PPS
Parliamentary
Pension Scheme

Tel: 0414 377 860 Telefax: 0414 259 326
E-mail: pension@parliament.go.ug

In any correspondence on this subject, please quote: PPS/500.2/000289

1st August 2022

The Clerk to Parliament,
Parliament of Uganda,
P. O. Box 7178,
KAMPALA.

Dear Hon. Mwesige,

RE: ACTUARIAL VALUATION REPORT

Section 23 of the Parliamentary Pensions Act states that;

1) The Board shall at least once in every three years appoint a duly accredited Actuary to review the performance and operations of the Scheme and the Fund and make appropriate recommendations to the Board.
2) A report made under subsection (1) shall be laid before Parliament within two months from the date of submission to the Board.

The purpose of this letter is to forward to you the final Actuarial Valuation Report to be laid before Parliament.

Yours sincerely,

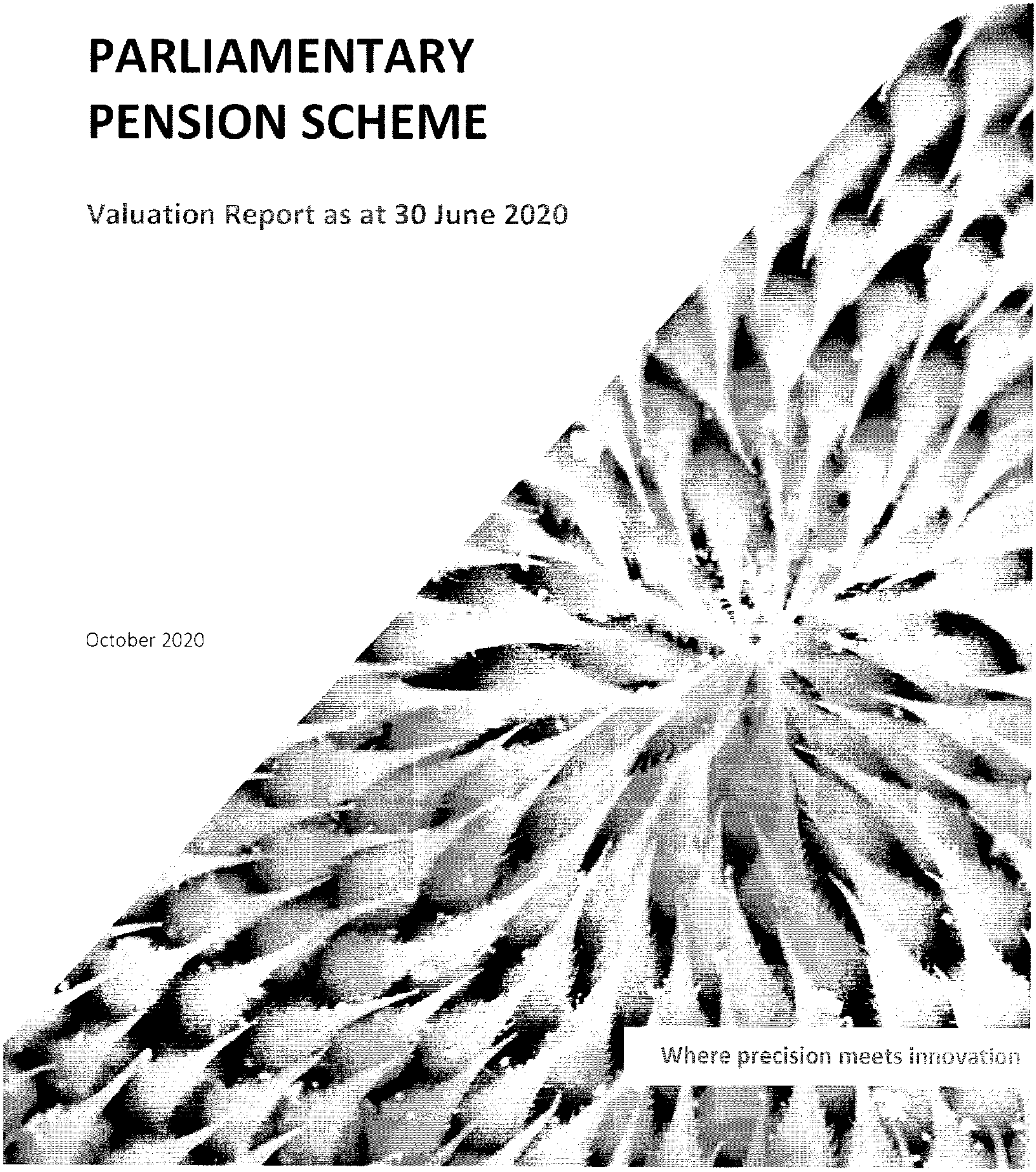
Arinaitwe Rwakajara (MP)
CHAIRMAN, BOARD OF TRUSTEES

SNG ARGEN
actuarial solutions

PARLIAMENTARY PENSION SCHEME

Valuation Report as at 30 June 2020

October 2020



Contents

EXECUTIVE SUMMARY

Introduction ii
Member data ii
Financial results iii
Conclusion and recommendation iii

MAIN REPORT

Introduction 1
Fund history and developments 1
Data and membership 2
Allocation of contributions and investment return 5
Assets and revenue account 7
Valuation of liabilities 9
Financial Results 11
Analysis of Experience 13
General Considerations 13
Sensitivity analysis 16
Conclusion and recommendation 18

APPENDICES

Appendix A Membership statistics 19
Appendix B Contributions and benefits 21
Appendix C Analysis of experience 23
Appendix D Annuity factors 25
Appendix E Historical experience 26

EXECUTIVE SUMMARY

INTRODUCTION

1. Summarised below are the main results, findings and recommendations of the statutory actuarial valuation of the Parliamentary Pension Scheme as at 30 June 2020.

MEMBER DATA

2. The member data of the Fund as at the valuation date, compared to the previous valuation date, is summarised in the following tables:

Active members	30 June 2020	30 June 2017
Number of active members	846	807
Annual pensionable salaries (USh'000)	81 950 866	79 535 056
Total member credits (USh'000)	280 138 662	123 575 938

Pensioners	30 June 2020	30 June 2017
Number of main pensioners	116	103
Annual pensions (USh'000)	2 030 235	1 556 622
Average age (weighted by pension)	63.1	60.4
Number of beneficiaries *	13	9
Annual pensions (USh'000)	178 672	102 416
Average guarantee period remaining (weighted by pension)	9.1	11.8

** Includes beneficiaries (5 in 2017 and 3 in 2020) for whom the necessary information has not been received in order to re-introduce them to the pensioner payroll.*

FINANCIAL RESULTS

3. The financial position of the Fund as at the valuation date, compared to the position as at previous valuation date, is summarised in the following table:

	30 June 2020 USh'000	30 June 2017 USh'000
Actuarial value of assets	312 113 763	152 133 644
Actuarial liability	(303 559 921)	(147 811 769)
Active members	(280 138 662)	(126 258 790)
Pensioner liability	(23 421 259)	(21 552 979)
Actuarial surplus/(deficit)	8 553 842	4 321 874
Funding level	102.8%	102.9%

CONCLUSION AND RECOMMENDATION

4. The Scheme is 102.8% funded at the current valuation date. The Scheme is therefore financially sound as at the valuation date.

5. The notional pensioner account set up in the previous valuation was accumulated during this valuation period in order to determine the portion of surplus due to actives and pensioners. Based on this, the funding level for active members and pensioners at the valuation date is 102.8% and 105.8% respectively

6. Based on the surplus available in respect of active members and recent investment returns, we recommend that no additional bonus, above the guaranteed rate of 8%, be declared to active members for the year ending 30 June 2020.

7. The guaranteed pension increases of 4% exceeded average inflation rate over the valuation period. These increases are therefore deemed sufficient and we recommend that the surplus in the Notional pensioner account be held to act as a buffer against unfavorable demographic and economic experience in future.

8. During the valuation period, a loan portflolio was added to the scheme's investments, consisting of loans to members of the Scheme. Although there are certain risk measures in place and this loan portfolio constitutes a relatively small portion of the Scheme's investments at this stage, the Board should be aware of the risks involved with this asset class. We would therefore recommend that the Board monitors the level of these loans and regularly review the implement self-imposed maximum levels.

9. Given the limited size of the equity market the Scheme is able to invest in and the attractive yields offered by government bonds, we are satisfied that the assets of the Scheme are an appropriate match for the liabilities of the Scheme.

10. The current unisex annuity conversion factors seem to remain appropriate, since the analysis of experience showed no significant gains or losses as a result of mortality experience. We however recommend that the appropriateness of the annuity factors be reviewed at each valuation.

11. We note that the vesting scale on withdrawal benefits had not been applied for Members of Parliament. This is contrary to the Act and the Board should consider how this should be addressed.

MAIN REPORT

INTRODUCTION

12. This report is submitted to the Board of Trustees of the Parliamentary Pension Scheme (the Scheme) and presents the results of the actuarial valuation of the Scheme as at 30 June 2020 (the valuation date).

13. This valuation is performed in accordance with the Contract with respect to the "Provision of Actuarial Valuation Services between the Parliamentary Pensions Scheme and SNG ARGEN Actuarial Solutions (Pty) Ltd (SNG ARGEN)".

14. The purpose of this valuation is:
    - Undertake an actuarial valuation of the Scheme as at 30 June 2020 in compliance with the PPS Act, URBRA Act and IFRS provisions.
    - Determine the financial position of the Fund, as well as the financial position in respect of active members and pensioners respectively;
    - Recommendations on how to deal with any surplus or deficit;
    - Reporting on the suitability of the Fund's assets and investment strategy;
    - review the guaranteed interest rate and actuarial factors for suitability and sustainability; and
    - review the annual pension increases to cater for inflationary and economic pressures that impact on pensioners' income.

15. The report was prepared in compliance with PPS Act, URBRA Act and IFRS provisions.

16. If this report is used by users other than the intended recipients and for purposes other than the stated objective, the information may not necessarily be relied upon and we accept no liability to any person other than the Board in relation to the contents and intended purpose of this report.

17. This report has been reviewed and co-signed by a fellow actuary and has therefore not been further peer-reviewed.

FUND HISTORY AND DEVELOPMENTS

18. The Scheme is governed by the Parliamentary Pensions Act (the Act). Eligibility requirements are:
    - members of Parliament, whether elected or ex-officio; and
    - members of staff of the Parliamentary Commission.

19. The Scheme is a hybrid cash balance scheme, with the retirement benefit based on the member's credit, i.e. an accumulation of employer- and member contributions with interest. Pensions are payable from the Scheme on terms as summarised in Appendix B.

20. Note that the (minimum) guaranteed interest rate of 8% mentioned in Schedule 2 of the Act means that the Scheme has many characteristics of a defined benefit scheme. If a fixed guaranteed interest rate is applied, then the Scheme has benefits similar to a career-average salary defined benefit scheme.

21. This valuation examines the Scheme over the period from 30 June 2017 to 30 June 2020.

22. No adjustments were made to the Act during the valuation period.

DATA AND MEMBERSHIP

23. It is important that accurate data is used in the valuation. The data used in this valuation was supplied by the administrator and was confirmed as being correct.

Data received

24. We received the following data from the administrator in respect of each financial year of the valuation period:

 24.1 General personal details (actives and pensioners):
 - Name & surname
 - Unique reference number
 - Date of birth
 - Gender

 24.2 Specific active membership details:
 - Salary
 - Member category (MP or Staff)
 - Employer
 - Date joined fund
 - Employee contributions
 - Employer contributions

 24.3 Specific pensioner details:
 - Date pension started
 - Initial pension
 - Current pension
 - Proportion commuted at retirement
 - Status (dead or alive) & date of death

 24.4 Exit data:
 - Benefits paid
 - Date of exit

 24.5 Financial Data:
 - Annual Financial Statements
 - Investment Statements

Reasonability of data

25. The data used in this valuation was supplied by the administrator. We have performed the following consistency checks on the data:
 - checked the build-up of Members' Credit since the previous valuation date; and
 - compared the benefits awarded to that reflected in the financial statements supplied.

26. The comparison of the benefits accrued in the financial statements and those according to the member data showed that the vesting scale that apply to exit benefits as per Section 13 of the Act was not applied to exits during the valuation period for either Parliamentary or Staff members. We understand that this section of the Act is to be amended, removing the vesting scale. We agree with the proposed amendment to give a full refund of accumulated contributions on exit, which better meets members' reasonable benefit expectations.

27. In general, the quality of the data received was remarkably good. We would like to express our appreciation and congratulate the administration team for the timeous receipt of the valuation data, as well as the the quality and completeness of the data.

28. For the purpose of this valuation, we regard the data as sufficiently accurate. A detailed audit of individual member benefits is not required in an actuarial valuation, which investigates the overall financial position of a retirement scheme. However, we believe that the Scheme data on an individual member level should be good, based on our spot checks, as well as on the fact that members receive monthly benefit statements, which gives regular opportunities to verify their data and benefits. Many schemes do not provide such regular feedback to members and the Scheme is commended for this level of communication to members.

Membership reconciliation

29. The active membership reconciles as follows since 30 June 2017:

Active members	
Members as at 30 June 2017	807
New entrants	79
Withdrawals	(14)
Retirements	(19)
Deaths	(7)
Members as at 30 June 2020	846

The membership as at 30 June 2017 and 2020 includes 2 paid-up members, i.e. members that are no longer contributing, but who have not withdrawn their member credits.

30. The pensioner membership reconciles as follows since 30 June 2017:

Pensioners	
Pensioners as at 30 June 2017	112
New pensioners	19
Return to active service	(2)
Pensioners as at 30 June 2020	129

31. The deferred pensioners as at 30 June 2017 refer members for whom the payment of pensions was ceased upon their return to active service (e.g. re-elected MPs). During the valuation period it was recommended that the value of these deferred pensions be converted to a capital amount and allocated to the relevant members' active records. At the valuation date, there were therefore no more deferred pensioners:

Deferred Pensioners	
Deferred pensioners as at 30 June 2017	12
Transfer to active member records	(12)
Deferred pensioners as at 30 June 2020	-

Membership summary

32. Below is a summary of the membership at the valuation date:

Active members	30 June 2020	30 June 2017
Number of active members	846	807
Annual pensionable salaries (USh'000)	81 950 866	79 535 056
Total member credits (USh'000)	280 138 662	123 575 938

Pensioners	30 June 2020	30 June 2017
Number of main pensioners	116	103
Annual pensions (USh'000)	2 030 235	1 556 622
Average age (weighted by pension)	63.1	60.4
Number of beneficiaries *	13	9
Annual pensions (USh'000)	178 672	102 416
Average guarantee period remaining (weighted by pension)	9.1	11.8

** Includes beneficiaries (5 in 2017 and 3 in 2020) for whom the necessary information has not been received in order to re-introduce them to the pensioner payroll.*

ALLOCATION OF CONTRIBUTIONS AND INVESTMENT RETURN

Contribution rates

33. The Act specifies the following contribution rates:

- Member: 15% of their pensionable emoluments
- Government: 30% of the merbers' pensionable emoluments

Expenses

Administration expenses

34. Administration expenses are those costs incurred by the administrator in the management of the Scheme and includes personnel costs, staff office costs, office supplies, traveling costs, etc., and is also referred to as "management expenses" in the financial statements.

35. All such administration expenses are paid by the Scheme sponsor on top of normal contributions. Members therefore get the full benefit of their contributions made to the Scheme.

36. Any differences between the actual administration expenses incurred and the expense contributions received from the Scheme sponsor in a given year is captured in the Administration Cost Reserve maintained in the financial statements.

Fund expenses

37. Fund expenses refer to ad hoc expenses incurred by the Scheme such as actuarial- and audit fees, trustee expenses, etc.

38. Fund expenses are not explicitly recovered from members and are therefore recouped from the investment returns earned.

39. Fund expenses in respect of active members were recouped from the investment return earned on the Scheme's assets being greater than the Fund Interest declared.

40. With regards to pensioners, fund expenses were allocated to the notional pensioner account based on the average proportion of pensioner assets compared to that of the active members. The percentage of fund expenses allocated to the notional pensioner account was as follows for each financial year during the valuation period:

Period	Percentage of fund expenses allocated
1 July 2017 to 30 June 2018	12.5%
1 July 2018 to 30 June 2019	10.0%
1 July 2019 to 30 June 2020	8.0%

41. In our opinion the method of allocating fund- and administration expenses during the valuation period was equitable.

Investment return

42. The rates of return earned on the Scheme's assets over the valuation period, assuming uniform cash flows, were estimated from the financial statements and are as follows:

Financial year ending	Annual investment return on assets	Investment return, after tax & expenses	Fund Interest Declared
30 June 2018	15.1%	11.4%	10.0%
30 June 2019	10.1%	8.1%	8.0%
30 June 2020	12.0%	8.3%	8.0%
Average	12.4%	9.3%	8.7%

The history of investment returns earned and allocated prior to the valuation period can be found in Appendix E.

43. The Fund Interest rates declared have been very much in line with the investment returns earned, net of tax and fund expenses, with the declared rates only being slightly lower in order to slowly accumulate a surplus (or investment reserve) in the active member section. This surplus/reserve will act as a buffer for years when the net investment returns fall below the guaranteed rate of 8%.

44. In the case of the Scheme, there are two important hurdle rates of return which should be considered:
    - the guaranteed Fund Interest rate of 8%; and
    - the 10% return which is assumed in the pension conversion factor.

45. From 2012 onwards, the data suggests that the returns achieved by the Scheme should in most cases exceed the guaranteed Fund Interest rate of 8%. The gross returns have also generally exceeded the rate of 10% assumed in the valuation of the pensioners. However, after providing for tax and fund expenses, the returns have fallen short of this in the last two years.

46. The fact that investment returns may fall short of the hurdle rates above poses an investment risk to the Scheme and is discussed further on in the report.

Pension inreases

47. The pension increases awarded to pensioners during the valuation compared to inflation are as follows:

Financial year ending	Pension increase granted	Inflation	Increase as % of inflation
30 June 2018	4.0%	2.1%	190%
30 June 2019	4.0%	3.4%	118%
30 June 2020	4.0%	4.1%	98%
Average	4.0%	3.2%	132%

The history of pension increases compared to inflation prior to the valuation period can be found in Appendix E.

48. Over the valuation period, the average inflation rate was 3.2%. The pension increases of 4% were therefore equal to 132% of inflation, on average. The pensions in payment therefore increased in real terms.

ASSETS AND REVENUE ACCOUNT

Investments

49. The market value of the investments held by the Scheme on the valuation date has increased from USh 152 199m at the previous valuation date to USh 308 265m at the current valuation date. As at 30 June 2020 the composition of the assets underlying the invested portfolios was as follows compared to the previous valuation date:

	30 June 2020		30 June 2017	
Investment class	Market value USh'000	%	Market value USh'000	%
Government bonds	207 877 787	67.4%	83 026 396	54.6%
Equity	50 366 546	16.3%	28 966 042	19.0%
Fixed deposits	12 027 197	3.9%	27 888 388	18.3%
Treasury bills	26 947 482	8.7%	11 651 967	7.7%
Corporate bonds	264 324	0.1%	666 208	0.4%
Loan Portfolio	10 782 033	3.5%	-	0.0%
Total	308 265 368	100.0%	152 199 001	100.0%

50. Over the valuation period the level of fixed deposits was reduced, with the proportion invested in government bonds being increased.

51. A loan portflolio was also added to the scheme's investments. According to the financial statements, this consists of loans to members. Unlike other asset classes such as government bonds, t-bills and fixed deposits, where the issuer has a low probability of default, there is a significantly higher risk of default with loans to members. We however expect that this would be reflected in the interest rates charged on these loans to ensure fair compensation for the risk taken on. We also note that a Loan Protection Fund is reserved for in the financial statements, accumulated by means of a 2% charge on all loans disbursed.

52. Furthermore, the loan portfolio constitutes a relatively small portion of the Scheme's investments at this stage, so the overall risk is limited to an extent. We recommend that the Board monitors the level of these loans and regularly review the self-imposed maximum levels.

53. The majority of assets remain invested in government bonds, with approximately 75% of this being in long-dated bonds (10 year- and 15-year bonds). However, according to the Bank of Uganda, all bonds of maturity two years and longer currently have yields in excess of 14%. Furthermore, we have reviewed the history of bond yields going back to 2015, and these yields appear to remain fairly stable.

54. Therefore, given the limited size of the equity market the Scheme is able to invest in and the attractive yields offered by government bonds, we are satisfied that the assets of the Scheme are an appropriate match for the liabilities of the Scheme.

Actuarial value of assets

55. The above value of the assets represents the market value of the invested assets on the valuation date. For accounting and valuation purposes allowance is made for outstanding debtors and creditors. The actuarial value of assets used in the valuation and available for benefits was determined as follows:

	USh'000	USh'000
Market value of investments		308 265 368
Non-current assets		1 270 257
Property and equipment	1 270 257	
Current assets		5 269 069
Accounts receivable	1 827 266	
Cash at bank	3 441 803	
Current liabilities		(1 194 393)
Benefits payable	(186 134)	
Accounts payable	(916 248)	
Pensions payable	(91 049)	
General reserve account	(962)	
Net assets according to the financial statements		313 610 301
Adjustments:		(1 496 538)
Revaluation reserve	(28 396)	
Loan protection fund	(522 666)	
Administrative reserves	(945 476)	
Actuarial value of assets		312 113 763

56. The net assets according to the financial statements are adjusted for certain reserves held which should be excluded from the assets to be compared to the Scheme's liabilities. The actuarial value of assets shown above is therefore in line with the members' accumulated funds as per the financial statements as at 30 June 2020.

Revenue account

57. The summarised revenue account for the valuation period is as follows:

	USh'000	USh'000
Fund value as at 30 June 2017		152 133 644
Income		189 800 505
Member contributions	37 211 654	
Government contributions	74 423 308	
Investment income	77 909 466	
Other income	256 077	
Outgo		(29 820 386)
Fund expenses	(5 325 775)	
Benefits awarded	(4 846 810)	
Pensions paid	(5 857 980)	
Income Tax	(13 789 821)	
Fund value as at 30 June 2020		312 113 763

VALUATION OF LIABILITIES

58. Below is a short summary of the methods used to place a value on the liabilities of the Scheme.

Active members

59. A member's credit is calculated as the Government contributions in respect of the member plus member contributions accumulated with Fund Interest, which is subject to a minimum of 8% per annum.

60. The total Members' Credit at the valuation date was USh 280 139m.

Pensioners

Notional pensioner account

61. In order to determine the portion of surplus due to pensioners, we set up a notional pensioner account which represents the portion of the Scheme's assets related to pensioners.

62. We accumulated these pensioner assets by starting with the balance as accumulated to the previous valuation date. This opening balance is then increased with the value of new retirements and reduced by pension payments, tax and expenses. All of these items are then accumulated with the investment return earned on the Scheme's assets.

63. The change in the balance of the notional pensioner account over the valuation period can be summarised as follows:

	USh'000
Opening balance as at 30 June 2017	22 647 386
Transfers from the active member account	3 706 722
Transfers to the active member account	(1 893 941)
Pensions paid per financial statements	(5 857 980)
Expenses	(530 460)
Tax	(1 336 601)
Investment return	8 038 898
Closing balance as at 30 June 2020	24 774 024

64. Transfers from the active member account represents Members' Credit transferred to the Notional pensioner account upon retirement, whereas transfer to the active member account refer to the capital amounts in respect of deferred pensions transferred to the relevant active members' records.

Pensioner liability

65. The pensioner liability will be based on the expected present value of all future payments made to pensioners. For a specific pensioner, this is calculated as:

Liability = (Current annual pension in payment) x (Annuity Factor)

where the annuity factor is based on a member's personal details (e.g. age, gender, years of guaranteed period remaining, etc.) and appropriate assumptions for mortality, investment return as outlined in paragraph 67.

66. The total pensioner liability in respect of 116 pensioners and 13 beneficiaries amounts to USh 23 421m at the valuation date.

Valuation basis

67. A summary of the valuation assumptions is as follows:

Financial assumptions

- A long-term investment return of 10% per annum is used to place a present value on future benefit payments.
- Pension increases of 4% per annum and a guaranteed period of 15 years.

Demographic assumptions

- Rates of mortality after retirement were based on the PA(90) Ultimate mortality tables with mortality improvements of 1% per annum from age 60.

Reserve Accounts

Loan Protection Fund

68. As noted in 51 above, a Loan Protection Fund was established during the valuation period. The objective of the reserve is to protect the Scheme from possible defaults on loans to members, currently serving as a Scheme investment.

69. This reserve is funded by means of a 2% charge on all loans disbursed. The reserve is also applied towards purchasing insurance policies to protect the Scheme from loan defaults due to the death or permanent disability of the lenders (members).

General Reserve Account

70. A General Reserve Account was operated during the valuation period. The balance of this reserve account, as per the financial statements, was USh 0.962m at the valuation date.

FINANCIAL RESULTS

Financial position

71. A comparison of the current valuation results and the previous valuation results is shown below. The financial position as at the previous valuation date is shown following the implementation of the recommendations regarding interest rate declarations and pension increases:

	30 June 2020 USh'000	30 June 2017 USh'000
Actuarial value of assets	312 113 763	152 133 644
Actuarial liability	(303 559 921)	(147 811 769)
Active members	(280 138 662)	(126 258 790)
Pensioner liability	(23 421 259)	(21 552 979)
Actuarial surplus/(deficit)	8 553 842	4 321 874
Funding level	102.8%	102.9%

72. In order to assist in decision making, the results above are split between active members and pensioners below.

Financial position of active members

73. A comparison of the financial position of active members at the current and previous valuation dates is shown below:

Active members	30 June 2020 USh'000	30 June 2017 USh'000
Assets in respect of active members	287 339 739	129 486 258
Actuarial liability	(280 138 662)	(126 258 790)
Actuarial surplus/(deficit)	7 201 076	3 227 468
Funding level	102.6%	102.6%

74. Based on the surplus available in respect of active members and recent investment returns, we recommend that no additional bonus, above the guaranteed rate of 8%, be declared to active members for the year ending 30 June 2020.

75. The surplus of 2.6% can act as a guard against the risk of investment returns falling below the guaranteed rate of 8%, without being at a level that creates unreasonable cross-subsidies over different generations.

Financial position of pensioners

76. A comparison of the current valuation results and the previous valuation results in respect of the pensioners is shown below:

Notional pensioner account	30 June 2020 USh'000	30 June 2017 USh'000
Actuarial value of account	24 774 024	22 647 386
Actuarial liability	(23 421 259)	(21 552 979)
Pensioners	(23 421 259)	(20 089 449)
Deferred pensioners	-	(1 463 530)
Actuarial surplus/(deficit)	1 352 766	1 094 406
Funding level	105.8%	105.1%

77. As indicated in paragraph 48 above, the guaranteed pension increases of 4% exceeded average inflation rate over the valuation period. These increases are therefore deemed sufficient and we recommend that the surplus in the notional pensioner account be held to act as a buffer against unfavorable demographic and economic experience in future.

ANALYSIS OF EXPERIENCE

Active members

78. The surplus in respect of active members increased over the valuation period. The following factors explain the change in the surplus (more details on the individual elements are provided in Appendix C):

	USh'000
Surplus as at 30 June 2017	3 227 468
Interest on opening surplus	1 479 194
Under-allocation of investment returns	7 289 729
Fund expenses	(4 795 315)
Surplus as at 30 June 2020	7 201 076

Pensioners

79. The changes that contributed to the change in the pensioners' financial position are summarised below (more details on the individual elements are provided in Appendix C):

	USh'000
Surplus as at 30 June 2017	1 094 406
Interest on opening surplus	527 080
Investment experience	178 450
Fund expenses	(530 460)
Miscellaneous	83 290
Surplus as at 30 June 2020	1 352 766

GENERAL CONSIDERATIONS

Active member investment guarantee

80. As mentioned in paragraph 46, investment returns earned by the Scheme may not always exceed the rate of 8% guaranteed to be credited to members' accounts. If investment returns are lower than 8% per year, then the declaration of an 8% return to be added to member accounts will mean that a deficit is created in respect of that year. A deficit will also occur if the declared Fund Interest is higher than the investment return achieved on the assets.

81. The Act, in section 6(2) and section 21, allows for the Government to pay additional contributions to guarantee the solvency of the Scheme, but ideally the Scheme would be managed in a way that would lead to a long-term sustainable position without relying on additional external funding.

82. Any losses, therefore, will lead to funds needing to be injected into the Scheme by Government. Potential losses could also be recovered in later years when a lower interest rate is applied relative to that earned on the assets in that year. Some profit will also accrue to the Scheme when the vesting scale is applied to "post 2010" members leaving the Scheme, with a proportion of the Government contributions remaining in the Scheme, although we understand that the vesting scale is to be removed with an amendment of the Act. An alternative management tool would be to amend the minimum rate described in Schedule 2 of the Act.

83. The Board should ideally be aware of the financial position of the Scheme, even if it is on an approximate level, before deciding on the Fund Interest rate to apply to members' accounts. We would recommend a quarterly review of recent investment performance, which should be checked against the current Fund Interest. This would ensure that members benefit from periods of good investment returns, and the Scheme is protected by reducing the Fund Interest during times when the investment returns are reducing. The level of protection provided by the surplus available in the Scheme should also be considered.

84. The investment in fixed interest securities does offer some protection against this sort of volatility, but we recommend that the current practice of annual high-level financial reviews (with a comprehensive actuarial valuation performed every third year) be continued in order to allow for swift action to be taken if necessary.

Declaration of Fund Interest

85. Currently the Scheme undergoes a high-level review of its financial position on an annual basis. A bonus rate, based on the investment returns earned during the the year and the surplus available is then declared.

86. As discussed in paragrapgh 74 we recommend that no additional bonus, above the guaranteed rate of 8%, be declared to active members for the year ending 30 June 2020.

Pension indexation

87. As discussed in paragraph 48 and 77, the guaranteed pension increase of 4% per annum exceeded inflation during the valuation period and the guaranteed increase is therefore considered reasonable in respect of the pensioners.

Annuity conversion rates

88. Member credits are converted into pensions at retirement based on the annuity rates as in Appendix D. These annuity rates are based on a long-term interest assumption of 10% per annum and guaranteed pension increases of 4% per annum. Therefore, at any stage when the Scheme's actual returns are less than 10%, it is in danger of making a loss.

89. The investment risks are similar as described in paragraph 80 above, although two factors make it even more sensitive to lower returns:

   - The hurdle rate of return is 10%, compared to the 8% required for active members;
   - No money leaves the scheme in respect of active members (ignoring retirements or resignations), while for pensioners there is a continuous outflow of money through the payment of pensions. Once money has left the Scheme, then it is not possible to recover a poor year's investment returns through a good return in a later year.

90. In this Scheme's case, where pensions are paid from the Scheme itself, it is exposed to the risk associated with pensioners. The investment risk has already been mentioned above.

91. The other major risk relates to mortality experience not being in line with that which is assumed in the annuity conversion factors. That is if pensioners live longer than expected, the reserves kept based on the same basis as those used to calculate the annuity conversion factors, will prove inadequate.

92. There is a severe lack of data available throughout Africa to assess the mortality rates of pensioners, and also to assess the trends in mortality. If mortality rates were to improve in future, then more money will be required to pay pensions

93. Unisex annuity conversion factors were implemented with effect from 1 July 2015. These factors were aligned with the current mortality basis assumed in the valuation which provides for mortality improvements in the future. Although there remains a risk that the mortality experience is not in line with that assumed in the annuity conversion factors, this risk was reduced by the implementation of the new annuity conversion factors. Our analysis of experience (see paragraph 79 & Appendix C) also shows no significant profits or losses due to mortality experience, confirming the validity of the annuity factors used at this stage. We however recommend that the appropriateness of the annuity factors be reviewed at each valuation.

Allocation to medical aid at retirement

94. We were requested to investigate the need for medical insurance and the optimal apportionment of contributions to such premiums at retirement.

95. Uganda's health sector consists of a public- and private sector. As is generally the case worldwide, the private sector offers better care, but this is associated with a much greater cost. Therefore, as a general rule, those who can afford medical aid, obtain it in order to cover the cost of private healthcare.

96. We reviewed the Scheme's member data and found that members likely to retire within the next 5 years, would receive an average annual pension of about Ush 33 000 000, before tax. However, there is great heterogeneity within this group, with annual pensions ranging from Ush 7m to Ush 75m.

97. According to figures obtained from a group providing medical aid cover in several countries throughout Africa, the cost of medical aid in Uganda ranges from Ush 3.4m per person per annum for basic cover, to Ush 8.5m per person per annum for more comprehensive cover.

98. For the average pensioner, basic medical aid cover for him/her as well as a spouse, would constitute about 20% of the member's gross pension. For pensioners in the lower income groups, medical aid may however be unaffordable. Comprehensive cover would only be recommended for pensioners in the highest income groups.

99. Possible actions which the Board could take in this regard:

    99.1 Contract with a service provider to offer medical insurance to members of the Fund, potentially at preferential rates for the group.

    99.2 Consider allowing additional contributions to be made by members so that they can build up a larger pension, which they can use to pay for their future medical premiums or expenses in retirement.

SENSITIVITY ANALYSIS

100. The sensitivity of the valuation results has been tested for certain assumptions in the valuation basis. The results of these sensitivity runs are outlined below.

Pension valuation and conversion basis

101. A long-term investment return of 10% per annum was assumed in valuation basis, as well as the basis used to determine the annuity conversion factors. As part of the valuation we have carried out the following two sensitivity analyses to investigate the Scheme's position should investment returns be different to that assumed:

- Scenario 1A: using a long-term investment return of 9% p.a., i.e. less than the 10% p.a. assumed
- Scenario 1B: using a long-term investment return of 11% p.a., i.e. more than the 10% p.a. assumed.

102. A comparison of the notional pensioner account on the current valuation basis and the above scenarios are shown below:

Notional pensioner account	Current valuation	Scenario 1A lower return	Scenario 1B higer return
Actuarial value of account	24 774 024	24 774 024	24 774 024
Actuarial liability of pensioners	(23 421 259)	(24 503 535)	(21 245 823)
Actuarial surplus/(deficit)	1 352 766	270 490	3 528 201
Funding level	105.8%	101.1%	116.6%

103. As can be seen, investment returns can have a substantial effect on the pensioner liabilities held within the Scheme.

103.1 Implication of lower returns: In this case the Board needs to be aware that it is possible that losses may be generated by sub-standard investment returns on pensioners' assets. Future years' returns may make up such losses, but if a long-term structural change in the economy is foreseen, leading to lower future long-term returns, then the conversion factors may need to be changed or greater reserves held.

103.2 Implication of higher returns: In this case the Board needs to be aware that it is possible that profits may be generated by higher than expected investment returns on pensioners' assets. This may be held in reserve for future years with poorer returns, or it can be used to grant higher pension increases to pensioners.

Mortality improvement

104. Our second analysis entailed investigating the Scheme's position if it is assumed that retired members experience varying levels of mortality improvement. For the valuation, we assumed a mortality basis of PA(90) Ultimate with mortality improvements of 1% per annum for members aged 60 and older. We investigated the following two sensitivity analyses:

- Scenario 2A: a mortality basis of PA(90) Ultimate with mortality improvements of 3% per annum for members aged 60 and older .
- Scenario 2B: a mortality basis of PA(90) Ultimate with no mortality improvements.

105. A comparison of the notional pensioner account on the current valuation basis and the above scenarios are shown below:

Notional pensioner account	Current valuation USh'000	Scenario 2A higher mortality improvement USh'000	Scenario 2B lower mortality improvement USh'000
Actuarial value of account	24 774 024	24 774 024	24 774 024
Actuarial liability of pensioners	(23 421 259)	(24 973 347)	(22 768 216)
Actuarial surplus/(deficit)	1 352 766	(199 323)	2 005 808
Funding level	105.8%	99.2%	108.8%

105.1 Implication of higher mortality improvements: The Board needs to be aware that it is possible that losses may be generated by pensioners living longer than assumed in the calculation of the conversion factors. The expected long-term mortality should be monitored to ensure the conversion factors remain appropriate.

105.2 Implication of lower mortality improvements: The Board needs to be aware that it is possible that current reserves held may be excessive. If over the long-term mortality improvements prove to be lower than anticipated, or non-existent, a decision will need to be made regarding the distribution of excessive reserves.

CONCLUSION AND RECOMMENDATION

106. The Scheme is 102.8% funded at the current valuation date. The Scheme is therefore financially sound as at the valuation date.

107. The notional pensioner account set up in the previous valuation was accumulated during this valuation period in order to determine the portion of surplus due to actives and pensioners. Based on this, the funding level for active members and pensioners at the valuation date is 102.8% and 105.8% respectively

108. Based on the surplus available in respect of active members and recent investment returns, we recommend that no additional bonus, above the guaranteed rate of 8%, be declared to active members for the year ending 30 June 2020.

109. The guaranteed pension increases of 4% exceeded average inflation rate over the valuation period. These increases are therefore deemed sufficient and we recommend that the surplus in the Notional pensioner account be held to act as a buffer against unfavorable demographic and economic experience in future.

110. During the valuation period, a loan portfolio was added to the scheme's investments, consisting of loans to members of the Scheme. Although there are certain risk measures in place and this loan portfolio constitutes a relatively small portion of the Scheme's investments at this stage, the Board should be aware of the risks involved with this asset class. We would therefore recommend that the Board monitors the level of these loans and regularly review the implement self-imposed maximum levels.

111. Given the limited size of the equity market the Scheme is able to invest in and the attractive yields offered by government bonds, we are satisfied that the assets of the Scheme are an appropriate match for the liabilities of the Scheme.

112. The current unisex annuity conversion factors seem to remain appropriate, since the analysis of experience showed no significant gains or losses as a result of mortality experience. We however recommend that the appropriateness of the annuity factors be reviewed at each valuation.

113. We note that the vesting scale on withdrawal benefits had not been applied for Members of Parliament. This is contrary to the Act and the Board should consider how this should be addressed.

114. For the average pensioner, basic medical aid cover for him/her as well as a spouse, would constitute about 20% of the member's gross pension. For pensioners in the lower income groups, medical aid may however be unaffordable. Comprehensive cover would only be recommended for pensioners in the highest income groups.

T. Doubell

TW DOUBELL (FASSA FIA CFP®)

Valuator

In my capacity as an employee of SNG ARGEN Actuarial Solutions.

G MYBURGH (FASSA)

Actuary

In my capacity as an employee of SNG ARGEN Actuarial Solutions.

Our primary professional regulator is the Actuarial Society of South Africa.

October 2020

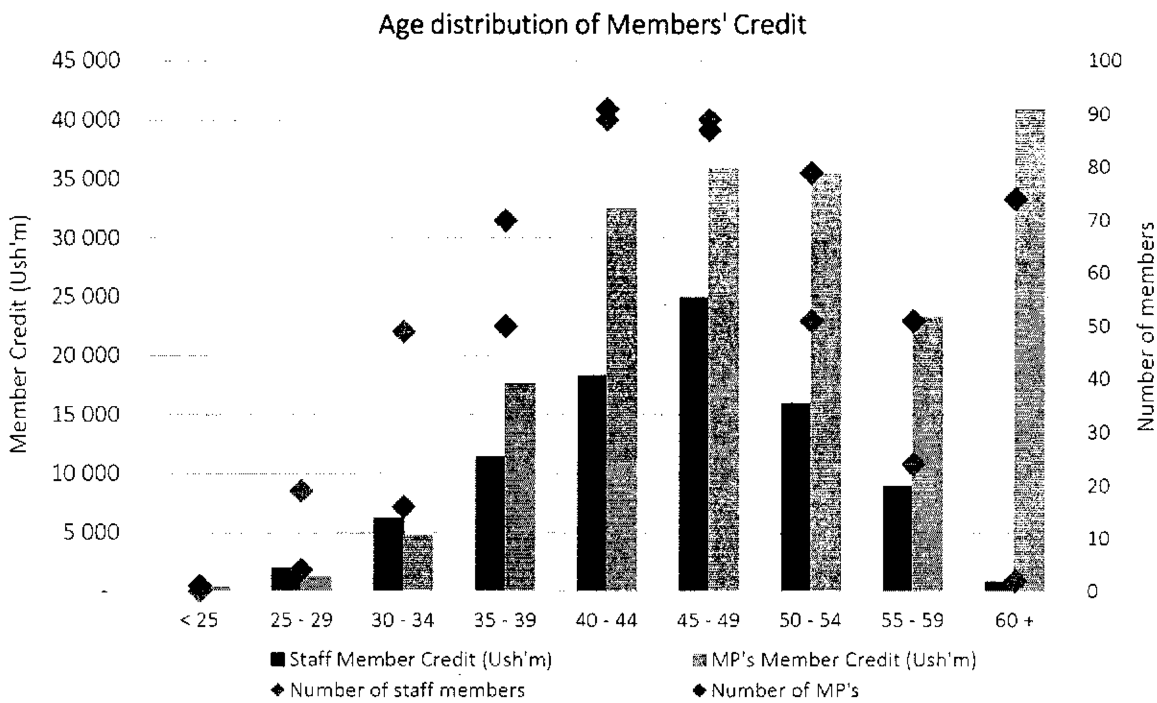
APPENDICES

Appendix A Membership statistics

A.1. A summary of the active members of the Scheme is as follows:

Gender	Number of members	Weighted average age	Total annual payroll USh'000	Member Credit USh'000
Staff: Male	237	46.9	12 444 851	53 972 052
Staff: Female	156	43.9	8 731 535	34 295 596
Total Staff	393	45.8	21 176 386	88 267 647
MP's: Male	294	52.7	39 443 040	127 142 468
MP's: Female	159	49.4	21 331 440	64 728 547
Total MP's	453	51.6	60 774 480	191 871 015
Grand total	846	49.7	81 950 866	280 138 662

A.2. A graphical summary of the active members of the Scheme is as follows:



A.3. A summary of the pensioners of the Scheme is as follows:

Gender	Number of pensioners	Weighted average age	Total annual pensions USh'000
Male	78	63.8	1 442 131
Female	38	61.3	588 104
Total	116	63.1	2 030 235

A.4. A graphical summary of the pensioners of the Scheme is as follows:

Appendix B Contributions and benefits

B.1. A summary of the contributions and benefits of the Scheme is as follows:

	Definition	Description
B.1.1.	Retirement age	The Act states that a pension shall be payable to any member who retires or ceases membership on or after attaining the age of 45, subject to a minimum service of 10 years.
B.1.2.	Pensionable emoluments	Basic salary, excluding any allowance or gratuity.
B.1.3.	Contribution rate	Member: 15% of their pensionable emoluments Government: 30% of the members' pensionable emoluments
B.1.4.	Members' Credit	Government contributions plus member contributions accumulated with interest, which is subject to a minimum of 8% per annum
B.1.5.	Retirement benefit	A member may elect to receive up to a third of their member credit as a cash lump sum. The balance will be used to calculate the member's monthly pension receivable, based on the following formula: Annual pension = AMC / AF Where, AMC = accumulated member's credit at time of retirement, and AF = annuity factor, based on the expected present value of a payment of 1 per annum. The pension will increase at 4% per annum with a guaranteed payment period of 15 years.
B.1.6.	Death benefit	At death in service the benefit equals the Member's Credit
B.1.7.	Withdrawal benefit	Members who retire or cease membership before age 45, or with less than 10 years pensionable service, are entitled to their own contributions plus the following proportions of Government contributions:

Proportion of Government contributions vested	Years of service
10%	Less than 1 year
20%	1 year, but less than 2
40%	2 years, but less than 3
60%	3 years but less than 4
80%	4 years, but less than 5
100%	5 years or more

Members that joined before 1 January 2010 will receive a refund of the full Government contribution.

B.1.8.	Retirement on health grounds	Where a member retires or ceases to be a member by reason of ill health and the Board is satisfied, on the basis of a report of the Medical Board appointed by the Director General of Medical Services, that there is no reasonable possibility of the member becoming fit to be an active member again, the member shall be paid: – A retirement benefit as outlined in Section 5, if the member has more than 10 years' pensionable service, even though the member has not attained age 45; or – Where the member has less than 10 years' pensionable service, a refund of the member's contributions together with the contribution made by the Government on his or her behalf calculated with interest as may be determined by the Board.

Appendix C Analysis of experience

Active members

C.1. The active member-section of the Scheme had a surplus at the previous valuation date, which increased over the valuation period. Following below is a description of the experience items that contributed to this improvement in the financial position in respect of active members:

Interest on opening surplus

C.2. The surplus at the previous valuation date earned interest of Ush 1 479.2m during the valuation period.

Under-allocation of investment returns

C.3. The actual investment returns earned on the Scheme's assets (net of tax) averaged 10.1% per annum over the valuation period, exceeding the average Fund Interest rate of 8.7% per annum allocated to active members over the valuation period. The result was a gain totalling USh 7 289.7m.

Fund expenses

C.4. The Fund expenses in respect of active members amounted to USh 4 795.3m.

Summary

C.5. The change in the financial position of the active members can therefore be summarised as follows:

	USh'000
Surplus as at 30 June 2017	3 227 468
Interest on opening surplus	1 479 194
Under-allocation of investment returns	7 289 729
Fund expenses	(4 795 315)
Surplus as at 30 June 2020	7 201 076

Pensioners

C.6. The pensioner-section of the Scheme had a surplus at the previous valuation date, which increased over the valuation period. Following below is a description of the experience items that contributed to this improvement in the financial position in respect of pensioners:

Interest on opening surplus

C.7. The surplus at the previous valuation date earned interest of Ush 527.1m during the valuation period.

Investment experience

C.8. The actual investment returns earned on the Scheme's assets (net of tax) averaged 10.1% per annum over the valuation period, exceeding the expected return of 10% per annum assumed in the valuation basis. The resulting gain amounted to USh 178.5m.

Fund expenses

C.9. The Fund expenses in respect of pensioners amounted to USh 530.5m.

Miscellaneous

C.10. Other items of experience which individually did not have a significant effect on the notional pensioner account amounted to a net gain of Ush 83.3m.

Summary

C.11. The change in the financial position of the pensioners can therefore be summarised as follows:

	USh'000
Surplus as at 30 June 2017	1 094 406
Interest on opening surplus	527 080
Investment experience	178 450
Fund expenses	(530 460)
Miscellaneous	83 290
Surplus as at 30 June 2020	1 352 766

Appendix D Annuity factors

D.1. The annuity factors used are as follows:

Age	Annuity Factor
45	13.735
46	13.608
47	13.478
48	13.347
49	13.214
50	13.079
51	12.943
52	12.806
53	12.669
54	12.532
55	12.395
56	12.259
57	12.124
58	11.990
59	11.857
60	11.725
61	11.595
62	11.467
63	11.342
64	11.219
65	11.099
66	10.983
67	10.872
68	10.764
69	10.662
70	10.564
71	10.472
72	10.386
73	10.306
74	10.231
75	10.163
76	10.101
77	10.045
78	9.994
79	9.950
80	9.910
81	9.876
82	9.847
83	9.821
84	9.800
85	9.782
86	9.768
87	9.756
88	9.746
89	9.738
90	9.732

Appendix E Historical experience

E.1. Following below is the history of investment returns earned by the Scheme and the fund interest rates allocated to members since 1 July 2012:

Financial year ending	Annual investment return on assets	Investment return, after tax & expenses	Fund Interest Declared
30 June 2013	14.6%	12.8%	10.0%
30 June 2014	13.8%	11.8%	10.0%
30 June 2015	13.9%	12.0%	11.0%
30 June 2016	14.6%	10.9%	8.0%
30 June 2017	18.3%	13.0%	11.0%
30 June 2018	15.1%	11.4%	10.0%
30 June 2019	10.1%	8.1%	8.0%
30 June 2020	12.0%	8.3%	8.0%

E.2. Following below is the history of pension increases granted to members compared to inflation since 1 July 2012:

Financial year ending	Pension increase granted	Inflation	Increase as % of inflation
30 June 2013	4.0%	3.6%	111%
30 June 2014	4.0%	5.0%	80%
30 June 2015	4.9%	4.9%	100%
30 June 2016	5.9%	5.9%	100%
30 June 2017	6.4%	6.4%	100%
30 June 2018	4.0%	2.1%	190%
30 June 2019	4.0%	3.4%	118%
30 June 2020	4.0%	4.1%	98%