



**NATAL JOINT MUNICIPAL PENSION
FUND (SUPERANNUATION) (12/8/553/2)
REPORT ON THE INTERIM ACTUARIAL
VALUATION AS AT 31 MARCH 2009**

Prepared by

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EXECUTIVE SUMMARY

1. We have performed a interim actuarial valuation of the Natal Joint Municipal Pension Fund (Superannuation) (the “Fund”) as at 31 March 2009 (“the valuation date”). A copy of this report need not be submitted to the Financial Services Board. The last statutory actuarial valuation of the Fund was performed as at 31 March 2008 and the report on that valuation was submitted to the Financial Services Board and accepted by them on 4 August 2009.
2. At the valuation date (and at the previous statutory valuation date) the Fund covered the following membership:

	31 March 2008		31 March 2009	
	Number	Annual salaries/ pension R’000	Number	Annual salaries/ pension R’000
Active members	6 229	723 903	5 872	760 325
Pensioners	4 436	132 213	4 669	144 068

3. The market value of the Fund’s assets was R 4 120 175 500 at the valuation date.
4. The valuation of the Fund has been performed on two alternative approaches:
 - 4.1 Firstly the “Discounted Cash Flow” (DCF) valuation basis has been used. Under this basis a value is placed on the liabilities of the Fund using long-term “best estimate” assumptions, details of which are given in the main body of the report. A value is placed on the assets of the Fund applying assumptions that are consistent with those used to value the liabilities, based on the expected future investment cash-flow.
 - 4.2 Secondly, a “Discontinuance Method Approach” (“DMA”) basis has been used. Under this basis the assets are taken at full market value and the rate of interest used for valuing the liabilities is based on the yield curve and the yield on inflation-linked stock at the valuation date. Details of the underlying assumptions are given in the main body of the report.
5. Both methods have advantages and disadvantages:
 - 5.1 The value placed on the assets under the DCF method can be quite different from the market value of the assets and thus this method can be seen as giving somewhat artificial results. However, it has the advantage that the results on this basis tend to be stable from valuation to valuation despite volatile investment conditions, because of the long term nature of the assumption made.

- 5.2 The alternative valuation basis gives results that can be volatile from valuation to valuation. However it has the advantage of appearing “realistic” because the assets are taken at market value and the assumptions are based on investment conditions prevailing at the valuation date.
6. 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. In this report we have used the results of the DCF valuation, because of its relative stability, in order to determine the Fund’s liabilities. The results of the DMA valuation are shown so that the Committee are aware of the position if the Fund were to be discontinued and the liabilities bought out in the market at the prevailing interest rates.
7. The DCF valuation is based on “best estimate” assumptions of the likely future experience of the Fund. Details are given in the main body of this report.
8. The value placed on the assets for purposes of the valuation were:

	DCF Method		DMA Method
	31.03.2008	31.03.2009	31.03.2009
	R'm	R'm	R'm
Assets at market value	4 451,2	4 120,2	4 120,2
Less: Investment Reserve	<u> -</u>	<u> 567,0</u>	<u> -</u>
Actuarial value of assets	<u>4 451,2</u>	<u>4 687,2</u>	<u>4 120,2</u>

It is noted that, for the DCF valuation at 31 March 2009, an actuarial adjustment of R 567 million was made to the market value of the assets so that assets have been taken at R 4 687,2 million for this method of valuation.

9. The valuation disclosed that, in respect of the liabilities for service to the valuation date, the overall Fund was 99,4% funded on the DCF method but only 73,4% funded on the DMA method, as follows:

	DCF Method		DMA Method
	31.03.2008	31.03.2009	31.03.2009
	R'm	R'm	R'm
<u>Total</u>			
Value of assets (Appendix 5)	4 451,2	4 687,2	4 120,2
Value of liabilities (Appendix 6)	(3 708,0)	(4 215,3)	(5 510,4)
Minimum pension increase Reserve	(538,9)	(398,5)	(0,0)
Risk Reserve	<u> (92,5)</u>	<u> (103,3)</u>	<u> (103,3)</u>
Surplus (shortfall)	<u> 111,8</u>	<u> (29,9)</u>	<u> (1 493,5)</u>
Funding level	102,6%	99,4%	73,4%

10. From the table on the previous page it is noted that, on the “best-estimate” (DCF) basis, the Fund’s financial position has deteriorated slightly from the previous statutory valuation. This is mainly due to poor performance in the investment markets, which we have, in part, mitigated through the actuarial adjustment to the assets. While the investment markets still remain volatile, the Fund’s investment performance has improved in the six months following the valuation date.
11. The DMA method of valuation discloses a substantial shortfall of R 1493,5 million. This indicates what the results would be if the Fund were to buy out its liabilities with an outside financial institution that invests only in risk-free investments. The calculation is based on investment conditions at the valuation date, so that the results can be very volatile from valuation to valuation. Nevertheless the DMA method of valuation quantifies the risks to which the Fund is exposed, as discussed in the main body of the report. For purposes of determining the Fund’s financial condition the results of the DCF method of valuation has been applied.
12. The Fund holds a Memorandum Account in respect of pensioners. The financial position in respect of pensioners and active members was as follows:

	DCF Method		DMA Method
	31.03.2008	31.03.2009	31.03.2009
	R’m	R’m	R’m
<u>Memorandum Account (Pensioners)*</u>			
Assets	1 958,2	2 110,2	1 855,0
Liabilities	(1 391,1)	(1 677,8)	(2 044,3)
Risk Reserve	<u>(28,1)</u>	<u>(33,9)</u>	<u>(33,9)</u>
Surplus (Shortfall)**	<u>538,9</u>	<u>398,5</u>	<u>(223,2)</u>
Funding level	138,0%	123,3%	89,3%
<u>Members</u>			
Balance of assets	2 493,0	2 577,0	2 265,2
Balance of liabilities***	(2 316,8)	(2 537,5)	(3 466,1)
Risk Reserve	<u>(64,4)</u>	<u>(69,4)</u>	<u>(69,4)</u>
Surplus (Shortfall)	<u>111,8</u>	<u>(29,9)</u>	<u>(1 270,3)</u>
Funding level	104,7%	98,8%	64,1%

* The operation of the Memorandum Account is explained in detail in a separate report. The liabilities for the pensioners include an allowance for the pension increase on 1 July 2009 and for payment of a thirteenth pension cheque in November 2009.

** This amount is retained to provide for minimum pension increases.

*** Including allowance for death in service pending spouse’s pension reserves.

13. The statutory valuation of the Fund at 31 March 2008 disclosed that the Fund was in a sound financial position. The Committee of Management previously levied a surcharge on the local authorities due to the shortfall in the Fund. At 31 March 2008 the Committee felt that the investment markets were too volatile and the future of the Fund too uncertain (following discussions of a possible merger with the Natal Joint Municipal Pension Fund (Retirement))

to cease the surcharge at that point. The surcharge of 7% of pensionable salaries has therefore been applied towards meeting the shortfall in respect of the liabilities during the valuation period.

14. This position will be reviewed at each future valuation to ensure that the Fund remains in a fully funded position.
15. The Committee of Management is taking steps to remove historical discrimination in the Natal Joint funds and there is a strong possibility that the Fund will be merged with the Natal Joint Municipal Pension Fund (Retirement) ("Retirement Fund"). If the merger takes place it will be necessary to levy a surcharge on the merged fund. In this light and due to the current shortfall on the DCF basis in the Fund, we recommend that the surcharge to the Fund continue to be paid until the outcome of the merger discussions is clear.
16. Contributions payable to the Fund at the valuation date, excluding any surcharge, expressed as a percentage of the pensionable salaries, are:

	%
by members	9,25
by local authorities	<u>18,00</u>
Total	<u>27,25</u>

17. The Employers are no longer permitting members to join the Fund, so that it is effectively closed to new members. This means that the average age of members will increase over time which, in turn, means that the required rate of contribution will also increase. Therefore the method used for calculating the required rate of contribution is the "Attained Age" method. The latter method determines a level rate of contribution required to be paid over the remaining service lifetime of the members. Further explanation is given in the main body of the report.
18. Based on the DCF method of valuation, the contribution rate payable at the valuation date was not sufficient to cover the contribution rate required for future service showing a small shortfall of 1,50% of pensionable salaries, as follows:

	31 March 2008	31 March 2009
	%	%
Method of valuation	Attained Age	Attained Age
Contribution rate currently payable	27,25	27,25
Contribution rate required for future service	<u>28,52</u>	<u>28,75</u>
Excess/(Shortfall)	<u>(1,27)</u>	<u>(1,50)</u>

19. The shortfall in contributions amounts to approximately R 11,4 million a year. We do not consider it necessary to adjust the Employers' rate of contribution at this stage. The matter of the shortfall in contributions will be addressed in the next interim valuation of the Fund as at 31 March 2010 at which time the outcome of the merger discussions should be known.

20. 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 2006. Over the three years since then, pensions were increased by 18,84% while CPI increased by 27,32%. An additional increase of 7,14% is therefore due to pensioners as the Memorandum Account is in surplus and such increase is affordable. 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 three years, an increase of 7,14% is payable, backdated to 1 July 2009. We recommend that pensions be increased as required by the Act, backdated to 1 July 2009. The cost of the increase was included in the liabilities for this valuation.
21. We have reconciled the valuation data with the financial statements and performed a number of reasonableness tests to verify the correctness of the data. I am satisfied with the accuracy of the data for purposes of this valuation.
22. 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. Furthermore the Fund holds a Risk Reserve to cushion it against fluctuations in mortality experience. I am satisfied that the self-reinsurance arrangement is appropriate for the Fund.
23. I am satisfied that the asset composition on the valuation date is appropriate to the nature of the liabilities.
24. At the valuation date:
 - 24.1 The Memorandum Account in respect of pensioners was fully funded;
 - 24.2 There was a small deficit in respect of active members, which is being met by the surcharge of 7% of pensionable salaries; and
 - 24.3 The required contribution rate for future service exceeded the contribution rate payable by 1,50% of pensionable salaries. This will be reviewed at the next interim actuarial valuation of the Fund as at 31 March 2010 when the outcome of a possible merger with the Natal Joint Municipal Pension Fund (Retirement) should be known with more certainty.

AR ELS (FASSA FIA)
VALUATOR

In my capacity as valuator to the Natal Joint Municipal Pension Fund (Superannuation) and as an employee of Arthur Els & Associates.

2 December 2009

**NATAL JOINT MUNICIPAL PENSION FUND (SUPERANNUATION)
REPORT ON THE INTERIM ACTUARIAL VALUATION OF THE FUND
AS AT 31 MARCH 2009**

INTRODUCTION

1. We have performed an interim actuarial valuation of the Natal Joint Municipal Pension Fund (Superannuation) (the “Fund”) as at 31 March 2009. A copy of this report need not be submitted to the Financial Services Board. The last statutory actuarial valuation of the Fund was performed as at 31 March 2008 and the report on that valuation was submitted to the Financial Services Board and accepted by them on 4 August 2009.
2. 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.
3. The Fund is registered in terms of the Pension Funds Act and approved by the Commissioner for Inland Revenue for Income Tax purposes.

PURPOSE OF THE VALUATION

4. 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.
5. This requires that the following be determined:
 - 5.1 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;
 - 5.2 whether the future contribution rates are sufficient to meet the future accrual of benefits stipulated in the Regulations of the Fund; and
 - 5.3 whether the contingency reserve accounts are appropriately funded; and
 - 5.4 whether the nature of the assets of the Fund is suitable to match the nature of the liabilities of the Fund.
6. At each statutory triennial valuation the reasons for the change in the surplus/shortfall is investigated. No such investigation is done for interim valuations.

CHANGES SINCE LAST STATUTORY VALUATION

7. The last statutory valuation was performed as at 31 March 2008. The period between this date and the valuation date (31 March 2009) is referred to as the “valuation period”.
8. Since the last statutory valuation, pensions in payment were increased as follows:

1 July 2008	5,74%
1 July 2009	8,64%

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.

9. 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 2006. Over the three years since then, pensions were increased by 18,84% while CPI increased by 27,32%. An additional increase of 7,14% is therefore due to pensioners as the Memorandum Account is in surplus and such increase is affordable. 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 three years, an increase of 7,14% is payable, backdated to 1 July 2009. We recommend that pensions be increased as required by the Act, backdated to 1 July 2009. The cost of the increase was included in the liabilities for this valuation.
10. In terms of Regulation 37A once-off thirteenth cheque payments are made in November of each year to pensioners if such payments are affordable. Over the valuation period and for a number of years up to the valuation date, thirteenth cheque payments have been made by the Committee. The Committee should be aware that this could create an expectation under pensioners that this will always be the case. If this is the intention of the Committee, it should be funded for specifically going forward.
11. The statutory valuation of the Fund at 31 March 2008 disclosed that the Fund was in a sound financial position. The Committee of Management previously levied a surcharge on the local authorities due to the shortfall in the Fund. At 31 March 2008 the Committee felt that the investment markets were too volatile and the future of the Fund too uncertain (following discussions of a possible merger with the Natal Joint Municipal Pension Fund (Retirement)) to cease the surcharge at that point. The surcharge of 7% of pensionable salaries has therefore been applied towards meeting the shortfall in respect of the liabilities during the valuation period.
12. Over the year to 31 March 2009, the Fund earned -7,3% per annum on its assets taken at market value and 5,5% if taken at actuarial value.

VALUATION PARTICULARS

13. Particulars were supplied of –
 - 13.1 audited financial statements (Appendix 1);
 - 13.2 the assets held by the Fund at the valuation date (Appendix 5);
 - 13.3 the members and pensioners of the Fund at the valuation date (Appendix 2); and
 - 13.4 the conditions governing the payment of benefits in terms of the Regulations of the Fund (Appendix 3).

14. 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 made some adjustments to the financial statements of 31 March 2009 (see Appendix 1). We are satisfied with the accuracy of the data for purposes of this valuation.

VALUATION METHOD

Service to the valuation date

15. The Fund's liabilities for members' service to the valuation date and for pensioners was calculated on two alternative valuation methods:
 - 15.1 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 for 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.

 - 15.2 A second valuation was then 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.

16. Each of the above methods has advantages and disadvantages.
 - 16.1 The value placed on the assets under the DCF method can be quite different from the market value of the assets and thus this method can be seen as giving somewhat

artificial results. However, it has the advantage that the results on this basis tend to be stable from valuation to valuation despite volatile investment conditions, because of the long-term nature of the assumptions made.

- 16.2 The alternative valuation method gives results that can be volatile from valuation to valuation. However it has the advantage of appearing “realistic” because the assets are taken at market value and the assumptions are based on investment conditions prevailing at the valuation date.
17. 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. In this report we have used the results of the DCF valuation, because of its relative stability, in order to determine the Fund’s liabilities. The results of the DMA valuation are 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 also quantifies the contingency reserves required to cushion the Fund against investment and other risks, as discussed later in this report.
18. We have been provided with information in respect of 745 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

19. We have been provided with details of 337 cases where a spouse and/or children’s pension is possibly payable following the death of a member in the service or of a pensioner. The calculated liability of the pensions is R 83,9 million. 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 38,3 million has been included in the Members’ liabilities. Another R 3,6 million has been included in the Pensioner liabilities. This matter will be monitored at each valuation and the figure of 50% adjusted appropriately. For the last statutory actuarial valuation an amount of R 37,9 million had been included in the Members’ liabilities.

Future service

20. The Employers no longer permit new employees 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 and for this valuation, the rate of contribution has been determined on the “Attained Age” method. The latter 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.

21. If the valuation assumptions are realized, 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 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. The position will be monitored at each valuation.
22. This basis is referred to as the Attained Age Method of Valuation.

Risk Reserve

23. The Fund self-insures its death and disability benefits and bears the longevity risk for its pensioners. It would be 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; based on the formulae set out in Circular PF117 a Risk Reserve totalling R 103,3 million is appropriate for the Fund and we recommend that this Reserve be retained.

VALUATION ASSUMPTIONS

Liabilities

24. At each statutory triennial valuation the Fund's actual experience is compared to the valuation assumptions and where necessary, the assumptions are revised. Such investigations are usually not done at interim valuations. However, based on our experience analysis of the decrements of the Fund over the past year, the assumptions used in the last statutory valuation still reflects the actual experience of the Fund.
25. For the DCF method of valuation the demographic assumptions used for the last statutory valuation were therefore used to determine the liabilities in the Fund. In addition a minimum value was placed on the actuarial reserve values for all members equal to the minimum benefit entitlement prescribed by legislation on the valuation date.
26. For the DMA method of valuation the assumptions were determined in the light of investment conditions prevailing at the valuation date. Details of the assumptions are given in Appendix 4.

ASSETS

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

27.1 For the DCF method of 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. On this basis the assets are valued at R4 687,2 million (Details are given in Appendix 5). The value placed on the assets for purposes of this valuation is higher than the market value and the Committee should be aware of the risks associated with this approach as highlighted in paragraph 13.

27.2 For the DMA method of valuation, assets were taken at market value.

27.3 The value placed on the assets for purposes of the valuation were:

	DCF Method		DMA Method
	31.03.2008	31.03.2009	31.03.2009
	R'm	R'm	R'm
Assets at market value	4 451,2	4 120,2	4 120,2
Less: Investment Reserve	<u>-</u>	<u>567,0</u>	<u>-</u>
Actuarial value of assets	<u>4 451,2</u>	<u>4 687,2</u>	<u>4 120,2</u>

27.4 It is noted that, for the DCF valuation at 31 March 2009, an actuarial adjustment of R 567 million was made to the market value of the assets so that assets have been taken at R 4 687,2 million for this method of valuation.

VALUATION RESULTS

Service to the valuation date

28. The valuation disclosed that, in respect of the liabilities for service to the valuation date, the overall Fund was 99,4% funded on the DCF method but only 73,4% funded on the DMA method, as follows:

	DCF Method		DMA Method
	31.03.2008	31.03.2009	31.03.2009
	R'm	R'm	R'm
<u>Total</u>			
Value of assets (Appendix 5)	4 451,2	4 687,2	4 120,2
Value of liabilities (Appendix 6)	(3 708,0)	(4 215,3)	(5 510,4)
Minimum pension increase Reserve	(538,9)	(398,5)	(0,0)
Risk Reserve	<u>(92,5)</u>	<u>(103,3)</u>	<u>(103,3)</u>
Surplus (shortfall)	<u>111,8</u>	<u>(29,9)</u>	<u>(1 493,5)</u>
Funding level	102,6%	99,4%	73,4%

29. From the table on the previous page it is noted that, on the “best-estimate” (DCF) basis, the Fund’s financial position has deteriorated slightly from the previous statutory valuation. This is mainly due to poor performance in the investment markets, which we have, in part, mitigated through the actuarial adjustment to the assets. While the investment markets still remain volatile, the Fund’s investment performance has improved in the six months following the valuation date.
30. The DMA method of valuation discloses a substantial shortfall of R 1 493,5 million. This is based on investment conditions at the valuation date, so that the results can be very volatile from valuation to valuation. Nevertheless the DMA method of valuation quantifies the risks to which the Fund is exposed. For purposes of determining the Fund’s financial condition the results of the DCF method of valuation has been applied.
31. The Fund holds a Memorandum Account in respect of pensioners. The financial position in respect of pensioners and active members was as follows:

	DCF Method		DMA Method
	31.03.2008	31.03.2009	31.03.2009
	R'm	R'm	R'm
<u>Memorandum Account (Pensioners)*</u>			
Assets	1 958,2	2 110,2	1 855,0
Liabilities	(1 391,1)	(1 677,8)	(2 044,3)
Risk Reserve	<u>(28,1)</u>	<u>(33,9)</u>	<u>(33,9)</u>
Surplus (Shortfall)**	<u>538,9</u>	<u>398,5</u>	<u>(223,2)</u>
Funding level	138,0%	123,3%	89,3%
<u>Members</u>			
Balance of assets	2 493,0	2 577,0	2 265,2
Balance of liabilities***	(2 316,8)	(2 537,5)	(3 466,1)
Risk Reserve	<u>(64,4)</u>	<u>(69,4)</u>	<u>(69,4)</u>
Surplus (Shortfall)	<u>111,8</u>	<u>(29,9)</u>	<u>(1 270,3)</u>
Funding level	104,7%	98,8%	64,1%

* The operation of the Memorandum Account is explained in detail in a separate report. The liabilities for the pensioners include an allowance for the pension increase on 1 July 2009 and for payment of a thirteenth pension cheque in November 2009.

** This amount is retained to provide for minimum pension increases.

*** Including allowance for death in service pending spouse’s pensions.

32. Over the year to 31 March 2009 the Fund earned lower than expected investment returns. The overall effect of these returns together with the minimum prescribed pension increase was that the funding level of the Memorandum Account has reduced from 138,0% at 31 March 2008 to 123,3% at 31 March 2009. The surplus is retained as a contingency reserve to provide for minimum pension increases as prescribed by legislation and incorporated in the Fund’s Regulations. The Memorandum Account has a deficit on the DMA method of

valuation, indicating that this Account will not be sufficient to provide for future pension increases if the underlying assets are invested in risk-free investments.

33. The Fund's financial condition in respect of contributory members has deteriorated slightly on the DCF method of valuation from a funding level of 102,6% to 99,4%. The primary reason for this is that the Fund earned lower than expected investment returns over the year to 31 March 2009. The effect of the poor investment return was mitigated to a small extent by the fact that the local authorities were paying a surcharge towards meeting the shortfall.
34. The statutory valuation of the Fund at 31 March 2008 disclosed that the Fund was in a sound financial position. The Committee of Management previously levied a surcharge on the local authorities due to the shortfall in the Fund. At 31 March 2008 the Committee felt that the investment markets were too volatile and the future of the Fund too uncertain (following discussions of a possible merger with the Natal Joint Municipal Pension Fund (Retirement)) to cease the surcharge at that point. The surcharge of 7% of pensionable salaries has therefore been applied towards meeting the shortfall in respect of the liabilities during the valuation period.
35. This position will be reviewed at each future valuation to ensure that the Fund remains in a fully funded position.

Contingency Reserves

36. The DCF method of valuation is based on best-estimate assumptions, including the assumption that the Fund's equity and property investment 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 could hold a "Solvency Reserve", determined according to Circular PF117 which was issued by the Financial Services Board in June 2004. In the case of the Fund the Solvency Reserve would amount to R 1 862,1 million, as follows.

	R'million
Liabilities per DMA method	5 510,4
Less: Liabilities per DCF method	(4 215,3)
Investment Reserve	<u>567,0</u>
	<u>1 862,1</u>

37. In view of the small surplus in the Fund, it is not possible to retain a Solvency Reserve. The Committee should be aware of the risks that this entails, as discussed in paragraph 14.
38. Circular PF117 also gives recognition to the mortality risks to which the Fund is exposed. This arises from pensioners living longer than allowed for in the valuation assumptions, and excessive deaths and disability claims where benefits are not reinsured with an insurer but are paid directly from a Fund. A fund may hold a "Risk Reserve" equivalent to 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 103,3 million calculated in accordance with paragraph 4.4 of Circular PF117, and we recommend that the Fund retains this reserve, comprising of R 33,9 million in respect of pensioners and R 69,4 million in respect of active members.

Future Service

39. Contributions payable to the Fund at the valuation date, not including the surcharge, expressed as a percentage of the pensionable salaries, are reflected below:

	%
by members	9,25
by the local authorities	<u>18,00</u>
Total	<u>27,25</u>

40. The total required contribution rate for future service is 28,75% of pensionable salaries. This has been calculated on the DCF basis in order to arrive at a relatively stable long-term rate of contribution, using the Attained Age method of valuation as discussed in paragraph 17 above.

41. Based on the DCF method of valuation, the contribution rate payable at the valuation date was not sufficient to cover the contribution rate required for future service resulting in a small shortfall of 1,50% of pensionable salaries, as follows:

	31 March 2008	31 March 2009
	%	%
Method of valuation	Attained Age	Attained Age
Contribution rate currently payable	27,25	27,25
Contribution rate required for future service	<u>28,52</u>	<u>28,75</u>
Excess/(Shortfall)	<u>(1,27)</u>	<u>(1,50)</u>

42. The increase in the required contribution rate is mainly due to larger than expected salary increases. The shortfall in contributions amounts to approximately R 11,4 million a year. We do not consider it necessary to adjust the Employers' rate of contribution at this stage as there is a strong possibility that the Fund will be merged with the Natal Joint Municipal Pension Fund (Retirement) in the near future. This fund has some 4 300 active members that will affect the age profile of the merged fund substantially. The matter of the shortfall in contributions will be addressed in the next interim valuation of the Fund as at 31 March 2010 at which time the outcome of the merger discussions should be known.

OUTLOOK

Investments

43. Over the year to 31 March 2009, the Fund earned -7,3% per annum on its assets taken at market value and 5,5% if taken at actuarial value. This is smaller than the 10% expected on the actuarial basis of valuation. Subsequent to the valuation date, the investment markets have performed well with the assets of the fund now exceeding R4,6 billion. However, the market is still very volatile and fluctuations in asset values can be expected.
44. It is expected that the investment return of the Fund's assets will, over a reasonably long period, be greater than that required to meet the increase in liabilities as a result of reasonable salary increases. If it does occur that investment earnings continue to be lower than required

to support the increase in liabilities as a result of salary increases, the local authorities might need to be called upon to increase their contributions to the Fund.

45. Increases to pension at the rate of about 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

46. From the data we note that the average salary increase over the year was 12,2%, which is higher than inflation over that period. This has contributed towards the deficit in the Fund.
47. The Regulations of the Fund have been amended so that the Committee of Management 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. This is effective from 1 July 2004. An investigation into the surcharges due in this regard was done as at 31 March 2006. Another investigation will be performed as at 31 March 2009.

Withdrawals

48. Prior to promulgation of the Pension Funds Second Amendment Act, 2001, there were profits in the event that the number of actual withdrawals exceeded the number allowed for in the valuation assumptions. However, the introduction of the prescribed minimum benefits means that such profits will be immaterial in future.

New members and transfers

49. 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.

Surcharge

50. The committee of management is taking steps to remove historical discrimination in the Natal Joint funds and there is a strong possibility that the Fund will be merged with the Natal Joint Municipal Pension Fund (Retirement) ("Retirement Fund"). If the merger takes place it will be necessary to levy a surcharge on the merged fund. In this light we recommend that the surcharge to the Fund continue to be paid until the outcome of the merger discussions is known.

CERTIFICATE

51. We have reconciled the valuation data with the financial statements and performed a number of reasonableness tests to verify the correctness of the data. I am satisfied with the accuracy of the data for purposes of this valuation.
52. I am satisfied that the asset composition on the valuation date is appropriate to the nature of the liabilities.
53. 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 the self-reinsurance arrangement is appropriate for the Fund.
54. At the valuation date:
 - 54.1 The Memorandum Account in respect of pensioners was fully funded;
 - 54.2 There was a small deficit in respect of active members, which is being met by the surcharge of 7% of pensionable salaries; and
 - 54.3 The required contribution rate for future service exceeded the contribution rate payable by 1,50% of pensionable salaries. This will be reviewed at the next interim actuarial valuation of the Fund as at 31 March 2010 when the outcome of a possible merger with the Natal Joint Municipal Pension Fund (Retirement) should be known with more certainty.

AR ELS (FASSA FIA)
VALUATOR

In my capacity as valuator to the Natal Joint Municipal Pension Fund (Superannuation) and as an employee of Arthur Els & Associates.

2 December 2009

F:\Natal Joint Superannuation Fund\2009\Valuations\Report\Report of NJMPF (Superannuation) on the interim actuarial valuation as at 31 March 2009 - 02.12.2009.doc

ACCOUNTS

- 1.1 In our valuation, investigations showed that the provision for transfers receivable and payable shown on the audited financial statements is incorrect. We have therefore adjusted the audited financial statements downwards by R 2,97 million to allow for the correct values inclusive of interest to valuation date. Taking into account the revised figures, 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 2008 (market value)			4 451 207
Adjustments			(622)
Income			543 661
Contributions:		259 237	
- Members	69 980		
- Surcharge	52 991		
- Local authorities	136 266		
Transfers in		9 625	
Unclaimed benefits		(1 002)	
Investment returns		275 801	
Expenditure			(298 524)
Lump sum benefits:		(129 024)	
- Disability	-		
- Withdrawal	(49 227)		
- Retirement	(52 431)		
- Retrenchment	(834)		
- Death	(11 000)		
- Transfer to other funds	(15 532)		
Pensions		(138 562)	
Investment managers' fees		(22 212)	
Administration expenses		(10 004)	
Tax		1 278	
Net adjustment to fair value of assets			(575 547)
Amount of Fund as at 31 March 2009 (market value)			<u>4 120 175</u>

MEMBERSHIP STATISTICS

A. MEMBERSHIP BUILD-UP

1. Active Members

Members at previous statutory valuation date	6 229
New members and transfers in	94
Exits	
Retirement	(105)
Ill-health	(31)
Death	(69)
Resignation	(168)
Dismissal	(27)
Retrenchment	(1)
Deferred	(2)
Full transfer	(46)
Adjustments	(2)
Members at current valuation date	<u>5 872</u>

2. Pensioners

	Former members	Spouses	Deferred	Children	Total
Pensioners at previous valuation date	1 912	1 278	116	1 130	4 436
Adjustments and cessations	17	26	(9)	27	61
New pensioners	117	76	3	89	285
Deaths	(77)	(33)	(2)	(1)	(113)
Pensioners at current valuation date	<u>1 969</u>	<u>1 347</u>	<u>108</u>	<u>1 245</u>	<u>4 669</u>

3. Deferred Pensioners

The above summary includes 108 deferred pensioners (78 males and 30 females). By "deferred" is meant a pensioner whose pension is payable by the employing local authority until the pensioner attains the pension age.

B. VALUATION DATA : ACTIVE MEMBERS**1. Analysis**

Age nearest birthday	Number	Annual Pensionable salaries R	Contributions without interest R	Average pensionable service years
<=22	2	187 957	30 817	2
23 - 27	76	6 781 152	1 627 519	3
28 - 32	427	46 316 568	17 691 529	6
33 - 37	898	104 564 950	51 048 091	9
38 - 42	1 004	125 862 704	71 152 537	12
43 - 47	1 016	136 043 760	84 541 004	14
48 - 52	931	124 895 994	84 893 478	16
53 - 57	793	111 739 768	79 691 035	19
58 - 62	572	79 638 905	60 066 039	20
63+	153	24 293 120	18 418 746	20
Total	5 872	760 324 878	469 160 795	14

2. Statistics

	Previous Valuation Date	Current Valuation Date
(i) Females		
Number of members	1 875	1 752
Average age (years)	42,7	44,5
Annual pensionable salaries		
total (R'000)	209 221	219 618
average (R)	111 584	125 352
(ii) Males		
Number of members	4 354	4 120
Average age (years)	44,1	46,7
Annual pensionable salaries		
total (R'000)	514 682	540 707
average (R)	118 209	131 240

C. VALUATION DATA : PENSIONERS

1. Summary

	Current Valuation Date
(iii) Former members	
Number of pensioners	1 969
Average age (years)	68,3
Annual pension	
total (R'000)	90 703
average (R)	46 066
(iv) Spouses	
Number of pensioners	1 347
Average age (years)	62,6
Annual pension	
total (R'000)	39 165
average (R)	29 076
(v) Children	
Number of pensioners	1 245
Average age (years)	19,0
Annual pension	
total (R'000)	9 262
average (R)	7 439
(vi) Deferred pensioners	
Number of pensioners	108
Average age (years)	51,8
Annual pension	
total (R'000)	4 938
average (R)	45 722

2. Further analysis

Age nearest birthday	Former Members		Spouses	
	Number	Annual pension R	Number	Annual pension R
<28	0	0	12	380 739
28 – 32	1	14 900	26	949 454
33 – 37	10	342 736	71	2 188 736
38 – 42	21	994 033	90	2 730 895
43 – 47	31	1 214 554	117	3 590 698
48 – 52	60	2 372 499	98	2 989 148
53 – 57	97	4 171 295	125	3 551 656
58 – 62	275	15 400 828	125	3 439 027
63 – 67	430	20 864 642	149	4 268 966
68 – 72	411	18 260 339	138	3 570 747
73 – 77	270	10 767 572	125	3 318 083
78 – 82	203	9 784 871	125	3 868 177
83 – 87	123	5 507 706	83	2 532 653
88 – 92	32	897 594	51	1 607 024
93 – 97	3	102 334	10	166 808
>97	2	7 569	2	12 124
Totals	1 969	90 703 472	1 347	39 164 933

The above summary includes cases where the pension has been ceased pending receipt of evidence of survival, and Pending Pensioners and Spouses.

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 made some adjustments to the financial statements of 31 March 2009 (see Appendix 1). We are satisfied with the accuracy of the data for purposes of this valuation.

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

BENEFITS AND CONDITIONS

- 3.1 The principal benefits and conditions of the Fund are described below. Special conditions apply to certain classes of members and they were allowed for. Benefits other than those shown may be payable under certain circumstances, but it was not considered appropriate to make direct allowance for them in the valuation.

Member's contributions	9,25% of pensionable salaries
Pension age	65 years
Optional retiring date	The date on which a member attains age 60 years
Final average salaries	Average annual pensionable salaries during the last year of service
Bonus service included in continuous service	One year for twenty completed years of continuous service and one year for every five completed years of continuous service thereafter
Pension on retirement at pension age or at optional retiring date	2,2% of final average salaries per year of continuous service
Lump sum on retirement at pension age or at optional retiring date	8,25% 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 (with minimum continuous service equal to one-half of the continuous service that the member would have had 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 (with minimum continuous service equal to one-half of the continuous service that the member would have had at the pension age)
Lump sum on retirement because of ill health (less than ten years' continuous service)	Greater of two times member's contributions and resignation benefit
Spouse's pension on death in service	1,2% of final average salaries per year of continuous service that the member would have had at the pension age

Spouse's pension on death of pensioner	1,2% of final average salaries per year of continuous service
Lump sum on death in service	10,75% of final average salaries per year of continuous service (minimum of one-quarter of annual pensionable salaries)
Lump sum on death of pensioner within five years of retirement	25% of the balance of five years' pension payments
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 20 years; 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.

VALUATION ASSUMPTIONS

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 costs 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 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 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).

Allowing for the Fund's relatively large holdings of equities, it was assumed that:

- 5% of the assets generate cash returns of, say, 6,5% p.a.;
- 25% of the assets are invested in Fixed Interest stock yielding, say, 8,5% p.a.;
- 5% of the assets are invested in property earning 9,5% p.a.;
- 65% of the assets are invested in equities with an equity 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 9,9% for the active members. We have accordingly used a long term investment return assumption of 10%.

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

We have therefore assumed that future investment returns will exceed future salary inflation by 3,5% p.a. This is consistent with the previous statutory actuarial valuation.

2.2 DMA Method

At the valuation date the yield on government stocks varied from 6,89% at the short-terms and 8,67% 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 8,67% and that on inflation-linked bonds was 2,76%. The difference of 5,91% (8,7% less 2,67%) is the inflation implied by the market at the valuation date. We have therefore assumed an underlying rate of inflation of 5,91% 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 6,5% pa (6,5% previously) (which must be read in conjunction with the assumed rate of investment return).

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 0,5% p.a. above the assumed rate of inflation of 5,91%, i.e. at 6,41% p.a.

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

5. Pension increases

It has been, and continues to be, the policy of the Committee to increase pensions at the rate of inflation provided this is affordable, based on investment returns in excess of 5,5% a year. The increases are subject to a minimum of 75% and a maximum of 100% of Core inflation.

The post retirement interest rate was set at 5,5%. This rate is expected to allow for pension increases of approximately 75% of inflation.

6. Mortality

The mortality assumptions used for the last statutory valuation were retained for this valuation.

Examples of the mortality rates used are as follows:

Age	<u>Active members</u>		Age	<u>Pensioners</u>	
	Males %	Females %		Males %	Females %
20	0,2	0,2	60	1,76	0,77
25	0,3	0,2	65	2,73	1,33
30	0,5	0,3	70	4,21	2,27
35	0,7	0,4	75	6,43	3,85
40	1,0	0,5	80	9,71	6,45
45	1,3	0,6	85	14,41	10,62
50	2,0	0,9	90	20,86	17,00
55	3,0	1,3			
60	4,4	1,9			

The pensioner mortality assumption is equal to the PA(90) mortality table, with the age rated down by 1 year 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. The rates reflected in the table above is the PA(90) mortality rates less one year with no improvement.

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 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.

The withdrawal rates for the previous statutory valuation were retained for this valuation.

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	-	-
65	-	-

8. Retirement due to poor health

We have allowed for members to retire on account of ill-health prior to attaining the pensionable age. We have retained the assumptions used for the last statutory valuation.

Examples of percentages of ill-health retirements expected at the respective ages are as follows:

Age	Males %	Females %
20	-	-
25	-	-
30	0,1	0,1
35	0,3	0,3
40	0,4	0,4
45	0,5	0,6
50	1,2	1,2
55	2,4	2,1
60	4,4	3,1
65		

9. Early retirement

Members are able to retire from age 60 with no reduction in benefits on account of early retirement. Based on the actual experience of the Fund, it was decided to assume that members would retire early as follows:

Age	% of members retiring
To 59	Nil
60	10
61	5
62	5
63	5
64	5
65	100

10. Family statistics

We assumed that on average a husband will be 5 years older than his wife. We have also assumed that 100% of the male members and 50% of the female members are married.

11. Expenses

Expenses of administration are paid by the Fund and have therefore been included in the required contribution rate. Based on actual costs over the valuation period, we have allowed for expenses of 1,25% of pensionable salaries.

In the case of current pensioners an allowance was made for expenses incurred in the payment of pensions, in both the DCF valuation and the DMA valuation. We have allowed for expenses to be incurred in the payment of pensions, at R 350 per pensioner per annum, increasing in future at the same rate as the pensions. This is the level of expense that would apply if pensions were paid by an outside administrator.

12. 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.

13. Prescribed minimum benefits

For each member the actuarial reserve was compared to the value of the minimum benefit that would be payable at the valuation 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:

- 13.1 The deferred pension was based on service accrued to the valuation date.
- 13.2 The rate of discount was 4,13%.
- 13.3 The pension will be payable from the member's normal retirement age.
- 13.4 No decrements are applied in placing a value on the deferred pension, until retirement at the normal retirement age.
- 13.5 Post-retirement mortality and allowance for pension increases after retirement are set out in paragraphs 5 and 6 above.

VALUATION OF ASSETS

A. ASSET COMPOSITION

The total market value of the assets was R 4 120 175 500, comprised as follows:

	R'000
Equities	2 936 553
Interest bearing stock	488 520
Cash and deposits	712 021
Fixed assets	954
Net current assets	<u>(17 872)</u>
Total at 31 March 2008	<u><u>4 120 176</u></u>

B. ASSET VALUATION BASIS – DCF METHOD OF VALUATION

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.
2. We valued the assets 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 4,82% at the valuation date. Our valuation rate of interest is 10,0% p.a. and due to the depressed markets we assumed future dividend growth will be limited to inflation in the long term. We therefore assumed that the dividend yield on the Fund's equities was approximately 4% p.a. Equities were thus valued at 120% of market value.

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

Property was valued at 90% of market value.

Cash and net current assets were taken at face value.

4. It was assumed that the mix of investments in other funds was similar to the mix in the balance of the Fund.
5. The actuarial value of the assets amounted to R4 687,2 million at the valuation date, which was 114% of market value.

VALUATION OF LIABILITIES

A. TOTAL OF 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 4 215 357, as follows:

	DCF Method		DMA Method
	31 March 2008	31 March 2009	31 March 2009
	R'000	R'000	R'000
Members	2 316 891	2 537 532	3 466 132
Pensioners	909 976	999 232	1 210 680
Spouses	315 138	359 771	444 515
Children	21 686	24 671	26 633
Deferred	27 952	28 744	41 474
Suspended/Pending Reserve	23 319	29 714	36 314
Increase in pensions*	69 696	210 761	256 744
13 th cheque November 2009	10 495	11 472	11 472
Administration costs	<u>12 816</u>	<u>13 460</u>	<u>16 423</u>
Past-service liabilities	<u>3 707 969</u>	<u>4 215 357</u>	<u>5 510 387</u>

* From 1 July of year of valuation, pro-rata for pensions in payment for less than a year at the valuation date. For the current valuation period this also includes the catch-up increase for the three years to the valuation date to ensure pension increases are equal to the minimum prescribed increase in the Pension Funds Act.

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	27,50
Administration expenses	<u>1,25</u>
	<u>28,75</u>

B. DETAILS OF LIABILITIES AT 31.3.2008**Service to the valuation date**

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

	DCF Method	DMA Method
	Total	Total
	R'000	R'000
Active members		
Benefits on :		
retirement	1 162 210	1 627 640
death	602 531	812 417
ill-health	530 691	723 916
withdrawal	119 541	127 775
Past bonus service	72 710	94 889
Minimum benefits	11 516	28 952
Death in service pending spouse's pensions	<u>38 333</u>	<u>50 543</u>
Sub-total (members)	<u>2 537 532</u>	<u>3 466 132</u>
Pensioners		
Formerly active members	999 232	1 210 680
Spouses	359 771	444 515
Children	24 671	26 633
Suspended/Pending Reserve	29 714	36 314
Deferred pensioners	28 744	41 474
Pension increase 1 July 2009	210 761	256 744
13 th pension cheque November 2009	11 472	11 472
Administration cost	<u>13 460</u>	<u>16 423</u>
Sub-total (pensioners)	<u>1 677 825</u>	<u>2 044 255</u>
Total liabilities	<u>4 215 357</u>	<u>5 510 387</u>

Future service

6.5 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:

	% of pensionable salaries
Retirement	12,55
Disability	4,99
Death in service	6,63
Withdrawal	1,60
Future bonus service	1,73
Administration costs	<u>1,25</u>
Total	28,75
Current contributions by members	<u>(9,25)</u>
Required employer contribution rate	<u>19,50</u>

LIABILITIES FOR MEMBERS FOR SERVICE TO VALUATION DATE

Age nearest birthday	Number	Annual Pensionable salaries R'000	Liabilities
Females			
<=22	0	0	0
23 - 27	27	2 651	993
28 - 32	164	19 282	12 815
33 - 37	307	38 714	43 972
38 - 42	294	35 414	56 176
43 - 47	295	39 065	87 896
48 - 52	274	35 585	110 051
53 - 57	199	24 086	91 674
58 - 62	148	19 253	94 740
63+	<u>44</u>	<u>5 569</u>	<u>31 750</u>
Total	<u>1 752</u>	<u>219 618</u>	<u>530 068</u>
Males			
<=22	2	188	42
23 - 27	49	4 130	1 582
28 - 32	263	27 035	23 819
33 - 37	591	65 851	94 009
38 - 42	710	90 449	197 249
43 - 47	721	96 978	297 689
48 - 52	657	89 311	361 348
53 - 57	594	87 654	469 537
58 - 62	424	60 386	385 600
63+	<u>109</u>	<u>18 725</u>	<u>126 741</u>
Total	<u>4 120</u>	<u>540 707</u>	<u>1 957 615</u>
Grand total	<u>5 872</u>	<u>760 325</u>	<u>2 487 684</u>

The above summary excludes the liability for Prescribed Minimum Benefits

LIABILITIES FOR PENSIONERS

Age nearest birthday	Number of Pensioners	Annual Pension R'000	Liabilities R'000
Females			
< 22	0	0	0
23 - 27	0	0	0
28 - 32	1	15	258
33 - 37	3	113	1 916
38 - 42	6	251	4 208
43 - 47	8	204	3 357
48 - 52	12	351	5 521
53 - 57	31	1 229	17 730
58 - 62	82	3 128	42 126
63+	<u>472</u>	<u>13 013</u>	<u>128 455</u>
Total	<u>615</u>	<u>18 305</u>	<u>203 569</u>
Males			
< 22	0	0	0
23 - 27	0	0	0
28 - 32	0	0	0
33 - 37	7	230	3 908
38 - 42	14	716	11 746
43 - 47	22	987	16 212
48 - 52	47	1 994	31 151
53 - 57	63	2 802	41 240
58 - 62	186	12 096	160 500
63+	<u>948</u>	<u>51 958</u>	<u>530 905</u>
Total	<u>1 287</u>	<u>70 783</u>	<u>795 662</u>
Grand total	<u>1 902</u>	<u>89 088</u>	<u>999 232</u>

The above summary excludes cases where pension payments have been ceased, and also excludes the value of the lump sum payable on the death of a pensioner who dies within five years of retirement.

LIABILITIES FOR DEFERRED PENSIONERS

Age nearest birthday	Number of Deferreds	Annual Pension R'000	Liabilities R'000
Females			
< 22	0	0	0
23 - 27	0	0	0
28 - 32	0	0	0
33 - 37	1	12	31
38 - 42	6	119	351
43 - 47	10	212	786
48 - 52	6	216	1 105
53 - 57	1	39	263
58 - 62	5	122	1 097
63+	<u>1</u>	<u>29</u>	<u>351</u>
Total	<u>30</u>	<u>750</u>	<u>3 985</u>
Males			
< 22	0	0	0
23 - 27	0	0	0
28 - 32	1	8	11
33 - 37	2	49	100
38 - 42	8	186	503
43 - 47	4	204	675
48 - 52	11	480	2 132
53 - 57	23	1 479	8 867
58 - 62	20	1 250	10 066
63+	<u>5</u>	<u>218</u>	<u>2 406</u>
Total	<u>74</u>	<u>3 872</u>	<u>24 759</u>
Grand total	<u>104</u>	<u>4 623</u>	<u>28 744</u>

The above summary excludes cases where pension payments have been ceased.

APPENDIX 6D

LIABILITIES FOR SPOUSES

Age nearest birthday	Number of Spouses	Annual Pension R'000	Liabilities R'000
Females			
< 22	0	0	0
23 - 27	2	123	2 155
28 - 32	21	753	12 981
33 - 37	34	1 136	19 158
38 - 42	41	1 404	22 959
43 - 47	67	2 279	35 874
48 - 52	65	2 111	31 454
53 - 57	97	2 881	40 038
58 - 62	107	3 019	38 641
63+	<u>604</u>	<u>17 669</u>	<u>144 544</u>
Total	<u>1 038</u>	<u>31 376</u>	<u>347 805</u>
Males			
< 22	0	0	0
23 - 27	0	0	0
28 - 32	0	0	0
33 - 37	1	42	677
38 - 42	4	147	2 281
43 - 47	6	191	2 801
48 - 52	4	97	1 340
53 - 57	1	19	235
58 - 62	7	156	1 737
63+	<u>18</u>	<u>393</u>	<u>2 894</u>
Total	<u>41</u>	<u>1 044</u>	<u>11 966</u>
Grand total	<u>1 079</u>	<u>32 421</u>	<u>359 770</u>

The above summary excludes Pending pensions and cases where pension payments have been ceased.

LIMITATIONS TO USE OF REPORT

This report has been prepared for the Committee of Management of the Natal Joint Municipal Pension Fund (Superannuation). 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 Committee of Management of the Natal Joint Municipal Pension Fund (Superannuation) 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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