NATAL JOINT MUNICIPAL PENSION FUND (RETIREMENT) (12/8/6676/2)

REPORT ON THE STATUTORY ACTUARIAL VALUATION AS AT 31 MARCH 2012

Prepared by

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12 October 2012

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EXECUTIVE SUMMARY

1. We have performed a statutory actuarial valuation of the Natal Joint Municipal Pension Fund (Retirement) (the "Fund") as at 31 March 2012 ("the valuation date"). A copy of this report must be submitted to the Financial Services Board by 31 March 2013. The previous statutory valuation of the Fund was performed as at 31 March 2009 and the report on that valuation was accepted by the Financial Services Board ("FSB") on 6 April 2011.

2. The period from 31 March 2009 to 31 March 2012 is taken as the "valuation period" for purposes of this valuation.

3. This report on the results of the valuation is addressed to the General Committee of the Fund.

4. At the valuation date (and at the previous statutory valuation date) the Fund covered the following membership:

	31 March 2009		31 March 2012	
	Number	Annual salaries/ pension R'000	Number	Annual salaries/ pension R'000
Active members	4 318	305 932	3 442	332 166
Pensioners	5 682[1]	55 770	5 153[2]	81 756

1 Includes 1 542 suspended and pending pensioners as at 31.03.2009
2 Includes 657 suspended and 413 pending pensioners as at 31.03.2012

5. The market value of the Fund's assets was R 2 301 904 000 at the valuation date.

6. The value placed on the assets for purposes of the valuation are:

	31.03.2009 R'm	31.03.2012 R'm
Assets at market value	1 454.9	2 301.9
Investment Reserve	(212.7)	113.6
Actuarial value of assets	1 667.6	2 415.5

7. For purposes of the valuation, the assets were taken at a value of R113,6 million above market value. Details are given in paragraph 50 of the main report.

8. The valuation disclosed that for the Fund overall, the liabilities for service to the valuation date were 90,6% funded as follows:

	31 March 2009 R'm	31 March 2012 R'm
Total		
Value of assets (Appendix 5)	1 667.6	2 415.5
Value of liabilities (Appendix 6)	(1 660.4)	(2 447.0)
Balance of Memorandum Account	(134.1)	(167.9)
Risk Reserve	(51.8)	(52.1)
Contribution Reserve	(35.5)	0.0
Surplus (shortfall)	**(214.2)**	**(251.5)**
Funding level	88.6%	90.6%

9. The valuation results can be split between active members and pensioners as reflected below:

	31 March 2009 R'm	31 March 2012 R'm
Memorandum Account (Pensioners)		
Assets	835.4	1 267.4
Liabilities*	(684.5)	(1 080.9)
Risk Reserve	(16.8)	(18.6)
Balance of assets in Memorandum Account	**134.1**	**167.9**
Funding level	119.1%	115.3%
Active Members		
Balance of assets	832.2	1 148.1
Balance of liabilities**	(975.9)	(1 366.1)
Risk Reserve	(35.0)	(33.5)
Contribution Reserve	(35.5)	0.0
Surplus (Shortfall)	**(214.2)**	**(251.5)**
Funding level	79.5%	82.0%

* The liabilities for the pensioners include an allowance for the pension increase on 1 July 2012 as well as an allowance for a once-off increase of 4.8% on merger with the Natal Joint Municipal Pension Fund (Superannuation).

** Including allowance for pending spouse's pensions.

10. The previous statutory valuation as at 31 December 2009 showed a deficit in the Fund. The employers and members are paying a surcharge of 17% of pensionable salaries (for all active members at 31 December 2002), which was expected to fund the deficit over a five year period to 30 June 2015.

11. Even though a surcharge was paid during the valuation period, the funding level has not increased by as much as was expected. This is primarily as a result of high salary increases over the valuation period and a strengthening of the valuation basis.

12. Contributions being paid to the Fund at the valuation date, including the surcharge, expressed as a percentage of the pensionable salaries, are as follows:

		%	%
by members -	basic	7.00	
	- additional*	1.65	8.65
by the local authorities	- basic	13.65	
	- additional*	15.35	29.00
Total			37.65

* Only in respect of members who were members at 30 June 2002.

13. Excluding the surcharge, the "basic" contribution being paid to the Fund is equal to 20,65% of pensionable salaries, which is less than the contribution rate required for future service by 4,72% of pensionable salaries, as reflected below:

	31 March 2009 %		31 March 2012 %	
Method of valuation		Attained Age		Attained Age
Contribution rate currently payable excluding surcharge		20.65		20.65
Members	7.00		7.00	
Employer	13.65		13.65	
Contribution rate required for future service		22.95		25.37
Excess/(shortfall)		(2.30)		(4.72)

14. Thus it is necessary for the basic employer contribution to be increased from 13,65% to 18,37% (13,65% plus 4,72%) in order to cover the cost of the future service benefits.

15. In order to fund the deficit, the surcharge (which is payable in addition to the increased basic contribution) should be increased from 17% to say 17,5% from 1 July 2012 and the required period of payment of the surcharge he extended from 5 to 8 years. The surcharge was calculated after taking into account the separate lump sum surcharge payable by local authorities that granted excessive salary increases (refer to main report).

16. The total rate of contribution required from the employer, including the surcharge, is thus 34,22% (18,37% plus 17,5% less 1,65% (portion of surcharge payable by members)) of pensionable salaries payable for a period of 8 years. This was also the recommendation in the previous interim valuation of the Fund as at 31 March 2011. The General Committee accepted the recommendation and the revised rate will be implemented with effect from 1 July 2012. This is however subject to approval by the FSB of the "Scheme to Eliminate Deficiency" (see below).

17. Section 18 of the Pension Funds Act requires that a "Scheme to Eliminate Deficiency" be implemented and agreed with the FSB to ensure that the deficit is funded by the agreed surcharge and in the agreed timeframe. The Fund should send a "Scheme to Eliminate Deficiency" to the FSB for approval.

18. The Pension Funds Act requires the valuator to investigate the pension increases granted to pensioners every three years. The actual increases granted since retirement must be compared to the increase in the Consumer Price Index (CPI) and any shortfall must be credited to the pensioners as an additional increase if affordable. The pension increases at 1 July 2010 and

1 July 2011 were greater than the CPI at the preceding March of each year. This was however not the case for the increase as at 1 July 2012; therefore an additional increase of 0,70% should be granted to pensioners who retired effective 1 April 2010 and 0,92% to pensioners who retired effective 1 April 2011. The actual increase due to a pensioner depend on the date of retirement, for example if the pensioner had been on retirement for at least a year, an increase of 0,92% is payable, backdated to 1 July 2012.

19. The key findings and recommendations in the report are:

(1) The Fund self-insures its death benefits and disability benefits. I am satisfied that, given the recommended Risk Reserve, the arrangement is appropriate for the Fund;

(2) I am satisfied that the asset composition on the valuation date is appropriate to the nature of the liabilities and that the investment strategy of the Fund is suitable for the Fund;

(3) The Fund's assets underlying the pensioner liabilities were sufficient to meet the pensioner liabilities as at the valuation date;

(4) The assets underlying the active member liabilities were insufficient to meet these liabilities at the valuation date. I recommend that the surcharge of 17% be increased to 17,5% of pensionable salaries as soon as possible after approval by the General Committee; and that the repayment period be extended from 5 to 8 years from the latter date, at which time the deficit is expected to be fully funded. I recommend that a new "Scheme to Eliminate Deficiency" be submitted to the FSB for their approval detailing how the agreed repayment period and amounts are expected to eliminate the shortfall;

(5) The required contribution rate for <u>future service</u> benefits for active members exceeded the contribution rate payable by 4,72% of pensionable salaries. The Employer's basic rate of contribution should thus be increased by 4,72% from 13,65% to 18,37% of pensionable salaries with effect from 1 July 2012 to fund this shortfall; and

(6) I recommend that the prescribed minimum pension increase be granted to certain pensioners as at 1 July 2012, retrospectively.

<u>ARTHUR ELS</u> (FIA FASSA CFP CFA CERA)
VALUATOR

In my capacity as an actuary of Arthur Els and associates.
Primary professional regulator: Actuarial Society of South Africa

12 October 2012

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NATAL JOINT MUNICIPAL PENSION FUND (RETIREMENT) REPORT ON THE STATUTORY ACTUARIAL VALUATION OF THE FUND AS AT 31 MARCH 2012

INTRODUCTION

1. We have performed a statutory actuarial valuation of the Natal Joint Municipal Pension Fund (Retirement) (the "Fund") as at 31 March 2012 ("the valuation date"). A copy of this report must be submitted to the Financial Services Board. The previous statutory valuation of the Fund was performed as at 31 March 2009 and the report on that valuation was accepted by the Financial Services Board ("FSB") on 6 April 2011.

2. The period from 31 March 2009 to 31 March 2012 is taken as the "valuation period" for purposes of this valuation.

3. This report on the results of the valuation is addressed to the General Committee of the Fund. Any other party placing reliance on this report is encouraged to firstly consult with the General Committee and ourselves (see Appendix 8).

4. In this report the purposes of the valuation, the processes involved, the results obtained and the conclusions drawn are explained. The body of the report is a summary of the data, assumptions and results. The appendices, which form part of the report, contain particulars of the data, the reasons for the assumptions and details of the results.

5. The Fund is registered in terms of the Pension Funds Act and approved by the South African Revenue Services for Income Tax purposes.

6. This report was peer reviewed by an independent Consulting Actuary, Jeremy Andrew, and incorporates his suggested adjustments.

PURPOSE OF THE VALUATION

7. The purpose of the valuation is to investigate the financial soundness of the Fund in terms of the funding objectives laid down by the Actuarial Society of South Africa and as required by the Registrar of Pension Funds.

8. This requires that the following be determined:

   (1) whether the existing assets of the Fund are sufficient to cover the Fund's accrued liabilities towards its members for service prior to the valuation date, and towards its pensioners;

   (2) an analysis of the financial progress of the Fund since the previous statutory valuation;

   (3) whether the future contribution rates are sufficient to meet the future accrual of benefits stipulated in the Regulations of the Fund;

(4) whether the contingency reserve accounts are appropriately funded and to review the build up thereof;

(5) whether the Fund's reinsurance arrangements are appropriate;

(6) whether the nature of the assets of the Fund is suitable to match the nature of the liabilities of the Fund and whether the investment strategy is appropriate;

(7) whether the targeted pension increase is sustainable and the likelihood of it being realized;

(8) whether any changes are required to the assumptions as a result of the experience of the Fund, or prevailing conditions; and

(9) an analysis of the sources of any surplus or strain that has arisen in the period (see Appendix 7).

9. This report adheres to the Professional Guidance Note PGN201 of the Actuarial Society of South Africa and the relevant Board Notices issued by the Financial Services Board.

CHANGES SINCE LAST STATUTORY VALUATION

10. Since the previous valuation date, the Regulations of the Fund has been amended to:

(1) Facilitate the merger of the Fund with the Natal Joint Municipal Pension Fund (Superannuation);

(2) Remove the provision that unclaimed benefits revert back to the Fund after a certain time period; and

(3) Make provision in the Regulations for a Pensions Memorandum Account, Risk Reserve Account, Solvency Reserve Account, Contribution Reserve Account, Data Reserve Account and Investment Reserve Account.

11. The pension increase policy of the Fund was revised effective 1 January 2010 to allow the Fund to measure the pension increases against Headline Inflation. Previously Core Inflation was used but this measure of inflation is no longer recorded.

12. The policy states that pensions will be increased on 1 July of each year by the greater of 75% of the average increase in Headline Inflation to the preceding 31 December or the amount affordable from investment returns earned on the assets underlying pensions in the Fund. In terms of the policy, the maximum increases is the lowest of:

(1) 100% of Headline Inflation to the preceding 31 March:

(2) The increase affordable out of the investment earnings in the Memorandum Account, or

(3) The average of the above two items.

13. Since the last statutory valuation, pensions in payment were increased as reflected below. These increases were taken into account in the value of the liabilities in this valuation.

	Pension increase	Headline inflation (to preceding 31 March)	Average Headline inflation (to preceding 31 Dec)
1 July 2009	8.64%	*	*
1 July 2010	7.20%	5.10%	7.15%
1 July 2011	4.32%	4.10%	4.29%
1 July 2012	5.04%	6.00%	4.99%

* The prescribed minimum increase for this period was taken into account in the last statutory actuarial valuation of the Fund

14. A pro-rata increase is granted if the pension had been in payment for less than 12 months at the preceding 31 March, and no increase is granted if the pension had commenced after 31 March preceding the date of the increase.

15. The Pension Funds Act requires the valuator to investigate the pension increases granted to pensioners every three years. The actual increases granted since retirement must be compared to the increase in the Consumer Price Index (CPI) and any shortfall must be credited to the pensioners as an additional increase if affordable. The last investigation for this Fund was done as at 31 March 2009.

16. The pension increases at 1 July 2010 and 1 July 2011 were greater than the CPI at the preceding March of each year. This was however not the case for the increase as at 1 July 2012 and thus an additional increase of 0,70% is due to pensioners who retired effective 1 April 2010 and 0,92% to pensioners who retired effective 1 April 2011. These increases can be afforded as the Memorandum Account has a positive balance.

17. The actual increase due to a pensioner depends on the date of retirement, for example if the pensioner had been on retirement for at least one year, an increase of 0,92% is payable, backdated to 1 July 2012. We recommend that pensions be increased as required by the Act, backdated to 1 July 2012. The cost of the increase is included in the liabilities for this valuation.

18. A consolidated income statement showing cash flows during the valuation period is shown in Appendix 1.

19. Over the valuation period, the Fund earned the following returns on its assets taken at market value and actuarial value respectively:

Year to 31 March	Investment return	
	Market value	Actuarial value
2010	26.3%	8.7%
2011	12.4%	11.7%
2012	12.8%	20.7%
Average per annum	17.0%	13.6%

20. The average salary increases over the valuation period were as follows:

Year to 31 March	Increase
2010	13.2%
2011	12.6%
2012	7.1%
Average per annum	11.0%

VALUATION PARTICULARS

21. The Fund is governed by its regulations as approved by the Registrar of Pension Funds and promulgated by the provincial legislature of KZN. The liabilities of the Fund towards its members and pensioners were calculated in accordance with the benefits and conditions of the regulations, as summarised in Appendix 3.

22. The Fund is self-administered. The administrator supplied particulars of –

    (1) Audited financial statements (Appendix 1);

    (2) The assets held by the Fund at the valuation date (Appendix 5);

    (3) The members and pensioners of the Fund at the valuation date (Appendix 2); and

    (4) The conditions governing the payment of benefits in terms of the Regulations of the Fund (Appendix 3).

23. We have reconciled the valuation data with the financial statements and performed a number of reasonableness tests to verify the correctness of the data. Where problem areas were found, these were resolved with the administrators of the Fund and the data was adjusted accordingly (refer to Section D of Appendix 2). We are satisfied with the accuracy of the data for purposes of this valuation.

24. The valuation was based on the audited financial statements of the Fund.

25. Appendix 2 contains a detailed breakdown of the active member and pensioner data. A reconciliation of the number of active members, pensioners and deferred pensioners during the valuation period is also set out in Appendix 2.

Membership data

26. The data and information supplied are summarised below:

    (1) The data for the active members are summarised as follows as at the valuation dates:

	31 March 2009	31 March 2012	Change
Females			
Number	614	556	-9.4%
Pensionable salary:			
- Total (R'000)	39 793	48 499	21.9%
- Average (R)	64 809	87 228	34.6%
Salary weighted average:			
- Age (years)	47.0	47.9	1.8%
- Past Service (years)	13.7	16.0	16.9%
Males			
Number	3 704	2 886	-22.1%
Pensionable salary:			
- Total (R'000)	266 139	283 667	6.6%
- Average (R)	71 852	98 291	36.8%
Salary weighted average:			
- Age (years)	48.4	50.0	3.4%
- Past Service (years)	18.2	20.7	14.0%

(2) The data for the pensioners are summarised as follows as at the valuation dates:

	31 March 2009	31 March 2012	Change
Pensioners			
Number[1]	1 874	1 566	-16.4%
Annual pensions:			
- Total (R'000)	24 961	37 726	51.1%
- Average (R)	13 320	24 091	80.9%
Pension weighted:			
- Age (years)	71.0	66.9	-5.7%
Spouses			
Number	3 734	3 544	-5.1%
Annual pensions:			
- Total (R'000)	30 044	43 400	44.5%
- Average (R)	8 046	12 246	52.2%
Pension weighted:			
- Age (years)	56.0	53.4	-4.6%
Deferred pensioners			
Number	74	43	-41.9%
Annual pensions:			
- Total (R'000)	765	630	-17.7%
- Average (R)	10 338	14 644	41.7%
Pension weighted:			
- Age (years)	58.0	59.3	2.3%

1 The large reduction in the number of pensioners is largely due to some 230 suspended pensioners that have been terminated during the valuation period as updated information has been received by the administrators as part of a data clean up exercise.

Asset data

27. The total market value of the assets was R 2 301 904 000, comprised as follows:

	R'000	%
Equities	1 273 474	55.3
Interest bearing stock	435 304	18.9
Cash and deposit	163 286	7.1
International assets*	511 823	22.2
Net Current Assets	(81 983)	(3.5)
Total	**2 301 904**	**100.0**

* International assets comprise of 69% collective investments and 31% other investments that cannot be identified separately

28. The Fund has a detailed investment strategy which takes into account the asset liability modelling exercise that was completed in February 2010. The Fund's strategic asset allocation in terms of this exercise was as follows:

Asset class	Asset allocation
Local equities	47%
Fixed interest	21%
Inflation linked bonds	9%
International Equities	20%
Cash	3%
Total	**100%**

29. The results of the asset liability modeling exercise were used to determine the strategic benchmarks of the Fund as well as the ranges around the benchmarks. The actual asset allocation at valuation date is within the permissible ranges, as set out in the investment mandates given to the Fund's asset managers.

VALUATION METHOD

Service to the valuation date

30. In order to value the Fund's defined benefit liabilities in respect of the members and pensioners, an actuarial valuation method and valuation assumptions are required. The valuation method and assumptions have no direct bearing on the ultimate cost of the defined benefits; they only determine how this cost is recognised over time.

31. The Fund's liabilities for members' service to the valuation date and for pensioners was calculated as using set of "best estimate" assumptions which are expected to apply over the long-term. The benefits payable by the Fund in future are estimated and these are discounted using the assumed long-term rate of interest, to give the present value of their liabilities for service to the valuation date. A similar approach is taken for pensions in payment. We have also allowed for an administration fee of R350 per annum in respect of each pension payable. As regards the Fund's assets, a value is determined by discounting expected future investment cash-flow at the same rate of interest, allowing for expected future growth in dividends and other investment income. In this manner an "actuarial value" is placed on the assets of the Fund.

32. The Pension Funds Act requires a fund to provide a minimum level of pension increases. In order to meet this requirement, the Fund keeps a separate record of the assets that are directly attributable to its pensioners and deferred pensioners in the Memorandum Account. Where the value of the pensioner assets exceeds the value of the pensioner liabilities, the excess assets are retained in the Memorandum Account.

33. We have been provided with information in respect of 657 pensioners whose pensions have been suspended because the Fund has not received proof of existence. These pensions were valued on the assumption that the following proportion of the pensions would again become payable:

Period since payments ceased	Proportion
more than 3 years	Nil
between 2 and 3 years	one-sixth
between 1 and 2 years	one-half
less than 1 year	five-sixths

34. We have been provided with details of 413 cases where a spouse's pension is possibly payable following the death of a member in the service or of a pensioner. We have allowed for an estimated pension per spouse of R 13 664 per annum where no data was available from the administrator. The Fund is taking steps to trace dependants of the deceased members and pensioners and it is likely that, in a number of cases, no pension will become payable. For the valuation it was decided to include in the liabilities 50% of the calculated value, so that an amount of R 31,5 million has been included in the Members' liabilities and R 1,9 million in the pensioner liabilities in respect of spouses of pensioners. The administrator has planned a data clean-up exercise in respect of these records following the valuation. This matter will be monitored at each valuation and the figure of 50% adjusted appropriately.

Future service

35. The Employers no longer permit members to join the Fund, so that it has effectively become a closed fund. This implies that the average age of the membership will increase, which in turn will mean an increase in the required rate of contribution. For the last statutory valuation the rate of contribution was determined on the "Attained Age" method. This method takes into account the closed nature of the Fund and determines the level rate of contribution that is required over the remaining service lifetime of the members.

36. If the valuation assumptions are realised, this level rate of contribution should remain sufficient despite an increase in the average age of members as reserves are built up when the average age is smaller that offsets the costs when the average age is high. This assumption may not be realised if:

    (1) there are significant unforeseen changes in the membership, for example, if a significant number of members transfer between the Fund and the other Natal Joint funds; or

    (2) such as is currently the case, there is a large deficit in the Fund. The excess contributions that would have been allocated to these reserves is currently used to fund the deficit, resulting in a higher required contribution rate to fund future benefits.

37. This basis is referred to as the Attained Age Method of Valuation and was used for the purpose of this valuation.

38. There is no future service cost in respect of the pensioners or the deferred pensioners.

Solvency reserves

39. The assumptions used for the above calculations are "best estimate" assumptions of future experience. The Act permits a fund to maintain a Solvency Reserve in order to provide some protection to the Fund should the actual future financial experience of the Fund turn out to be less favourable than the "best estimate" financial assumptions used to value the defined benefit liabilities of the active members and pensioners. To determine the Solvency Reserve the valuation was also performed on an alternative basis, namely the "Discontinuance Method Approach" (DMA). This valuation takes into account investment conditions that are prevailing at the valuation date. The benefits payable by the Fund in the future, including pensions in payment, are estimated and these are discounted using the yield that could be earned on Government Stock at the valuation date. This gives the Fund's liabilities for service to the valuation date. Assets are taken at full market value.

40. The purpose of providing the results of two valuations is to give the Committee an indication of the sensitivity of the valuation results to the assumptions. The results of the DMA valuation are also shown so that the Committee is aware of the position if the Fund were to be discontinued and the liabilities bought out in the market at the prevailing interest rates. The DMA valuation quantifies the contingency reserves required to cushion the Fund against investment and other risks, as discussed later in this report. The Solvency Reserve provides protection to the Fund against adverse experience in the future.

41. Legislation does not oblige a fund to hold a Solvency Reserve for purposes of financial soundness, but we would recommend that the Fund holds a Solvency Reserve in order to provide protection for the interests of the various stakeholders if affordable. For this purpose we have applied the provisions of PF 117, the Circular issued by the Financial Services Board setting out the level of solvency reserves that the Financial Services Board considers reasonable.

VALUATION ASSUMPTIONS

Liabilities

41. The valuation assumptions used to determine the Fund's liabilities and reserves are based on "best estimate" assumptions.

42. At each statutory triennial valuation the Fund's actual experience is compared to the valuation assumptions and where necessary, the assumptions are revised. Based on the results,

    (1) It was found that pensioners are living longer than previously assumed (actual deaths were approximately 25% less than expected) and the post retirement mortality assumption was therefore adjusted for this valuation to allow for increased pensioner longevity;

    (2) The expected rates of mortality, ill-health and withdrawal did not completely reflect the actual experience of the Fund and hence small adjustments were made to ensure that the assumptions reflect actual experience.

    (3) It was found that salary increases continue to be almost double the rate expected at the previous statutory valuation. The salary increase assumption was therefore adjusted for this valuation; and

    (4) We have also reduced the post retirement interest rate to better reflect the Fund's pension increase policy.

43. All other assumptions used in the statutory valuation as at 31 March 2009 were retained for this valuation. Details are given in Appendix 4.

44. As at the valuation date the key "best estimate" financial assumptions are set out below (the assumptions used at the previous valuation date are in brackets):

    (1) Investment returns of 10,0% per annum (10,0% per annum);

    (2) Price inflation of 6,0% per annum (6,0% per annum);

    (3) Salary increases of 7,0% per annum, plus a promotional salary scale (6,5% per annum plus a promotional scale); and

    (4) Allowance for future pension increases equal to investment returns in excess of 5,0% per annum (5,5% previously).

45. The Committee has approved amendments to the Regulations of the Fund to place a limit on the increase in pensionable salaries, in order to allow the Fund to return to a sound financial condition. The limit has been set at the rate of inflation. It is expected that this will be implemented in the next year once the necessary Provincial legislation has been promulgated. This measure is a temporary measure and will be removed when the Fund is in a sufficiently sound financial condition. Because of the temporary nature of this measure, the restriction of salary increases has not been taken into account in the valuation assumptions.

46. For the DMA method of valuation, which is used to determine the Solvency Reserve, the financial assumptions were determined in the light of investment conditions prevailing at the valuation date as follows:

    (1) Investment returns of 8,08% per annum;

    (2) Price inflation of 6,46% per annum;

    (3) Salary increases of 7,08% per annum; and

    (4) Allowance for future pension increases equal to investment returns in excess of 2,75% per annum.

47. The demographic assumptions discussed in paragraph 42 were also used for the DMA method of valuation.

48. The actual experience of the Fund is likely to differ from the assumptions made, and the actual cost of the liabilities will depend on the actual financial and demographic experience of the Fund.

49. Because the actual future experience of the Fund may be different than what is assumed, the reserves held in this valuation may prove to be insufficient or more than sufficient.

Assets

50. A comparison between the value of the assets and liabilities of the Fund can only be meaningful if the respective values are determined on a consistent basis.

    (1) For purposes of the valuation, the actuarial value of the assets was determined by discounting the expected future investment income from rental, dividends and interest, at the valuation rate of interest used to calculate the liabilities. Allowance was made for future increases in dividends, rentals etc.

    (2) This method of valuing the assets is consistent with the long term best estimate valuation of the liabilities. On this basis a value of R2 415,5 million was placed on the assets, that is R113,6 million above market value (Details are given in Appendix 5).

    (3) For the DMA method of valuation, assets were taken at market value.

    (4) The value placed on the assets for purposes of the valuation are therefore as reflected below.

	31.03.2009	**31.03.2012**
	R'm	**R'm**
Assets at market value	1 454.9	2 301.9
Investment Reserve	(212.7)	113.6
Actuarial value of assets	1 667.6	2 415.5

    (5) Details of the asset value are set out in Appendix 5.

VALUATION RESULTS

Service to the valuation date

51. The valuation disclosed the following in respect of the liabilities for service to the valuation date:

	31 March 2009 R'm	31 March 2012 R'm
Total		
Value of assets (Appendix 5)	1 667.6	2 415.5
Value of liabilities (Appendix 6)	(1 660.4)	(2 447.0)
Balance of Memorandum Account	(134.1)	(167.9)
Risk Reserve	(51.8)	(52.1)
Contribution Reserve	(35.5)	0.0
Surplus (shortfall)	**(214.2)**	**(251.5)**
Funding level	88.6%	90.6%

52. From the table above it is noted that the Fund's financial position has remained largely unchanged from the previous statutory valuation. This is mainly due to:

(1) High salary increases; actual increases of some 11,0% per annum were almost double the assumed salary increase of 6,5% per annum;

(2) A strengthening of the valuation basis to allow for greater pensioner longevity as well as small adjustments to the demographic rates assumed for females and the withdrawal rates for males; and

(3) A change in the valuation basis to better reflect the Fund's pension increase policy;

(4) These strains were partially offset by a continuation of the surcharge of 17% of pensionable salaries and better than expected investment income over the valuation period.

53. The valuation disclosed a surplus of R 167,9 million in respect of pensioners and a shortfall of R 251,4 million in respect of members, as follows.

	31 March 2009 R'm	31 March 2012 R'm
Memorandum Account (Pensioners)		
Assets	835.4	1 267.4
Liabilities*	(684.5)	(1 080.9)
Risk Reserve	(16.8)	(18.6)
Balance of assets in Memorandum Account	**134.1**	**167.9**
Funding level	119.1%	115.3%
Active Members		
Balance of assets	832.2	1 148.1
Balance of liabilities**	(975.9)	(1 366.1)
Risk Reserve	(35.0)	(33.5)
Contribution Reserve	(35.5)	0.0
Surplus (Shortfall)	**(214.2)**	**(251.5)**
Funding level	79.5%	82.0%

* The liabilities for the pensioners include an allowance for the pension increase on 1 July 2012 as well as an allowance for a once-off increase of 4.8% on merger with the Natal Joint Municipal Pension Fund (Superannuation).

** Including allowance for pending spouse's pensions.

54. The surplus in the Memorandum Account is retained as a contingency reserve to provide for minimum pension increases as prescribed by legislation and incorporated in the Fund's Regulations.

55. The financial position of the Memorandum Account is shown after including a provision for the payment of the minimum pension increase prescribed by the Act as at 1 July 2012 (see paragraph 16). It is also noted that should the Fund be merged with the Natal Joint Municipal Pension Fund (Superannuation) the Fund's pensioners will be granted a special increase of 4,8% which have been included in the pensioner liability shown above.

56. The funding level in respect of the contributory members has improved slightly, from 79,5% to 82% mainly due to higher than expected salary increases as well as the change in the valuation basis (see paragraph 52 above), mitigated by the surcharge of 17% of pensionable salaries being paid by the local authorities and better than expected investment returns over the valuation period.

57. The strengthening of the valuation basis necessitates an increase in the required contribution for future service benefits of some 4,72% of annual pensionable salaries as detailed in paragraph 65 below; while the increase in the accrued service deficit necessitates an increase in and extension of the surcharge required to fund the accrued service deficit from 17% per annum for 5 years to 17,5% per annum for 8 years. However, this is subject to approval by the FSB (see paragraph 71).

Contingency Reserves

Solvency Reserve

58. The DCF method of valuation is based on best-estimate assumptions, including the assumption that the Fund's equity and property investments will yield a higher return than fixed interest stock. If this assumption is not realised then future investment earnings will be lower than expected, leading to a shortfall arising in future years. To reduce this risk the Fund may hold a "Solvency Reserve", determined according to Circular PF117 which was issued by the Financial Services Board in June 2004. The Solvency Reserve is the size of reserve needed to compensate the Fund for taking investment risk, because the DMA valuation adopts a "risk-free" approach to investment. In the case of the Fund the Solvency Reserve would amount to R 981 million, as reflected below:

	R' million
Liabilities per DMA method	3 314.4
Less: Liabilities per DCF method	(2 447.0)
Investment Reserve	113.6
	981.0

59. The Solvency Reserve can be split as R 366,3 million in respect of pensioners and R 614,7 million in respect of actives.

    (1) The balance of the assets in the Memorandum Account amount to R167,9 million, which is less than the full theoretical Solvency Reserve for the pensioners of R366,3 million. I therefore recommend that the balance of R167,9 million be retained in the Memorandum Account towards building up the full Pensioner Solvency Reserve.

    (2) As regards the active members, the liabilities exceed the assets so that no funds are available at this stage towards retaining a Solvency Reserve for the active members. I do recommend however, that the Committee aim towards retaining a Solvency Reserve once the deficit has been eliminated.

Risk Reserve

60. The Fund self-insures its death and disability benefits and bears the longevity risk for its pensioners. It is prudent to maintain a "Risk Reserve" in order to give some protection against fluctuations in mortality and morbidity experience of the members, and against the longevity risk of pensioners. The Financial Services Board's Circular PF117 sets out a standard for determining such a reserve. A fund may hold a "Risk Reserve" based on the capital that would be required from an insurance company undertaking the business. In the case of the Fund, the Risk Reserve amounts to R 52,1 million calculated in accordance with paragraph 4.4 of Circular PF117. It is prudent that the Fund retains a Risk Reserve in order to give protection against fluctuations in mortality and for that reason we recommend that this reserve be maintained; we have allowed for such a Reserve, comprising R 18,6 million in respect of pensioners and R 33,5 million in respect of active members.

Future service

61. Contributions being paid to the Fund at the valuation date, including the surcharge, expressed as a percentage of the pensionable salaries, are:

		%	%
by members	- basic	7.00	
	- surcharge*	1.65	8.65
by the local authorities	- basic	13.65	
	- surcharge*	15.35	29.00
Total			37.65

* Only in respect of members who were members at 30 June 2002.

62. Thus 20,65% of pensionable salaries are being paid to fund the cost of future benefit accrual and 17% of pensionable salaries to fund the deficit at the valuation date.

63. The total required contribution rate for future service is 25,37% of pensionable salaries before taking account of the past service shortfall. This has been calculated using the Attained Age method of valuation.

64. This can be split into individual components as reflected below:

	31.03.2009	**31.03.2012**
	% of pensionable salaries	
Retirement	7,82	12.07
Disability	3,98	2.53
Death in service	9,36	8.39
Withdrawal	0,54	0.74
Administration costs	1,25	1.64
Total	22.95	25.37

65. The contribution rate being paid towards future service benefits at the valuation date was therefore less than the cost of future service benefits, by 4,72% of pensionable salaries, as reflected below:

	31 March 2009 %	**31 March 2012** %
Method of valuation	Attained Age	Attained Age
Contribution rate payable excluding surcharge	20.65	20.65
Contribution rate required for future service	22.95	25.37
Excess/(shortfall)	(2.30)	(4.72)

66. The contribution rate to fund the cost of future service benefits increased from 22,95% at the previous valuation date to 25,37% at the current valuation date. The main reason for the increase is the change in valuation basis which was necessitated by greater than expected salary increases and increasing pensioner longevity.

67. The allowance for 1,25% of pensionable salaries per annum for administration costs was insufficient to fund these costs over the valuation period and hence was increased to 1,64% of pensionable salary. Actual expenses over the valuation period exceed the increased allowance but these expenses included once off expenses such as a new administration system and hence the allowance was only partially increased. This will be closely monitored in future.

68. Thus it is necessary for the basic employer contribution to be increased from 13,65% to 18,37% (13,65% plus 4,72%) in order to cover the cost of the future service benefits.

69. In order to fund the deficit, the surcharge (which is payable in addition to the increased basic contribution) should be increased from 17% to 17,5% from 1 July 2012 and the period of payment of the surcharge be extended from 5 to 8 years. The surcharge was calculated after taking into account the separate lump sum surcharge payable by local authorities that granted excessive salary increases (refer to paragraph 77).

70. The total rate of contribution required from the employer, including the surcharge, is thus 34,22% (18,37% plus the surcharge of 17,5% less 1,65% (portion of surcharge payable by members)) of pensionable salaries payable for a period of 8 years. This was also the recommendation in the previous interim valuation of the Fund as at 31 March 2011. The General Committee accepted the recommendation and the revised rate will be implemented with effect from 1 July 2012. This is however subject to approval by the FSB of the "Scheme to Eliminate Deficiency" (see below).

71. An additional surcharge is payable by local authorities who have granted excessive salary increases (see paragraph 77).

72. The Pension Funds Act requires that a "Scheme to Eliminate Deficiency" be compiled and agreed with the FSB to ensure that the deficit is funded by the agreed surcharge and in the agreed timeframe. The Fund should send such a Scheme to the FSB for approval once the newly recommended contribution rate has been accepted by the General Committee.

OUTLOOK

Investments

73. Over the inter-valuation period, the Fund earned 17,0% per annum on its assets taken at market value and 13,6% on the assets taken at actuarial value. This is better than the assumed investment return of 10% per annum.

74. It is expected that the investment return of the Fund's assets will, over a reasonably long period, be sufficient to meet the increase in liabilities given that the Fund has taken measures to limit salary increases (see paragraph 77).

75. Increases to pensions at the rate of approximately 75% of inflation a year can be met if the valuation assumptions are realised. Any additional increases must be met from investment returns in excess of those assumed or from surplus or other profits made on the operations of the Memorandum Account.

Salary increases

76. A primary reason for the Fund not being in a sound financial condition, has been the excessive increases in pensionable salaries relative to inflation. Over the valuation period the average salary increase was 11,0% per annum.

77. The Regulations of the Fund have been amended so that the General Committee is able to levy a separate surcharge on local authorities which grant excessive salary increases, thereby causing a financial strain on the Fund to the detriment of other stakeholders. Investigations into the surcharges due in this regard are performed annually, with the last investigation being performed as at 31 March 2011.

78. As mentioned in paragraph 45, the General Committee of the Fund approved a change in the regulations of the Fund so that pensionable salary increases will be capped at 100% of Headline inflation. This change will only be implemented once the amendment has been registered by the FSB and promulgated by the KZN provincial legislature. This will assist greatly in curbing the growth in the Fund's liabilities as a result of excessive salary increases.

New members and transfers

79. The Fund has effectively been closed to new members, and it is therefore assumed, for the valuation, that no new members will join the Fund. However, at present, members of the three Natal Joint Funds are permitted to transfer between the funds and, this flow of members may affect the rate of contribution required to be paid to the Fund.

Member and Local Authority Surplus Accounts

80. The Financial Services Board recorded a Nil Surplus Return for the Fund as at 31 March 2003. Accordingly, the balances in both these accounts were nil at that date and have remained nil to the valuation date.

CERTIFICATE

81. I am satisfied that the asset composition on the valuation date is appropriate to the nature of the liabilities and that the investment strategy of the Fund is suitable for the Fund.

82. The Fund self-insures its risk benefits. The lump sum element of these benefits is relatively small, with the major element comprising of annuity payments. I am satisfied that, given the recommended Risk Reserve, the Fund's reinsurance arrangements are appropriate.

83. The Fund's assets underlying the pensioner liabilities were sufficient to meet the pensioner liabilities as at the valuation date.

84. The assets underlying the active member liabilities were insufficient to meet these liabilities at the valuation date. I recommend that the surcharge of 17% be increased to 17,5% of pensionable salaries with effect from 1 July 2012 and that the repayment period be extended from 5 to 8 years at which time the deficit is expected to be fully funded. I also recommend that a "Scheme to Eliminate Deficiency" be submitted to the FSB detailing the agreed repayment period and amounts.

85. The required contribution rate for future service benefits for active members exceeded the contribution rate payable. I thus recommend that the Employer's basic rate of contribution be increased by 4,72% from 13,65% to 18,37% of pensionable salaries with effect from 1 July 2012 to fund this shortfall. Taking into account the surcharge, the total Employer contribution should thus be increased to 34,22% (18,37% plus 17,5% less 1,65%) with effect from 1 July 2012.

86. I recommend that the prescribed minimum pension increase be granted to certain pensioners as at 1 July 2012, retrospectively.

ARTHUR ELS (FIA FASSA CFP CFA CERA)
VALUATOR

In my capacity as an actuary of Arthur Els and associates.
Primary professional regulator: Actuarial Society of South Africa Associates

12 October 2012

APPENDIX 1

ACCOUNTS

1.1 The income and expenditure of the Fund during the valuation period were as follows:

	R'000	R'000	R'000
Amount of Fund as at 31 March 2009 (AFS)			**1 454 861**
Reverse prior year adjustment			**2 117**
Income			**625 944**
Contributions:		362 880	
- Members	69 636		
- Local authorities	136 566		
- Surcharge	156 678		
Transfers in		10	
Investment returns		263 054	
Expenditure			**-420 640**
Lump sum benefits:		-143 236	
- Disability	0		
- Withdrawal	-21 593		
- Retirement	-39 983		
- Retrenchment	-133		
- Death	-57 755		
- Transfer to other funds	-23 772		
Pensions		-220 060	
Other		-1 492	
Investment managers' fees		-30 829	
Administration expenses		-25 667	
Tax		644	
Net adjustment to fair value of assets			**639 622**
Amount of Fund as at 31 March 2012 (AFS)			**2 301 904**

APPENDIX 2

MEMBERSHIP STATISTICS

A. MEMBERSHIP BUILD-UP

1. Active Members

Members at last statutory valuation date	4 318
Adjustments	(2)
New members	40
Exits	
Transfer to Superannuation	(13)
Transfer to KZN Pension Fund	(32)
Retirement	(313)
Ill-health	(76)
Death	(351)
Resignation	(79)
Dismissal	(30)
Transfer to Provident	(20)
Members at current valuation date	**3 442**

2. Pensioners

	Former members	Spouses	Deferred	Total
Pensioners at previous valuation date	1 874	3 734	74	5 682
Adjustments and cessations	(227)	(219)	(24)	(470)
New pensioners	383	453	0	836
Deaths	(464)	(424)	(7)	(895)
Pensioners at current valuation date	**1 566**	**3 544**	**43**	**5 153**
of which				
Pending pensioners(see par 34 of main report)	5	408	0	**413**
Suspended pensioners	238	417	2	**657**

3. Deferred Pensioners

The above summary includes 43 deferred pensioners (36 males and 7 females). By "deferred" is meant a pensioner whose service has ceased in the Fund and whose pension will commence on reaching the pension age.

B. VALUATION DATA : ACTIVE MEMBERS

Age last birthday	Number	Pensionable salaries R	Liability	Contributions without interest R	Average pensionable service years
<=22	0	0	0	0	-
23 - 27	11	846 467	227 051	116 925	2.36
28 - 32	45	4 304 696	4 072 416	1 453 279	7.52
33 - 37	176	19 568 066	33 117 560	8 247 496	11.22
38 - 42	405	42 430 196	105 580 967	21 076 476	14.97
43 - 47	613	59 536 001	196 445 078	32 898 850	18.47
48 - 52	810	77 231 000	305 922 545	43 968 469	20.96
53 - 57	659	61 554 722	289 077 712	36 273 780	22.87
58 - 62	558	51 605 671	294 981 909	30 846 246	24.39
63+	165	15 089 467	105 124 737	9 050 263	25.34
Total	**3 442**	**332 166 286**	**1 334 549 975**	**183 931 783**	**20.04**

C. VALUATION DATA : PENSIONERS

Age nearest birthday	Former Members Number	Former Members Annual Pension R	Spouses Number	Spouses Annual Pension R
<29	0	0	4	115 173
29 – 32	0	0	16	304 377
33 – 37	0	0	90	1 909 866
38 – 42	6	126 207	201	4 327 331
43 – 47	14	302 955	357	6 575 678
48 – 57	85	2 468 448	1 031	14 235 704
58 – 67	513	17 287 488	1 048	10 759 150
68 – 72	387	10 054 264	333	2 683 247
73 – 77	243	5 017 683	230	1 269 243
78 – 82	161	1 598 122	144	743 786
83 – 87	101	649 486	61	335 302
88 – 92	41	149 820	21	109 419
93 – 97	11	25 884	8	32 052
>97	4	45 855	0	0
Totals	**1 566**	**37 726 213**	**3 544**	**43 400 328**

D. SUMMARY OF DATA CHECKS

A large number of tests on the reasonability and consistency of the data were carried out, including the following:

- Reconciliation of the number of members at the valuation date and the previous valuation date, with the movements in membership reported over the valuation period.
- Testing for very high, low, nil or negative salary increases of individual members over the valuation period.
- Testing whether the ages and salaries of individual members were within a reasonable range.
- Ensuring that the age and past service of each member did not conflict with the minimum entry age.
- Testing the reasonability of each member's total/accumulated contributions relative to salary and length of service.
- Checking the level of pensions against the pensions at the previous valuation date and increases granted since then.
- Testing the reasonableness of age differences between pensioners and their spouses.
- Checking for changes in the membership details over the valuation period.
- Identifying any missing or invalid data fields.
- We have reconciled the valuation data with the financial statements and performed a number of reasonableness tests to verify the correctness of the data. We are satisfied with the accuracy of the data for purposes of this valuation.

Problems with the data supplied were resolved with the administrators of the Fund. Particular problems included dates of pensionable service changing upon moving between different local authorities, dates of pensionable service and contributions not adjusted upon divorce/payment of a loan, and transfers between funds not reconciled.

We have also established that the balance in the audited annual financial statements in respect of transfers out of the Fund has been overstated by some R 1 million. This will not have a material impact on the results of this valuation and for purposes of this valuation we have used the amounts reflected in the audited annual financial statements of the Fund.

We are satisfied with the general accuracy of the adjusted data and with its suitability for purposes of the valuation.

APPENDIX 3

BENEFITS AND CONDITIONS

3.1 The benefits of the Fund at the valuation date are briefly described below:

Member's contributions	7% of pensionable salaries, plus a surcharge of 1,65% of pensionable salaries in respect of members who were members at 30 June 2002
Pension age	65 years
Final average salaries	Average annual pensionable salaries during the last year of service
Pension on retirement at pension age	2,1% of final average salaries per year of continuous service
Lump sum on retirement at pension age	5,5% of final average salaries per year of continuous service
Pension on retirement because of ill health (minimum ten years' continuous service)	Pension as for retirement at the pension age
Lump sum on retirement because of ill health (minimum ten years' continuous service)	Lump sum as for retirement at the pension age
Lump sum on retirement because of ill health (less than ten years' continuous service)	The greater of the resignation benefit or twice the member's contributions
Spouse's pension on death in service	1,05% of final average salaries per year of continuous service at date of death and 75% of potential service to the pension age
Spouse's pension on death of pensioner	1,05% (0,77% for pensioners who retired before 1 July 1999) of final average salaries per year of continuous service
Lump sum on death in service	Annual pensionable salaries

Withdrawal	Member's contributions plus $^{5}/_{12}\%$ for each month of continuous service (the addition is approximately equivalent to compound interest at 10% a year) increased by 5% for each complete year of continuous service up to a maximum of 100% after 20 years of service; or if member has completed ten years of continuous service, a deferred pension and lump sum as for retirement at the pension age payable when he attains the pension age.
Prescribed minimum benefits	All benefits are subject to the minimum prescribed by the Pension Funds Act.

APPENDIX 4

VALUATION ASSUMPTIONS

A. VALUATION BASIS

1. General

To assess the financial position of the Fund, an attempt is made as far as possible to reach realistic long-term assumptions. A number of factors are considered which are inter-related, often to such an extent that individual elements cannot be considered in isolation.

Our valuation basis takes into account the experience of the Fund and that of similar funds.

The actual long-term cost of the benefits depends on the actual experience of the Fund and not on the assumptions adopted. While the assumptions can affect the timing of the emerging cost in the short-term, they have little impact on the long-term cost.

It was decided to value the Fund on two alternative methods of valuation:

1.1 The first method is the "Discounted Cash Flow" (DCF) method of valuation that has been used for past valuations of the Fund. This is based on a set of "best estimate" assumptions which are expected to apply over the long-term. The benefits payable by the Fund in future are estimated and these are discounted using the assumed long-term rate of interest, to give the present value of their liabilities for service to the valuation date. A similar approach is taken to pensions in payment. As regards the Fund's assets, a value is determined by discounting expected future investment cash flow at the same rate of interest, allowing for expected future growth in dividends and other investment income. In this manner an "actuarial value" is placed on the assets of the Fund.

1.2 The valuation was then performed on an alternative basis, namely the "Discontinuance Method Approach" (DMA). This valuation takes into account of investment conditions at the valuation date. The benefits payable by the Fund in the future are estimated and these are discounted using the yield on Government Stock at the date of valuation. This gives the liability for service to the valuation date. Assets are taken at full market value.

Our assumptions are set out and motivated below. Assumptions used in the previous statutory valuation are shown in brackets.

2. Investment return

2.1 DCF Method

The assumed investment return is used as an interest rate to discount expected future cash flows. In estimating the future investment earnings, greater emphasis is placed on the long-term trend as opposed to the short-term experience of the Fund. Taking into account the structure of the Fund's assets we have assumed that the Fund will earn 10% p.a. over the long-term (10% p.a. previously).

We used the Fund's strategic asset allocation taken from the asset liability modeling exercise that was performed in 2010 and therefore assumed that the Fund will have the following asset allocation at valuation date:

- 3% of the assets generate cash returns of, say, 6,5% p.a.;
- 30% of the assets are invested in fixed interest stock yielding, say, 8,5% p.a.;
- 67% of the assets are invested in equities with an equity risk premium of 3% above the investment return on fixed interest stock so that earnings are 11,5% p.a.; and
- Expenses reduce the earnings by, say, 0,5%;

The calculated expected return on assets is approximately 9,95% for the active members. We have accordingly used a long term investment return assumption of 10% per annum.

This interest rate of 10% p.a. is only really significant in relation to the assumed long-term rate of salary inflation of 7,0% (6,5% previously), as stated below.

We have therefore assumed that future investment returns will exceed future salary inflation by 3,0% p.a. This differs from the previous statutory actuarial valuation where it was assumed that future investment returns will exceed future salary inflation by 3,5% p.a. as salary increases proved to be more expensive than assumed for all years in the valuation period.

2.2 DMA Method

At the valuation date the yield on government stocks varied from 5,8% at the short-terms and 8,725% at longer terms. The liabilities of the Fund are predominantly long term and therefore it was decided to apply a rate of interest of 8,58%. An adjustment was made for investment fees of 0,5% a year. For purposes of valuation it was thus assumed that the Fund would earn 8,08% (8,58% less 0,5%) and this was the rate used to place a value on the liabilities of the Fund.

3. Inflation

3.1 DCF Method

It was assumed that inflation over the long-term will be 6% a year (6% a year previously), which is in line with the assumed underlying rate of inflation in the market. This implies that the Fund will earn 4% more than inflation (10% less 6%). This is consistent with the previous statutory actuarial valuation.

3.2 DMA Method

At the valuation date the yield on long-term government stock was 8,725% and that on inflation-linked bonds was 2,27%. The difference of 6,455% (8,725% less 2,27%) is the inflation implied by the market at the valuation date. We have therefore assumed an underlying rate of inflation of 6,46% a year for the DMA method of valuation.

4. Salary increases

4.1 DCF Method

General salary increases as a result of inflation have been provided for at 7,0% pa (6,5% previously) i.e. an assumption of inflation plus 1,0% (0,5% previously) which must be read in conjunction with the assumed rate of investment return. The assumption was strengthened because salary increases were on average 11,0% per annum over the valuation period which is almost double the assumed salary increase of 6,5% per annum.

In addition, we provided for merit increases based on the experience of the Fund. Samples of the increases allowed for are:

Age years	**Merit increases per year** %
20	7.7
25	2.9
30	1.8
35	0.7
40	0.1
45	-
50	-
55	-
60	-

4.2 DMA Method

Allowance has been made for salaries to be increased in future at 1,0% p.a. above the assumed rate of inflation of 6,46%, i.e. at 7,46% p.a subject to a cap of 1% below the interest rate assumption, i.e. capped at 7,08% (8,08% less 1%).

In addition, we have allowed for merit and promotion increases according to the table set out in paragraph 4.1 above.

5. Pension increases

The pension increase policy of the Fund states that pensions will be increased annually by the greater of 75% of the increase in CPI or the increase affordable out of the investment return earned on pensioner assets (subject to a maximum of 100% of CPI). In the past affordability was based on investment returns in excess of 5,5% a year. Based on an assumed investment return of 10% per annum (see paragraph 2.1) and inflation of 6% per annum (see paragraph 3.1), pension increases of 75% of inflation require a post retirement interest rate of 5,3% [1,10 divided by (1+0,75 times 0,06)]. In order to provide for <u>at least</u> 75% of inflation it was decided to use a post retirement rate of 5,0% per annum.

The General Committee is satisfied that the assets underlying the Memorandum Account are expected to achieve a real return that is sufficient to allow the Fund to grant pension increases of at least 75% of inflation when combined with a 5,0% per annum post retirement interest rate. This view is supported by the results of the 2009 asset liability modeling exercise undertaken by the Fund.

The post retirement interest rate was set at 5,0%. This rate is expected to allow for pension increases of approximately 80% of inflation.

For the DMA method of valuation the post retirement interest rate was set at 2,75% in order to allow for pension increases of approximately 80% of inflation.

6. Mortality

The mortality assumptions used for the last statutory valuation were revised to agree to the actual experience in the Fund for all active members (actual mortality was 90% of that expected).

For pensioners the post retirement mortality was revised based on the actual experience of the Fund (actual deaths were approximately 25% less than expected) by reducing the age rating by 3 years from that used in the previous statutory valuation for males and by 4 years for females.

For the current valuation, the pensioner mortality assumption is therefore equal to the PA(90) mortality table, with no age rating for females and with the age rated up by 1 year for males (previously an upward age rating of 4 years were applied for both genders) and allowing for future mortality improvements of 0,50% per annum from 2007 onwards, with an overall improvement in mortality of 10% after 20 years.

A.G.

Examples of the mortality rates used are shown below. Pensioner mortality is shown before allowance for future improvements in mortality.

	Active members			Pensioners	
Age	**Males** %	**Females** %	**Age**	**Males** %	**Females** %
20	1.1	0.4	60	1.8	0.7
25	1.3	0.5	65	2.7	1.2
30	1.7	0.6	70	4.2	2.0
35	2.1	0.8	75	6.4	3.4
40	2.7	1.1	80	9.7	5.8
45	3.2	1.5	85	14.4	9.6
50	3.7	2.1	90	20.9	15.5
55	5.0	3.1			
60	5.6	4.5			
65	6.9	6.1			

7. Withdrawals

Withdrawals consist mainly of voluntary resignations and resignations to avoid dismissal. No special provision is made for exits such as retrenchments and transfers to other funds, since they are approximately financially neutral towards the Fund.

Allowance was made for the prescribed minimum withdrawal benefits in terms of the Pension Funds Second Amendment Act. The outcome of these minimum benefits is that the Fund no longer makes material withdrawal profits in respect of members who leave the Fund prior to retirement.

We updated the withdrawal assumption used in the last statutory actuarial valuation of the Fund based on the actual experience in the Fund for all active members (the actual number of withdrawals was approximately twice what was expected).

The withdrawal rates used are set out in the table below:

Age	**Males** %	**Females** %
20	20.0	10.0
25	12.0	10.0
30	8.0	9.0
35	5.0	7.0
40	3.0	5.0
45	1.0	3.0
50	-	1.0
55	-	-
60	-	-

8. Retirement due to poor health

11. Insured benefits

The death and disability benefits are not insured. The costs will vary in the future as the age and gender distribution of the members changes and AIDS and other factors affect the underlying rates.

12. Prescribed minimum benefits

Active members

The Act prescribes minimum benefits to a member who leaves the Fund other than on retirement or death.

For each member the actuarial reserve was compared to the value of the minimum benefit that would become payable at each future date, if the member resigned from the service at that date. Where the latter figure exceeded the actuarial reserve, the difference was added to the liabilities of the Fund.

For calculating the value of the Prescribed Minimum Benefit the following assumptions were applied:

12.1 The deferred pension and gratuity is based on service to the valuation date.

12.2 The Trustees have determined that the prescribed minimum benefits are to be calculated in accordance with the "40% EY" figures published by the Financial Services Board. We expect this figure to average some 3% over the long term and we have therefore applied this figure in calculating the minimum benefit mentioned above (previously we had applied the figure applicable at the date of valuation).

12.3 The pension will be payable from the member's normal retirement age.

12.4 Pre-retirement decrements are as set out above. Post-retirement mortality and allowance for pension increases after retirement are set out in paragraphs 5 and 6 above.

Pensioners

12.5 The Pension Funds Act prescribes minimum increases to pensioners. Each pension in payment must be compared to the pension at retirement increased by the full rate of inflation since date of retirement (if affordable). The last comparison in this regard was done as at 31 March 2009.

12.6 The Act requires the valuator to investigate the pension increases granted to pensioners every three years. The actual increases granted since retirement must be compared to the increase in the Consumer Price Index (CPI) and any shortfall must be credited to the pensioners as an additional increase if affordable.

12.7 We have performed this investigation at the valuation date and recommended an additional increase for those retirement dates where the investigation revealed a shortfall.

J.L.

APPENDIX 5

VALUATION OF ASSETS

A. ASSET COMPOSITION

The total market value of the assets was R 2 301 904 000, comprised as follows:

	Market value		Actuarial value		AV/MV
	R'000	% of	R'000	% of	
Equities	1 273 474	55.32%	1 389 245	57.51%	109%
Interest bearing stock	435 304	18.91%	386 641	16.01%	89%
Cash and deposits	163 286	7.09%	163 286	6.76%	100%
International assets	511 823	22.23%	558 352	23.11%	109%
Net current assets	-81 983	-3.56%	-81 983	-3.39%	100%
Total at 31 March 2012	2 301 904	100.00%	2 415 541	100.00%	105%

B. ASSET VALUATION BASIS

1. For the DCF method of valuation, it is necessary to discount expected future income and expenditure on a consistent basis. In the case of the valuation of the assets, this applies to expected receipts from investments, namely interest, rent, dividends and maturity payments. The book value and the current market value are only suitable for determining the financial position of a pension fund in exceptional circumstances.

2. Fixed interest assets were valued by calculating the discounted value of the expected cash flow, based on the valuation rate of interest of 10% p.a.

3. The dividend yield on the ALSI was approximately 3,0% at the valuation date. We have accordingly assumed a dividend growth rate of inflation plus 1,25%, i.e. at 7,25% per annum. If taken together with the assumed investment return of 10% per annum this means that we assume a dividend yield of 2,75% per annum, leading to equities being valued at 109% of market value.

   International assets were valued similarly to local assets invested in equities.

   Cash and net current assets are taken at face value.

4. It was assumed that the mix of investments in other assets was similar to the mix in the balance of the Fund.

5. The actuarial value of the assets amounted to R2 415,5 million at the valuation date, which was equal to 105% of market value. The value of assets was therefore taken as R 2 415,5 million for purposes of this valuation.

APPENDIX 6

VALUATION OF LIABILITIES

A. TOTAL LIABILITIES

Service to the valuation date

6.1 The value of the liabilities of the Fund for the service of members and former members to the valuation date was R 2 446 985, as follows:

	31-Mar-09 R'000	31-Mar-12 R'000
Members	959 912	1 334 550
Pending widow/ers	15 961	31 523
Pensioners	223 666	381 933
Deferred pensioners	4 972	5 241
Spouses	322 174	533 862
Suspended Reserve	35 407	50 803
Increase in pensions*	82 730	91 048
Administration costs	15 578	18 025
Past-service liabilities	1 660 400	2 446 985

* From 1 July of year of valuation, pro-rata for pensions in payment for less than a year at the valuation date. Also includes cost of prescribed minimum increases as well as an allowance for a once-off increase of 4.8% on merger with the Natal Joint Municipal Pension Fund (Superannuation).

Future service

6.2 The "Attained Age" method of valuation was used which allows for the fact that the Fund is closed to new members, as explained in the main body of the report.

6.3 The contributions (expressed as a percentage of pensionable salaries) required for future service were as follows:

	%
Benefits for future service	23.73
Administration expenses	1.64
	25.37

B. DETAILS OF LIABILITIES

1. Past service

The components of the liabilities in respect of past service are:

	R'000
Active members	
Benefits on :	
retirement	664 815
death	455 500
ill-health	174 836
withdrawal	39 399
Accrued benefits subtotal	1 334 550
Pending pensioners	31 523
Subtotal	1 366 073
Pensioners	
Former members	381 933
Spouses	533 862
Suspended pensioners	50 803
Deferred pensioners	5 241
Pension increase*	91 048
Pensions Administration cost (@R350 p.a.)	18 025
Subtotal	1 080 912
Total liabilities	**2 446 985**

* From 1 July of year of valuation, pro-rata for pensions in payment for less than a year. Including the cost of the prescribed minimum pension increases as well as an allowance for a once-off increase of 4.8% on merger with the Natal Joint Municipal Pension Fund (Superannuation).

2. Future service

Expressed as a contribution rate, and allowing for the fact that the Fund is closed to new members, the future service liability is as follows:

	31.03.2009	31.03.2012
	% of pensionable salaries	
Retirement	7.82	12.07
Disability	3.98	2.53
Death in service	9.36	8.39
Withdrawal	0.54	0.74
Administration costs	1.25	1.64
Total	22.95	25.37

APPENDIX 7

CHANGE IN FINANCIAL CONDITION

7.1 The deficit at 31 March 2009 amounted to R 80,1 million which was made up of a surplus of R134,1 million in the Memorandum Account and a deficit of R 214,2 in respect of the active members. The deficit as at 31 March 2012 was R 83,5 million which is made up of a surplus of R 167,9 million in the Memorandum Account and a deficit of R 251,4 million in respect of the active members. The Fund therefore made a net loss of R 3,4 million (R 80,1 million less R 83,5 million).

7.2 The profits and losses (favourable and unfavourable deviations from the valuation assumptions) that together resulted in the net loss of R 3,4 million were determined, and the amount of each was calculated by approximate methods. The amounts shown in the paragraphs give only an indication of the relative importance of the items under consideration.

Investment return

7.3 The investment return earned on the actuarial value of the assets during the valuation period was 13,6% a year. This was just more than the assumed valuation rate of 10% a year, resulting in a gain of some R198,1 million. This loss was offset by interest on the deficit at 31 March 2009 of some R26,5 million resulting in a net gain of some R 171,6 million.

7.4 The contribution rate that was paid to the Fund as a surcharge during the valuation period to fund the deficit, less the shortfall that arose as a result of paying less than the required contribution rate over the valuation period, amounted to a gain of some R140,5 million.

Pensionable salaries

7.5 Pensionable salaries increased by 11% per annum which is substantially more than had been assumed (paragraph 4.1), resulting in a loss of some R 120,6 million.

Pensions

7.6 Pensions were increased during the valuation period by more than the assumed 75% of inflation. This loss amounted to some R 24,0 million.

7.7 The inclusion of the increase of 4,8% that is due to pensioners upon merger with the Natal Joint Municipal Pension Fund (Superannuation) in the liabilities resulted in a loss of R 46,1 million.

7.8 Pensioner mortality experience, changes of data (specifically spouses details) together with a clean up exercise on suspended pensioners by the administrators of the Fund resulted in a gain of R71,8 million.

7.9 The total gain in respect of pensions was thus some R1,7 million.

Expenses

7.10 An allowance of 1,25% of pensionable salaries is made to cover expenses. Actual expenses were higher than allowed for, resulting in a loss of some R 13,9 million.

Demographic gain

7.11 The actual benefits paid out over the valuation period amounted to less than the expected reserves to be released and this resulted in a gain of about R 8,6 million.

Change in mortality and other assumptions

7.12 As discussed in Appendix 4, some of the valuation assumptions had to be changed to reflect the actual experience of the Fund. This resulted in a loss of about R 201,7 million. The loss can be subdivided into

- a profit as a result of changes in the demographic assumptions for active members in service (refer to Appendix 4) of some R 36,7 million;
- a loss as a result of changes in the post retirement mortality of some R 132,2 million;
- a loss as a result of the reduction in the "gap" between investment earnings and assumed salary increases, from 3,5% per annum to 3% per annum, of some R 39,0 million; and
- a loss of some R 67,2 million as a result of changing the post retirement interest rate from 5,5% per annum to 5% per annum.

Miscellaneous

7.13 There were several other sources of profit and loss, but the amount in each case was too small to justify separate calculation. It was assumed for convenience that together they represent a net profit of R 10,4 million.

Summary

7.14 The change in the financial condition of the Fund during the period was therefore explained as follows:

	R'000
Surplus at 31 March 2009	(80.1)
Investment return	171.6
Excess contributions	140.5
Pensionable salaries	(120.6)
Pensions	1.7
Expenses	(13.9)
Demographic gain	8.6
Change in assumptions	(201.7)
Miscellaneous	10.4
Deficit at 31 March 2012	**(83.5)**

APPENDIX 8

LIMITATIONS TO USE OF REPORT

This report has been prepared for the General Committee of the Natal Joint Municipal Pension Fund (Retirement). Its contents and conclusions should not be used by any other party, as the purpose for which this report has been prepared may not be appropriate for other uses.

A third party who wishes to use the information, conclusions, recommendations or any other aspects of this report should contact the General Committee of the Natal Joint Municipal Pension Fund (Retirement) who will in turn obtain written comment from Arthur Els & Associates on whether this report is appropriate for the intended use.

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