

Northern Territory Police Supplementary Benefits Scheme

Report on the Triennial Actuarial Valuation of the Scheme as at 30 June 2021

1. INTRODUCTION

This report has been prepared as at 30 June 2021 at the request of James Richards, Commissioner for Superannuation. The previous review as at 30 June 2018 was carried out by me and presented in a report dated 14 August 2018.

This scheme started in 1984 and provides benefits that supplement those provided by the Commonwealth Superannuation Scheme (CSS). The scheme design intended provision of total superannuation benefits as if retiring members were five years older than their actual age at retirement as the *Police Administration Act* mandated retirement for police members at 60 years. This was five years earlier than the requirement age for other public servants. The scheme was closed to new entrants on 1 January 1988.

The scheme is an exempt public sector superannuation fund under the Superannuation Industry (Supervision) Act 1993 (SIS), and is deemed to be a complying superannuation fund for tax purposes. It is an unfunded scheme, and it does not hold an Operational Risk Financial Requirement (ORFR). Employer-funded benefits are paid from an untaxed source. Employer contributions are made from the Central Holding Authority on a pay-as-you-go basis, as guaranteed in the Scheme Trust Deed.

The scheme benefits are defined in the Trust Deed and Rules of the Fund, dated 2 June 2015. This report and valuation comply with PS400 of the Institute of Actuaries of Australia.

2. DATA

I have used the following data in conduct of this review:

- details of all contributors, deferred members and pensioners, plus details of movements during the review period;
- details of CSS accumulations as at 30 June 2020 for members who may be eligible to receive deferred benefits;
- annual reports for 2018-20, plus draft accounts for 2021 supplied by Donny Shao on 26 July 2021;
- current Trust Deed and Rules current as at 2 June 2015; and
- the previous actuarial report prepared by me and supporting material referred to therein.

I have reconciled data with previous extracts and am satisfied that the membership data is suitable for valuation purposes.

There were no rule changes in NTPSBS that affected benefits in the last three years.

3. SCHEME DESIGN AND OPERATION

Pension benefits are closely linked to CSS pension benefits. Between ages 55 and 60 the pensions are a percentage of the employer component of CSS pensions. The percentages, based on attained ages in complete years at retirement, are:

Age	%	Age	%
55	25.00	58	15.94
56	21.69	59	13.43
57	18.69	60	11.11

Originally these increases resulted in members getting a total benefit equal to what they would have received from the CSS if they had been five years older. From 1 July 1990 CSS discount factors were reduced but the Police scheme benefits were unchanged, resulting in higher benefits in each scheme.

Member contributions of 1 per cent of salaries are invested in a fund. On age retirement the accumulated contributions are paid to the Territory and the Territory makes all benefit payments. On exit without becoming eligible for a deferred or immediate pension the accumulated contributions are paid to the member.

The scheme was modified from 17 November 1995 to encourage earlier retirement by allowing police, who have completed 25 years' service or attained age 50, to retire with an entitlement to a deferred pension. This also allows members to take advantage of a discontinuity in the CSS benefits. Members of the CSS are able to leave the CSS with a deferred pension benefit that becomes payable after attaining age 55, and this is the most frequent method of exit due to a design feature that results in higher benefits being available just before age 55 than just after age 55.

The benefit is payable when the CSS pension becomes payable and the percentage of the CSS benefit is determined by the age on ceasing to be an eligible employee for CSS purposes or the age on leaving the Police Force, whichever is greater. Below age 55 the factor is 25 per cent.

The employer component of the CSS retirement benefit is a multiple of final salary that increases with the length of service. The employer component of the CSS benefit on taking a deferred benefit before age 55 is linked to the accumulation of member contributions at the time of pension commencement. The first type of benefit therefore increases with salary increases and the second increases in line with the earning rates of the CSS.

The scheme pension benefit may be commuted. A reversionary pension benefit of 67 per cent is payable to a surviving spouse. Pension benefits are increased on 1 January and 1 July in line with increases in the consumer price index (CPI).

There are no insurance arrangements in place for death or disability benefits in the fund. This is appropriate.

4. MEMBERSHIP

Contributors

As at 30 June 2021 there were 4 female and 11 male contributors, with average superannuation salaries of \$178,200 per annum. At 2018 there were 10 female and 20 male contributors, with average superannuation salaries of \$163,300 per annum. For those who were contributors at both dates the annualised rate of increase in salary was 3.7% pa, including both general and promotional increases.

All remaining members now have over 25 years of service and so have now qualified for a deferred or immediate retirement pension.

Details of the decline in contributory membership over the last six triennial periods are summarised below:

	2003-06	2006-09	2009-12	2012-15	2015-18	2019-21
Membership at start of period	182	135	97	77	53	30
Resignation	4	3	0	0	0	0
Deferred*	2	3	0	2	3	2
Invalidity	1	1	3	0	0	0
Retirement Commute*	5	5	3	2	1	0
Retirement Pension*	35	26	14	20	19	13
Membership at end of period	135	97	77	53	30	15

*A large number of retirements occurred immediately before the 55th birthday but are shown above as retirements rather than deferred benefits because the period of deferral was very brief.

The age distribution of remaining members continues to increase as shown below:

Age	2003	2006	2009	2012	2015	2018	2021		
							Male	Female	Total
30-32	1								
33-35	8								
36-38	17	8							
39-41	23	16	8						
42-44	24	24	16	8					
45-47	28	21	22	16	8				
48-50	24	23	19	22	15	7			
51-53	41	23	22	19	21	13	5	2	7
54-56	14	19	10	13	5	7	4	1	5
57+	2	1		2	4	3	2	1	3
Total	182	135	97	80	53	30	11	4	15

I expect that the majority of current membership will remain until age 55, or will preserve their benefit beforehand. All exits under age 55 during the last three years preserved their entitlement within the scheme. It is likely that the contributory membership will tail off to zero within the next 10 years, and the majority will become pensioners on exit. There have been no resignations in recent years, and future cash resignations from the group now appear to be unlikely, given the much larger benefit available on preservation or age retirement, both in this scheme and in CSS.

There are currently two ex-contributors with deferred pension entitlements that will probably commence on reaching age 55, and one pending pension that is being processed for pension commencement. At the previous triennial review there were five deferred and two pending pensioners.

Pensioners

There are 187 member pensioners and 24 spouse pensioners. The average annual pension in payment is \$14,090, although more recent pensioners are generally starting with higher pension benefits. There are also two members with deferred pension entitlements and one pending pensioner.

Details of pensioner numbers are summarised below:

	Pensioners	Spouse pensioners	Rate of payment at balance date
1 July 1997	38	1	\$221,507
New pensioners	22	-	
Deaths	-	-	
30 June 2000	60	1	\$376,249
New pensioners	26	4	
Deaths	4	-	
30 June 2003	82	5	\$633,380
New pensioners	34	6	
Deaths	6	-	
30 June 2006	110	11	\$987,494
New pensioners	25	1	
Deaths	2	2	
30 June 2009	133	10	\$1,408,198
New pensioners	18	1	
Deaths	2	-	
30 June 2012	149	11	\$1,750,925
New pensioners	22	6	
Deaths	6	1	
30 June 2015	165	16	\$2,178,613
New pensioners	18	5	
Deaths	7	1	
30 June 2018	176	20	\$2,561,896
New pensioners	19	5	
Deaths	8	1	
30 June 2021	187	24	\$2,972,933

As expected the number of pensioners and the amounts of pension payments have continued to increase slowly. Note that the rate of payment at balance date does not correspond to the actual payments made in the previous year, due to movements in and out of membership during the year and pension indexation.

5. ACCOUNTS AND INVESTMENTS

Fund balance sheet

The Fund consists of accumulated member contributions, and receives no employer contributions. Employer-provided benefits are paid direct from the Territory's Consolidated Holding Account. There is no Operational Risk Financing Requirement balance.

The scheme balance sheet is summarised below, in a format that demonstrates the net assets available to pay benefits. Figures for 2018 are taken from the 2018 triennial report (which was based on draft accounts at the time), while 2021 figures are based on draft accounts. Asset values are market values.

Figure 5.1 – Summary of Balance Sheet for the Fund as at 30 June 2018 and 30 June 2021

	2018	2021
	\$	\$
Assets		
Cash	62,811	31,484
Units in JANA Moderate trust	2,260,100	1,382,548
Deferred tax asset	295	21,006
Total assets	2,323,206	1,435,038
less non-Member Liabilities		
Benefits payable	432,605*	0
Sundry liabilities	2,080	4,763
Surcharge liability	15,090	7,082
Tax liability	64,958	15,177
Total non-Member Liabilities	514,733	27,022
Net assets available to pay benefits	1,808,473	1,408,016

*the accounting treatment of benefits payable has changed between 2018 and 2021, with the fund now recognising balances for deferred pensioners as member balances consistently with contributor member balances rather than as benefits payable.

The bulk of assets in the fund are invested in the JANA Moderate Trust. The investment profile of the Jana Moderate trust is roughly 70/30 split between growth and defensive investments, as is appropriate for a fund such as this. The fund balance is declining relatively quickly, and so liquidity is a moderately important consideration – the JANA Moderate trust is a relatively large unit trust, and there is no concern about the ability of the trust to meet redemption requirements in respect of this scheme. The investment return from the JANA Moderate Trust is a gross-of-tax return suitable for superannuation assets in the growth phase such as these, and appears to be appropriate.

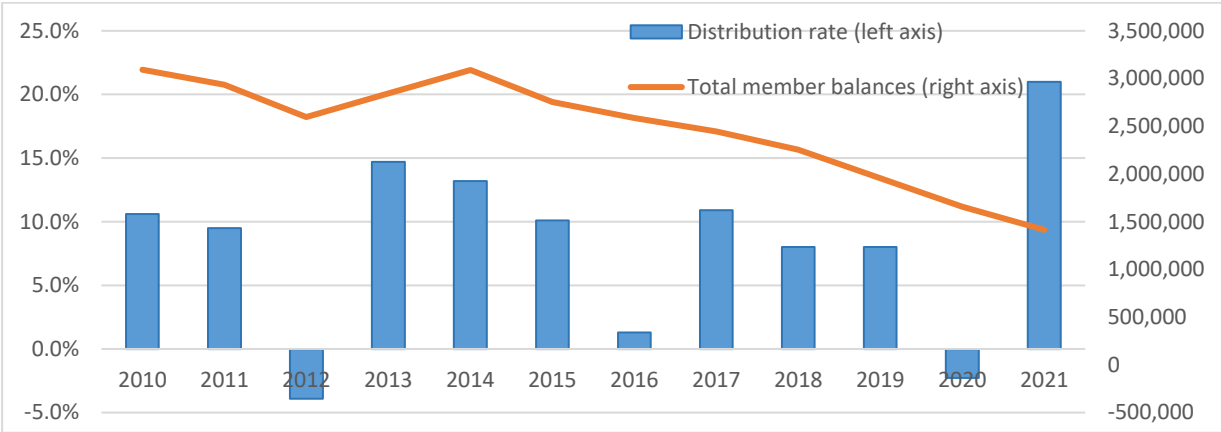
As all contributing members will most likely receive a pension benefit (or commutation thereof) the investment strategy and performance within the Fund is of little consequence to contributing members. It is only for the unlikely circumstance of a member claiming a refund benefit without preserving (either through voluntary resignation or ill-health retirement) that the member accumulation becomes significant in determining the member's benefit entitlement in the scheme.

It is likely that most or all remaining assets in the scheme will at some stage be transferred to the Territory in return for pension benefits (or commutations thereof) over time. Therefore the investment strategy, while not relevant to members, is relevant to the Territory. The investment strategy can be set with the view that the assets, while not currently owned by the Territory, will be used to offset Territory pension liabilities in future.

Member balances and distribution rates

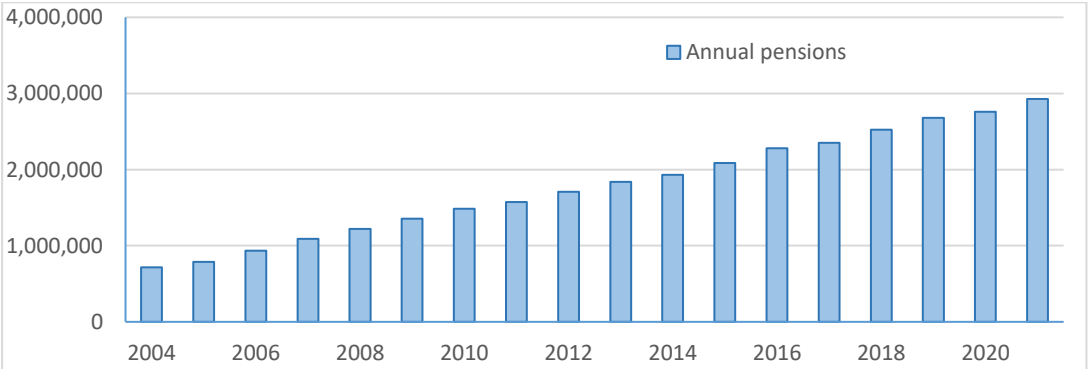
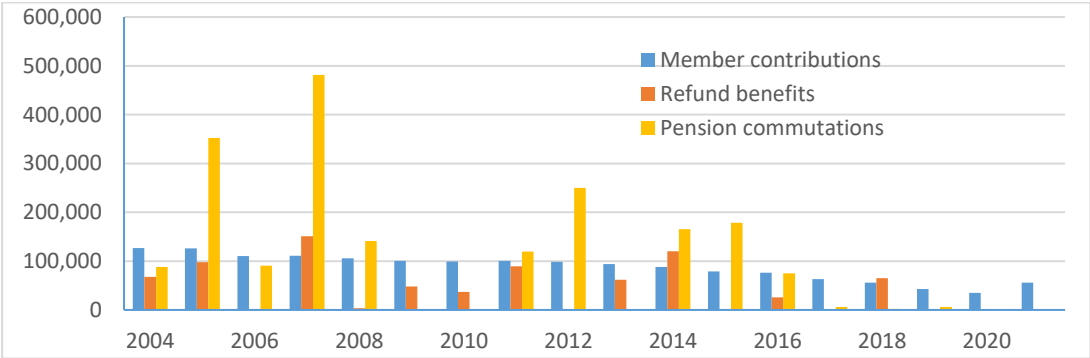
Member balances are held by contributors and deferred members. At the point of pension commencement, balances are transferred to the Territory and the Territory assumes the obligation to make all pension payments. The total member balances have declined gradually over the last decade as the number of remaining contributors has declined.

Crediting rates for members over recent years are based on actual net investment earnings, and are shown below. The compound crediting rate over the last three years has been 8.5 per cent per annum and 7.8% pa over the last ten years.



Benefit payments and member contributions

Pension benefit payments in respect of the scheme have risen steadily over the last two decades, and now dominate scheme finances, as shown below. Commutations are lumpy but relatively small and increasingly uncommon, while refunds have not occurred in recent years. Member contributions are also now quite small and declining, as expected.



6. FINANCIAL AND EXPERIENCE ASSUMPTIONS AND VALUATION METHOD

Financial assumptions

At this triennial review I have assumed that future general salary increases will be 3.0% per annum in the long term, but with zero short term increases for the next four years. I have assumed CPI increases will be 2.2% per annum in the long term but with a short term lower rate of 1.5% p.a. for the next three years. These salary escalation and CPI inflation rates are Department of Treasury & Finance's (DTF's) preferred rates; they are consistent with a range of external forecasts and NT government policy, and lie within what I consider to be a reasonable range.

The particular discount rate adopted will depend on the specific question being addressed. For example, to consider funding scenarios a discount rate based on potential earnings of employer assets would be appropriate, but for annual reporting under AASB119 a discount rate based on the long term bond rate would be appropriate. In the current context there are no employer assets, and so it is appropriate to also use a risk-free discount rate for all forms of external reporting, eg if reporting was made under AASB1056. I have adopted a discount rate of 1.49% pa for results in this valuation report, consistent with currently prevailing yields on long term Commonwealth government bonds and consistent with the requirements of AASB119 (allowing results on this basis to be used for that reporting). However, this rate is near historical lows and may not be a sensible indication of future liabilities depending on the context. Thus I have presented a second scenario in this report with a discount rate of 2.45% pa, consistent with DTF's view (and within what I think is a reasonable range) about the likely longer term average yield on Government bonds. DTF's preferred long term discount rate has reduced from 4.0% pa at 2018 to 2.45% pa at 2021.

I have assumed that investment earnings on member balances will be at the same rate as the discount rate, consistent with the requirements of AASB119.

Promotional salary increases remain a significant part of experience. Promotional increases do not tend to vary by age amongst the remaining scheme workforce (all are now long-serving) and so a promotional scale that varies little by age is appropriate. The experience in recent years suggests promotional increases averaged a little over 1% per annum across the remaining workforce. I have retained the promotional salary scale from the previous valuation, of 1% pa below age 60. Because most pension benefits are assumed to be based on member accumulations rather than final salary the valuation result is quite insensitive to changes in the promotional salary scale.

Contributor demographic experience and assumptions

The following table summarises the actual and expected movements of contributors during recent years.

	2015-18		2018-21	
	Actual	Expected	Actual	Expected
Death & Invalidity	0	1.4	0	0.8
Pre-54 deferral	3	0.6	2	0.2
Retirement over 54	20	20.7	13	16.0

Death and invalidity experience was better than expected, but based on a small sample size. The contributor death and ill-health retirement assumptions have very little impact on valuation results.

The ill-health retirement rates from the previous valuation have been retained, while the death rates have been updated to be in line with the current pensioner mortality rates.

The contributor pre-retirement exit experience was slightly higher than expected, but based on very few resignations. I have retained the resignation rates from the previous assessment. I note that the financial importance of this assumption is not great, as all resignations now are assumed to take the available preserved benefit.

Perhaps the most notable aspect of contributor demographic experience in the last three years is that members consistently retired at around 55, rather than remaining in the workforce beyond that age. Of 14 contributors aged over 52 but under 55 in 2018 all apart from two retired at or before age 55 in the last three years; there are currently only 3 contributors over age 55 in the scheme. I expect this early retirement feature to remain, and so have also maintained the high retirement rates at ages 54-56 adopted at the previous valuation, with all members assumed to retire at the later of current age or age 60.

Commutation of pensions has a substantial impact on both the liabilities and the cash flows, because the value of the lump sum is only about 50 per cent of the value of the pension foregone and the cash impact of a single commuted lump sum is high compared to annual pension payments. Over the last ten review periods the percentages commuting have been 17, 22, 30, 38, 22, 13, 16, 14, 8, 6 and 0 per cent respectively, although the total number of exits in recent years has been quite small. The assumption from the 2018 triennial review was that 15% of pensions would be commuted. I have reduced that assumption from 15% to 10% in line with more recent experience at the 2021 triennial review.

Pensioner experience and assumptions

There were eight member pensioner deaths and one reversionary pensioner death in the last three years, compared to about 12.8 expected during the three years. The number of pensioners is very small, and there is insufficient internal scheme data on which to make any judgement about mortality of pensioners. I have continued to base mortality assumptions on the most recent Australian population mortality tables. I have used 95 per cent of the Australian Government Actuary's Australian Life Tables 2015-17 as the pensioner mortality rates. The 95 per cent ratio allows for the selection effect of being able to choose a commutation if in poor health. I have incorporated allowance for mortality improvements after 2016 for pensioners at the 125-year rates of improvement set out in the Australian Life Tables 2015-17. These mortality and improvement rates are modified from the 2018 review so as to recognise the latest AGA mortality tables.

Of eight pensioner deaths, five resulted in a reversionary pension. I have assumed that 90 per cent of pensioners are married for ages up to 60. Lower proportions apply after that, to recognise the fact that many spouses will predecease the member.

I have assumed that male pensioners are about three years older than their spouses up to age 60, with the age difference increasing with increasing age.

Details of demographic assumptions are shown in the Appendix to this report.

Valuation method

Each contributor's expected future benefits (including reversionary benefits) are projected using the assumed decrement rates and rates of salary increase. These future payments have then been discounted to the valuation date using the assumed discount rate.

The portion of each contributor's benefit regarded as accrued is the ratio of scheme service to 30 June 2021 to total scheme service at the time of benefit emergence. This apportionment method is consistent with the requirements of the Projected Unit Credit method as set out in paragraph 67 of AASB119 and is the proportionate method of Professional Standard 402.

Current pensioners' and deferred members' expected future benefits (and reversionary benefits) are projected in the same way as for current members, using assumed mortality rates, proportions married and future salary increases. The whole of the liability for each pensioner and deferred member is an accrued liability.

7. TERRITORY LIABILITIES

The present values of Territory liabilities at 30 June 2021, calculated on the basis described, are set out below.

	Membership at 2021	2.45% discount \$ million	1.49% discount \$ million
Contributors accrued benefits			
member-financed	15 contributors	1.176	1.176
Territory-financed		7.838	9.729
Deferred pensioners			
member-financed	3 deferred/pending	0.239	0.239
Territory-financed		2.304	2.881
Pensioners	211 pensioners	66.646	76.834
Total accrued liability		78.204	90.859
member-financed		1.415	1.415
Territory-financed		76.789	89.444

In addition to the accrued employer liability of \$89.4M, a further \$0.6 million of employer liability is expected to accrue in future in respect of current contributors. The expected present value of future salaries is \$5.3 million, and so this future accruing employer liability could be funded with a contribution of 9.4% of future salaries.

Scheme vested benefits total \$92.6M using a 1.49% discount rate, including member-financed balances for contributors of \$1.4M. Employer-financed vested benefits are \$91.2M, slightly higher than accrued employer liability of \$89.4M. Now that all contributory members have a vested pension entitlement, the vested benefit will tend to be higher than the accrued benefit for contributors because:

- For those under age 55, the benefit immediately after age 55 is generally smaller than the benefit immediately before age 55 (this is the general incentive to take the 54/11 benefit);
- The benefit for those that stay in service beyond age 55 drops each year until age 60 (this is part of the NTPSBS benefit design).

I consider it unlikely that the vested benefits for all of these members will be immediately claimed, and in any case the funding arrangement and nature of the employer sponsor mean that even if this did occur any liquidity or funding problem is unlikely. I am satisfied that it is not necessary to increase the accrued liability towards the vested benefit to cater for this feature.

Changes since 2018

The accrued employer liability has increased from \$70.1M at 30 June 2018 to \$89.4M now, an increase of \$19.3M. The projected liability at 2021, determined at the 2018 valuation, was about \$69.0 million in current dollars. The additional \$20.4M of liability at 2021 is explained as follows:

- The change in discount rate and assumed investment return on member balances from 2.6% to 1.49% pa increased the employer liability by +\$14.1M.
- The change in short term salary growth assumptions decreased liability by -\$0.2M.
- The changes in assumed CPI growth increased liability by +\$0.8M
- The change in pensioner mortality rates increased liability by +\$3.8M;
- The change in assumed proportion commuting pension increased liability by +\$0.3M.
- Lower commutations of pension than expected increased 2021 liability by about +\$1.7M;
- Higher investment earnings than assumed increased liability by about +\$1.5M;
- CPI growth on pensions was lower than expected, reducing liability by about -\$0.8M;
- Other elements of experience, including salary growth, pensioner deaths and the rate of exit around age 55 were largely in line with expectations or had minor impacts on liability;

Sensitivity Analysis

The assumptions made in valuing the liability can dramatically impact the estimated liability. The following scenarios demonstrate the sensitivity of the liability to changes in various elements of the valuation basis. This sensitivity analysis is intended to show foreseeable outcomes, but is not intended to demonstrate the limits to variability in the liability.

		Liability (\$M)	Impact %
Base case (1.49% discount)		89.4	
Higher long term salary growth	+1% pa for all years	89.5	0%
Lower long term salary growth	-1% pa for all years	89.4	0%
Higher long term CPI growth	+1% pa for all years	102.7	15%
Lower long term CPI growth	-1% pa for all years	78.7	-12%
Higher discount/earning rate	+1% to 2.49% pa	89.5	0%
Lower discount/earning rate	-1% to 0.49% pa	89.4	0%
Higher commutation rate	+10% to 20% commutation	90.3	1%
Lower commutation rate	-10% to 0% commutation	88.5	-1%
Higher pension mortality	increase mortality rates by 10%	86.8	-3%
Lower pension mortality	reduce mortality rates by 10%	92.5	3%
Lower retirements at age 55	reduce age-55 ret rate by 50%	87.5	-2%

The most important determinants of liability are CPI growth and pensioner mortality (which impact actual pension cash flows) and the discount rate (which impacts the present value mechanism used to value scheme liabilities).

The sensitivity analysis shows that contributor experience will have very little impact on liability. Changes in earning rates on accumulations, salary growth rates, commutations and resignation rates make only slight differences to liability. The proportion of people assumed to retire around age 55 makes a moderate difference, as the pre-55 benefit is larger than the post-55 benefit.

8. PROJECTIONS OF TERRITORY EMERGING COSTS AND EMPLOYER-FINANCED ACCRUED LIABILITIES

Projections of Territory future emerging costs and employer-financed accrued liabilities are set out below, together with comparisons with estimates made at 30 June 2018. All figures are shown in inflated values of the projection year. 2021 liability figures on two different discount rates are shown.

Accrued employer liabilities are expected to decline slowly in real terms for the next few years, and will decline more quickly as current contributors exit and pensioners age. Employer emerging costs will continue to climb slightly in real terms over the next 7 years or so as the number of pensions in payment increases.

	2018 valuation		Current valuation		
	Emerging costs	Accrued liability	Emerging costs	Accrued liability	Accrued liability
		2.6% disc		1.49% disc	2.45% disc
	\$M	\$M	\$M	\$M	\$M
2021		69.009		89.443	76.789
2022	2.862	68.041	2.653	88.332	76.172
2023	2.989	66.869	2.867	86.900	75.254
2024	3.106	65.513	2.949	85.304	74.184
2025	3.207	63.997	3.210	83.382	72.786
2026	3.279	62.351	3.283	81.333	71.260
2027	3.332	60.600	3.362	79.163	69.605
2028	3.366	58.768	3.410	76.910	67.858
2029	3.382	56.872	3.438	74.594	66.039
2030	3.391	54.916	3.460	72.220	64.153
2031	3.396	52.904	3.478	69.792	62.200
2032	3.390	50.846	3.486	67.320	60.191
2033	3.378	48.747	3.489	64.808	58.131
2034	3.358	46.613	3.485	62.263	56.024
2035	3.331	44.451	3.475	59.690	53.875
2036	3.296	42.268	3.458	57.096	51.691
2037	3.253	40.072	3.434	54.487	49.478
2038	3.201	37.872	3.402	51.872	47.242
2039	3.141	35.675	3.363	49.257	44.992
2040	3.072	33.491	3.316	46.650	42.733
2045	2.617	23.043	2.974	34.005	31.581
2050	2.020	14.070	2.474	22.667	21.322
2055	1.358	7.296	1.861	13.425	12.779
2060	0.745	3.028	1.217	6.788	6.533
2065	0.308	0.938	0.660	2.775	2.700
2070	0.090	0.196	0.280	0.819	76.789

Emerging payments are similar to those projected at the previous valuation, although lower mortality rates at this valuation increase payments in the outer projection years. The prevailing discount rate causes a change in the projected liabilities.

9. CONCLUDING STATEMENTS

APRA Superannuation Prudential Standard SPS 160: Defined Benefit Matters requires that an actuarial report of a regular investigation contains specific items as referred to in paragraph 24 of that standard. The following statements are intended to fulfil that requirement:

- (a) The valuation of the assets of the fund at the valuation date, excluding any amount held to meet the Operational Risk Financial Requirement (ORFR) (which is zero for this fund) is \$1.4M, consisting entirely of accumulated member contributions for contributors and deferred or pending pensioners;*
- (b) The employer contributions are currently made on an emerging cost basis. I recommend that this continue. This recommendation has been developed using assumptions and valuation methods described in this report, which I consider to be appropriate for this purpose;*
- (c) The current funding of the liabilities of the fund is adequate, having regard to the financial strength of the employer sponsor and the guarantee within the Trust Deed for the Territory to provide benefits;*
- (d) There have been no prescribed events in terms of SIS Regulation 12.10.*

Although the scheme was closed in 1 January 1988 and contributory membership has reduced considerably the scheme's pension benefits will be paid for many years. Scheme membership is now quite stable. Liabilities are now also quite stable, with salary and investment market fluctuations having less impact on liabilities over time, and pensioner mortality and CPI indexation becoming the dominant determinants of future outcomes.

The accrued employer liability at 30 June 2021 is \$89.444 million using a discount rate of 1.49% pa, or \$76.789 million using DTF's preferred long term discount rate of 2.45% pa.



John Rawsthorne FIAA

2 September 2021

APPENDIX

The demographic assumptions from the review are summarised below.

Contributors

Age	Mortality	Invalidity	Retirement	Resignation	Promotion (%)
45	0.0019	0.0043		0.0104	1.0
50	0.0027	0.0080		0.0064	1.0
55	0.0041	-	0.70	-	1.0
56	0.0044	-	0.50	-	1.0
57	0.0048	-	0.25	-	1.0
58	0.0053	-	0.25	-	1.0
59	0.0057	-	1.00	-	1.0

In-service decrement rates do not vary by gender

Pensioners

Age	Mortality		Proportion Married	Mortality Improvements
	Male	Female		
55	0.0041	0.0025	90%	2.0%
60	0.0062	0.0036	90%	1.9%
65	0.0092	0.0054	87%	1.7%
70	0.0147	0.0091	83%	1.5%
75	0.0250	0.0159	76%	1.4%
80	0.0446	0.0300	66%	1.4%
90	0.1443	0.1160	31%	1.3%
100	0.2876	0.2929	4%	1.0%

Mortality improvement applies for the period from 2016 to the projection year

Pensioner mortality rates vary by gender