



**NATAL JOINT MUNICIPAL PENSION
FUND (SUPERANNUATION) (12/8/553/2)
REPORT ON THE STATUTORY ACTUARIAL
VALUATION AS AT 31 MARCH 2008**

Prepared by

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25 November 2008

**NATAL JOINT MUNICIPAL PENSION FUND (SUPERANNUATION)
REPORT ON THE STATUTORY ACTUARIAL VALUATION AS AT
31 MARCH 2008**

CONTENTS

Subject	Paragraphs	Page
Executive Summary	1 – 22	3 – 7
Main Report		
Introduction	1 – 2	8
Purpose of the valuation	3 – 5	8
Changes since last full valuation	6 – 8	9
Valuation particulars	9 – 10	9
Valuation method	11 – 19	10 – 12
Valuation Assumptions	20 – 23	12
Assets	24	12 – 13
Valuation results	25 – 38	13 – 16
Outlook	39 – 47	16 – 17
Certificate	48 – 50	18

APPENDICES

Subject	Page
1 Accounts	19
2 Membership statistics	20 – 24
3 Benefits and conditions	25 – 26
4 Valuation assumptions	27 – 33
5 Valuation of assets	34
6 Valuation of liabilities	35 – 40
7 Change in Financial position	41 – 42
8 Limitation to use of report	43

EXECUTIVE SUMMARY

1. We have performed a statutory actuarial valuation of the Natal Joint Municipal Pension Fund (Superannuation) (the “Fund”) as at 31 March 2008. A copy of this report must be submitted to the Financial Services Board within 12 months of the valuation date. The last statutory actuarial valuation of the Fund was performed as at 31 March 2005 and the report on that valuation was submitted to the Financial Services Board.
2. At the valuation date (and at the previous statutory valuation date) the Fund covered the following membership:

	31 March 2005		31 March 2008	
	Number	Annual salaries/pension R'000	Number	Annual salaries/pension R'000
Active members	7 114	646 255	6 229	723 903
Pensioners	3 588	94 756	4 436	132 213

3. The market value of the Fund’s assets was R 4 451 207 500 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. We have reviewed the assumptions used for the last valuation and have changed those where appropriate. 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
	31.03.2005	31.03.2008	31.03.2008
	R'm	R'm	R'm
Assets at market value	2 514,5	4 451,2	4 451,2
Less: Investment Reserve	<u>135,6</u>	<u>-</u>	<u>-</u>
Actuarial value of assets	<u>2 378,9</u>	<u>4 451,2</u>	<u>4 451,2</u>

It is noted that, for the DCF valuation at 31 March 2008, the Investment Reserve has been taken at nil, so that assets have been taken at market value 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 102,6% funded on the DCF method but only 86,1% funded on the DMA method, as follows:

	DCF Method		DMA Method
	31.03.2005	31.03.2008	31.03.2008
	R'm	R'm	R'm
<u>Total</u>			
Value of assets (Appendix 5)	2 378,9	4 451,2	4 451,2
Value of liabilities (Appendix 6)	(2 598,4)	(3 708,0)	(4 858,0)
Minimum pension increase Reserve	(5,2)	(538,9)	(219,7)
Risk Reserve	<u>-</u>	<u>(92,5)</u>	<u>(92,5)</u>
Surplus (shortfall)	<u>(224,7)</u>	<u>111,8</u>	<u>(719,0)</u>
Funding level	91,4%	102,6%	86,1%

10. From the table on the previous page it is noted that, on the “best-estimate” (DCF) basis, the Fund’s financial position has improved to such an extent that it now shows a surplus of R 111,8 million.
11. The DMA method of valuation still discloses a substantial shortfall of R 719 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. 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, 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 have 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
	31.03.2005	31.03.2008	31.03.2008
	R’000	R’m	R’m
<u>Memorandum Account (Pensioners)*</u>			
Assets	1 023,0	1 958,2	1 958,2
Liabilities	(1 017,8)	(1 391,1)	(1 710,3)
Risk Reserve	-	(28,1)	(28,1)
Surplus (Shortfall)**	<u>5,2</u>	<u>538,9</u>	<u>219,7</u>
Funding level	100,5%	138,0%	112,6%
<u>Members</u>			
Balance of assets	1 355,9	2 493,0	2 493,0
Balance of liabilities***	(1 580,6)	(2 316,8)	(3 147,6)
Risk Reserve	-	(64,4)	(64,4)
Surplus (Shortfall)	<u>(224,7)</u>	<u>111,8</u>	<u>(719,0)</u>
Funding level	85,8%	104,7%	77,6%

* 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 2008 and for payment of a thirteenth pension cheque in November 2008.

** This amount is retained in the Contingency Reserve to provide for minimum pension increases.

*** Including allowance for Death in service spouse’s pension Reserve.

13. The statutory valuation of the Fund at 31 March 2005 disclosed that the Fund was in a shortfall position and therefore the Committee of Management levied a surcharge on the local authorities. The surcharge was increased from 6% to 7% effective 1 July 2007 and has been applied towards meeting the shortfall in respect of the liabilities.
14. The Fund’s financial condition has, however, improved to such an extent that the fund is solvent on the DCF method of valuation with a funding level of 102,6%. The primary reasons for this are that the Fund earned 20,3% p.a. over the three years to 31 March 2008 and that the local authorities were paying a surcharge towards meeting the shortfall.

15. Because the Fund showed a surplus as at 31 March 2008, the surcharge could be discontinued. This position will be reviewed at each future valuation to ensure that the Fund does not fall back into a shortfall position as a result of large salary increases. The regulations of the Fund have been amended to allow a charge to be levied on those employers who grant excessive salary increases. This will assist in keeping the Fund in a sound financial condition.
16. 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 clear.
17. 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>

18. 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.
19. 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 1,27% of pensionable salaries, as follows:

	31 March 2005	31 March 2008
	%	%
Method of valuation	Attained Age	Attained Age
Contribution rate currently payable	27,25	27,25
Contribution rate required for future service	<u>26,25</u>	<u>28,52</u>
Excess/(Shortfall)	<u>1,00</u>	<u>(1,27)</u>

20. The shortfall in contributions amounts to approximately R 9,2 million a year. We do not consider it necessary to adjust the Employers' rate of contribution at this stage, and that the shortfall be met out of the surplus in the Fund. The matter of the shortfall in contributions will be addressed in the next interim valuation of the Fund as at 31 March 2009 at which time the outcome of the merger discussions will be known.

21. 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.
22. I am satisfied that the asset composition on the valuation date is appropriate to the nature of the liabilities.
23. At the valuation date:
 - 23.1 The Fund was fully funded and financially sound on the DCF method;
 - 23.2 The required contribution rate for future service exceeded the contribution rate payable by 1,27% of pensionable salaries. This will be reviewed at the next interim actuarial valuation of the Fund as at 31 March 2009 when the outcome of a possible merger with the Natal Joint Municipal Pension Fund (Retirement) will be known with more certainty.

**AR ELS (FIA CFP)
VALUATOR**

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

25 November 2008

**NATAL JOINT MUNICIPAL PENSION FUND (SUPERANNUATION)
REPORT ON THE STATUTORY ACTUARIAL VALUATION OF THE FUND
AS AT 31 March 2008**

INTRODUCTION

1. We have performed a statutory actuarial valuation of the Natal Joint Municipal Pension Fund (Superannuation) (the “Fund”) as at 31 March 2008. A copy of this report must be submitted to the Financial Services Board. The last statutory actuarial valuation of the Fund was performed as at 31 March 2005 and the report on that valuation was submitted to the Financial Services Board.
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.

PURPOSE OF THE VALUATION

3. The purpose of the valuation is to consider the financial soundness of the Fund.
4. This requires that the following be determined:
 - 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;
 - whether the future contribution rates are sufficient to meet the future accrual of benefits stipulated in the Regulations of the Fund; and
 - whether the contingency reserve accounts are appropriately funded; and
 - whether the nature of the assets of the Fund is suitable to match the nature of the liabilities of the Fund.
5. At each statutory triennial valuation the reasons for the change in the surplus/shortfall is investigated. An analysis of surplus can be found in Appendix 7.

CHANGES SINCE LAST STATUTORY VALUATION

6. The last statutory valuation was performed as at 31 March 2005. The period between this date and the valuation date (31 March 2008) is referred to as the “valuation period”.
7. Since the last statutory valuation, pensions in payment were increased as follows:

1 July 2005	3,48%
1 July 2006	3,98%
1 July 2007	3,45%
1 July 2008	5,74%

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.

8. The valuation of the Fund at 31 March 2005 disclosed that the Fund was in a shortfall position and therefore the Committee of Management levied a surcharge on the local authorities. The surcharge was increased from 6% to 7% effective 1 July 2007 and has been applied towards meeting the shortfall in respect of the members’ liabilities.

VALUATION PARTICULARS

9. Particulars were supplied 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).
10. 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 2008 (see Appendix 1). We are satisfied with the accuracy of the data for purposes of this valuation.

VALUATION METHOD

Service to the valuation date

11. The Fund's liabilities for members' service to the valuation date and for pensioners was calculated on two alternative valuation methods:
 - 11.1 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.
 - 11.2 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.
12. Each of the above methods has advantages and disadvantages.
 - 12.1 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.
 - 12.2 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.
13. 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. The DMA valuation also quantifies the contingency reserves required to cushion the Fund against investment and other risks, as discussed later in this report.

14. We have been provided with information in respect of 669 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

The amount so determined is kept as a contingency reserve in the Suspended pensioner Reserve.

15. We have been provided with details of 344 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 value of the pensions is R 81,4 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 37,9 million has been included in the Members' liabilities as a contingency reserve in the Death in service spouse's pension Reserve. Another R 2,7 million has been included in the Pensioner liabilities as a contingency reserve. 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 17,8 million had been included in the Members' liabilities.

Future service

16. 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.
17. 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.
18. This basis is referred to as the Attained Age Method of Valuation.

Risk Reserve

19. 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 92,5 million is appropriate for the Fund and we recommend that this Reserve be retained.

VALUATION ASSUMPTIONS

Liabilities

20. At each statutory triennial valuation the Fund's actual experience is compared to the valuation assumptions and where necessary, the assumptions are revised. Our investigation revealed that mortality rates for pre- and post retirement needed to be adjusted to reflect the actual experience of the Fund. In addition withdrawal assumptions for males were adjusted to reflect the actual experience of the Fund.
21. The expected future payments of benefits were projected using reasonable demographic assumptions regarding withdrawals, mortality, disability and retirement, and financial assumptions regarding the future salary increases until retirement and pension increases after retirement. The projected benefits were then discounted at the valuation rate of interest to determine the present value of the liabilities on the valuation date.
22. For the DCF method of valuation the demographic assumptions used for the last statutory valuation were adjusted to reflect the actual experience of the Fund as discussed above. In addition a minimum value was placed on the actuarial reserve values for all members equal to their minimum benefit entitlement on the valuation date.
23. 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

24. 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.
 - 24.1 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 528,5 million which is slightly in excess of the market value. We have decided to limit the value to market value. The actuarial value of the assets for this valuation is therefore taken to be R4 451,2 million.

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

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

	DCF Method		DMA Method
	31.03.2005	31.03.2008	31.03.2008
	R'm	R'm	R'm
Assets at market value	2 514,5	4 451,2	4 451,2
Less: Investment Reserve	<u>135,6</u>	<u>-</u>	<u>-</u>
Actuarial value of assets	<u>2 378,9</u>	<u>4 451,2</u>	<u>4 451,2</u>

It is noted that, for the DCF valuation at 31 March 2008, the Investment Reserve has been taken at nil, so that assets have been taken at market value for this method of valuation.

24.3 It is noted that, for the DCF valuation at 31 March 2008, the assets have been taken at market value. In calculating the actuarial value of the assets, a slightly higher value is achieved, but for purposes of the valuation, the assets were kept at a maximum of market value.

VALUATION RESULTS

Service to the valuation date

25. The valuation disclosed that, in respect of the liabilities for service to the valuation date, the overall Fund was 102,6% funded on the DCF method but only 86,1% funded on the DMA method, as follows:

	DCF Method		DMA Method
	31.03.2005	31.03.2008	31.03.2008
	R'm	R'm	R'm
<u>Total</u>			
Value of assets (Appendix 5)	2 378,9	4 451,2	4 451,2
Value of liabilities (Appendix 6)	(2 598,4)	(3 708,0)	(4 858,0)
Minimum pension increase Reserve	(5,2)	(538,9)	(219,7)
Risk Reserve	<u>-</u>	<u>(92,5)</u>	<u>(92,5)</u>
Surplus (shortfall)	<u>(224,7)</u>	<u>111,8</u>	<u>(719,0)</u>
Funding level	91,4%	102,6%	86,1%

26. From the above table it is noted that, on the "best-estimate" (DCF) basis, the Fund's financial position has improved to such an extent that it is now solvent with a surplus of R 111,8 million.

27. The DMA method of valuation discloses a substantial shortfall of R 719 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.

28. 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
	31.03.2005	31.03.2008	31.03.2008
	R'000	R'm	R'm
<u>Memorandum Account (Pensioners)*</u>			
Assets	1 023,0	1 958,2	1 958,2
Liabilities	(1 017,8)	(1 391,1)	(1 710,3)
Risk Reserve	-	(28,1)	(28,1)
Surplus (Shortfall)**	<u>5,2</u>	<u>538,9</u>	<u>219,7</u>
Funding level	100,5%	138,0%	112,6%
<u>Members</u>			
Balance of assets	1 355,9	2 493,0	2 493,0
Balance of liabilities***	(1 580,6)	(2 316,8)	(3 147,6)
Risk Reserve	-	(64,4)	(64,4)
Surplus (Shortfall)	<u>(224,7)</u>	<u>111,8</u>	<u>(719,0)</u>
Funding level	85,8%	104,7%	77,6%

* 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 2008 and for payment of a thirteenth pension cheque in November 2008.

** This amount is retained in the Contingency Reserve to provide for minimum pension increases.

*** Including allowance for Death in service spouse's pension Reserve.

29. Over the three years to 31 March 2008 the Fund earned good investment returns. The overall effect was that the financial condition of the Memorandum Account has improved significantly from a funding level of 100,5% at 31 March 2005 to a funding level of 138,0% at 31 March 2008. The surplus is retained as a contingency reserve to provide for minimum pension increases as prescribed by legislation and incorporated in the Fund's Pension Increase Policy. The Memorandum Account also has a surplus on the DMA method of valuation, indicating that this Account is financially sound even if the underlying assets are invested in risk-free investments.
30. The Fund's financial condition has improved to such an extent that the fund is solvent on the DCF method of valuation with a funding level of 102,6%. The primary reasons for this are that the Fund earned 20,3% p.a. over the three years to 31 March 2008, that the local authorities were paying a surcharge towards meeting the shortfall.

31. Because the Fund showed a surplus as at 31 March 2008, there is thus no future need for this surcharge to continue and this could be discontinued. This position will be reviewed at each future valuation to ensure that the Fund does not fall back into a shortfall position as a result of large salary increases. The regulations of the Fund have been amended to allow a charge to be levied on those employers who grant excessive salary increases. This will assist in keeping the Fund in a sound financial condition.

Contingency Reserves

32. 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 1 150 million, as follows.

	R'million
Liabilities per DMA method	4 858,0
Less: Liabilities per DCF method	(3 708,0)
Investment Reserve	<u>1 150,0</u>

33. In view of the small surplus in the Fund, it was deemed not appropriate to retain a Solvency Reserve. The Committee should be aware of the risks that this entails, as discussed in paragraph 14.
34. 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 92,5 million calculated in accordance with paragraph 4.4 of Circular PF117, and we recommend that the Fund retains this reserve, comprising of R 28,1 million in respect of pensioners and R 64,4 million in respect of active members.

Future Service

35. Contributions payable to the Fund at the valuation date, not including the surcharge payable from 1 July 2004, 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>

36. The total required contribution rate for future service is 28,52% 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.
37. 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 1,27% of pensionable salaries, as follows:

	31 March 2005	31 March 2008
	%	%
Method of valuation	Attained Age	Attained Age
Contribution rate currently payable	27,25	27,25
Contribution rate required for future service	<u>26,25</u>	<u>28,52</u>
Excess/(Shortfall)	<u>1,00</u>	<u>(1,27)</u>

38. The shortfall in contributions amounts to approximately R 9,2 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 next year. This fund has some 4 600 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 2009 at which time the outcome of the merger discussions will be known.

OUTLOOK

Investments

39. Over the three years to 31 March 2008, the Fund earned 20,3% per annum on its assets taken at market value.
40. 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.
41. 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

42. From the data we note that the average salary increase over the three years was 11,3% a year, which is higher than inflation over that period. This has hindered the Fund's return to a sound financial condition but has been offset by the Fund's good investment return over the valuation period.
43. 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.

Withdrawals

44. 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

45. 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.

AIDS

46. A study was undertaken in 2002 of the expected impact that AIDS will have on the Fund. The results showed that, although the Fund is fairly well protected in relation to many other funds, AIDS is likely to result in an increase in the required rate of contribution of some 4% of salaries by 2010. The Fund has subsequently become closed to new members, which affects its exposure to AIDS, and is likely to reduce the impact of AIDS on the Fund in future. We, nevertheless, recommend that an AIDS investigation be repeated in order to determine the Fund's financial exposure to the risk of AIDS.

Surcharge

47. As mentioned in paragraph 31, the surcharge could be discontinued. However, 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

48. I am satisfied that the asset composition on the valuation date is appropriate to the nature of the liabilities.
49. 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.
50. At the valuation date:
- 50.1 The Fund was fully funded and financially sound on the DCF method.
- 50.2 The required contribution rate for future service exceeded the contribution rate payable by 1,27% of pensionable salaries. This will be reviewed at the next interim actuarial valuation of the Fund as at 31 March 2009 when the outcome of a possible merger with the Natal Joint Municipal Pension Fund (Retirement) will be known with more certainty.

**ARELS (FIA CFP)
VALUATOR**

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

25 November 2008

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ACCOUNTS

- 1.1 We have been advised that the breakdown of benefit payments shown on the audited financial statements is incorrect, and the Fund accountant provided us with a schedule giving the correct figures. 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 2005 (market value)			2 514 450
Adjustments			(7 148)
Income			2 158 651
Contributions		673 277	
- Members	193 239		
- Surcharge	105 350		
- local authorities	374 686		
- Additional contributions	2		
Transfers in		43 241	
Unclaimed benefits		3 178	
Investment returns		1 438 955	
Expenditure			(723 306)
Lump sum benefits*		(291 223)	
- disability	-		
- withdrawal	(97 439)		
- retirement	(151 401)		
- retrenchment	(7 882)		
- death	(19 020)		
- former members	(320)		
- transfer to other funds	(15 161)		
Pensions		(334 264)	
Other		164	
Investment managers' fees		(54 947)	
Administration expenses		(22 889)	
Tax		(20 147)	
Net adjustment to fair value of assets			508 560
Amount of Fund as at 31 March 2008 (market value)			<u>4 451 207</u>

MEMBERSHIP STATISTICS

A. MEMBERSHIP BUILD-UP

1. Active Members

Members at previous statutory valuation date	7 114
New members and transfers in	704
Exits	
Retirement	(308)
Ill-health	(152)
Death	(248)
Resignation	(625)
Dismissal	(91)
Retrenchment	(71)
Deferred	(7)
Full transfer	(70)
Adjustments	(17)
Members at current valuation date	<u>6 229</u>

2. Pensioners

	Former members	Spouses	Deferred	Children	Total
Pensioners at previous valuation date	1 659	1 121	47	761	3 588
Adjustments and cessations	-	(18)	(3)	32	11
New pensioners	447	288	72	339	1 146
Deaths	(194)	(113)	-	(2)	(309)
Pensioners at current valuation date	<u>1 912</u>	<u>1 278</u>	<u>116</u>	<u>1 130</u>	<u>4 436</u>

3. Deferred Pensioners

The above summary includes 116 deferred pensioners (84 males and 32 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'000	Contributions without interest R'000	Average pensionable service years
<=22	2	146 040	15 779	1
23 - 27	129	10 237 869	2 677 443	4
28 - 32	569	56 660 896	20 958 315	6
33 - 37	994	104 917 040	50 549 975	8
38 - 42	1 057	117 917 477	65 568 149	9
43 - 47	1 063	130 503 782	80 309 715	11
48 - 52	939	114 433 244	77 174 960	12
53 - 57	773	98 563 793	69 627 190	13
58 - 62	563	72 226 139	53 698 715	14
63+	140	18 296 741	13 564 160	14
Total	6 229	723 903 021	434 144 401	10

2. Statistics

	Current Valuation Date
(i) Females	
Number of members	1 875
Average age (years)	42,7
Annual pensionable salaries	
total (R'000)	209 221
average (R)	111 584
(ii) Males	
Number of members	4 354
Average age (years)	44,1
Annual pensionable salaries	
total (R'000)	514 682
average (R)	118 209

C. VALUATION DATA : PENSIONERS

1. Summary

	Current Valuation Date
(iii) Former members	
Number of pensioners	1 912
Average age (years)	68,0
Annual pension	
total (R'000)	82 604
average (R)	43 203
(iv) Spouses	
Number of pensioners	1 278
Average age (years)	61,8
Annual pension	
total (R'000)	35 097
average (R)	27 462
(v) Children	
Number of pensioners	1 130
Average age (years)	18,7
Annual pension	
total (R'000)	9 417
average (R)	8 333
(vi) Deferred pensioners	
Number of pensioners	116
Average age (years)	51,3
Annual pension	
total (R'000)	5 094
average (R)	43 918

2. Further analysis

Age nearest birthday	Former Members		Spouses	
	Number	Annual pension R	Number	Annual pension R
<29	-	-	10	309 654
29 – 32	1	14 091	29	965 403
33 – 37	12	462 481	64	1 843 753
38 – 42	19	757 507	84	2 476 835
43 – 47	34	1 294 442	113	3 299 375
48 – 57	156	6 124 500	207	5 635 274
58 – 67	707	34 082 394	258	6 790 625
68 – 72	371	15 118 262	125	3 062 109
73 – 77	278	10 307 450	130	3 095 876
78 – 82	188	8 858 220	123	3 809 086
83 – 87	111	4 483 083	79	2 258 146
88 – 92	30	995 296	47	1 421 413
93 – 97	3	92 383	8	128 893
>97	2	14 201	1	316
Totals	1 912	82 604 310	1 278	35 096 759

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 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 the 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 (9% p.a. previously).

With effect from 1 March 2007, the Fund is no longer subject to Retirement Funds Tax.

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, 7,5% p.a.;
- 5% of the assets are invested in property earning 8,5% 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 12% 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 9,7% at the short-terms and 9,1% at longer terms. The liabilities of the Fund are predominantly long term and therefore it was decided to apply a rate of interest of 8,6%. 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 8,62% (9,1% 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 (5% 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 9,1% and that on inflation-linked bonds was 2,4%. The difference of 6,7% (9,1% less 2,4%) is the inflation implied by the market at the valuation date. We have therefore assumed an underlying rate of inflation of 6,7% 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 (5,5% 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:

	Merit increases per year
	%
20	
25	7,7
30	2,9
35	1,8
40	0,7
45	0,1
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 6,7%, i.e. at 7,2% 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 75% of inflation.

6. Mortality

On the assumptions used in the last statutory valuation we expected 114 deaths from active members and 291 deaths from pensioners over the valuation period. The actual number of deaths from active members was 247 over the three years and that from pensioners 385.

The mortality assumptions used for the last statutory valuation were therefore changed to reflect the actual experience of the Fund.

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 was set 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.

Based on the assumptions in the last statutory valuation, we expected 245 male withdrawals and 310 female withdrawals in the valuation period. The actual number of male withdrawals was 533 and that of females 311 over the three years.

The withdrawal rates for males were therefore adjusted to reflect the actual experience of the Fund, but this is not expected to have a significant financial impact on the valuation results, as the allowance for prescribed minimum benefits means that all withdrawals are approximately financially neutral.

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

Age	Males %	Females %
20		
25	20,0	10,0
30	12,0	10,0
35	8,0	9,0
40	5,0	7,0
45	3,0	5,0
50	1,0	3,0
55	-	1,0
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. On the assumptions that were used in the last statutory valuation we expected 161 ill-health retirements over the valuation period. The actual number of ill-health retirements was 152 over the last three years. We have therefore 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	-	-
35	0,1	0,1
40	0,3	0,3
45	0,4	0,4
50	0,5	0,6
55	1,2	1,2
60	2,4	2,1
65	4,4	3,1

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 2,63% (Average of 40% of ALSI Earnings Yield for the 12 months prior to the date of valuation).
- 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 4 451 207 500, comprised as follows:

	R'000
Equities	2 754 417
Interest bearing stock	830 413
Cash and deposits	813 124
Fixed assets	416
Net current assets	<u>52 837</u>
Total at 31 March 2008	<u><u>4 451 207</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. We assumed that the dividend yield on the Fund's equities was similar to that on the ALSI (2,6%). Our valuation rate of interest is 10,0% p.a. and we assumed future dividend growth to be in the order of inflation plus 1,5% over the long term. Equities were thus valued at 104% 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 528,5 million at the valuation date, which was 101,7% of market value. Given the small difference, we have taken the value of the assets used for the DCF method of valuation at the market value in the Fund.

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 3 707 969, as follows:

	DCF Method		DMA Method
	31 March 2005	31 March 2008	31 March 2008
	R'000	R'000	R'000
Members	1 580 610	2 316 891	3 147 685
Pensioners	648 201	909 976	1 112 128
Spouses	282 694	315 138	392 607
Children	14 841	21 686	23 467
Deferred	10 218	27 952	41 486
Suspended/Pending Reserve	11 770	23 319	28 655
Increase in pensions*	30 414	69 696	85 716
13 th cheque November 2008	8 171	10 495	10 495
Administration costs	<u>11 498</u>	<u>12 816</u>	<u>15 782</u>
Past-service liabilities	<u>2 598 417</u>	<u>3 707 969</u>	<u>4 858 021</u>

* From 1 July of year of valuation, pro-rata for pensions in payment for less than a year at the valuation date

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	27,27
Administration expenses	<u>1,25</u>
	<u>28,52</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	1 014 832	1 464 928
death	550 613	730 532
ill-health	479 150	668 735
withdrawal	116 696	122 459
Past bonus service	63 531	84 567
Minimum benefits	54 091	25 871
Death in service spouse's pension Reserve	<u>37 978</u>	<u>50 593</u>
Sub-total (members)	<u>2 316 891</u>	<u>3 147 685</u>
Pensioners		
Formerly active members	909 976	1 112 128
Spouses	315 138	392 607
Children	21 686	23 467
Suspended/Pending Reserve	23 319	28 655
Deferred pensioners	27 952	41 486
Pension increase 1 July 2008	69 696	85 716
13 th pension cheque November 2008	10 495	10 495
Administration cost	<u>12 816</u>	<u>15 782</u>
Sub-total (pensioners)	<u>1 391 078</u>	<u>1 710 336</u>
Total liabilities	<u>3 707 969</u>	<u>4 858 021</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	12,22
Disability	4,95
Death in service	6,70
Withdrawal	1,72
Future bonus service	1,68
Administration costs	<u>1,25</u>
Total	28,52
Current contributions by members	<u>(9,25)</u>
Required employer contribution rate	<u>19,27</u>

LIABILITIES FOR MEMBERS FOR SERVICE TO VALUATION DATE

Age nearest birthday	Number	Annual Pensionable salaries R'000	Value of Benefits R'000
Females			
<=22	-	-	-
23 - 27	51	4 341	1 678
28 - 32	210	22 273	14 297
33 - 37	334	36 754	40 404
38 - 42	313	34 645	51 373
43 - 47	301	35 497	78 419
48 - 52	277	32 432	97 282
53 - 57	201	21 582	77 435
58 - 62	156	18 464	86 748
63+	32	3 233	20 885
Total	1 875	209 221	468 522
Males			
<=22	2	146	19
23 - 27	78	5 897	2 475
28 - 32	359	34 388	28 889
33 - 37	660	68 163	95 876
38 - 42	744	83 272	176 126
43 - 47	762	95 006	284 029
48 - 52	662	82 001	340 928
53 - 57	572	76 982	403 773
58 - 62	407	53 762	332 587
63+	108	15 064	91 597
Total	4 354	514 682	1 756 300
Grand total	6 229	723 903	2 224 822

* Excludes liability for Prescribed Minimum Benefits

LIABILITIES FOR PENSIONERS

Age nearest birthday	Number of Pensioners	Annual Pension R'000	Value of Benefits R'000
Females			
< 22	-	-	-
23 - 27	-	-	-
28 - 32	1	14	245
33 - 37	4	132	2 243
38 - 42	7	243	4 090
43 - 47	8	204	3 372
48 - 52	12	332	5 235
53 - 57	28	947	13 678
58 - 62	73	2 585	34 771
63+	458	11 783	116 414
Total	591	16 241	180 047
Males			
< 22	-	-	-
23 - 27	-	-	-
28 - 32	-	-	-
33 - 37	7	305	5 202
38 - 42	12	514	8 647
43 - 47	25	1 081	17 723
48 - 52	49	2 063	32 368
53 - 57	63	2 688	39 283
58 - 62	198	11 233	148 795
63+	902	46 929	477 911
Total	1 256	64 813	729 929
Grand total	1 847	81 054	909 976

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	Value of Benefits R'000
Females			
< 22	-	-	-
23 - 27	-	-	-
28 - 32	-	-	-
33 - 37	3	36	93
38 - 42	10	219	709
43 - 47	3	44	176
48 - 52	7	241	1,229
53 - 57	2	44	338
58 - 62	4	101	899
63+	2	45	496
Total	31	730	3,939
Males			
< 22	-	-	-
23 - 27	-	-	-
28 - 32	3	39	67
33 - 37	4	116	252
38 - 42	6	125	331
43 - 47	7	630	2,253
48 - 52	16	765	3,635
53 - 57	25	1,296	8,299
58 - 62	14	908	7,837
63+	5	114	1,340
Total	80	3,994	24,013
Grand total	111	4,723	27,952

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	Value of Benefits R'000
Females			
< 22	-	-	-
23 - 27	4	161	2 829
28 - 32	16	598	10 313
33 - 37	26	737	12 446
38 - 42	45	1 460	23 858
43 - 47	67	2 137	33 683
48 - 52	64	1 835	27 307
53 - 57	91	2 537	35 207
58 - 62	103	2 776	35 360
63+	574	15 827	128 058
Total	990	28 067	309 062
Males			
< 22	-	-	-
23 - 27	-	-	-
28 - 32	-	-	-
33 - 37	2	84	1 354
38 - 42	2	46	707
43 - 47	4	74	1 079
48 - 52	1	13	175
53 - 57	2	33	401
58 - 62	4	70	790
63+	12	200	1 570
Total	27	519	6 076
Grand total	1 017	28 586	315 138

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

CHANGE IN FINANCIAL CONDITION

- 7.1 The shortfall at 31 March 2005 was R 219,5 million which was made up of a surplus of R 5,2 million in the Memorandum Account and a shortfall of R 224,7 in respect of the active members. The surplus as at 31 March 2008 on the DCF method was R 650,7 million which is made up by surpluses of R 538,9 million in the Memorandum Account and R 111,8 million in respect of the active members. The Fund therefore made a net profit of R 870,2 million (R 650,7 million less -R 219,5 million).
- 7.2 The profits and losses (favourable and unfavourable deviations from the valuation assumptions) that together resulted in the net profit of R 870,2 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 20,3% a year. This was above the assumed valuation rate of 10% a year, resulting in a profit of R 1 188 million.
- 7.4 The contribution rate that was paid to the Fund as a surcharge by the local authorities during the valuation period to fund the shortfall together with the reserves created from using the Attained Age Method (see paragraph 17 in the main report) amounted to R 145,8 million.

Pensionable emoluments

- 7.5 Pensionable emoluments increased by 11,3% per annum which is substantially more than had been assumed (paragraph 4.1), resulting in a loss of R 236,1 million.

Pensions

- 7.6 Pensions were increased during the valuation period by an average of 4,4% a year. This was slightly higher than the assumed rate of increase of 3,32% a year. This loss amounted to R 35,9 million.

Expenses

- 7.7 An allowance of 1,25% of pensionable emoluments is made to cover expenses. Actual expenses were higher than allowed for, resulting in a loss of R 14,8 million.

Prescribed minimum benefits

7.8 The Pension Fund Second Amendment Act, 2001, requires funds to provide prescribed minimum benefits. The inclusion of these in the valuation results resulted in a loss of about R 55,2 million.

Change in mortality and other assumptions

7.9 As discussed in Appendix 4, some assumptions had to be changed to reflect the actual experience of the Fund. This resulted in a loss of about R 227,8 million.

Miscellaneous

7.10 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 90,8 million, the balancing item in the analysis.

Summary

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

	R'000
Shortfall at 31 March 2005	(219,5)
Investment return	1 188,0
Excess contributions	145,8
Pensionable emoluments	(236,1)
Pensions	(35,9)
Expenses	(14,8)
Minimum benefits	(55,2)
Change in assumptions	(227,8)
Miscellaneous	<u>106,2</u>
Actual surplus at 31 March 2008	<u>650,7</u>

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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