

**Actuarial Valuation Report as at
31 December 2004**

**University of Cape Town Retirement
Fund**

July 2005

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1. INTRODUCTION

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1.1 Purpose of report

- 1.1.1 The report sets out the results of the statutory valuation of the **University of Cape Town Retirement Fund** as at 31 December 2004. The previous statutory valuation of the Fund was conducted as at 31 December 2001.
- 1.1.2 The Trustees are due to submit a surplus apportionment scheme as at 31 December 2001 to the Registrar of Pension Funds (the Registrar) for approval.
- 1.1.3 This valuation has been performed taking into account the proposed surplus apportionment scheme although this has not yet been approved by the Registrar.

1.2 Professional standards

- 1.2.1 This report has been prepared in my capacity as the appointed valuator to the Fund and as a Director of Fifth Quadrant Actuaries & Consultants.
- 1.2.2 The report has been prepared in accordance with the requirements of Regulation 15 of the Pension Funds Act and the current Professional Guidance Note 201 issued by the Actuarial Society of South Africa.



2. PURPOSE OF THE VALUATION

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The purpose of the statutory valuation is:

- (i) To assess whether the Fund's assets are at least equal to the Member Accumulated Credits, the Transitional Retirement Reserves and pensioner liabilities as defined in the Fund rules.
- (ii) To review the Employer contribution rate to ensure that it that is sufficient to finance the costs and benefits as provided for in the Fund rules.
- (iii) To review the level of contingency reserves required by the Fund - for this purpose the proposed surplus apportionment scheme has been taken into account although the Registrar has not approved the scheme.



3. VALUATION INFORMATION

3.1 Data used in the valuation

- 3.1.1 The Fund's auditor does extensive checks on the data and as such we have relied on the information supplied in the audited annual financial statements.
- 3.1.2 We have done reasonability checks on the total of the member "Accumulated Credits", and the Reserve Accounts of the Fund. We are satisfied that the results reflected below are materially correct.
- 3.1.3 A summary of the membership data upon which the valuation was based is given in Annexure I. The most notable features of the membership are:
- (i) The number of in-service members has increased from 2 333 at the last valuation to 2 521 members currently.
 - (ii) The number of active member deaths has averaged some 1.9 deaths per 1 000 active members over the inter-valuation period. This is a substantial improvement on the 3.9 deaths per 1 000 active members reported in the previous valuation, although the latter experience only reflected one year (2001).

The latest experience is more consistent with prior periods where the average number of deaths per 1 000 members was as follows:

- 1 January 1995 to 31 December 1998 – 1.5 per 1 000 members
- 1 January 1999 to 31 December 2000 – 2.5 per 1 000 members

The current experience represents much better mortality experience than the general population (where the rate is closer to 8 deaths per 1 000 members taking into account the HIV pandemic).

- (iii) The number of pensioners increased from 15 at the last valuation to 39 at the current valuation. These are pensioners who elected a living annuity from the Fund.

3.2 Rule changes

- 3.2.1 The rules were reviewed and consolidated effective 1 July 2001 and thereafter various amendments were made. The consolidation and the amendments have had no impact on the financial position of the Fund.
- 3.2.2 A résumé of the present benefit structure is set out in Annexure II.



4. ASSETS OF THE FUND

4.1 Overview of investment strategy

- 4.1.1 The assets of the Fund backing member liabilities are invested in a cash portfolio, a Guaranteed Fund portfolio and a market-linked portfolio according to the member's choice. The investment portfolios, which are known as Portfolio A, B and C respectively, offer members different levels of investment risk/reward.
- 4.1.2 The Contingency Reserves of the Fund are currently invested in Portfolio A, although we recommend that the Trustees review this strategy.
- 4.1.3 I am satisfied that the current asset allocation within the investment portfolios represents a broadly reasonable long-term allocation given the nature of the Fund liabilities and the investment objectives for the portfolios.

4.2 Market value of assets

- 4.2.1 The assets of the Fund as at 31 December 2004 are set out below:

Asset Class and Investment Manager	R'000
SA Equities	264,484
Foord Asset Management	127,964
Investec Asset Management	136,520
SA Bonds	90,676
Money Market	88,124
Prescient Investment Management	47,012
Sanlam insurance policy	41,112
Metropolitan Life Multi-Manager Smooth Growth Fund	313,569
International Equities - Allan Gray	34,842
Total Investments	791,695
Net current assets	(8,690)
Total net assets	783,005

4.2.2 Note on Metropolitan Multi-Manager Smooth Growth Fund

The Metropolitan Multi-manager Smooth Growth Fund holdings include non-vested bonuses of R29.3 million. This amount could be withdrawn (in part or in full) by the Insurer in adverse market conditions subject to the insurer applying this to all participants in the fund.



Furthermore, the value of the Smooth Growth policy is stated in the above table on the premise that the Fund continues with this investment. At times when the Insurer has declared more in bonuses than it has earned on the underlying assets, a “market value adjustment” (reduction) would apply on early termination. *However, as at 31 December 2004 no “market value adjustment” was applicable on termination.*

The above circumstances do not increase the financial risk of the Fund as in terms of the Rules such adverse circumstances would be passed onto members via a negative investment return. Of course the above situation represents risk for the members.

4.2.3 The following table shows the composition of the various portfolios by manager and asset class (excluding the net current assets):

Portfolio	31/12/2004	
	R'000	% (within portfolio)
Portfolio A	88,124	100%
Prescient Asset Management - Cash	47,012	53%
Sanlam insurance policy	41,112	47%
Portfolio B - Metropolitan Life	313,569	100%
Portfolio C	390,002	100%
Foord Asset Management – RSA Equities	127,964	33%
Investec – RSA equities	136,520	35%
Prescient Asset Management – RSA Bonds	90,676	23%
Allan Gray – International Equities	34,842	9%
TOTAL	791,695	



5. VALUATION RESULTS

5.1 Accrued position

5.1.1 The following table shows the valuation balance sheet as at 31 December 2004 and 31 December 2001 (the last valuation date).

At this stage the results have been presented to be consistent with the Fund's financial statements, which do not yet reflect the various contingency reserves referred to the 2001 valuation report since these are the subject of the surplus apportionment scheme still to be submitted to the Registrar for approval.

	31.12.2004 R '000	31.12.2001 R '000
<u>Liabilities</u>	757,701	541,699
Member Accumulated Credits	703,317	492,370
Member Transitional Retirement Reserve ⁽¹⁾	32,647	39,341
Pensioner account	21,737	9,987
Contingency Reserves before surplus scheme ⁽²⁾	25,304	18,614
Risk Reserve	19,739	16,145
General Reserve	5,565	2,469
Total Liabilities and Reserves	783,005	560,313
Total Net Assets	783,005	560,313

- (1) This represents the full value of the Transitional Retirement Reserve accounts. To the extent that members exit the Fund and are not paid their full Transitional Retirement Reserve in terms of the Fund rules, there will be a reversion of this amount to the Employer, which again is provided for in the Fund rules.
- (2) See section 5.4 below, allocates these reserves consistent with the Pension Funds Second Amendment Act and PF117.

5.2 Pensioners

5.2.1 All pensions arising from the Fund are purchased from an external insurer (with no further liability to the Fund) *except* where a member elects a living annuity from the Fund.

5.2.2 Accordingly, the only pensions payable from the Fund are those where members elect a living annuity from the Fund. The Fund has no obligations for pension increases in respect of such pensioners and the pensioner also takes on the full investment and mortality risk.



5.3 Basis for contingency reserves

5.3.1 We have adopted the same assumptions as set out in the previous valuation report in establishing the main contingency reserves at the current valuation date.

5.3.2 For completeness these assumptions are listed below:

- Data reserve is set at 0.50% of the market value of assets (consistent with the auditor's materiality limit)
- Costs of the surplus apportionment exercise - the Trustees established a reserve of R881 000 as at 31 December 2001 for the costs of the surplus apportionment exercise costs. This amount is simply updated with investment returns to 31 December 2004 for the liability at this date.
- Processing error reserve: This is a provision for mismatching and for timing differences in the actual investment or disinvestment of moneys from the times when they are deemed to have occurred in the calculation of benefits or the accrual of investment returns.

The processing error reserve has been set at 0.75% of the market value of assets.

- Employer surplus reserve:¹ This represents reversions of the Transitional Retirement Reserve which revert for the benefit of the Employer in terms of the Fund Rules
- Member surplus reserve:¹ This represents the surplus allocated to members as at 31 December 2001, plus investment returns thereon for the liability as at 31 December 2004.
- Operational reserve: This is a contingency reserve that only arises after 31 December 2001. The purpose of this account is to build-up a buffer against expense overruns, legal fees, communication etc.

This reserve is funded by the small margin of contributions after deducting retirement savings, risk benefit costs, administration and other Fund costs since 31 December 2001.

¹ We have used these account names on the basis that the FSB approves the Fund's surplus apportionment scheme.



5.4 Breakdown of contingency reserves

5.4.1 The table below shows the breakdown of the Fund's contingency reserves as at 31 December 2001 and 2004. The contingency reserve equal the aggregate Risk and General Reserves currently reflected in the financial statements:

	31/12/2004	31/12/2001
Allocation of Risk and General Reserves	R'000	R'000
Total of Risk and General Reserve	25 304	18 614
Data Reserve	3 915	2 802
Surplus apportionment cost reserve	1 132	881
Processing Error Reserve	5 873	4 202
Employer Surplus Reserve	132	103
Member Surplus Reserve	13 651	10 626
Operational Reserve	601	-

5.5 Employer contribution rate

5.5.1 The total employer contribution rate to the Fund and related schemes (i.e. the disability income benefit and the separate Group Life Assurance arrangement) differs for Permanent Staff (22.5% of salary bill) and Fixed Term Contract members (20.912% of salary bill)

5.5.2 Currently the employer contribution is allocated as follows:

	Permanent Staff	Fixed Term Contract Staff
Retirement saving (in terms of Fund rules)	16.000%	16.000%
Additional retirement savings bonus	3.375%	2.550%
Insured death-in-service benefits from Fund (allows for 6 x annual pensionable salary for all members)	1.250%	-
Disability income benefits*	0.520%	-
Separate Group Life Assurance scheme*	0.504%	1.512%
Administration fee	0.295%	0.295%
Other expenses (Audit, Actuarial, Consulting, Secretarial)	0.556%	0.555%
Total	22.500%	20.912%

* These arrangements are outside the Fund.



I recommend that the additional retirement savings bonus shown in the above table continue for the period up to 1 March 2005 at which stage it should be reviewed in line with any changes in the costs of risk benefits.



6. SUMMARY AND CONCLUSION

6.1 Key results

- 6.1.1 The Fund is in a sound financial position as at 31 December 2004, which sufficient contingency reserves to buffer the Fund against adverse experience.
- 6.1.2 The Fund's surplus apportionment scheme is still to be approved by the FSB, but the report has been prepared on the basis that the scheme will be approved. A total of R13.7 million (as at 31 December 2004) is to be allocated to members and former members in this scheme.
- 6.1.3 In respect of the future service contributions I recommend that permanent members should be credited with an additional 3.375% of pensionable salary retirement savings bonus up to 1 March 2005 (i.e. the next risk benefit premium review date).

This reflects the fact that the cost of the risk benefits and expenses is well below the threshold of 6.5% of pensionable salary defined in the Fund Rules. (The additional retirement savings bonus for fixed contract employees should be 2.550% of pensionable salary up to 1 March 2005).

- 6.1.4 The contingency reserves of the Fund are currently invested in Portfolio A (cash) – I recommend that this strategy be reviewed once the surplus apportionment scheme has been approved by the Registrar.

6.2 Certification

Based on the current benefit and membership structures, I certify that the Fund will remain financially sound until the next triennial valuation.

I am satisfied that the current asset allocation of the various investment portfolios offered to members represents a broadly reasonable long-term allocation given the nature of the Fund liabilities and the investment objectives for the portfolios.



A. Lester, B.Sc.,
Fellow of the Institute of Actuaries

In my capacity as a Director of
Fifth Quadrant Actuaries & Consultants



7. ANNEXURE I – MEMBERSHIP STATISTICS

Number of members

Active members

	2002	2003	2004	3 years (2002 - 2004)
Opening membership	2,333	2,352	2,442	2,333
New entrants	214	282	251	747
Withdrawals	-137	-135	-126	-398
Retirements	-53	-53	-41	-147
Deaths	-5	-4	-5	-14
Closing membership	2,352	2,442	2,521	2,521

Fund Pensioners (living annuitants in the Fund)

	2002	2003	2004	3 years (2002 - 2004)
Opening membership	15	25	27	15
New Retirements	10	3	12	25
Purchased life annuity	0	-1	0	-1
Deaths	0	0	0	0
Closing membership	25	27	39	39

Total annual pensionable salaries (R'000)

	Total
31.12.2001	260 329
31.12.2004	385 222



8. ANNEXURE II – PRESENT BENEFIT STRUCTURE

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The following is only a summary of the key provisions in the Fund Rules.

ELIGIBILITY CONDITIONS

All full time employees are required to join the Fund.

NORMAL RETIREMENT AGE

60, or such age specified in the member's conditions of service.

PENSIONABLE SERVICE

Membership of the Fund plus service granted in respect of additional employer contributions, plus service under the AIPF.

TRANSITIONAL RETIREMENT RESERVE

An amount calculated at the inception date of the Fund (1 January 1995) for members transferring from the AIPF. This reserve accumulates with investment returns and is payable in accordance with the rules as described below.

RETIREMENT BENEFITS

(i) Normal and early retirement

On retirement after the attainment of age 55, a pension secured by the Member's Accumulated Credit and the full Transitional Retirement Reserve. A member may elect to commute part of, or the entire amount of, his/her retirement benefit and receive a lump sum benefit.

(ii) Ill health retirement

A member may retire early at any age if early retirement is the result of ill health. The benefit is calculated as per early retirement.

FORM OF PENSION BENEFIT

All life pensions must be purchased from an Insurer in terms of the provisions of GN18 (i.e. the policy will be issued in the name of the retiree). The member may elect to receive a "living annuity" from the Fund.



DEATH BEFORE RETIREMENT

(i) Member's with less than 10 year's service

A pension secured by a benefit equal to:

- 1) 6 times annual pensionable salary; **plus**
- 2) The member's Accumulated Credit and Transitional Retirement Reserve

(ii) Member's with 10 year's service or more

The member may choose the level of death-in-service benefits payable within the following limits:

Minimum cover at time of election

A pension secured by a benefit equal to 4 times annual salary taking into account the member's Accumulated Credit and Transitional Retirement Reserve.

Maximum cover

A pension secured by a benefit equal to:

- 1) 6 times annual pensionable salary; **plus**
- 2) The member's Accumulated Credit and Transitional Retirement Reserve

A member may, on an annual basis, choose the level of cover they require within these limits. Once a member has elected to reduce his/her cover, he/she may only increase it again with the consent of the Trustees and subject to providing evidence of good health.

Should the member elect to be covered for less than the maximum cover, an additional contribution as determined by the Trustees in consultation with the Actuary will be credited to the member's Accumulated Credit.

The member's beneficiaries may elect (subject to taking financial advice) to receive the death benefit (or part thereof) in the form of a lump sum.



WITHDRAWAL BENEFIT

a) Voluntary withdrawal

A refund of the member's Accumulated Credit

PLUS

If the member is aged 50 years or older at the date of withdrawal, the Transitional Retirement Reserve

b) Retrenchment / Redundancy

The member's Accumulated Credit and Transitional Retirement Reserve will be payable.

EMPLOYER CONTRIBUTION

The Employer contributes at a rate of 16.0% of annual pensionable salary in respect of retirement benefits, plus a further amount of 6.5% (4.912% for fixed term contract employees) of annual pensionable salary payable in respect of death-in-service benefits and expenses and the separate disability income benefit and Group Life Assurance arrangements.



9. ANNEXURE III - VALUATION METHOD AND BASIS

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Assets

The assets have been taken into account at full market value as the members are credited with the full investment return (net of tax and fees) earned on the underlying assets.

Liabilities

The liabilities are taken as the total of the member's accumulated credits as at 31 December 2004.

The Transitional Retirement Reserve has also been valued as the full balance in the members' transitional retirement reserve accounts as at 31 December 2004. To the extent that members exit the Fund and are not paid their full Transitional Retirement Reserve in terms of the Fund Rules, there will be a reversion of this amount to the Employer (as provided for in the rules).

The data, surplus apportionment costs and processing error reserves as at the surplus apportionment date have been established in accordance with the principles set out in the Registrar Circular PF117 and are fully described in paragraph 5.3 of the main report.

