Payable	(328 192)
Net Asset Value (Market Value)	26 080 601

Asset Composition

56. The investment sector composition of the Fund's Net Asset Value, is shown as follows as at the Valuation Date:

Asset Type	%
Equities	71.8 %
Fixed Interest Assets	14.8 %
Cash and Net Current Assets	12.5 %
Property	0.9 %

Asset Valuation Methodology

57. The method used to value the assets was chosen to be consistent with the method used to value the liabilities
58. The asset type composition of the Fund is expected to prove quite volatile over the short-term. To achieve more stability in the Actuarial Value of Assets, a Notional Asset Allocation is used. This is consistent with the liability profile of the Fund and is expected to show a long-term average for the Fund.
59. The Notional Asset Allocation as at the Valuation Date and the Previous Valuation Date was as follows:

Asset Type	2006 %	2003 %
Equities	67.0 %	62.0 %
Fixed Interest Assets	23.0 %	22.4 %
Cash and Net Current Assets	5.0 %	5.6 %
Property	5.0 %	10.0 %
TOTAL	100.0 %	100.0 %

60. The liabilities of the Fund are valued using long-term assumptions with respect to investment returns. It is therefore necessary to value the assets of the Fund on a similar basis in order to make valid comparisons. The Fund's assets are therefore valued by discounting expected future income streams using the Valuation rate of interest i.e. 12% per annum.
61. The Fund's equity component is valued by notionally investing in the JSE All-Share Index. Dividends are assumed to grow at 9.2% per annum. The dividend yield on the index was 2.3% as at the Valuation Date. Equities were thus valued at 82.1% of market value.
62. Fixed Interest investments were valued at 80% of market value, by notionally investing in the R186 long-term fixed interest stock.
63. Property is valued at 90% of market value while Cash and Net Current Assets are taken at face value.
64. The Asset Valuation Methodology is therefore consistent with the Previous Valuation.

Asset Valuation Results

65. The Actual Market Value, Notional Market Value and Actuarial Value of Assets as at the Valuation Date are summarised below:

	Market Value		Actuarial Value
	Actual (N\$ 000's)	Notional (N\$ 000's)	N\$ 000's
Equities	18 734 576	17 474 003	14 353 645
Fixed Interest Assets	3 855 250	5 998 538	4 798 831
Cash and Net Current Assets	3 254 516	1 304 030	1 304 030
Property	236 259	1 304 030	1 173 627
TOTAL	26 080 601	26 080 601	21 630 133

66. The Actuarial Value of Assets as at the Valuation Date was therefore 82.9% of the Actual Market Value. As at the Previous Valuation Date, the Actuarial Value of Assets was 115.6% of the Actual Market Value.

Investment Returns

67. Over the Valuation Period, the Fund earned a net money-weighted investment return of 31.2% per annum based on the Market Value of Assets and a corresponding return of 17.3% per annum on the Actuarial Value of Assets.
68. Namibian inflation averaged 3.5% per annum during the Valuation Period. The Fund therefore earned significant real rates of return during this time.

VALUATION RESULTS

Financial Position

69. The results of the Current Valuation are set out below. The Previous Valuation results are also shown:

	2006 Valuation N\$ 000's	2003 Valuation N\$ 000's
Value of Assets	21 630 133	12 901 111
Value of Liabilities / Reserves:		
Active Members	13 790 336	7 453 505
Pensioners	3 314 848	1 979 794
Disability Income Recipients	261 279	197 540
Data Reserve	868 323	754 585
AIDS Reserve	1 103 227	1 228 709
Total	19 338 014	11 614 133
Actuarial Surplus	2 292 119	1 286 978
Funding Level (Ratio of Assets to Liabilities)	111.9 %	111.1 %

70. The Data Reserve has been set at 5% of the Fund's liability in respect of Active Members, Pensioners and Disability Income Recipients. This includes an allowance for Suspended Pensioners, who are valued at N\$311.3 million. The remainder of the Data Reserve is to cater for any possible increase in liabilities resulting from possible data errors.
71. The AIDS Reserve has been set at 8% of the Fund's liability in respect of Active Members. This was determined using a statistical model to assess the impact of worsening HIV/AIDS experience in Namibia.
72. These Reserves have been set at levels which (in our opinion) are justifiable for the Fund.
73. We performed a Sensitivity Analysis which shows that the above result is relatively sensitive to the assumed rate of investment return. The results are shown in Appendix G.

Required Contribution Rate

74. Based on the Current Rules the contribution rates required for future service at the Current and Previous Valuation are set out below:

Contribution Rate required for:	31 March 2006	31 March 2003
Retirement Benefits	17.4 %	17.4 %
Disability Benefits	4.7 %	2.6 %
Death Benefits	9.9 %	4.6 %
Resignation Benefits	0.7 %	0.7 %
Funeral Benefits	0.1 %	0.2 %
Fund Expenses	1.3 %	1.0 %
Total Required Contribution Rate	34.1 %	26.5 %
Less Member Contribution Rate	7.0 %	7.0 %
Total required Employer(s) Contribution Rate	27.1 %	19.5 %

75. The Total Contribution Rate has increased from 26.5% to 34.1%. This is largely due to the changed methodology in valuing the Fund's Risk Benefits, payable on Death and Disability.
76. We performed a Sensitivity Analysis which shows that the above result is relatively sensitive to the assumed rate of investment return. The results are shown in Appendix G.
77. The Employer(s) are currently contributing at 16.0%. The Current Surplus should be able to subsidise this contribution holiday for approximately 6 years from the Valuation Date.

Matching of Assets and Liabilities

78. 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.
79. 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.

80. Examples of these 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;
 - The liability in respect of Active Members whose benefits are to be paid in the near future on Retirement, Ill-Health, Death or Withdrawal; and
 - A portion of the Data and AIDS Reserves.
81. We have estimated that about 25% of the Fund's liabilities fall in this category.
82. The balance of the Fund's liabilities, that increase with inflation, 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;
 - The liability in respect of pension increases of the Active Members' accrued pension rights; and
 - A portion of the Data and AIDS Reserves.
83. Historically over the long term, growth assets have outperformed all other asset classes and we recommend that the Fund's Surplus also be invested in growth assets.
84. The Fund can therefore maximise its long-term return, subject to minimising the risk of not being able to meet its liabilities by investing 20% to 25% of its assets in interest-bearing securities and cash, with the balance of 75% to 80% invested in growth assets. We recommend that no more than 5% be held in cash over the medium term as the income currently exceeds the expenditure of the Fund.
85. As at the Valuation Date, based on market values, the Fund held 14.8% of its assets in interest-bearing securities and 12.5% in cash and other current assets. The remaining 72.7% of assets were held in growth assets (equities and property).
86. The current cash holding does appear to be excessive, but is typically the result of the investment managers holding cash balances than expected due to the realignment of strategies.
87. We are overall satisfied that the Fund's asset mix is a satisfactory match for the Fund's liabilities.

CONCLUSIONS AND RECOMMENDATIONS

88. The Valuation revealed a liability of N\$19.338 billion whilst the Actuarial value of the assets was N\$21.630 billion. The Actuarial Surplus amounts to N\$2.292 billion as at Valuation Date. Therefore the funding level as at the Valuation Date was 111.9%.
89. We have made provision for additional liability that may result from possible data errors. In addition, we have set aside an AIDS Reserve to protect the future financial position of the Fund against worsening HIV/AIDS among the Membership of the Fund.
90. The Required Total Contribution Rate to fund the future benefits of the Fund under the current structure is 34.1% of Pensionable Emoluments. Therefore after allowing for the Member Contribution Rate of 7% and the Current Employer(s) Contribution Rate of 16%, an additional Contribution Rate of 11.1% of Pensionable Emoluments is required.
91. We recommend that the Employer(s) maintain the Current Contribution Rate of 16% until this can be reviewed upwards in line with the setting up of a separate Risk Reserve Account. The increase in the contribution rate should be structured in a way that will not adversely impact the financial resources of the Employer(s), as the Fund is in a surplus. The increase in the contribution rate can be phased in gradually. Examples of how this can be done are shown in Appendix G.
92. The current asset mix is adequate for the nature of the current Fund's liabilities.
93. We recommend that the Surplus revealed by this Valuation be invested in Growth assets so as to maximise the return on assets.
94. We recommend that no more than 5% be held in cash over the medium term as the income currently exceeds the expenditure of the Fund.
95. The Trustees should consider improving risk management strategies on the Fund. The current self insurance arrangement is expected to result in increasing outgo which could mean that this could become a problem at a later stage.
96. We recommend that the Fund consider setting up a Risk Reserve Account to cater for Disability and Death in Service Benefits. Separating this account from the Main Account would allow a greater understanding of the effect of providing Risk Benefits on the performance of the Fund in general. This will then pave the way for informed decisions on whether to insure Risk Benefits or to continue with a monitored Risk Reserve Account.

97. There were some problems with the data employed for this Valuation though we believe that the quality of the data has generally improved over the Valuation Period. The Fund administrators should check the problems highlighted and rectify them before the next Valuation. There is need to set up a data audit team or assign a quality controller whose main role will be to maintain and enforce the requirements of a clean data for all major exercises. This will enable a more accurate representation of the financial position of the Fund in future.
98. There was a substantive improvement in the data between the 2003 and 2006 Valuation Dates. However, to allow for prudence a significant Data Reserve has been retained in the Fund. This can be reviewed in the 2009 Valuation and it is anticipated that the majority (if not all) of the Reserve could be removed at that time. This is due to the continual improvement in data management by the Fund's administrators.
99. There were Proposed Amendments to the Rules that affect the financial soundness of the Fund. The impact of these Amendments will be assessed as at the Valuation Date after concluding this report. A separate report regarding the assessment and our recommendations shall then be produced.
100. The report on assessment and recommendations on Proposed Rules will cover the following major issues:
 - Explore all the options on Surplus distribution methods and recommend what should be incorporated as part of the Rules.
 - Assess current self insurance arrangement and recommend ways on how to minimize the risk it currently poses to the financial position of the Fund.
 - Review the calculation of the Actuarial Reserve for purposes of paying Transfers and Benefits and thus come up with an appropriate definition for incorporation into the Rules.
 - Assess the financial impact of the proposed formula for calculation of the Final Salary to be used for Disabled Members' Benefits calculation and make recommendations.
 - Assess the financial impact of Benefit Enhancement on Early Retirement other than age and Ill-Health and then make recommendations.
 - Make comments on the way in which Resignation Benefits are calculated and to assess the financial impact of any recommendations.
 - Assess the impact of Benefits Enhancement to the Fund as a result of the link of the Rules to the Public Service Act, 1995.
 - Review interest rates used on payment of Late Contributions and Benefits and on refunds payable from the Fund.

101. Other issues to be dealt with in the report on assessment and recommendations on Proposed Rules may not have a direct impact on the financial soundness of the Fund. These include:

- Powers of Trustees
- Late Retirements
- Rule Amendments to do with clarification



S T Walker BBusSc(Hons) FIA FASSA

In My Capacity as Fund Valuator and
as an Employee of NBC Holdings (Pty)
Ltd

March 2007

H Chikoto BSc(Hons) - Statistics

In My Capacity as the Fund's Actuarial
Consultant and as an Employee of
NBC Holdings (Pty) Ltd

APPENDICES

APPENDIX A: SUMMARY OF RULES, BENEFITS AND CONDITIONS

A.1. The main Rules, Benefits and Conditions of the Fund are set out below:

Retirement Age

A.2. The Normal Retirement Age is 60 years for all Members except for Members whose Retirement Age has been changed in terms of the Public Service Act (Act 13 of 1995).

Pensionable Service

A.3. Pensionable Service shall be the number of years and completed months of service with the Employer(s).

Final Salary

A.4. Final Salary shall be the average annualised Pensionable Salary for a period not exceeding twelve months preceding Retirement.

Contributions

A.5. Employees contribute 7% of their Pensionable Salary.

A.6. Employer(s) contribute the balance of the costs required for Retirement Benefits, Withdrawal Benefits and Expenses. The Employer(s) currently contribute at a rate of 16% of Pensionable Salaries.

Expenses

A.7. All expenses incurred in the administration and management of the Fund are borne by the Fund. These include investment expenses, administration fees, audit fees and other fees.

Benefits

Pension Benefit on Normal Retirement

A.8. 2.4% of the Final Salary for each year of Pensionable Service guaranteed for 60 months. All the pensions are paid monthly in arrears.

Pension Benefit on Ill-Health Early Retirement

- A.9. With the approval of Trustees a Member may retire due to Ill-Health of a protracted nature at any age. The Member is entitled to a pension calculated as in A.8 above.

Pension Benefit on Early Age Retirement

- A.10. A Member may voluntarily retire on Early Age Retirement within 5 years of Normal Retirement. The pension calculated as in A.8, based on Pensionable Service up to the date of Early Retirement, is reduced by 0.25% for each month separating the actual and the Normal Dates of Retirement.

Pension Benefit on Early Retirement for Reasons other than Age or Ill-Health

- A.11. With the approval of the Trustees a Member may retire early due to dismissal for reasons of re-organisation, unsuitability and inability. The pension calculated as in A.8, based on Pensionable Service up to the date of Early Retirement, is increased by Pensionable Service as stipulated below:
- The shortest of 1/3 of Member's Pensionable Service, the period between the actual and Normal Retirement Dates or five years.
 - For a Member of the Commission, an additional 1/2 of the period which he / she occupied office referred to in section 2(3) of the Public Service Commission Act, 1990.

Commutation

- A.12. 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.
- A.13. The full Pension Benefit can be commuted for a lump sum if the annual Pension is less than N\$1 800.

Death after Retirement

- A.14. The balance of the first 60 monthly pension instalments will be payable.
- A.15. The spouse of a married Member will also be entitled to a pension of 50% of the Member's pension payable immediately after the greater of the date the member died or the date of the expiry of the first 60 monthly pension instalments.

Death in service before Normal Retirement Age

- A.16. On Death in service of a Member the following benefits become payable:
- A Lump Sum of two times the Pensionable Salary at the time of Death plus
 - A Spouse's Pension equal to 40% of Pensionable Salary plus
 - Children's Pensions of 10% of the Pensionable Salary per child with a maximum of 30% OR where there is no qualifying spouse, 20% of the Pensionable Salary per child with a maximum of 60%. .

Resignation

- A.17. A Member is entitled to a cash refund calculated according to a formula in the Rules. The formula approximates to a refund of 5% simple interest. Or,
- A.18. A Deferred Pension for a Member with more than 10 years service to be purchased by the Member's accrued Actuarial Reserve. Or,
- A.19. A Transfer Amount equivalent to the accrued Actuarial Reserve can be transferred to an approved Pension or Retirement Annuity Fund of the Member's choice.

Disability Benefit

- A.20. With the approval of the Commission a Member may leave employment on becoming Totally and Permanently Disabled. The Member is entitled to 75% of Pensionable Salary for the first 2 years and 50% thereafter.
- A.21. The Member is required to continue to contribute at 7% of the Disability Income. According to the Current Rules, the Disability Income is increased in line with salary increases.
- A.22. The Benefit ceases on Death, reaching Normal Retirement Age or when a Member ceases to be a Member of the Fund.
- A.23. According to the Current Rules, the Final salary to be used on Retirement or Death Benefits is derived from the Disability Income by dividing by 75%.

APPENDIX B: ANALYSIS OF FUND MEMBERSHIP

B.1. This Appendix contains details of approximate Membership build ups based on the latest data supplied and information in the Previous Valuation Report.

Active Members

B.2. In putting together the summary of the Active Membership build up below, we relied on the data that was put together and checked as detailed in Appendix C.

Membership at Previous Valuation

• Members below age 60 years	83 839	
• Members above age 60 years	<u>283</u>	
Total Members		84 122

Plus:

New Members on the Fund

• Members joining Fund during Valuation Period	3 282	
• Members added on GIMIS	<u>5 953</u>	
Total new Members		9 235

Less:

Members who exited the Fund

• Retirements	- 1 760	
• Deaths	- 2 749	
• Resignations	- 3 359	
• Disabled Members	- 156	
• Transfers (Section 14)	- 197	
• Members above age 67 years	- 50	
• Other Exits	- 505	
Total Exits		- 8 776

Membership this Valuation	<u>84 581</u>	
• Members below age 60 years	84 195	
• Members above age 60 years	386	

B.3. The Active Membership data for the Previous Valuation was taken from the main body of the Previous Valuation Report.

- B.4. The schedule of new entrants revealed that there were 3 282 Members who joined GIPF during the Valuation Period and had their records installed on GIMIS. The other 5 953 are Members whose records were installed on GIMIS during the Valuation Period but were admitted as Members prior to the Previous Valuation Date. We suspect these Members include 4 816 Members stated in the Previous Valuation Report as being on suspension at the Previous Valuation Date.
- B.5. 1 760 Retirements include 208 Retirees before Previous Valuation Date, who we suspect were part of the Active Members at the Previous Valuation Date.
- B.6. There were 2 749 deaths excluding 123 Pensioners paid during the Valuation Period. Of the 2 749 deaths, 710 are claims which occurred before the Previous Valuation Date but settled during the Valuation Period. We also suspect that these Members were part of the Previous Valuation Active Membership.
- B.7. There were 3 359 Resignations that occurred during the Valuation Period and their benefits were paid as cash to the member or transferred to other approved Funds during the same interval.
- B.8. During the Valuation period, there are 197 Members whose benefits were transferred from GIPF under section 14. The Employers who transferred their Members during the Valuation Period are Namcol (58), Katima Mulilo Town Council (109), Outapi Council(16), Arandis Town Council(7) and Bethanie Village Council(7).
- B.9. Other exits include those Members who could be exits at this Valuation Date but whose details we do not have.
- B.10. At the Valuation Date, there were 50 Active Members aged above 67. The Members Benefits were valued to be Pensioners who retired at the Valuation Date.

Pensioners

Pensioners at Previous Valuation Date	15 198
• Suspended Pensioners	2 296
• Pensioners omitted from Previous Valuation	5 851
• Duplicates	-32
Adjusted Pensioners at Previous Valuation Date	23 313
Plus:	
New Pensioners:	
• Installed records	4 372
• Members above age 67	50
Total new Members	4 422
Less:	
Exited / Suspended Pensioners:	
• Deaths	- 747
• Terminated Transfer	- 1
• Children reaching maturity age	- 1 427
• Temporarily Suspended Pensioners	- 3 680
Total Exited / Suspended	- 5 855
Pensioners this Valuation Date	21 880

B.11. 15 198 Pensioners were in receipt of a pension as at the Previous Valuation Date. In addition there were 2 296 Suspended Pensioners.

B.12. There were 5 851 Pensioners whose details indicate that they were omitted from Previous Valuation. Of these, 4 902 are part of those pensions in payment and 65 are under Suspended Pensioners. We suspect that the remaining 884 were also omissions but we could not trace back to 2003 Pensioners' data due to unavailability of Final Valuation Data.

B.13. The expected liability in respect of the 3 680 Suspended Pensions as at this Valuation Date was placed under the Data Reserve.

Disabled Members

Disabled Members at Previous Valuation Date		386
• Disabled Members omitted from Previous Valuation	26	
• Duplicates	- 3	
Adjusted Disabled Members		409
Plus:		
New Disabled Members		156
Less:		
Exited / Suspended Disabled Members		
• Deaths, Retirements and Transfers Out	- 128	
• Temporarily Suspended Disabled Members	- 6	
Total Exited / Suspended		- 134
Disabled Members this Valuation		431

- B.14. There were 431 Members receiving Disability Income and contributing to the Fund. In addition, there were 6 Disabled Members who were on suspension at this Valuation Date.
- B.15. Of the 26 Disabled Members omitted from Previous Valuation, we could not track 12 of them due to the unavailability of Final Valuation Data for 2003.
- B.16. The expected liability in respect of the Suspended Disabled Members is included in the Data Reserve.

APPENDIX C: SUMMARY OF DATA CHECKS

C.1. This Appendix contains details of the data checks performed on the Valuation Data received and estimations done on the data. A full data report with more details and a complete action plan to clean the data shall be produced after the submission of the Final Valuation Report.

Member Data

C.2. In building up the Active Membership data we used the following information:

- Data as at 31 March 2006 provided by the administrators as generated from the administrators' system (GIMIS).
- Data as at 31 March 2006 taken from payroll data ("Payroll") from various Employers participating in the GIPF.

C.3. The Final Active Membership data used in the Previous Valuation could not be made available thus we could neither build our 2006 data from it nor do checks for consistency. We have therefore relied on the information contained in the main report for the Previous Valuation.

C.4. In completing the Valuation we 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 are investigating the unmatched records as a continuous exercise to clean the data.

C.5. The matching exercise involved comparing fields on both GIMIS 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.

C.6. Of those **below age 60 years**, the Fund's Active Membership records on GIMIS is 67 229. The Active Membership (below age 60 years) records on Payroll from various Fund Employers totalled 78 911. Of these, about 61 945 Membership records could be matched with records on GIMIS. Thus, there were 16 966 records on Payroll who did not match and conversely 5 284 records on the GIMIS could not be matched.

C.7. There were 436 Members **aged above 60 years**. The Rules of the Fund allow Members of a specific class to retire at any age after or before the age of 60 years in terms of the Public Service Act (Act 13 of 1995). The administrators confirmed that it is possible that these Members could still be in Active Employment, that their information on dates is incorrect or that their benefits have not yet been finalised. Some of these Members are still being investigated. Though for purposes of this Valuation, 386 Members who are below age 67 years have been valued as Active Members and the other 50 Members have been valued as Pensioners.

- C.8. Therefore the total Active Membership for this Valuation was taken as 84 195. For this data, after discussing the comparative reliability of the GIMIS and Payroll data with the administrators, we ensured that the following details were included:
- Date of birth as reflected on GIMIS for matched and unmatched records except for records not found on GIMIS.
 - Date of admission as reflected on GIMIS for matched and unmatched records except for records not found on GIMIS.
 - Gender as reflected on GIMIS for matched and unmatched records except for records not found on GIMIS whose details were assumed.
 - Pensionable Earnings as reflected on Payroll for matched and unmatched records except for records not found on Payroll.
 - Details for Members found on GIMIS but not on the Payroll were assumed to be correct and only estimated where they were not reasonable. Details for Payroll records not on GIMIS were only assumed or estimated if they were missing or not reasonable.
- C.9. There were Members with out of range date of births. In cases where the national identity “ID” number was given, date of birth was derived from the first 6 digits of the ID instead of using a group average.
- C.10. There were Members for who had blank current salaries, date of admission and gender. The administrators confirmed that this is possible and could have partly been generated during conversion of Data from PEN System to GIMIS. For this Valuation Report we used the averages or ratios of their respective Employer(s) Membership in estimating missing data points.
- C.11. Where applicable, salary on 1 April 1992 and starting salary for each individual Member were estimated from current salary using average salary increases awarded to civil servants.
- C.12. The Resignation Cash Benefits were estimated using formula in the Rules.
- C.13. The Age at Admission and Valuation Date for individual Members were checked and most of them were within reasonable ranges. Where the details were in conflict with the minimum entry age Member’s details were estimated.
- C.14. We calculated a number of Membership statistics (stated below). These statistics were checked for reasonability:
- Earnings-weighted ages
 - Earnings-weighted service
 - Average Pensionable Earnings

Pensioner Data

- C.15. There were 21 830 Pensions in payment split into 7 753 Members’ Pensions, 4 083 Spousal Annuities and 9 994 Children’s Annuities. In addition there were 3 680 Pensions which were on suspension as at this Valuation Date. We also considered the Benefits of 50 Members above age 67 as pensions which have not yet been claimed.

- C.16. For the Pensioners in the data received we ensured that the following details were included:
- Date of birth
 - Date of commencement of pension
 - Gender
 - Annual pension
 - Type of pension and its status
- C.17. A reconciliation of Pensioner's Data for this Valuation and Previous Valuation, Stopped Pensions, Retirements, Surviving Spouses, Children and financial accounts was carried out. The following are the problems that were encountered and resolved in carrying out the reconciliation exercise:
- Conflicting Member details for instance Pensioners with Annuity type as Child Annuitant whose ages suggest that they are not dependants.
 - Verification of new pensions emanating from Death of a Pensioner or Active Member. The fields supplied do not link up to the original Member or Pensioner.
 - Pension increases awarded above or below the aggregate increase approved over the Valuation Period.
 - Members appearing as both Stopped Pensioners and as Pensioners still receiving a pension.
 - Retirees whose pension payment is still pending.
 - Death claims whose Funeral Benefits have been paid but surviving spouse and children pensions still outstanding.
 - Schedules from accounts do not show pension instalments separately from Disability Income payments.
- C.18. We performed the following reasonability checks to ensure the integrity of the Pensioner's personal details:
- Dates are valid
 - Dates in logical order and consistent
 - Pension amounts within reasonable ranges
 - Ages within reasonable ranges
 - Commencement dates of pensions were after the Pensioner's date of birth.

Disabled Member Data

- C.19. There were 431 Members receiving Disability Income and contributing to the Fund. In addition, there were 6 Disabled Members who were on suspension at this Valuation Date.
- C.20. For the Disabled Members Data received we ensured that the following details were included:
- Date of birth
 - Date of commencement of Disability Income
 - Gender
 - Annual income

- C.21. A reconciliation of Disabled Members' Data for this Valuation and Previous Valuation, Stopped Disabilities and new Disability Income Recipients. The following problems were encountered and resolved:
- There were 26 Disabled Members who were omitted Previous Valuation and have now been taken as part of this Valuation.
 - From the financial accounts, the Disability Income instalments could not be verified separately as these are included in pension instalments.
 - Disability Income increases awarded above or below the aggregate increase approved over the Valuation period were investigated.
 - There were 6 Suspended Disability Income Recipients. These were confirmed to be on suspension.
 - There were 128 Deaths and Retirements out of the Disabled Members. The Final Salary used in calculating their Benefits is based on a formula that was approved but is not yet incorporated as part of the Current Rules. The Current Rules stipulate that the initial Disability Income be increased by salary increases and then divided by 75%.
- C.22. We performed the following reasonability checks to ensure the integrity of the Disabled Members' personal details:
- Dates are valid
 - Dates in logical order and consistent
 - Disability Income amounts within reasonable ranges
 - Ages within reasonable ranges

Exits (Funeral Benefits, Deaths, Retirements and Resignations)

- C.23. During the Valuation Period a total of 5 656 Funeral Benefits were paid on Death of Members, Qualifying Spouses and Children. 5 196 of the Funeral Benefits paid were in respect of Deaths which occurred during the Valuation Period and 460 were for Deaths before the Previous Valuation. Of the 5 196 Deaths during the Valuation Period, 3 246 Funeral Benefits were paid on Death of Active Members. Amounts paid as Funeral Benefits were found to be in line with current rates in the Rules.
- C.24. There were 2 872 Deaths which were finalised during the Valuation Period. Of these, 2 039 died before Previous Valuation Date but we believe these were erroneously part of the Previous Active Membership Data. The other Members include 710 Members who died during the Valuation Period. Among the deceased were 123 Pensioners.
- C.25. There were 1 972 Retirements (Normal, Early Age and Ill-Health) which were settled during the Valuation Period. Of these, 1 552 retired during the Valuation Period, 212 are still pending or were paid in full and 208 retired before the Previous Valuation. We also believe that the 208 who retired before Previous Valuation were also erroneously part of the Active Membership for Previous Valuation.
- C.26. 4 863 Members had their Resignation Benefits settled during the Valuation Period. Of these, 3 752 Transferred their Benefits to other approved Funds and 931 were paid cash. 3 359 Resignations occurred during the

Valuation Period and 1 324 were claims before the Previous Valuation Date.

C.27. We ensured that data received contained the following

- Date of birth
- Date of payment
- Date claim made
- Gender
- Amount(s) paid

C.28. We performed the following reasonability checks to ensure the integrity of the exited Members' personal details:

- Dates are valid
- Dates in logical order and consistent
- Amounts paid within reasonable ranges
- Ages within reasonable ranges

New Entrants

C.29. There were 9 235 Members who became part of the Active Membership during the Valuation Period. Of these, 3 282 are those Members whose dates of admission suggest that they joined the Fund during Valuation Period. The other 5 953 are Members' whose records show that they were admitted prior to the Previous Valuation Date but their details were not yet loaded as Active Members.

Investment Reports and Financial statements

C.30. We were provided with Investment Reports and Financial Statements covering the Valuation Period. The value placed on assets as reported by Investment Consultants and as presented in the Audited Financial Statements were compared. There were deviations which were explained as resulting from the revaluation of assets; these were subsequently fixed.

APPENDIX D: FUND ACCOUNT

D.1. The movement in the Fund's Net Asset Value (i.e. effectively Market Value) over the Valuation Period is summarised as follows (based on the Fund's audited Financial Statements):

	2004	2005	2006
	N\$ 000's	N\$ 000's	N\$ 000's
Net Asset Value at previous 31 March	11 084 906	14 697 585	18 728 892
Contributions	845 385	900 988	990 180
Fund Expenses	(46 110)	(51 315)	(55 690)
Benefits	(574 854)	(657 922)	(750 720)
Other Income	6 351	9 356	9 669
Investment Income and Capital Growth	3 381 907	3 830 200	7 158 271
Net Asset Value at current 31 March	14 697 585	18 728 892	26 080 602
Net investment return	30.3 %	26.0 %	38.1 %

D.2. Over the Valuation Period, the Fund earned an average net money-weighted investment return of 31.2% per annum based on the above Market Value of Assets.

D.3. There was a market adjustment to the opening balance as at 1 April 2003 from N\$11 153 million to N\$11 085 million.

D.4. The investment income in each financial year is net of management fees

D.5. Contributions recorded include those made by Disabled Members.

D.6. The Benefit Amounts include all benefits that were paid in respect of Retirees, Resignations, Disabilities, Deaths and Funeral Benefits

D.7. The expenses as a percentage of payroll averaged 1.3 per annum over the Valuation Period.

APPENDIX E: ACTUARIAL BASIS

E.1. The actuarial assumptions used in determining the liabilities of the Fund are as follows:

Financial Assumptions

E.2. The following annual financial assumptions were used:

	Assumptions	Current Valuation 31/3/2006	Previous Valuation 31/3/2003
Pre-Retirement	Inflation	8.0 %	11.0 %
	Investment returns	12.0 %	15.0 %
	Salary Increases	9.5 %	12.5 %
Post-Retirement	Investment returns	12.0 %	15.0 %
	Pension Increases	8.0 %	11.0 %

E.3. The Pensionable Salary increase and investment return assumptions reflect a pre-retirement 'real return' of 2.3% p.a. (i.e. investment return less salary increases).

E.4. This is very similar to the Previous Valuation, where the 15% p.a. assumed investment return and the 12.5% p.a. assumed salary escalation rate implied a real return of 2.2% p.a.

E.5. 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

E.6. This is identical to the allowance made in the Previous Valuation.

- E.7. Historically, the Trustees have typically 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 an interest rate of 4% p.a. This was also done in the Previous Valuation.
- E.8. 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.
- E.9. The Previous Valuation anticipated expenses at 1.0% of Pensionable Earnings. Over the Valuation Period, Fund Expenses equated to 1.3% of Pensionable Earnings.

Demographic Assumptions

Mortality

- E.10. The following mortality tables were used for Valuation purposes:

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

Males	No rating
Females	5 years

Pensioners: PA (90)

- E.11. Sample rates are shown below at specific ages:

Active Members			Pensioners		
Age	Males (%)	Females (%)	Age	Males (%)	Females (%)
30	0.16	0.15	60	1.61	0.70
35	0.20	0.16	65	2.50	1.19
40	0.29	0.20	70	3.86	2.04
45	0.48	0.29	75	5.91	3.46
50	0.79	0.48	80	8.96	5.82
55	1.25	0.79	85	13.34	9.63
60	1.93	1.25	90	19.42	15.52

- E.12. These assumptions remain unchanged from that used in the Previous Valuation.

Withdrawals

E.13. 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 (%)
30	5.0	5.0
35	4.1	4.1
40	3.1	3.1
45	2.2	2.2
50	1.4	1.4
55	0.7	0.7
60	0.0	0.0

Early Retirement and Ill-Health Retirement (Disabilities)

E.14. 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 Early Retirement was deemed to be necessary.

E.15. The assumed rates of Ill-Health Retirement (i.e. Disabilities) are shown in the table below; these are the same as in the Previous Valuation.

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	0.40	0.25
60	0.60	0.40

Family Statistics

E.16. Based on similar funds and as per the basis in the Previous Valuation, it was assumed that 95% of Members are married and that husbands are 4 years older than their wives.

APPENDIX F: PROPOSED AMENDMENTS TO RULES

F.1. The Appendix is based on reports presented to the Trustees with regard to Proposed Amendments to the Rules that could affect the financial soundness of the Fund. The financial impact of implementing the Amendments to the Rules shall be assessed as at the Current Valuation Date. A separate report carrying our assessment and recommendations shall be produced after this Valuation has been finalised. The issues on Rule Amendments that will be dealt with are as covered in the following sections:

Rule 1.2 – Effective Date of the Revised Rules

F.2. The Fund was established with effect from 1 October 1989. The first revision of the Rules was done with effect from 1 October 1999. Currently the Revised Rules have been prepared and are due to be presented to the Trustees for signing. This will be a second revision of the Rules.

F.3. Making this second revision of the Rules effective as at 1 October 1999 would be costly and administratively cumbersome as there are a number of changes to Benefits in the Revised Rules. An example is the removal of the reduction factor for certain disabilities. The Benefits that have been paid to Members who exited since 1 October 1999 to date would therefore have to be recalculated and any difference between what the Members were paid and the New Benefits under the Revised Rules would have to be paid to the Members. The total cost of the exercise could be significant and it may be difficult to administer. All the exited Members would have to be identified, their Benefits recalculated and if there are any differences they would need to be paid the differences.

F.4. To avoid these potential problems, we would recommend that the proposed Revised Rules explicitly state that these Rules are effective from the “SECOND REVISION DATE”. Second revision date can be defined as being 1 April 2006. This Valuation results shall be used to explore the impact of any Benefit changes that may be desired.

Rule 1.6 – Definition of the Actuarial Reserve

F.5. In coming up with the definition of the Actuarial Reserve, the following have to be taken into consideration;

- How is the AIDS Reserve to be treated in the calculation of the Actuarial Reserve?
- How is the Data Reserve to be treated for the purpose of calculating the Actuarial Reserve?
- In the event of a Transfer is the aim of the Fund to transfer the Share of the Assets or the Actuarial Reserve?

- F.6. In advising on this matter, we have taken the view that every generation of Members should carry its own costs. This therefore eschews cross-generational or plan subsidies and the accumulation of Surplus in the Fund.

AIDS Reserve

- F.7. An AIDS Reserve was set up at the last Valuation in order to protect the Fund from deteriorating AIDS related mortality. The AIDS Reserve is also part of the free assets for the self insurance arrangement. The AIDS Reserve was set at N\$1 229 million at the last Valuation and N\$1 103 million this Valuation. For this Valuation, the AIDS Reserve represents 8% of the Active Member Liability of the Fund.
- F.8. Since a Risk Reserve no longer exists to cover the Fund against any increases in the cost of providing insured benefits it is no longer appropriate to include a proportionate share of the AIDS Reserve in the calculation of a Member's Actuarial Reserve.

Data Reserve

- F.9. The Data Reserve was set up at the last Valuation in order to protect the Fund from anticipated errors in the Valuation data. The Reserve was set at 10% of the total of the Active Members' accrued liability and the Risk Reserve. The Data Reserve was enough to cover the accrued liability of the 4 816 Suspended Active Members, the liability in respect of the 2 296 Suspended Pensioners and a relatively small balance to allow for other data contingencies. The 4 816 Active Members and 2 296 Pensioners were excluded from the Active Member liability because their continued Membership of the Fund or exit from the Fund could not be confirmed by the administrator.
- F.10. In this Valuation, the Data Reserve has now been set at N\$868 million which is 5% of the total liability. This includes the expected liability of N\$313 million in respect of the 3 680 Suspended Pensioners. The balance of N\$555 million is set as a contingency against possible data errors.
- F.11. Should it be later found that a Suspended Member or Pensioner is still an Active Member or Active Pensioner or that for example a salary is incorrect then the liability will be drawn from the Data Reserve. We are therefore of the opinion that the Data Reserve should be proportionally passed on to the Transferee Fund on the advice of the Actuary every time a significant Transfer happens. This should be based on the number of Suspended Members who were involved in the Transfer. The impact to the financial position of the Fund should be insignificant if the exercise of accounting for the Suspended Members is done properly.

Share of assets or Actuarial Reserve

- F.12. If the Member's Transfer Value is calculated as a share of assets, the amount transferred is a proportionate share of Data Reserve, Accrued Liability and if there is any Surplus, a share of the Surplus. If the Fund is under funded, the Employer(s) will be required to make good the deficit. Having a Share of the Assets as a Member's Transfer Value means that although the some of the Surpluses and Data Reserve of the Fund is passed on to the Transferee Fund when a Member transfers, the risk of the Fund being in a deficit falls only on the Employer(s).
- F.13. The choice as to whether the Member should get only their Actuarial Reserve value or proportionate Share of the Assets when they transfer should fall with the Trustees but should be formulated in consultation with the Employer(s) in order to ensure consistency for all Transfers.

Rule 1.6 Definition of Qualifying Spouse and 4.1 2 (b) Death after Retirement

- F.14. Spouses who are not married to the Pensioner at the Date of Retirement should be excluded from the definition of Qualifying Spouse. On marriage after Retirement, if we allow the spouse to be a Qualifying Spouse, we create the anomalous situation where people can increase the Fund's liability by their actions. There is therefore room for abuse of the definition where a Member decides to enter into a "marriage of convenience" so as to guarantee that on their Death the "new spouse" goes on to start receiving a Spouse's Pension.
- F.15. In advising on this issue, we have taken the view that the process of benefits accrual should be clearly identifiable and defined. In this regards, a situation where Members accrue benefits instantaneously should be avoided. Pensioners should not be able to accrue an extra liability for the Fund.
- F.16. If the definition of Qualifying Spouse is changed to exclude spouses who were not married to the Pensioner at the Date of Retirement, then Rule 4.1.2 (b) (Death after Retirement) would need to be revised. Currently on Death after Retirement, there is provision for a Spouse's Pension to be paid where the Pensioner married after their Retirement.

Rule 1.6 Definition of the Normal Retirement Age for Permanent Secretaries

- F.17. The Normal Retirement Age for Permanent Secretaries should be clarified in the Rules of the Fund. This especially applies to those Permanent Secretaries appointed in 1990 who are on special terms. The Benefits of these Secretaries should also be clearly outlined in the Rules without reference to any acts or government documents. The Rules of the Fund should be a self-standing document and Government should not be able to create a liability for the Fund without consultation with the Trustees. The Rules should also explain how the deficits created by Benefit Enhancements to the Permanent Secretaries and other earlier Retirements will be financed.

Rule 3.4 (2) (b) Benefit Enhancement on Early Retirement

F.18. The Trustees cannot have power to create a liability for the Employers because they cannot enforce it. In Rule 3.4 (1) (Early Retirement for reasons other than age or state of health), retiring is subject to the approval of the Trustees. We would recommend that the Employers consent be required before a Member is allowed to retire for reasons other than Age or Ill-Health. In addition, the liability created as a result of the Early Retirement or Retrenchment should be decided by the Trustees with the approval of the Employer(s).

Rule 3.4 (2) (c) Benefit Enhancement on Early Retirement for Permanent Secretaries

F.19. It does not say how the liability created by Benefit Enhancements to the Permanent Secretaries will be funded. For consistency with Rule 3.4 (2) (b) we would recommend that the Employer(s) fund the additional liability.

F.20. As with Rule 3.4 (2) it is necessary that the Trustees do not create additional liability for the Employer(s).

Rule 3.5 Late Retirement

F.21. The Member has 3 options when they reach their Normal Retirement Age. Firstly they may either retire and start receiving a pension. Secondly they may discontinue contributions to the Fund and wholly suspend their pension until they leave service. The third option for the Member is for them to continue contributing to the Fund and receive a pension which is based on the service including service after their Normal Retirement Age.

F.22. Options carry a cost. Firstly Members close to Retirement have to be identified and informed of their choices. Since each Member decides individually which option to take that also means that they will have to be individually classified into the 3 categories. These are Pensioner, or continued Membership but with no contributions or continued Membership with continued contributions. For Members who continue in Membership after the Normal Retirement Age, calculations will be required for each Member at the time they retire. This increases the administrative costs of dealing with Retirements.

Pensioner

F.23. If a Member opts to retire from the Fund they will begin receiving a pension. At the same time they will be receiving a salary. This therefore leads to the situation where it will be more attractive for a late retiral to opt for a pension and also receive their salary.

F.24. It may therefore be more appropriate to remove the option for a Member to draw a pension whilst they are still working beyond the Normal Retirement Age (Rule 3.5 (a)).

Continued Membership

- F.25. The 2 choices that would remain are that either the Member discontinues contributions or that they continue making contributions to the Fund (Rules 3.5 (b) and 3.5 (c)). The administrative and financial costs of having late retirals making a choice outweigh the benefit derived by the Member as a result of having the option to make this choice. It might be appropriate for the Trustees to choose either that late retirals discontinue contributions to the Fund 3.5 (b) or continue making contributions to the Fund 3.5 (c).
- F.26. If the Member discontinues making contributions the Member will no longer accrue any additional service. The benefit at the Normal Retirement Age will be adjusted with the returns earned on the assets of the Fund. The pension paid to the Member when they actually retire will be determined by using the increased benefit. In the event that investment returns are low, the pension from the Normal Retirement Date to the date the Member retires will increase by a small amount. It will also need to be adjusted due to the fact that the Pensioner is older and they are likely to receive a pension for a shorter period.
- F.27. If the Member continues making contributions then they continue accruing additional service. The pension to be paid to the Member is based on the service up to the actual Retirement Date. Investment returns on the assets of the Fund will not directly affect the pension to be paid to the Member on their Retirement.
- F.28. At Retirement the Member needs to be certain of the benefit that will be due to them. It might therefore be appropriate for the Trustees to consider having contributions continuing during Late Retirement as being the only course of action.

Rule 6.2 (h) Conditions governing Disability Benefits

- F.29. The Member's Pensionable Emoluments will be calculated in accordance to the following formulae:

$$\frac{\text{Income} \times (1 / 0.75) \times (n_0 + 0.75 \times n_1)}{(n_0 + n_1)}$$

Where: n_0 = period of service with the Fund prior to disablement

n_1 = period of service with the Fund while receiving a Disability Income Benefit

- F.30. This formula is for determining their Pensionable Emoluments in Rule 3.4 (Early Retirement for reasons other than Age or State of Health) and 7 (Withdrawal) after a Member has been receiving a Disability Benefit. We are uncomfortable with the formula because if n_0 is 0, then Pensionable Salary would be equal to the Member's Income. Whereas if n_1 is 0 then the Pensionable Salary is equal to 75% of the Income. Surely this ratio should remain the same?

F.31. Currently the formula would result in lower benefits compared to when we use the method prescribed in the Current Rules.

Rule 7 Withdrawal Benefit

Formula

F.32. The existing Withdrawal Benefit is unnecessarily complicated and has no relationship to the way in which investment returns accrue on the Member's Contributions. We would recommend that the Withdrawal Benefit be simplified to a refund of the Member Contributions with interest. For example Member Contributions plus 8% compound interest. The interest rate to be used can be reviewed annually.

Penal

F.33. The Withdrawal Benefit is rather penal since on withdrawal, none of the Employer(s) Contributions are refunded. A vesting scale on the Employer(s) Contributions could be introduced to allow Members to benefit from Contributions made by the Employer(s) on their behalf on a gradually increasing basis as their service increases.

Amount of Benefit

F.34. Currently if the Member decides to preserve their Benefit they get their Actuarial Reserve Value as their Withdrawal Benefit.

F.35. Withdrawal Benefits should not depend on whether you join another Fund or not. We need to be careful to avoid situations where a Member's Benefit can be altered by a single event at the point of leaving the Fund. We believe that the Member accrues the Withdrawal Benefit by being a Member of the Fund prior to withdrawal rather than by choosing to transfer to another fund. This is also one of those situations where a single event decides whether a liability is created or a liability is extinguished. We believe that a pension fund should run on the basis of a clearly distinct accrual process followed by a benefit trigger. In this case withdrawal should be the benefit trigger and hence cash benefit recipients should receive the same benefits as those who chose to transfer their benefits.

Rule 8.2 (2) Employer(s) Contributions

F.36. The further contributions need to be determined for Retirement Benefits granted in terms of Rule 3.4 (2). In this way further contributions in respect of Enhanced Benefits to Permanent Secretaries will also be required.

Rule 9.4 (1) Benefit Inalienable

- F.37. Rule 9.4 (1) does not allow for the Member's Benefit to be reduced, transferred, ceded, pledged or hypothecated save for as allowed for in the Act, the Income tax act, Maintenance act and in the case of a court order according to the Magistrates act. In these cases up to N\$3 000 per annum may then be ceded.
- F.38. It appears the wording of 9.4 (1) needs to be changed in line 9 so that the "or not more than N\$3 000" to read "of not more than N\$3 000". This will remove any ambiguity in the Rule.

Rule 9.7 (2) Greater Benefits and Escalation of Benefits

- F.39. The Trustees can increase Pension and Disability Income Benefits after consultation with the Actuary without any consultation with the Employer(s). This directly creates a liability for the Employer(s) without their consent. It would be appropriate for the Trustees to seek the consent of the Employer(s) before granting Pension and Disability Income increases. The Trustees should not be able to create liabilities in the Fund or increase benefits of any Member at their own discretion without the Employer(s) input.

Trustees Powers

- F.40. Benefit accrual should follow a pre-defined path which allows for the accrual over the long term. Similarly benefits should exist independently of the benefit triggering mechanism.
- F.41. The Trustees should not give themselves the right to extinguish liabilities or benefits as they see fit. Examples of the Rules where this happens are;
- F.42. Rule 4.1 (1) (ii) Trustees must be able to locate the spouse of a deceased Member or else they lose their spouse's benefit.
- F.43. Rule 9.4 (2) If a beneficiary attempts to transfer, cede, pledge or hypothecate a benefit or right, the Trustees may withhold or suspend the benefit.
- F.44. Rule 9.6 Unclaimed Benefits – The Benefit reverts back to the Fund after three years.

Risk Reserve Account

- F.45. The Fund has a large mortality and disability risk. The Fund needs to create a Risk Reserve Account to manage the self insurance portfolio. This will allow the Trustees to manage the Death and Disability Benefits separately from the Retirement Benefits. The Risk Reserve account would also need to be reviewed frequently.

Rule 2.1 (2) Free Cover Limit

F.46. I would also recommend that Free Cover Limits be introduced. A Free Cover Limit of N\$1 000 000 will do away with the need for every Employee to submit evidence of good health unless their Insured Benefits are above N\$1 000 000. This lessens the administrative burden on the Fund and is in line with the practices of other pension funds.

Other Issues

- In the new Rule 3.7 it refers to Rules 3.1 to 3.5 instead of 3.1 to 3.6
- Rule 7.2 (1) should not delete the numbering i.e. 1
- Rule 7.3 (2) should state “in terms of (1)” and not (2)
- Rule 8.3 needs to refer to Actuary and not administrator
- Rule 9.2 has an extra section 9.2 (1) regarding beneficiaries which is unrelated.

APPENDIX G: SENSITIVITY ANALYSIS

- G1. The Valuation results were determined using a long-term interest rate or assumed investment return of 12% p.a. To test the sensitivity of the Valuation result to this assumption, we recalculated the results assuming rates of 11% and 13% p.a. respectively, keeping all other assumptions constant. The results are shown below.
- G2. It can be seen that the Valuation results are relatively sensitive to this assumption.

Past Service Position

	11% Interest Rate N\$ 000'S	12% Interest Rate N\$ 000'S	13% Interest Rate N\$ 000'S
Value of Assets	23 294 922	21 630 133	20 148 099
Value of Liabilities / Reserves:			
Active Members	16 706 426	13 790 336	11 532 738
Disability Income Recipients	295 650	261 279	233 233
Pensioners	3 688 724	3 314 848	3 005 655
Data Reserve	1 034 540	868 323	738 581
AIDS Reserve	1 336 514	1 103 227	922 619
Total	23 061 855	19 338 014	16 432 826
Actuarial Surplus	233 067	2 292 119	3 715 273
Funding Level (Ratio of Assets to Liabilities)	101.0 %	111.9 %	122.6 %

Future Service Contribution Rate

Contribution Rate required for:	11% Interest Rate	12% Interest Rate	13% Interest Rate
Retirement Benefits	21.6 %	17.4 %	14.1 %
Disability Benefits	5.6 %	4.7 %	3.9 %
Death Benefits	11.6 %	9.9 %	8.6 %
Resignation Benefits	0.7 %	0.7 %	0.7 %
Funeral Benefits	0.1 %	0.1 %	0.1 %
Fund Expenses	1.3 %	1.3 %	1.3 %
Total Required Contribution Rate	40.9 %	34.1 %	28.7 %
Less Member Contribution Rate	7.0 %	7.0 %	7.0 %
Total required Employer(s) Contribution Rate	33.9 %	27.1 %	21.7 %

Example of Phased in Increases to Employer Contribution Rate

G3. The table below shows three different recommended phased increases to the Employer contribution rate, based on the three different sets of assumptions.

	11% Interest Rate	12% Interest Rate	13% Interest Rate
2007 Financial Year	16.0%	16.0%	16.0%
2008 Financial Year	20.0%	19.0%	18.0%
2009 Financial Year	25.0%	22.0%	20.0%
2010 Financial Year	33.9%	27.1%	21.7%

- G4. Each of the above scenarios would result in the Employers paying their full contribution rate by 1 April 2009 i.e. the beginning of the 2010 Financial Year.
- G5. It can be seen that the results of this Valuation are very sensitive to the difference between the main long-term assumptions, namely:
- Inflation,
 - Salary Escalation, and
 - Investment Returns
- G6. The Trustees and other stakeholders should take a decision on how the Employer contribution rate should be increased in future. Whatever is decided, it should be noted that the current Surplus is expected to prove sufficient to fund the Contribution Holiday until 31 March 2012. The Fund's financial position and contribution rate will be re-assessed in the 31 March 2009 Statutory Actuarial Valuation.

APPENDIX H: ANALYSIS OF SURPLUS

H1. The Actuarial Surplus in the Fund increased from N\$1.287 billion to N\$2.292 billion during the Valuation Period. The main sources of surplus and strain on the Fund during this time are summarised below:

	N\$ million
Surplus as at 1 April 2003	1 287.0
Interest on Surplus	<u>521.1</u>
	1 808.1
Data Changes	(2 409.6)
Change in basis and methodology	(1 619.2)
Investment Performance	2 755.6
Increases in Salaries and Benefits	2 743.0
Employer Contribution Holiday	(1 562.7)
Mortality and Withdrawal Experience	450.5
Miscellaneous	<u>126.5</u>
	2 292.1

- H2. Interest on the Surplus as at 31 March 2003, based on the assumed rate of 12% p.a. over the Valuation Period, amounted to N\$521.1 million.
- H3. The data clean-up and corrections over the Valuation Period led to a strain of N\$2 409.6 million.
- H4. The change in basis and methodology (including the derivation of the Reserves) led to a net strain of N\$1 619.2 million.
- H5. Based on the Actuarial Value of Assets, the Fund experienced a return of 17.3% p.a. during the Valuation Period compared to the 12% p.a. assumed rate. This led to an increase in Surplus of N\$2 755.6 million.
- H6. Salary, Pension and Disability Income increases were all lower than the assumed rates. This led to an increase in Surplus of N\$2 743.0 million.
- H7. The Employer Contribution Holiday led to a reduction in the Surplus by N\$1 562.7 million.
- H8. Mortality and withdrawal experience was more favourable than expected; this led to an increase in the Surplus by N\$450.5 million.
- H9. Other minor, miscellaneous impacts had a net increase on the Surplus of N\$126.5 million.