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SAS Trustee Corporation

Triennial Valuation as at 30 June 2021

- State Authorities Superannuation Scheme
- State Superannuation Scheme
- Police Superannuation Scheme
- State Authorities Non-Contributory Superannuation Scheme

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Contents

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- The advice contained in this report is based on the circumstances of the STC Pooled Fund as a whole. It does not take into account the specific circumstances of any individual.
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- All reasonable care has been taken to provide member and investment data that is accurate. However, we have relied on a range of external sources for data. In particular we have relied on membership data provided by the Fund administrator and summarised in Section 5, as well as asset data summarised in Section 6, and reconciled with the net assets in the financial statements. We have carried high level reasonableness checks however we are unable to guarantee the accuracy of the data contained in this report.
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    - even if PwC consents to anyone other than STC receiving or using this report.

Scope and background

The report meets SAS Trustee Corporation's legislative and compliance requirements as at 30 June 2021

Area covered	Comments
Purpose and scope of report	• A triennial investigation and valuation of the State Authorities Superannuation Scheme (**SASS**), the State Superannuation Scheme (**SSS**), the Police Superannuation Scheme (**PSS**), and the State Authorities Non-Contributory Superannuation Scheme (**SANCS**), collectively known as the **STC Pooled Fund**. • Prepared at request of SAS Trustee Corporation (**STC**) to report on the operation and state of funding of the STC Pooled Fund and its constituent Schemes. • This report is as at 30 June 2021. • The previous report as at 30 June 2018, dated 24 October 2018, was prepared by Catherine Nance, Janice Jones and Mike Clough of PricewaterhouseCoopers Securities Ltd.
Governing legislation	• State legislation governs each Scheme and determines the benefits of each Scheme. • The Schemes are closed to new entrants. • See next page for legislative changes since 30 June 2018 which may impact the Pooled Fund benefits or liabilities.
Taxation and compliance	• The Schemes are exempt public sector superannuation schemes. • STC complies with the Commonwealth retirement incomes policy where possible, in accordance with a Heads of Government Agreement signed by the NSW State Government. • The Schemes are treated as complying for concessional taxation and superannuation guarantee purposes.
Significant market events since 30 June 2021	• At the time of preparing the results, the actual CPI for the year to June 2021 was not known. • The CPI increase for the year to June 2021 (published on 28 July 2021) was 4% as compared to our assumed rate of 2%. • A 4% CPI increase (2% in excess of our assumption) would increase the employer past liabilities of $49,949.4 million (as shown in this report) by approximately $838 million (1.7%). The asset coverage of employer past service liability would reduce from 68% to 67%.
Statement of Compliance	• Our advice to you constitutes Actuarial Advice and has been prepared in accordance with the Institute of Actuaries of Australia Code of Conduct. • The figures in this report are calculated in accordance with the Australian Accounting Standards AASB1056 – Superannuation Entities. • The report has been prepared in accordance with Professional Standards 400, 402, 404 and 410 issued by the Institute of Actuaries of Australia.
Date of issue	• 18 October 2021

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Legislative changes since 30 June 2018

We are not aware of any legislative changes since 30 June 2018 which materially impacts the Pooled Fund benefits or liabilities.

Legislative changes or updates since 30 June 2018 which may impact the Pooled Fund benefits or liabilities are as follows:

Area covered	Comments	Impact on funding position
Pension indexation	• The Schemes' legislation was amended with respect to pension indexation in 2020. • Previously a negative pension indexation applied if the CPI decreased by 1% or more in the year. This was changed to if the CPI decreased by 1.1% or more instead, effective from 2020. • As a result, although the CPI decreased by 1% in 2020, no indexation adjustment was applied to the pensions in 2020, and the CPI decrease carries forward to the 2021 indexation adjustment. • Therefore, we have adjusted the 2021 (first year) pension indexation assumption to offset the impact of the negative indexation in line with Fund legislation. See Section 7 for detail of this adjustment.	• Minor impact. • We note that the pension payroll from October 2020 to September 2021 is approximately $33m higher due to not applying a 1% reduction in CPI.
Additional Employer Contribution	• The regulations introduced for the Additional Employer Contribution (AEC) are currently being reviewed, as some members are receiving higher benefits than intended. • This is likely to be a prospective change to correct the arrangements and hence no impact on the past service liability or vested benefit. • We note that the AEC employer contribution is in addition to the employer contribution recommendations in this report.	• No impact.
Anti-detriment	• From 1 July 2017, the government removed the anti-detriment provision from the Income Tax Assessment Act. • This previously enabled superannuation funds to claim a tax deduction on a top-up component to lump sum death benefits, where the top-up represented a refund of contribution tax payments. • Our valuation projections assume that the Fund will continue its current practice paying these top-ups for certain SASS, PSS and SANCS lump sum death benefits. The top up amount has not been reduced even though the Fund can no longer claim a tax deduction. • We also note that during this time the Fund legislation for SASS was reviewed and the anti-detriment provisions retained.	• Minor impact. • The cost is approximately $2m a year but will decline as the number of contributors decreases and death benefit claims therefore also decrease.

Executive Summary

Funding position and recommendations

The asset cover for the employer past service liabilities has remained at 68% from 30 June 2018 to 30 June 2021

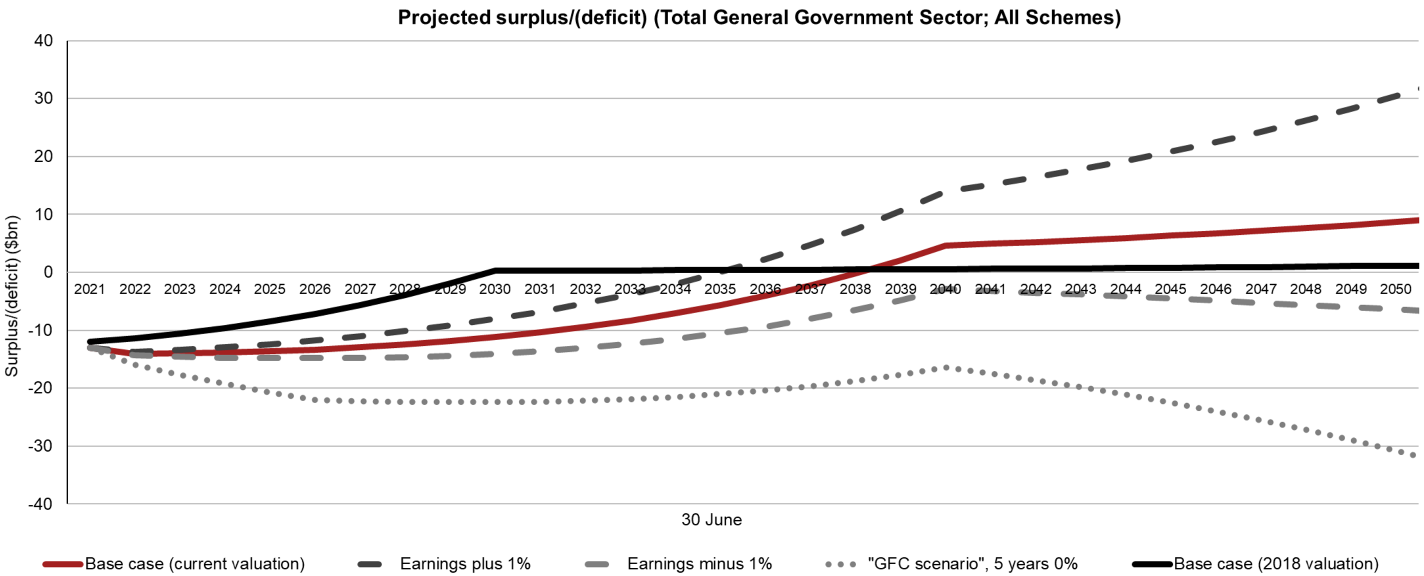
	2021				2018		
Sector	**Employer Past Service Liabilities ($m) A**	**Employer Reserve [1] ($m) B**	**Employer Unfunded Liabilities ($m) B-A**	**Asset coverage B/A**	**Employer Unfunded Liabilities ($m)**	**Asset coverage**	**Sector recommendations (see page 28 for further details)**
General Government	43,217.6	30,205.3	(13,012.3)	70%	*(12,979.3)*	*70%*	Recommend to maintain current Crown funding plan which is projected to fund deficit by 2040 (see next page), but redistribute funding between Schemes[3]. Non-Crown individual employer plans have been reviewed and documented separately.
Universities	3,299.6	418.2	(2,881.4)	13%	*(2,995.5)*	*15%*	No recommendation required.
PTEs/Other[2]	3,432.1	3,561.7	129.6	104%	*1.7*	*100%*	Individual employer plans to be reviewed and documented separately.
Total	**49,949.4**	**34,185.3**	**(15,764.1)**	**68%**	*(15,973.1)*	*68%*	

- The asset cover for the employer past service liabilities has remained at 68% from 30 June 2018 to 30 June 2021. The value of unfunded liabilities has improved marginally from a $16.0bn deficit to a $15.8bn deficit.
- This was due to a number of offsetting impacts, with key noteworthy items including:
  - $3.2bn improvement in funding due to the payment of $4.6bn employer contributions which is in excess of the cost of new benefits accrued over the period.
  - $2.6bn improvement in funding due to the higher than expected investment returns and lower than expected pension increases.
  - $3.7bn deterioration due to the decrease in the discount rate assumption from 7.4% p.a. to 6.5% p.a. for pensioners (6.4% p.a. to 5.7% p.a. for non-pensioners).
  - $3.0bn deterioration due to the impact of 3 years of interest applied to the 2018 deficit.
- The 2021 employer past service liability results by employer sectors are as follows:
  - General Government Sector - 70% asset coverage / $13.0bn deficit. Due to the economic impact on NSW Government's finances caused by COVID-19, a revised contribution plan was adopted. In addition to a two year contribution holiday from 1 July 2020 to 30 June 2022, the NSW Government is looking to fully fund all General Government Sector liabilities by 2040 instead of 2030. While the Fiscal Responsibility Act 2012 is not yet amended due to continued uncertainty of the impact of COVID-19, the NSW Treasury's FY22 Budget has allowed for Crown contributions to 2040. The Crown funding plan and projections are shown on the next page.
  - Universities Sector – 13% asset coverage / $2.9bn deficit. The funding for this sector is in part through pay-as-you-go payments backed by the Commonwealth and NSW Governments. The lower asset coverage reflects this funding mechanism.
  - Public Trading Enterprises, Public Financial Corporations and Other employers Sector (PTEs/Other) – 104% asset coverage.

[1] The assets are consistent with the audited net assets in the financial statements but exclude the Employer Sponsor Receivable for PSS. See page 40 for details.
[2] Public Trading Enterprises, Public Financial Corporations and Other employers Sector (PTEs/Other) [3] Results commentary for the four Schemes in the STC Pooled Fund are set out in the body of the report.

General Government Sector funding projection results

The General Government Sector employer funding position is projected to improve from the current deficit of $13.0bn, to a funding reserve of $4.6bn by 2040. This base scenario achieves the NSW Government commitment of fully funding all General Government Sector liabilities by 2040, however there is significant variability in the projected outcomes under other scenarios.



Valuation	Scenario	Projected funding reserve/(deficit) ($bn) 2030	2040
2018 valuation	Base case	0.3	0.6
Current valuation	**Base case**	**(11.2)**	**4.6**
	Earnings plus 1%	(8.1)	13.9
	Earnings minus 1%	(14.1)	(2.9)
	“GFC” (0% investment returns for five years)	(22.4)	(16.4)

- The projected funding outcome has changed significantly since the 2018 Triennial valuation from a projected funding reserve of $0.3bn in 2030 | $0.6bn in 2040, to a projected deficit at of $11.2bn in 2030 | projected funding reserve of $4.6bn in 2040 (allowing for the ‘base case’ Triennial assumptions for each valuation).
- This is mainly due to the intended Crown funding plan change to be spread over a longer period. As per NSW Treasury’s Budget for FY22, after a two year contribution holiday the level of contributions for FY23 is $1.193bn and will grow at 5% p.a. until the last contribution in FY40. See the Table below, and also Section 4 for more details on contributions.

CFP Contributions ($bn)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
	Financial year ending 30 June																		
Current valuation	-	1.19	1.25	1.32	1.38	1.45	1.52	1.60	1.68	1.76	1.85	1.94	2.04	2.14	2.25	2.36	2.48	2.60	2.73
2018 valuation	1.83	1.92	2.01	2.11	2.22	2.33	2.45	2.57	2.70	-	-	-	-	-	-	-	-	-	-

- We have also shown the following additional scenarios which illustrates that there is significant variability in the potential funding outcome (which allow for changes in assumed asset returns, with liabilities still based on the Triennial assumptions i.e. same as base case):
  - Projected investment earnings increased and decreased by 1% p.a.
  - A “Global Financial Crisis” (GFC) type downturn scenario in which investment earnings are assumed to be 0% p.a. for 5 years then revert to the valuation assumption.
- The scenarios illustrated in the projections are not intended to indicate upper or lower bounds of possible outcomes.

Key risks

The key risks faced by the STC Pooled Fund are investment risk and pension increase risk

Level of risk

Risk	Comments
Investment risk	• A key risk faced by STC Pooled Fund • Moving to a more cautious investment strategy could reduce volatility to help mitigate this • However this would also result in lower expected investment returns and increased employer liabilities and costs
Pension increase risk	• RBA has adopted inflation target of 2-3% • Monetary policy used to keep within target • Strong pensioner presence in STC Pooled Fund (84% of liability)
Salary increase risk	• Employer has control over this • Historically been less volatile than investments • Contributors make up small (16%) of liability so salary increase risk is relatively low and declining
Longevity risk	• Future life expectancies continue to increase • Allowance has been made in assumptions • Strong pensioner presence in STC Pooled Fund (currently 84% of liability). This will also impact contributors who are eligible for pension benefits in the future.
Catastrophe risk	• Death and TPD self-insured • Potential for catastrophic event to lead to multiple claims • Offset by pensioners (who could also be impacted)
Legislative risk	• Continual changes, such as increasing Superannuation Guarantee and APRA prudential standards could increase costs • However, good governance may reduce risk

Sensitivity

The employer past service liabilities of **$49.9 billion** would increase by:

Risk	Change	Increase
Investment risk	1% p.a. decrease in investment returns	$4.8bn 9.5%
Pension increase risk	1% p.a. increase in inflation	$4.6bn 9.3%
Salary increase risk	1% p.a. increase in salary increase	$0.4bn 0.8%
Longevity risk	Higher mortality improvements	$0.3bn 0.6%

- The sensitivity results highlight the impact of a possible change in assumptions which relate to these four key risks. Note that these sensitivities reflect a possible alternative assumption rather than the size of the risk itself.

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Funding position

STC Pooled Fund funding position by Scheme (1 of 2)

The total past service liabilities are $58.9bn. This is made up of $49.9bn employer past service liabilities, $5.5bn contributor reserves and $3.5bn deferred reserves.

Scheme	Employer Past Service Liabilities (Accrued Benefits)				Contributor Reserve ($m)	Deferred Reserve ($m)	Total ($m)
	Contributors ($m)	Deferred ($m)	Pensioners ($m)	Total ($m)			
SASS	5,219.0	-	1,825.1	7,044.1	4,480.3[DC]	2,916.5[DC]	14,440.9
SSS	625.2	160.0	33,239.7	34,024.9	619.1[DB]	-	34,644.0
PSS	660.1	11.5	6,842.9	7,514.4	254.8[DB]	-	7,769.2
SANCS	1,366.0	-	-	1,366.0	106.4[1,DC]	606.1[DC]	2,078.6
Total Past Service Liabilities (A)	7,870.3	171.4	41,907.7	**49,949.4**	5,460.6	3,522.6	**58,932.6**
Total Assets (B) [2]				**34,185.3**	5,460.6	3,522.6	**43,168.5**
Unfunded liabilities (B-A)				**(15,764.1)**	-	-	**(15,764.1)**
Asset coverage (B/A)				**68%**	100%	100%	**73%**

- The total assets are $43.2bn, which is 73% of the total past service liabilities of $58.9bn.
- The current deficit on the employer past service liabilities is $15.8bn.
- The table above shows the split of these liabilities between the Schemes.
- A comparison of the employer past service liabilities with the previous valuation is shown on the next slide.

[DC] SASS and SANCS contributor and deferred reserves are accumulation-style benefits. SASS contributor and deferred reserves are subject to member investment choice, whereas the SANCS contributor and deferred reserves are not subject to member investment choice.
[DB] SSS and PSS contributor reserves represent the member-financed portion of the defined benefit liabilities. These reserves are not subject to member investment choice.
[1] Includes SANCS Other Accounts such as government co-contributions, as well as Additional Employer Contributions. Further details are shown on page 40 and Appendix B.
[2] The assets above are consistent with the audited net assets in the financial statements but excludes the SASS Additional Benefits Reserve of $9.2m which is a self-insurance arrangement to cover the member portion of the SASS additional benefits and excludes allowance for the Employer Sponsor Receivable for PSS. Further details and a reconciliation are shown on page 40.

STC Pooled Fund funding position by Scheme (2 of 2)

The asset cover for the employer past service liabilities has remained at 68% from 30 June 2018 to 30 June 2021

Scheme	2021				*2018*			
	Employer Past Service Liabilities ($m) A	**Employer Reserve ($m) B**	**Employer Unfunded Liabilities ($m) B-A**	**Asset coverage B/A**	***Employer Past Service Liabilities ($m) A***	***Employer Reserve ($m) B***	***Employer Unfunded Liabilities ($m) B-A***	***Asset coverage B/A***
SASS	7,044.1	5,147.9	(1,896.2)	73%	*7,375.8*	*5,625.0*	*(1,750.8)*	*76%*
SSS	34,024.9	23,000.8	(11,024.1)	68%	*33,391.8*	*22,062.7*	*(11,329.1)*	*66%*
PSS	7,514.4	5,002.6	(2,511.8)	67%	*7,110.1*	*4,565.3*	*(2,544.8)*	*64%*
SANCS	1,366.0	1,034.0	(332.1)	76%	*1,660.1*	*1,311.7*	*(348.4)*	*79%*
Total	**49,949.4**	**34,185.3**	**(15,764.1)**	**68%**	*49,537.8*	*33,564.7*	*(15,973.1)*	*68%*

- The asset cover for the employer past service liabilities has remained at 68% from 30 June 2018 to 30 June 2021. The value of unfunded liabilities has improved marginally from a $16.0bn deficit to a $15.8bn deficit.
- This was due to a number of offsetting impacts, with key noteworthy items including:
  - $3.2bn improvement in funding due to the payment of $4.6bn employer contributions which is in excess of the cost of new benefits accrued over the period.
  - $2.6bn improvement in funding due to the higher than expected investment returns and lower than expected pension increases.
  - $3.7bn deterioration due to the decrease in the discount rate assumption from 7.4% p.a. to 6.5% p.a. for pensioners (6.4% p.a. to 5.7% p.a. for non-pensioners).
  - $3.0bn deterioration due to the impact of 3 years of interest applied to the 2018 deficit.
- Further details of the reasons for the movements are shown later in this section.
- The asset coverage by Scheme ranges between 67% (for PSS) and 76% (for SANCS).

STC Pooled Fund funding position by Sector (1 of 2)

The General Government Sector accounts for $43.2bn in employer past services liabilities which is around 87% of the total.

Sector	Employer Past Service Liabilities (Accrued Benefits)				Contributor Reserve ($m)	Deferred Reserve[2] ($m)	Total ($m)
	Contributors ($m)	Deferred ($m)	Pensioners ($m)	Total ($m)			
General Government	6,416.4	134.8	36,666.4	43,217.6	4,469.0	3,522.6	51,209.2
Universities	179.0	15.4	3,105.3	3,299.6	121.3	-	3,420.9
PTEs/Other[1]	1,275.0	21.2	2,135.9	3,432.1	870.4	-	4,302.5
Total Past Service Liabilities (A)	7,870.3	171.4	41,907.7	**49,949.4**	5,460.6	3,522.6	**58,932.6**
Total Assets (B)				**34,185.3**	5,460.6	3,522.6	**43,168.5**
Unfunded liabilities (B-A)				**(15,764.1)**	-	-	**(15,764.1)**
Asset coverage (B/A)				**68%**	100%	100%	**73%**

- The employers participating in the Pooled Fund are split into the following sectors:
  - General Government Sector – this Sector can be further split between Crown and Non-Crown Government entities
  - Universities
  - Public Trading Enterprises, Public Financial Corporations and Other employers (PTEs/Other)
- The General Government Sector accounts for $43.2bn in employer past services liabilities which is around 87% of the total. Universities and PTEs/Other account for the remaining 13%.
- Detailed results by both Scheme and Sector are shown in Appendix E.

[1] Public Trading Enterprises, Public Financial Corporations and Other employers Sector (PTEs/Other)
[2] All deferred reserves have been included under General Government, consistent with treatment in 2018 Triennial Review

STC Pooled Fund funding position by Sector (2 of 2)

A comparison of the employer funding position since the last triennial shows the asset coverage for the General Government Sector remained at 70% from 30 June 2018 to 30 June 2021.

	2021				2018			
Sector	Employer Past Service Liabilities ($m) A	Employer Reserve ($m)[1] B	Employer Unfunded Liabilities ($m) B-A	Asset coverage B/A	*Employer Past Service Liabilities ($m) A*	*Employer Reserve ($m) B*	*Employer Unfunded Liabilities ($m) B-A*	*Asset coverage B/A*
General Government	43,217.6	30,205.3	(13,012.3)	70%	*42,587.0*	*29,607.6*	*(12,979.3)*	*70%*
Universities	3,299.6	418.2	(2,881.4)	13%	*3,539.8*	*544.3*	*(2,995.5)*	*15%*
PTEs/Other	3,432.1	3,561.7	129.6	104%	*3,411.1*	*3,412.8*	*1.7*	*100%*
Total	**49,949.4**	**34,185.3**	**(15,764.1)**	**68%**	*49,537.8*	*33,564.7*	*(15,973.1)*	*68%*

- The asset coverage varies significantly between Sectors:
  - The General Government Sector has an asset coverage of 70%. The NSW Treasury has budgeted contributions which are projected to bring the General Government Sector to fully funded by 30 June 2040[2]. Non-Crown General Government Sector contributions are made at an agreed level.
  - The Universities Sector has an asset coverage of 13%. Funding for this sector is in part through pay-as-you-go payments backed by the Commonwealth and NSW governments, and the lower asset coverage reflects this.
  - Public Trading Enterprises, Public Financial Corporations and Other employers (PTEs/Other) as a sector are fully funded overall with an asset coverage of 104%. Contributions are made at an agreed level**.**
- Further details of the funding arrangements are shown in Section 4.

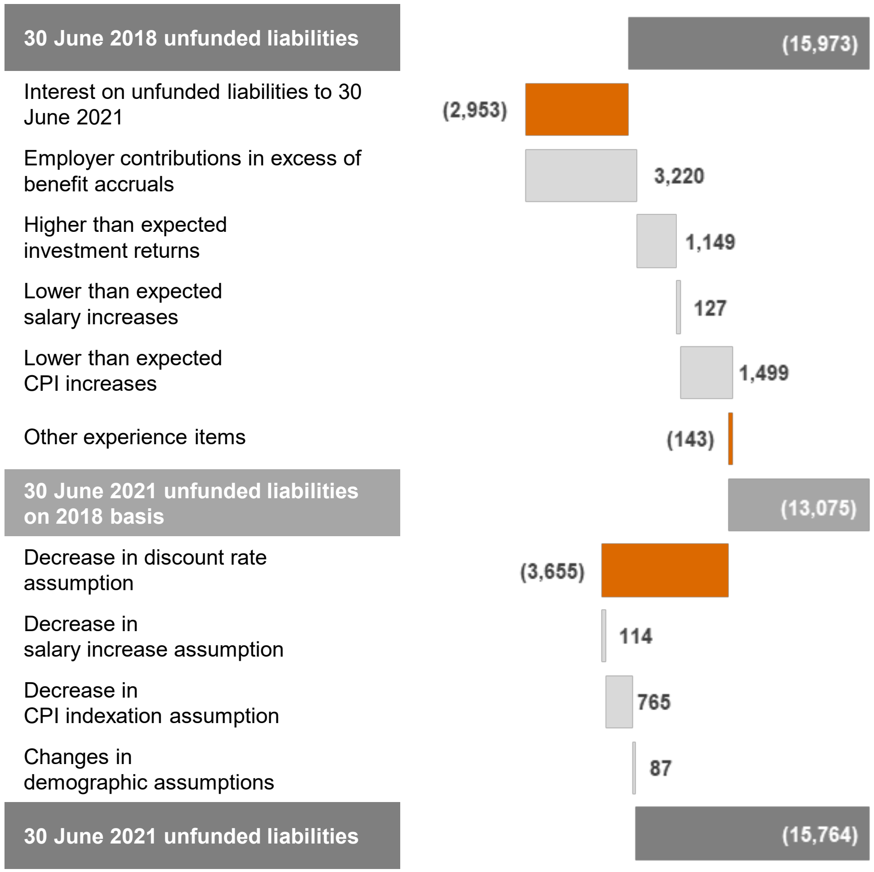
[1] The asset splits by sector have been estimated by taking the total assets from the financial statements and apportioning these in line with the asset splits taken from provisional asset data. As with the previous presentation, the assets and liabilities above exclude the SASS Additional Benefits Reserve of $9.2m, which is a self-insurance arrangement to cover the member portion of the SASS additional benefits, and excludes allowance for Employer Sponsor Receivable for PSS.

[2] NSW Budget FY21/22.

STC Pooled Fund unfunded liabilities reconciliation (1 of 2)

The employer funding position has improved a little since 2018 by $0.2bn from a $16.0bn deficit to a $15.8bn deficit.

Movement in Employer Unfunded Liabilities ($m)



Main reasons for movements

- The first section (moving from a deficit of $16.0bn to a deficit of $13.1bn) shows the movement due to experience between June 2018 and June 2021. Key items:
  - Interest at a rate of 6.4% p.a. (previous Triennial investment return assumption) added to the 2018 unfunded liabilities to bring them to today's dollars (impact -$3.0bn).
  - The employer contributions of $4.6bn were in excess of the cost of the new benefits accrued over the period (impact +$3.2bn).
  - Asset returns 1.1% p.a. higher than expected: 7.5% p.a. vs 6.4% p.a. expected[1] (impact +$1.1bn).
  - Lower than expected salary increase: 2.8% p.a. vs 3.0% p.a. expected[2] (impact +$0.1bn).
  - Lower than expected CPI increases: 0.9% p.a. vs 2.2% p.a. expected (impact +$1.5bn).
  - Other experience items are relatively small at -0.3% of Total Employer Past Service Liability (impact -$0.1bn).
- The second section (moving from a deficit of $13.1bn to a deficit of $15.8bn) shows the impact of the changes in actuarial assumptions from the 2018 to 2021 basis. Key items:
  - Discount rate used to value future cashflows decreased from 7.4% p.a. to 6.5% p.a.[3] (impact -$3.7bn).
  - Salary increase assumption over period to 30 June 2026 decreased from 3.2% p.a. to 2.74% p.a.[4] (impact +$0.1bn).
  - Rate of CPI increase assumption decreased from 2.2% p.a. to 2.0% p.a. (impact +$0.8bn).
  - Changes in demographic assumptions, see next page (impact +$0.1bn).

[1] Asset returns based on Trustee Selection Strategy net of tax and expenses (but before any increase due to current pension income tax exemption).

[2] Actual salary increases to 30 April 2021 plus 2 months roll forward: these are based on the average increase each year for people who remained contributors in the Scheme - this differs from the increase in the average salaries shown in Section 5.
Expected salary increases: for simplicity we have excluded the impact of the promotional salary scale when estimating the salary increase experience item above. This promotional scale only has a minor effect as over 99% of contributors are now above the age range that this promotional scale is applied for.

[3] Discount rate quoted is for pensioners. Non-pensioner discount rates also decreased by 0.7% p.a. from 6.4% p.a. to 5.7% p.a.

[4] Long-term salary increase assumption effective after 30 June 2026 remained the same at 3.2% p.a.

Unfunded liabilities reconciliation by Scheme (2 of 2)

The three year movements in employer unfunded liabilities broken down by Scheme show the change in assumptions offset the favourable experience for each and all Schemes.

Movement in Employer Unfunded Liabilities, by Scheme ($m)

	SASS	SSS	PSS	SANCS	Total
30 June 2018 unfunded liabilities	(1,751)	(11,329)	(2,545)	(348)	(15,973)
Interest on unfunded liabilities to 30 June 2021	(331)	(2,078)	(474)	(69)	**(2,953)**
Employer contributions in excess of benefit accruals	275	2,453	473	18	**3,220**
Higher than expected investment returns	176	767	166	38	**1,149**
Lower than expected salary increases	60	23	27	17	**127**
Lower than expected pension increases	58	1,202	239	-	**1,499**
Other experience items	(105)	(179)	115	27	**(143)**
30 June 2021 unfunded liabilities on 2018 basis	(1,618)	(9,141)	(1,999)	(317)	(13,075)
Decrease in investment return / discount rate assumption	(363)	(2,546)	(701)	(44)	**(3,655)**
Decrease in salary increase assumption	78	7	10	20	**114**
Decrease in CPI indexation assumption	43	568	154	0	**765**
Changes in demographic assumptions	(37)	89	25	9	**87**
30 June 2021 unfunded liabilities	(1,896)	(11,024)	(2,512)	(332)	(15,764)

Scheme level commentary on movements

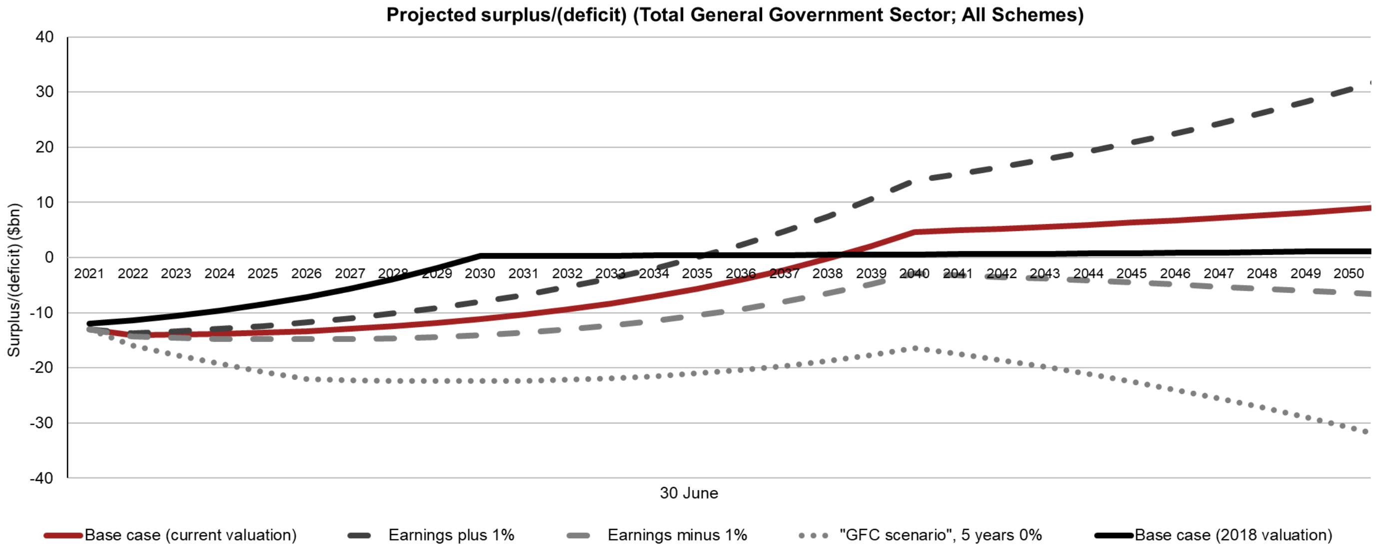
- The main explanations on the previous page apply across all Schemes. We discuss below the items for which we have further Scheme level commentary.
- The salary increase experience by Scheme over the 3 years was as follows: SASS 2.8% p.a. actual; SSS 2.8% p.a. actual; PSS: 2.4% p.a. actual; and Total 2.8% p.a. actual (all compared to 3.0% p.a. expected)[1].
- The main items reflected in the changes in demographic assumptions are:
  - All Schemes – changes to pensioner mortality assumptions to align them to a percentage of ALT 2015-17 based on experience and consolidating the SASS assumptions to match SSS across all ages (instead of until age 75). This has generally increased the liability for SASS and decreased the liability for SSS and PSS.
  - All Schemes - an increase to the percentage married at death for males in line with experience. This has increased the liabilities for all Schemes.
  - SASS and SSS – removal of allowance for retrenchments as this was not material. This has reduced the liability for SASS and SSS.
  - See Section 7 for more details on the demographic assumptions.
- Other experience items are relatively small at -0.3% of Total Employer Past Service Liability or -1.5% for SASS, -0.4% for SSS, 1.7% for PSS and 2.0% for SANCS. These would be mainly due to demographic experience during the period.

[1] See notes on salary increases on previous page.

2 Projections

General Government Sector funding projection results

The General Government Sector employer funding position is projected to improve from the current deficit of $13.0bn, to a funding reserve of $4.6bn by 2040. This base scenario achieves the NSW Government commitment of fully funding all General Government Sector liabilities by 2040, however there is significant variability in the projected outcomes under other scenarios.



Valuation	**Scenario**	**Projected funding reserve/(deficit) ($bn)**	
		2030	**2040**
2018 valuation	Base case	0.3	0.6
Current valuation	**Base case**	**(11.2)**	**4.6**
	Earnings plus 1%	(8.1)	13.9
	Earnings minus 1%	(14.1)	(2.9)
	"GFC" (0% investment returns for five years)	(22.4)	(16.4)

- The NSW Government is looking to fully fund all General Government Sector liabilities by 2040 instead of 2030 as affirmed in the NSW Treasury's Budget for FY22. We note that this not yet amended in the Fiscal Responsibility Act 2012. We have therefore shown the results at 2030 and 2040 in the table above.
- The projected funding outcome has changed significantly since the 2018 Triennial valuation from a projected funding reserve position of $0.3bn in 2030 | $0.6bn in 2040, to a projected deficit at of $11.2bn in 2030 | projected funding reserve of $4.6bn in 2040 (allowing for the 'base case' Triennial assumptions for each valuation).
- This is mainly due to the Crown funding plan change to be spread over a longer period . As per NSW Treasury's Budget for FY22, after a two year contribution holiday the level of contributions for FY23 is $1.193bn and will grow at 5% p.a. until the last contribution in FY40. See the Table below, and also Section 4 for more details on contributions.

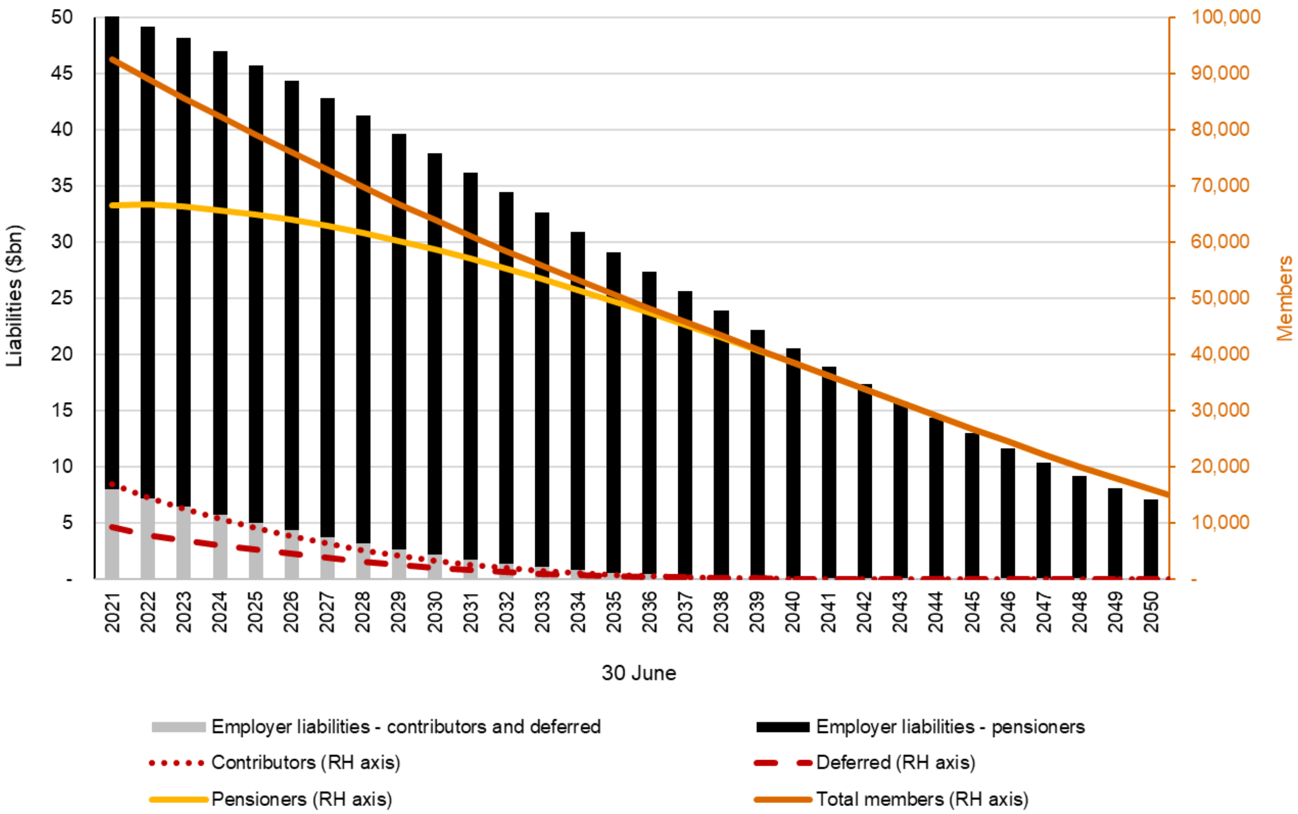
CFP Contributions ($bn)	**Financial year ending 30 June**																		
	2022	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
Current valuation	-	1.19	1.25	1.32	1.38	1.45	1.52	1.60	1.68	1.76	1.85	1.94	2.04	2.14	2.25	2.36	2.48	2.60	2.73
2018 valuation	1.83	1.92	2.01	2.11	2.22	2.33	2.45	2.57	2.70	-	-	-	-	-	-	-	-	-	-

- We have also shown the following additional scenarios which illustrates that there is significant variability in the potential funding outcome (which allow for changes in assumed asset returns, with liabilities still based on the Triennial assumptions i.e. same as base case):
  - Projected investment earnings increased and decreased by 1% p.a.
  - A "Global Financial Crisis" (GFC) type downturn scenario in which investment earnings are assumed to be 0% p.a. for 5 years then revert to the valuation assumption.
- The scenarios illustrated in the projections are not intended to indicate upper or lower bounds of possible outcomes.

Total Pooled Fund projections

Membership is projected to be approximately 39,000 by 2040, of which almost all would be pensioners.

Projected liabilities[1] and membership[2]



Long term outlook

30 June	All members[2] ('000)	Liabilities[1] ($bn)
2021	92	50
2024 (in 3 years)	82	47
2030	64	38
2040	39	21

- The membership is predominantly pensioners reflecting the closed nature of the Fund.
- Projected pensioner members and liabilities as a proportion of the total are as follows:

30 June	Pensioners (% of all)	Liabilities (% of all)
2021	72%	84%
2024 (in 3 years)	80%	88%
2030	92%	94%
2040	100%	100%

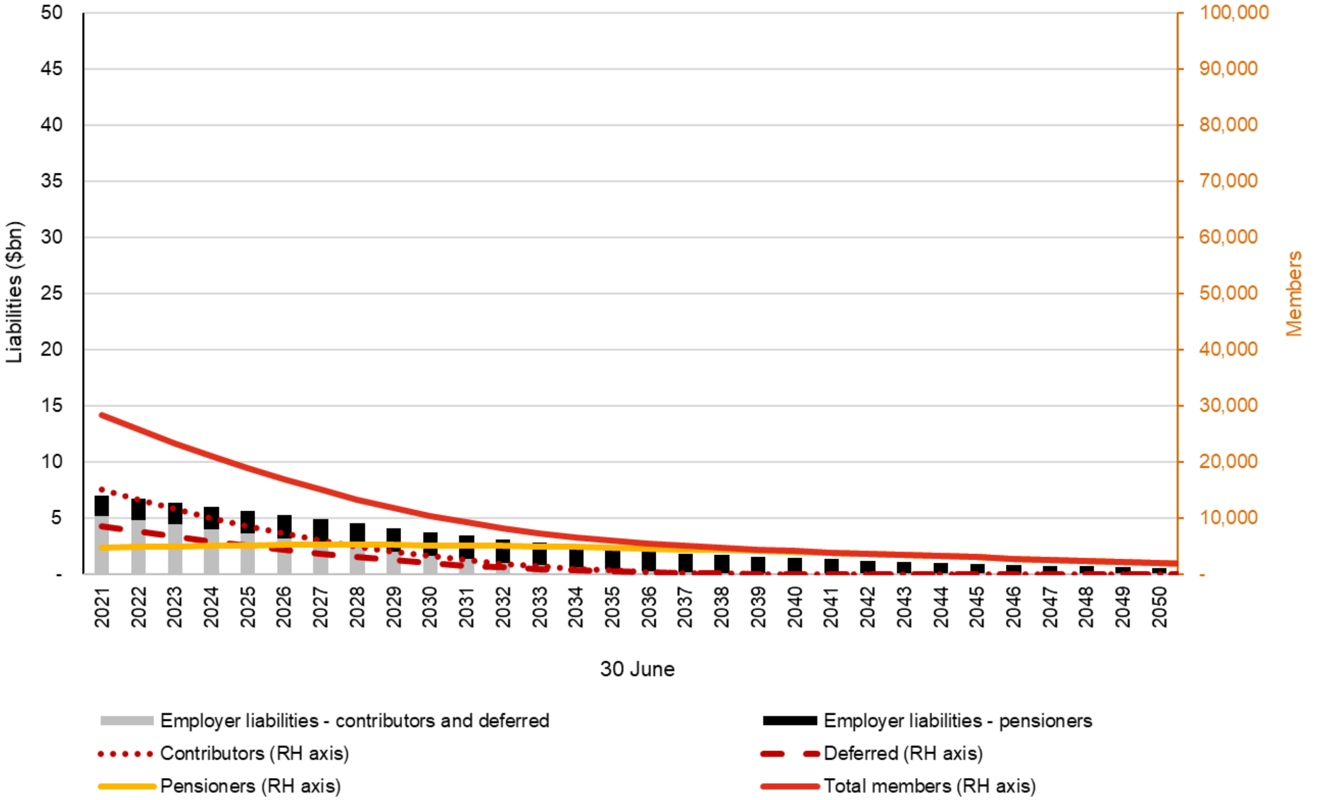
- We note that long term projections are sensitive to assumptions and actual member movements.
- The membership projection is broadly in line with that in the 2018 actuarial investigation.

[1] Projected employer liabilities shown in future dollars.
[2] Membership as at 30 June 2021 excludes fully commuted SSS pensioners. Their spouses are included from the point that they are projected to receive a pension payment in the future.

SASS projections

Membership is projected to be approximately 4,000 by 2040, of which 97% would be pensioners.

Projected liabilities[1] and membership



Long term outlook

30 June	All members ('000)	Liabilities[1] ($bn)
2021	28	7
2024 (in 3 years)	21	6
2030	10	4
2040	4	1

- Projected pensioner members and liabilities as a proportion of the total are as follows:

30 June	Pensioners (% of all)	Liabilities (% of all)
2021	17%	26%
2024 (in 3 years)	24%	33%
2030	50%	56%
2040	97%	97%

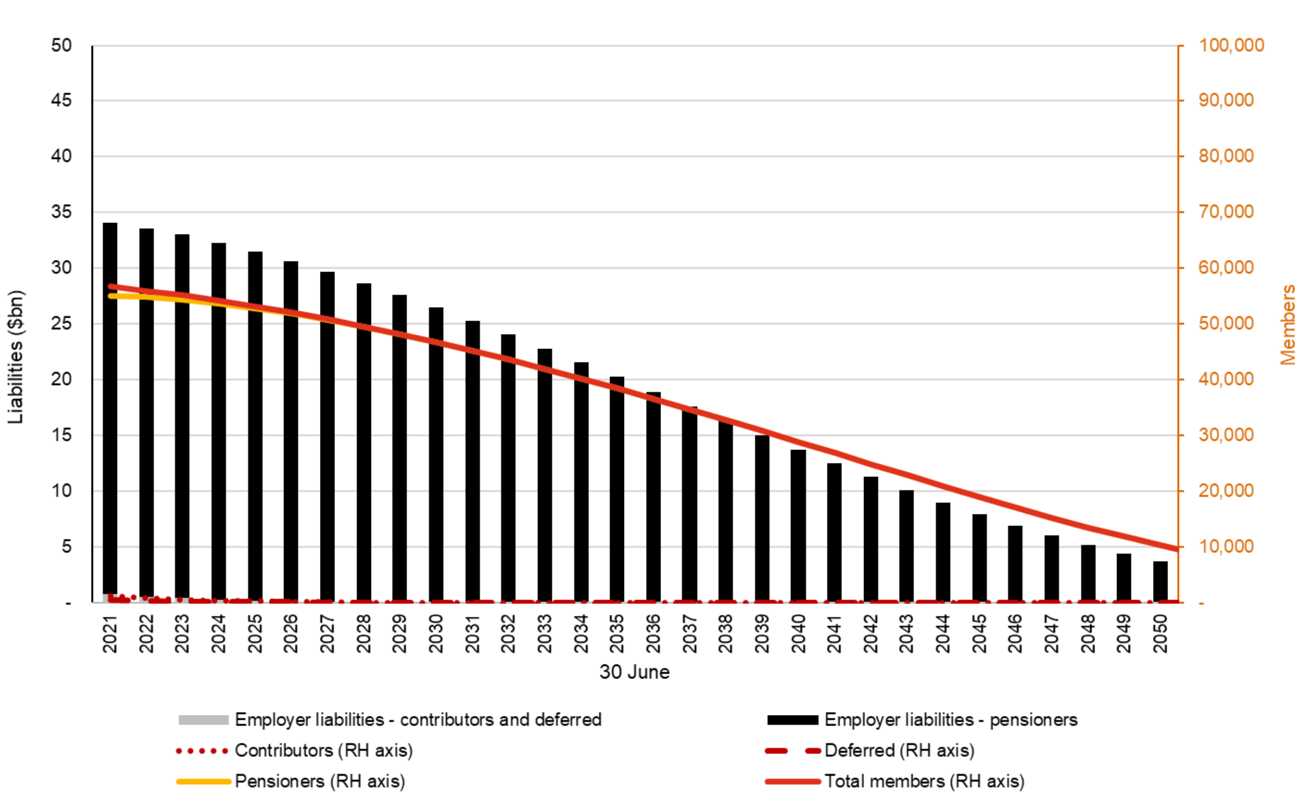
- As a large proportion of SASS members are not eligible for a pension benefit, membership is projected to decrease faster than the SSS and PSS Schemes which provide pension benefits.
- By 2040, the membership and employer liabilities are projected to have reduced by 85% to 4k and 79% to $1bn (future dollars) respectively.

[1] Projected employer liabilities shown in future dollars.

SSS projections

Membership is projected to be approximately 29,000 by 2040, of which all would be pensioners.

Projected liabilities[1] and membership[2]



Long term outlook

30 June	All members[2] ('000)	Liabilities[1] ($bn)
2021	57	34
2024 (in 3 years)	54	32
2030	47	26
2040	29	14

- The membership is predominantly pensioner reflecting the closed nature of the Fund. The Scheme was closed to new entrants since 1 July 1985.
- Projected pensioner members and liabilities as a proportion of the total are as follows:

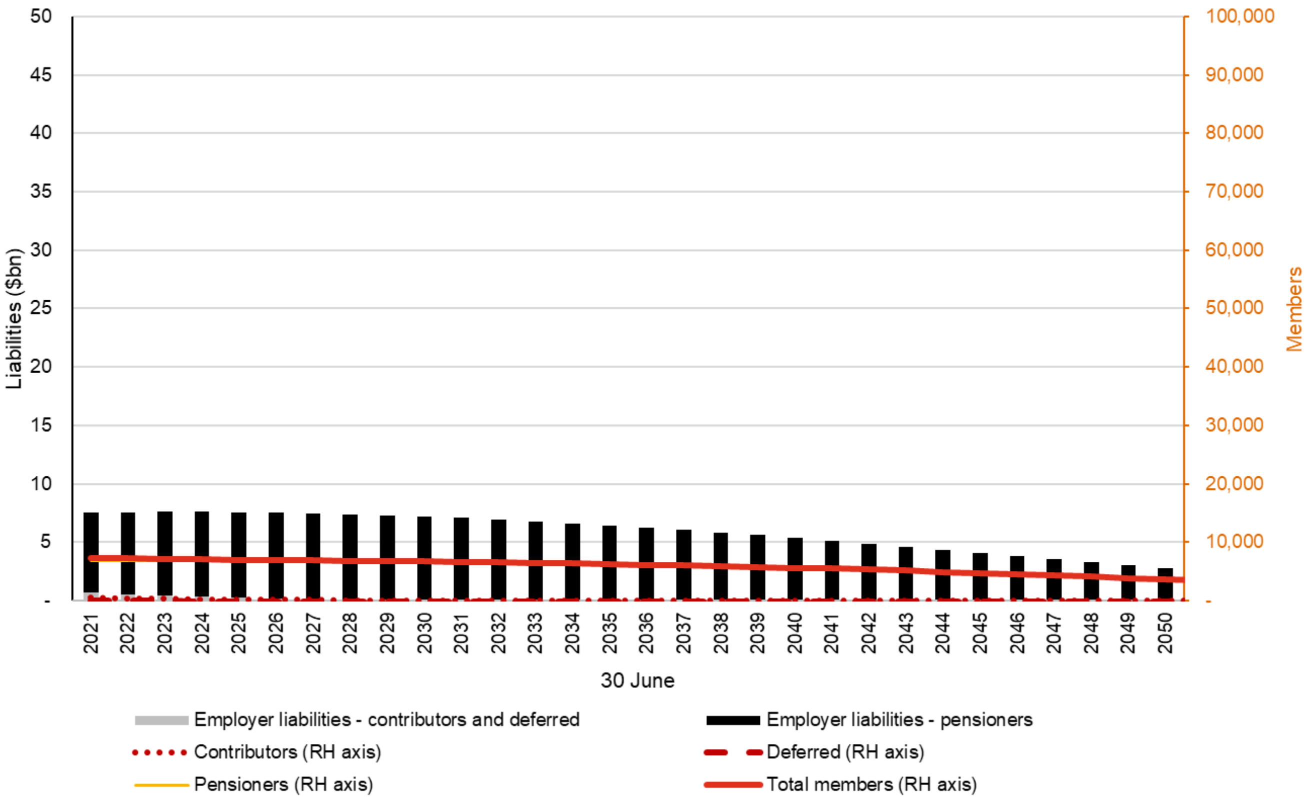
30 June	Pensioners (% of all)	Liabilities (% of all)
2021	97%	96%
2024 (in 3 years)	99%	99%
2030	100%	100%
2040	100%	100%

[1] Projected employer liabilities shown in future dollars.
[2] Membership as at 30 June 2021 excludes fully commuted SSS pensioners. Their spouses are included from the point that they are projected to receive a pension payment in the future.

PSS projections

Membership is projected to be approximately 6,000 by 2040, of which all would be pensioners.

Projected liabilities[1] and membership



[1] Projected employer liabilities shown in future dollars.

Long term outlook

30 June	All members ('000)	Liabilities[1] ($bn)
2021	7	8
2024 (in 3 years)	7	8
2030	7	7
2040	6	5

- The membership is predominantly pensioner reflecting the closed nature of Scheme. The Scheme was closed to new entrants since 31 March 1988.
- Projected pensioners as a proportion of membership and liability is as follows:

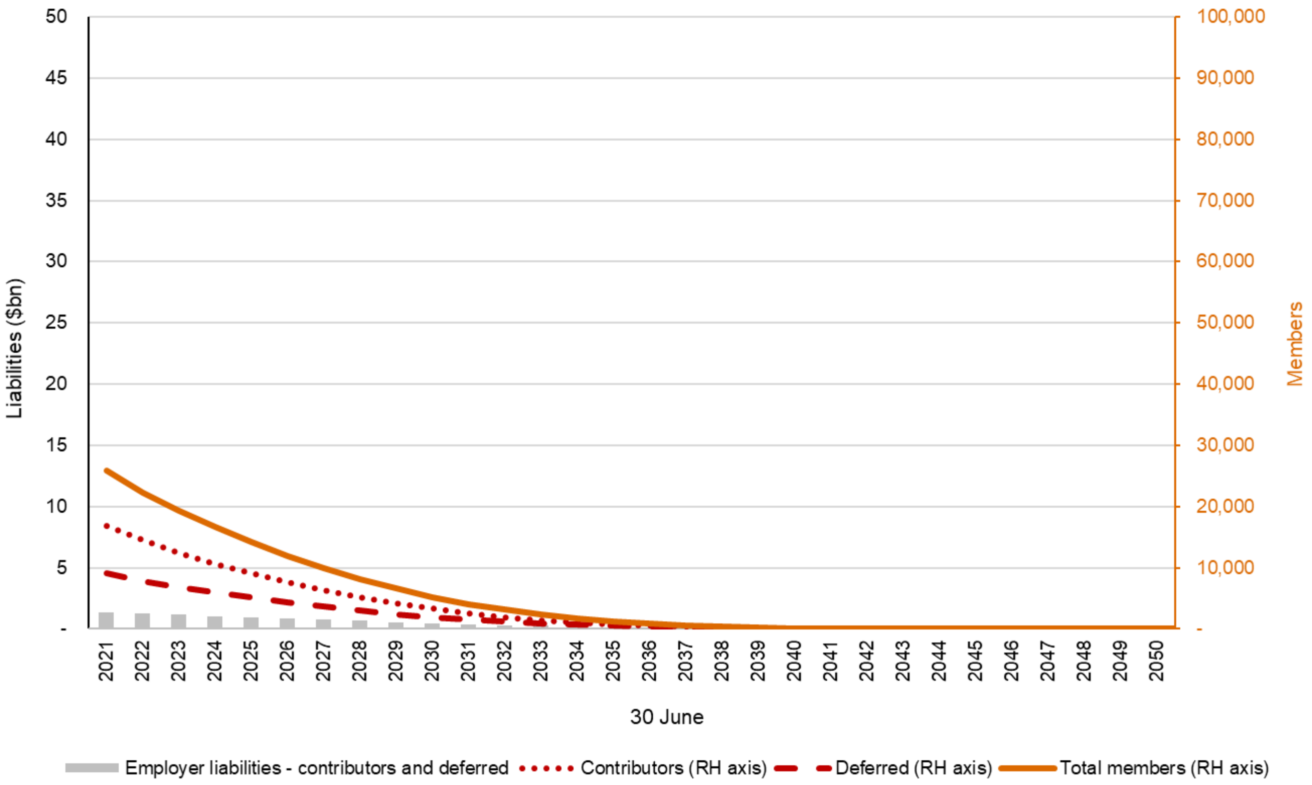
30 June	Pensioners (% of all)	Liabilities (% of all)
2021	92%	89%
2024 (in 3 years)	97%	94%
2030	100%	100%
2040	100%	100%

- The liability is projected to increase for a few more years before it begins to decline in 2025. This is a combined effect of continued accrual for contributors, and a relatively slow decline in pensioner members as a result of the low average age for PSS pensioners.

SANCS projections

Membership is projected to be approximately 100 by 2040.

Projected liabilities[1] and membership



Long term outlook

30 June	All members ('000)	Liabilities[1] ($bn)
2021	26	1
2024 (in 3 years)	17	1
2030	5	Less than 1
2040	Less than 1	Less than 1

- SANCS membership is projected to reduce in line with the combined contributor/deferred exits for SASS, SSS and PSS, as these members are normally also SANCS members.
- All SANCS benefits are paid as a lump sum so there are no pensioners.
- In 3 years the membership and employer liability is projected to have decreased by 36% and 23% respectively.
- Membership and liability is projected to decrease to zero by 2047, once all members have reached retirement age.

[1] Projected employer liabilities shown in future dollars.

3

Risks and sensitivities

Key risks

The key risks faced by the STC Pooled Fund are investment risk and pension increase risk

Level of risk

Risk	Comments
Investment risk	• A key risk faced by STC Pooled Fund • Moving to a more cautious investment strategy could reduce volatility to help mitigate this • However this would also result in lower expected investment returns and increased employer liabilities and costs
Pension increase risk	• RBA has adopted inflation target of 2-3% • Monetary policy used to keep within target • Strong pensioner presence in STC Pooled Fund (84% of liability)
Salary increase risk	• Employer has control over this • Historically been less volatile than investments • Contributors make up small (16%) of liability so salary increase risk is relatively low
Longevity risk	• Future life expectancies continue to increase • Allowance has been made in assumptions • Strong pensioner presence in STC Pooled Fund (currently 84% of liability. This will also impact contributors who are eligible for pension benefits in the future in the Fund.)
Catastrophe risk	• Death and TPD self-insured • Potential for catastrophic event to lead to multiple claims • Offset by pensioners (who could also be impacted)
Legislative risk	• Continual changes, such as increasing Superannuation Guarantee and APRA prudential standards could increase costs • However, good governance may reduce risk

Sensitivity

The employer past service liabilities of **$49.9 billion** would increase by:

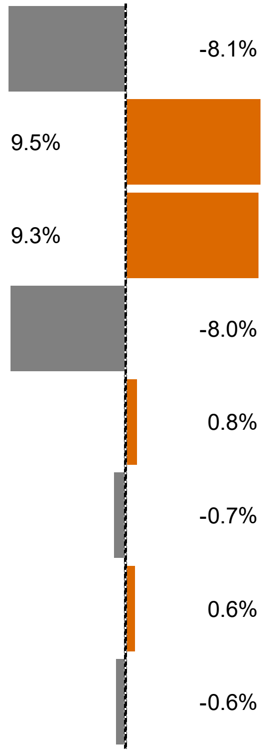
Risk	Change	Increase
Investment risk	1% p.a. decrease in investment returns	$4.8bn 9.5%
Pension increase risk	1% p.a. increase in inflation	$4.6bn 9.3%
Salary increase risk	1% p.a. increase in salary increase	$0.4bn 0.8%
Longevity risk	Higher mortality improvements	$0.3bn 0.6%

- The sensitivity results highlight the impact of a possible change in assumptions which relate to these four key risks. Note that these sensitivities reflect a possible alternative assumption rather than the size of the risk itself.
- Further breakdowns of these sensitivities, together with additional sensitivities, are shown on the next page.

Sensitivities in Employer Past Service Liabilities by Scheme

Details of the sensitivity results by Scheme are shown below

Employer Past Service Liabilities ($m)	SASS	SSS	PSS	SANCS	Total
Central assumptions	**7,044**	**34,025**	**7,514**	**1,366**	**49,949**
Investment return / Discount rate plus 1% (central assumption 6.5% p.a. / 5.7% p.a. [1])	6,593 (-452 or -6.4%)	31,248 (-2,776 or -8.2%)	6,735 (-779 or -10.4%)	1,304 (-62 or -4.6%)	**45,880 (-4,069 or -8.1%)**
Investment return / Discount rate minus 1% (central assumption 6.5% p.a. / 5.7% p.a. [1])	7,560 (+516 or +7.3%)	37,259 (+3,234 or +9.5%)	8,453 (+939 or +12.5%)	1,434 (+68 or +5.0%)	**54,706 (+4,757 or +9.5%)**
CPI increases plus 1% (central assumption 2.0% p.a.)	7,309 (+265 or +3.8%)	37,436 (+3,411 or +10.0%)	8,479 (+965 or +12.8%)	1,366 (no impact)	**54,591 (+4,641 or +9.3%)**
CPI increases minus 1% (central assumption 2.0% p.a.)	6,816 (-228 or -3.2%)	31,059 (-2,966 or -8.7%)	6,704 (-811 or -10.8%)	1,366 (no impact)	**45,944 (-4,005 or -8.0%)**
Salary increases plus 1% (central assumption 2.74% p.a. / 3.2% p.a. [2])	7,310 (+266 or +3.8%)	34,043 (+18 or +0.1%)	7,541 (+27 or +0.4%)	1,434 (+68 or +5.0%)	**50,328 (+379 or +0.8%)**
Salary increases minus 1% (central assumption 2.74% p.a. / 3.2% p.a. [2])	6,796 (-248 or +3.5%)	34,007 (-18 or -0.1%)	7,489 (-26 or -0.3%)	1,303 (-63 or -4.6%)	**49,595 (-354 or -0.7%)**
Short term pensioner mortality improvements (+0.4 years) (central assumption consistent with a life expectancy of 88.8 for a 65 year old) [3]	7,064 (+19 or +0.3%)	34,228 (+203 or +0.6%)	7,592 (+78 or +1.0%)	1,366 (no impact)	**50,250 (+301 or +0.6%)**
Long term pensioner mortality improvements (-0.3 years) (central assumption consistent with a life expectancy of 88.8 for a 65 year old) [4]	7,027 (-17 or -0.2%)	33,798 (-227 or -0.7%)	7,457 (-57 or -0.8%)	1,366 (no impact)	**49,649 (-301 or -0.6%)**



- The changes in each row above are applied individually, while leaving the other assumptions unchanged.

[1] Central assumption for discount rate is 6.5% p.a. for all pensioners / 5.7% p.a. for other members
[2] Central assumption 2.74% p.a. to 30 June 2026 and 3.2% p.a. thereafter
[3] Assumes the short term pensioner mortality improvement factors used for projection years 2021-2027, are also applied for years after 2027. This change is consistent with a life expectancy of 89.2 (i.e. a 0.4 year increase) for a 65 year old pensioner in 2021. See Appendix I for details of central assumption.
[4] Assumes the long term pensioner mortality improvement factors used for projection years post 2027, are also applied for years 2021 to 2027. This change is consistent with a life expectancy of 88.5 (i.e. a 0.3 year decrease) for a 65 year old pensioner in 2021. See Appendix I for details of central assumption.

Impact of COVID-19

Due to the economic impact on NSW Government's finances caused by COVID-19, a revised funding plan was adopted.

Impact on experience up to 30 June 2021

- COVID-19 created significant disruptions to the economy and impact on NSW Government's finances. This has impacted the Fund in a number of ways:
  - Crown funding plan - A revised Crown Funding Plan (CFP) was adopted as a result of the economic impact on NSW Government's finances. In addition to a two year contribution holiday from 1 July 2020 to 30 June 2022, the NSW Government is looking to fully fund all General Government Sector liabilities by 2040 instead of 2030. See Section 4 for further details for employer contributions.
  - Assumptions – There were significant volatility in the market as shown by the fluctuation in investment returns and negative change in CPI over FY21.
  - Early release payments - As part of the financial relief measures for Australians, the COVID-19 early release payments allowed members to withdraw up to $10,000 p.a. for the FY20 and FY21 year (with applications closing at 31 December 2020) from their superannuation account (subject to conditions of employment impact). We have previously investigated the uptake and found it was not significant in the context of the Fund. We understand that $5m (or 0.01% of employer past service liability) of COVID-19 early release payments were made to members to 9 December 2020. We have not made any adjustments to the liabilities given the low materiality.
  - Death and disability claims – we have not identified any material impacts to the death and disability claims. See Section 6 for details of the self-insurance arrangements for death and disability benefits.

Impact on outlook and assumptions

- As the impact of COVID-19 remains subject to significant uncertainty there is a heightened risk of volatility in investment returns and hence the level of funding. The level of contributions will continue to be kept under review and adjustments made to the funding plans as appropriate. Impact of investment volatility on the funding position of the General Government Sector can be found in Section 2.
- Assumptions such as discount rate and the CPI increase are long term assumptions. These can change if the long term economic outlook changes, however would not typically be amended year to year following short term market volatility. For this Triennial valuation, the discount rate has reduced from 7.4% p.a. to 6.5% p.a. (untaxed), which is consistent with STC's updated long term investment return target. Short term salary increase assumptions to 30 June 2026 have decreased from 3.2% p.a. to 2.74% p.a. as advised by NSW Treasury, but the impact is not material as shown in the sensitivities provided on the previous page (a 1% p.a. decrease in salary increase assumptions for all future years only decreases the employer past service liability by 0.7%).
- There may be an increase in deaths across the State in FY22 caused by the COVID-19 Delta variant and initial low vaccination rates. Any impact on Fund claims experience is yet to be observed. However, we note that whilst unexpected contributor deaths places a strain on funding, unexpected pensioner deaths do the reverse. Overall, at this stage we see no reason to adjust the mortality assumptions to allow for any potential impacts.

4

Employer contributions

Employer contributions and recommendation

The current funding arrangements together with our findings and recommendations are set out below:

Sector	Current funding arrangement	Findings and recommendations
State Sector		
General Government Sector – Crown	The Fiscal Responsibility Act 2012 sets out a legislative target for the NSW Government to fully fund all General Government Sector liabilities by 2030. However due to the economic impact on NSW Government's finances caused by COVID-19, a revised funding plan was adopted. In addition to a two year contribution holiday from 1 July 2020 to 30 June 2022, the NSW Government is looking to fully fund all General Government Sector liabilities by 2040 instead of 2030. While this is not yet amended in the Fiscal Responsibility Act 2012 due to continued uncertainty of COVID-19, the NSW Treasury's FY22 Budget has affirmed this change. The revised funding plan from the FY22 Budget has been provided by NSW Treasury. The contributions under this plan will recommence in FY23 of \$1.193bn and will grow at 5% p.a. until FY40. See next page for further details.	**The latest funding projections show that the General Government Sector is projected to be at a \$11.2bn deficit at 30 June 2030 and a \$4.6bn funding reserve at 30 June 2040 – see page 17.** **Recommendation: Maintain current Crown funding plan and continue to review the funding position annually and adjust as necessary.** **Recommendation: Rebalance the Crown funding plan contributions by Scheme so that they are in line with the proportions of the General Government Sector employer unfunded liabilities: SASS 13.5%, SSS 64.7%, PSS 19.3% and SANCS 2.5%[1]**
General Government Sector – Non - Crown	Previously agreed level of contribution for non-Crown employers is assumed to continue for the purposes of the projections in this report. The Crown funding commitment above also covers this Sector.	As above, the latest funding projections show that the General Government Sector is projected to achieve a \$4.6bn funding reserve at 30 June 2040. Individual entity funding plans were reviewed as at 30 June 2021 in October 2021 and recommendations will be provided separately.
Public Trading Enterprises (PTEs)	Individual employer funding plans reviewed annually.	Individual employer funding plans will be reviewed as at 30 June 2021 in October 2021 and recommendations will be provided separately.
Non State Sector		
Universities	Jointly funded by the NSW and Commonwealth Governments and the Universities on a pay-as-you-go basis[2].	No recommendation required.
Other employers	Individual employer funding plans reviewed annually.	Individual employer funding plans will be reviewed as at 30 June 2021 in October 2021 and recommendations will be provided separately.

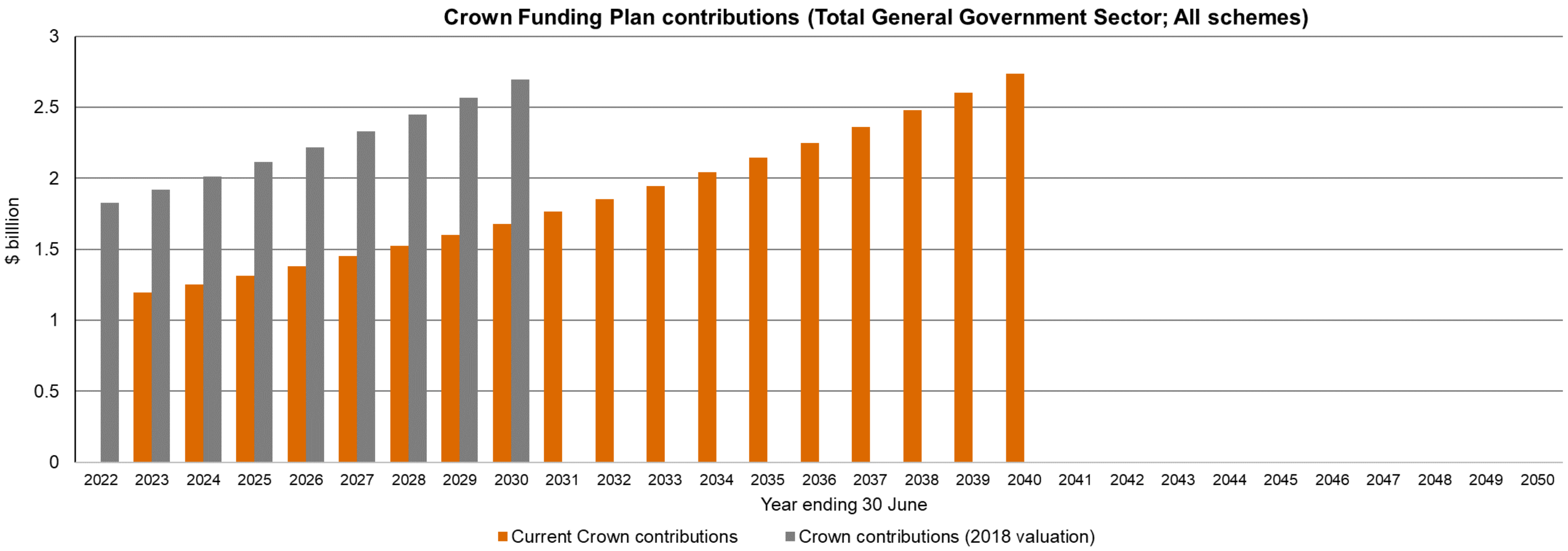
- In addition, the employer contributes up to 1.0% of salary (the actual rate varies depending if and when the member becomes eligible) until 30 June 2022 and this will increase as SG increases. This goes to a separate Additional Employer Contributions (AEC) accumulation account and does not impact the employer past service liability.
- The previous Triennial did not recommend any changes for the Crown funding plan, however this has continued to be kept under review and has changed over the period due to the economic impact of NSW Government's finances caused by COVID-19. We understand that the funding plans for PTE and Other employers have been considered by the Trustee following each annual contribution review, and adjustments have been made to the funding plans as appropriate.

[1] Appendix E details the split of General Government Sector employer unfunded liabilities of \$13.0bn by Scheme: SASS \$1.6bn, SSS \$8.6bn, PSS \$2.5bn, SANCS \$0.3bn.
[2] The Commonwealth and NSW Governments entered into a Memorandum of Understanding (MoU) in December 2014. Under this the Commonwealth and NSW Governments have agreed to assist the universities with their unfunded superannuation liabilities through the provision of funds on a 78/22 per cent basis respectively. The universities will continue to contribute at their current rate of 17% of salaries per annum and further additional contributions in respect of 'Excess salaries' as set out in the MoU. The Commonwealth and NSW Governments will make payments to the Fund on a pay-as-you-go basis with the aim of maintaining a 1-year asset buffer at all times to meet expected benefit payments. A similar arrangement is in place for University of NSW (UNSW) Australian Defence Force Academy (ADFA), under which pay-as-you-go contributions are funded by UNSW, with the aim of maintaining a 3-year asset buffer.

Crown Funding Plan

The contributions under the Crown Funding Plan are expected to recommence in FY23 at $1.193bn and will grow at 5% p.a. until FY40.

- The projected level of Crown Funding Plan (CFP) contributions for FY22 through to FY40 under the current contribution plan are:



CFP Contributions ($bn)	Financial year ending 30 June																		
	2022	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**
Current valuation	-	1.19	1.25	1.32	1.38	1.45	1.52	1.60	1.68	1.76	1.85	1.94	2.04	2.14	2.25	2.36	2.48	2.60	2.73
2018 valuation	1.83	1.92	2.01	2.11	2.22	2.33	2.45	2.57	2.70	-	-	-	-	-	-	-	-	-	-

- The total nominal contributions from 1 July 2021 to 30 June 2040 under the Current Crown Funding Plan is $33.5bn, compared to $20.1bn over the same period under the 2018 Plan. As can be seen, the updated funding plan is spread over a longer period with lower payment levels initially, but with payments continuing beyond 2030.

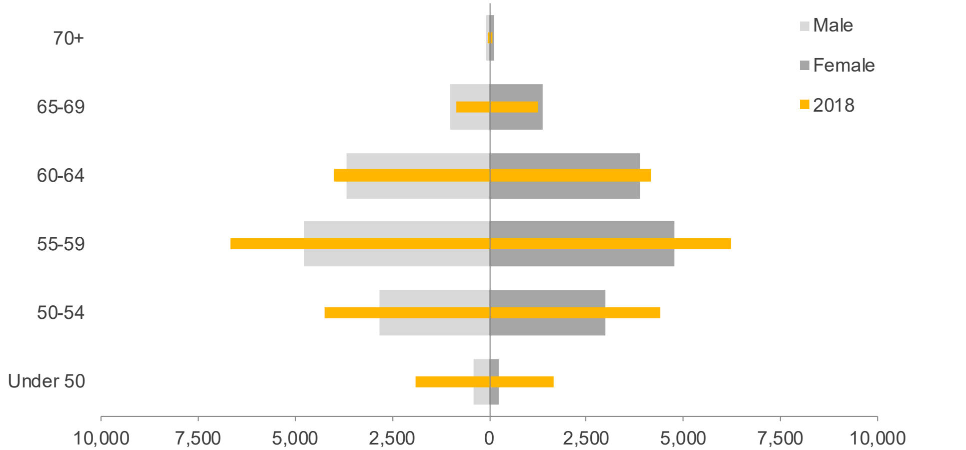
5

Membership

STC Pooled Fund membership[1]

The total membership has decreased by 8.4% from 118,695 to 108,666 over the three year period

Contributor and deferred membership

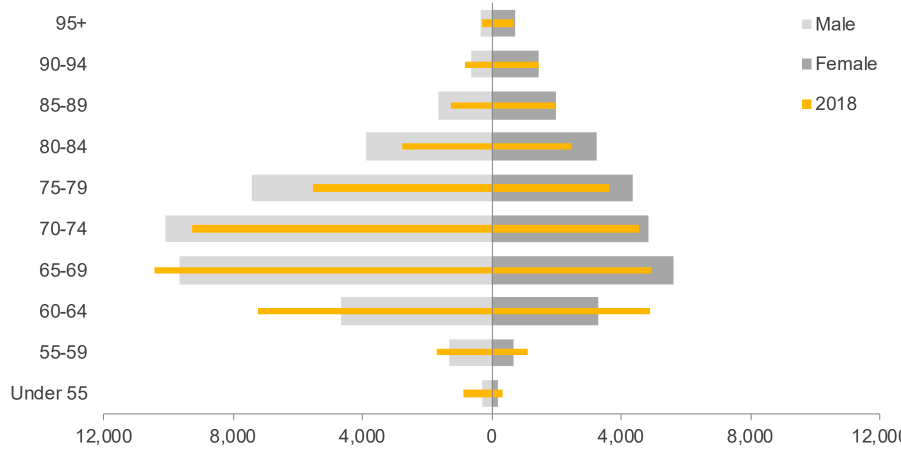


Contributors	2021	2018	Change
Membership	16,948	25,036	(32.3%)
Average age	58.1	56.8	1.3
Average service	32.7	30.4	2.3
Average salary [3]	$117,533	$109,358	7.5% or 2.4% p.a.[4]
Total salary [3]	$1,992m	$2,738m	(27.2%)

Deferreds [5]	2021	2018	Change
Membership	9,204	10,557	(12.8%)
Average age	58.2	56.0	2.2

Total	2018	2015	Change
Membership (incl SSS fully commuted pensioners)	108,666	118,695	(8.4%)

Pensioner membership [2]



Pensioners	2021	2018	Change
Current pensioners	66,297	66,293	0.0%
Average age	72.9	71.3	1.7
Average pension	$49,452	$46,593	6.1% or 2.0% p.a.
Total pension	$3,279m	$3,089m	6.1%
Fully commuted pensioners	16,217	16,809	(3.5%)

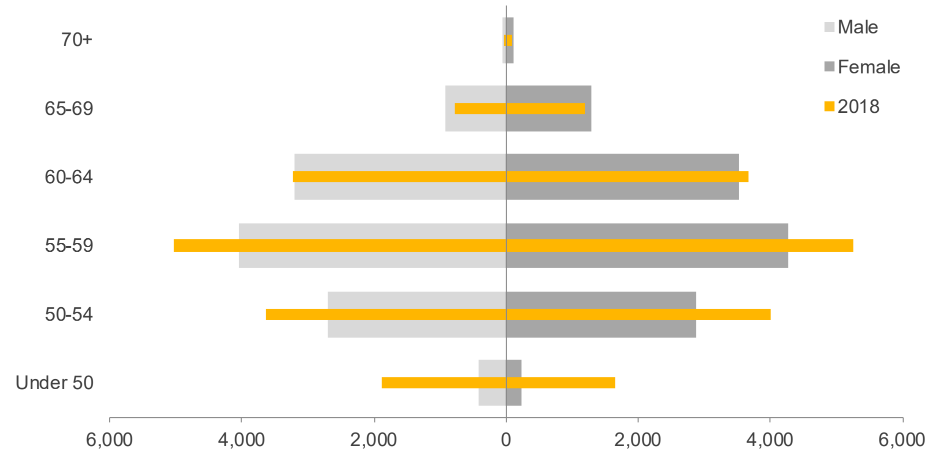
- There are 26,152 non-pensioners, 66,297 pensioners as well as 16,217 fully commuted SSS pensioners whose spouses are eligible for reversionary pension (108,666 total).
- The membership profile has changed considerably over the 3 years with 32% fewer contributors and 13% fewer deferred members.

[1] Based on SASS, SSS and PSS members using 30 April 2021 administrative data, projected to 30 June 2021 (as such figures may differ slightly to in Annual Accounts). Contributory and deferred members are also generally in SANCS.
[2] Chart excludes the 16,217 SSS fully commuted pensioners
[3] Full time equivalent salary
[4] Change in average salary across all members. This differs from the average salary increase for in-force members shown in Section 1 and later in this Section.
[5] SSS deferreds who are currently receiving pension payments have been excluded from the deferreds count and included in pensioners.

SASS membership

The total membership has decreased by 18.5% from 34,916 to 28,470 over the three year period

Contributor and deferred membership

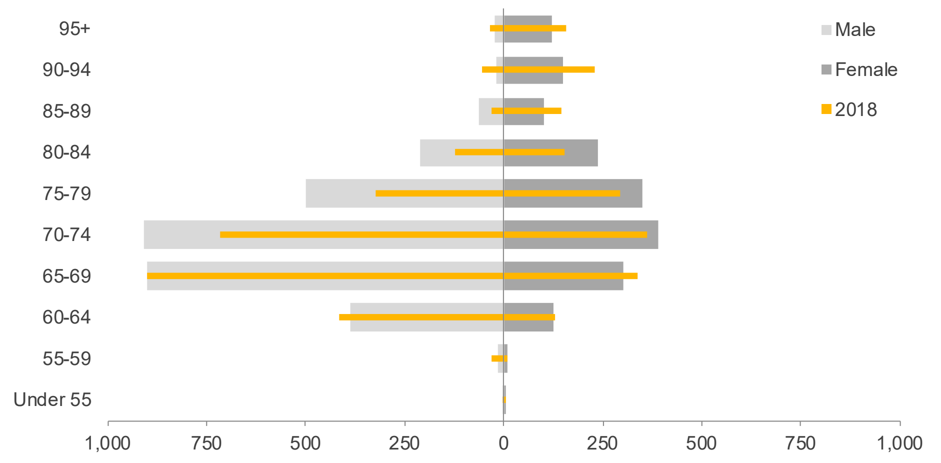


Contributors	2021	2018	Change
Membership	15,100	20,945	(27.9%)
Average age	58.1	56.7	1.4
Average service	32.0	29.3	2.7
Average salary	$115,932	$107,000	8.3% or 2.7% p.a.
Total salary	$1,751m	$2,241m	(21.9%)

Deferreds	2021	2018	Change
Membership	8,559	9,516	(10.1%)
Average age	58.0	55.8	2.2

Total	2021	2018	Change
Membership	28,470	34,916	(18.5%)

Pensioner membership



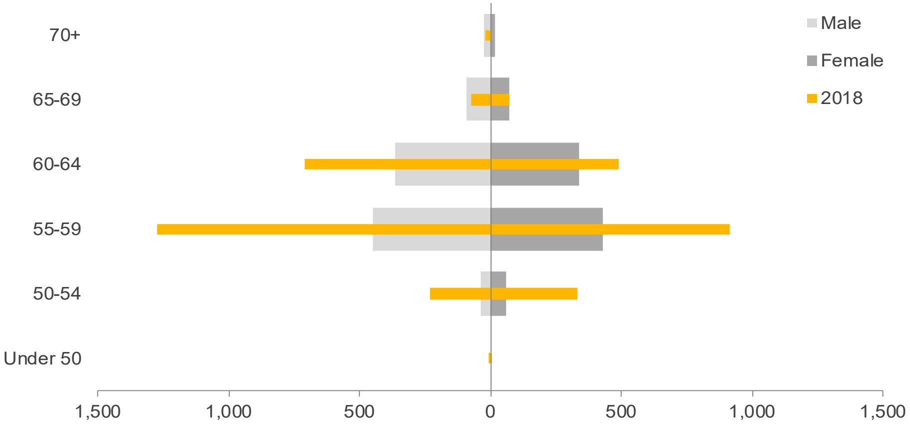
Pensioners	2021	2018	Change
Membership	4,811	4,455	8.0%
Average age	73.4	73.5	(0.1)
Average pension	$29,147	$25,620	13.8% or 4.4% p.a.
Total pension	$140m	$114m	22.9%

- SASS has seen the largest decrease in membership (18.5% decrease) which is a result of SASS members generally receiving a lump sum at retirement and ceasing to be members of the Fund (rather than receiving a pension and continuing their membership).

SSS membership

The total membership has decreased by 4.3% from 76,174 to 72,866 over the three year period

Contributor and deferred membership



Contributors	2021	2018	Change
Membership	1,310	3,175	(58.7%)
Average age	59.5	58.1	1.4
Average service	39.0	36.5	2.5
Average salary	$121,785	$116,359	4.7% or 1.5% p.a.
Total salary	$160m	$369m	(56.8%)

Deferreds[2]	2021	2018	Change
Membership	584	957	(39.0%)
Average age	60.7	58.2	2.4

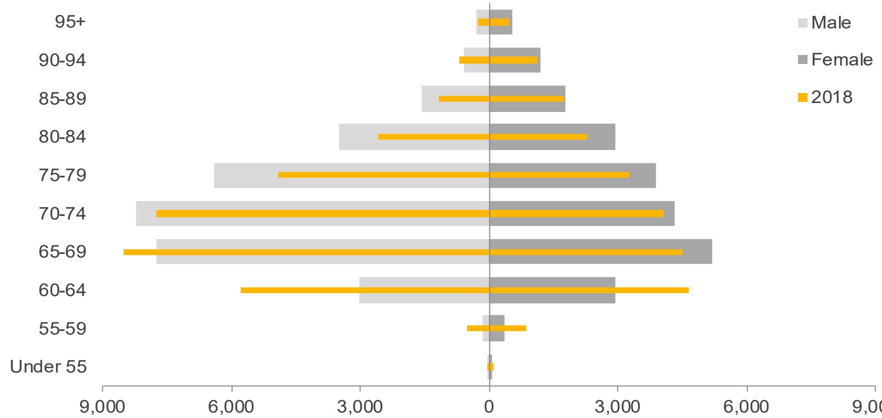
Total	2021	2018	Change
Membership (incl SSS fully commuted pensioners)	72,866	76,174	(4.3%)

[1] Chart excludes the 16,217 SSS fully commuted pensioners.

[2] SSS deferreds who are currently receiving pension payments have been excluded from the deferreds count and included in pensioners. There were 368 such members in 2021 and 453 in 2018.

[3] Includes the preserved component of pension currently paid into a deferred account.

Pensioner membership[1]



Pensioners	2021	2018	Change
Current pensioners	54,755	55,233	(0.9%)
Average age	73.6	71.9	1.8
Average pension	$48,622[3]	$45,887	6.0% or 1.9% p.a.
Total pension	$2,662m[3]	$2,534m	5.0%
Fully commuted pensioners	16,217	16,809	(3.5%)

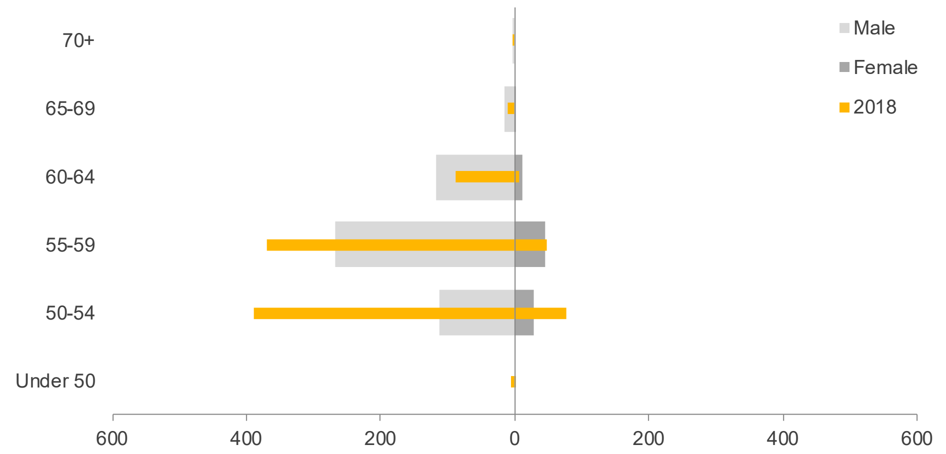
- The contributor membership for SSS has decreased significantly by 58.7% or 1,865 people. This is mostly due to retirements.
- SSS fully commuted (contingent) pensioner data is currently being reviewed by the Fund administrator. This program of work has the potential to identify:
  - new spouse pensions to commence payment and back payment of spouse pensions owed (both of which could act to increase liabilities)
  - contingent pension records which are no longer required and can be closed off without any payment (which could act to decrease liabilities).

  As part of this exercise, letters have been sent to contact the family of 5,141 deceased original pensioners, to confirm whether there is a surviving dependent to whom a pension is payable. No response was received to date for a large majority of this group, and so as agreed with STC, we will continue to value them as contingent pensioners until the administrator confirms their actual status.
- For context, the liabilities in relation to SSS contingent pensioners are currently valued at around $550m, which is less than 1% of total liabilities.

PSS membership

The total membership has decreased by 3.6% from 7,605 to 7,330 over the three year period

Contributor and deferred membership

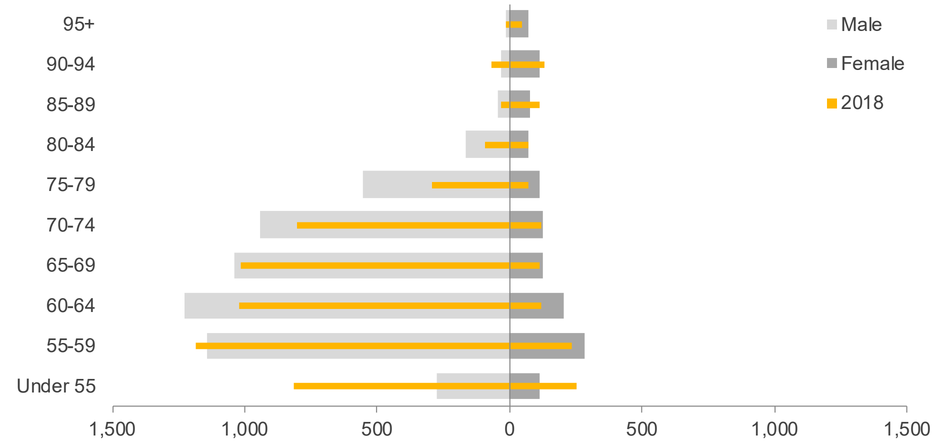


Contributors	2021	2018	Change
Membership	538	916	(41.3%)
Average age	57.1	55.0	2.1
Average service	36.0	33.5	2.5
Average salary	$152,129	$139,014	9.4% / 3.1% p.a.
Total salary	$82m	$127m	(35.7%)

Deferreds	2021	2018	Change
Membership	61	84	(27.6%)
Average age	59.1	56.6	2.5

Total	2021	2018	Change
Membership	7,330	7,605	(3.6%)

Pensioner membership



Pensioners	2021	2018	Change
Membership	6,731	6,605	1.9%
Average age	66.6	64.6	2.0
Average pension	$70,714	$66,645	6.1% / 2.0% p.a.
Total pension	$476m	$440m	8.1%

- The contributor membership for PSS has decreased significantly by 41.3% or 378 people. The main reason for exits of contributors over this period has been disablement, which makes up 75% of exits. See Appendix H for further details.

SANCS membership

The total membership has decreased by 26.6% from 35,470 to 26,032 over the three year period

Contributors	2021	2018	Change
Membership	16,948	25,034	(32.3%)

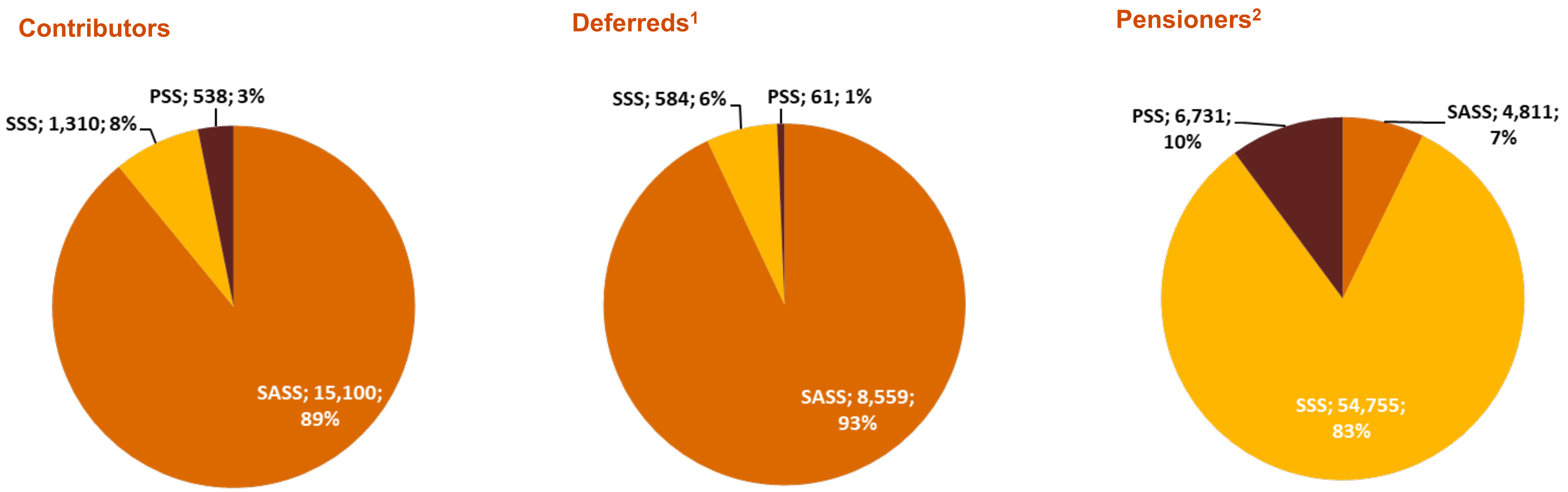
Deferreds	2021	2018	Change
Membership	9,084	10,436	(13.0%)

Total	2021	2018	Change
Membership	26,032	35,470	(26.6%)

- In general SASS, SSS and PSS contributory and deferred members are also members of SANCS. As such the total Pooled Fund profile information on page 31 for contributory and deferred members, is also relevant for SANCS members.
- The differences between SANCS membership and the memberships of SASS, SSS and PSS are as follows:
  - We understand members from Sydney Grammar are not SANCS members. There were 2 SSS contributors from Sydney Grammar as at 30 June 2018, however there are none in 2021.
  - The difference in deferreds is due to SSS members who are deferred but are currently receiving pension payments (they have been excluded from the SSS deferreds count, but are present in SANCS deferreds). This is offset by deferred members of SASS, SSS and PSS who don’t have a record in the SANCS administrative data.

STC Pooled Fund membership by type

Contributors and deferred members are predominately part of SASS whereas majority of pensioners are part of SSS



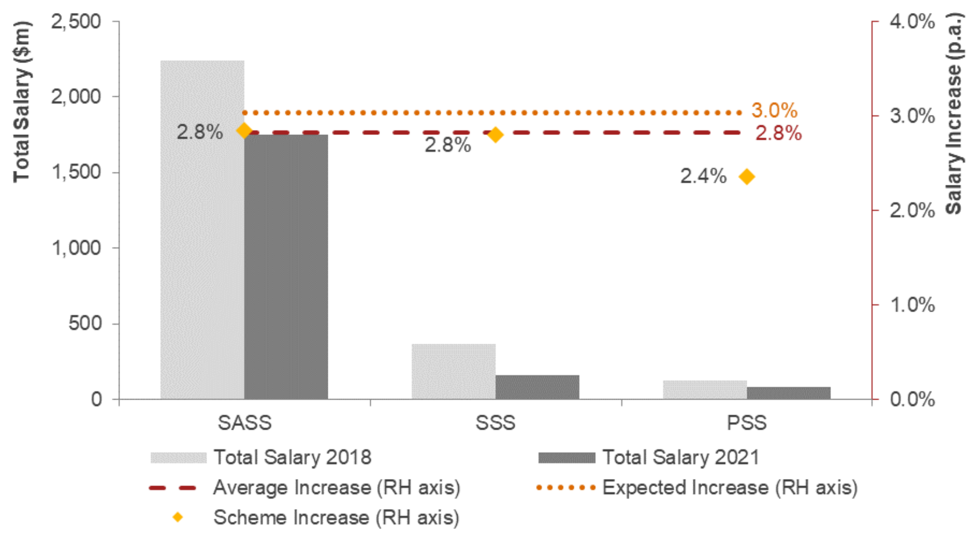
- SASS makes up 90% of the non pensioner members of the Pooled Fund, and 7% of the current pensioner members. We note that SASS deferred members have accumulation style benefits which accrues with investment returns and therefore no further employer funding is required.
- SSS makes up 7% of the non pensioner members of the Pooled Fund, and 83% of the pensioner members. In addition to there are 16,217 fully commuted SSS pensioners whose spouses are eligible for reversionary pension.
- PSS makes up 2% of the non pensioner members of the Pooled Fund, and 10% of the pensioner members.

[1] SSS deferreds who are currently receiving pension payments have been excluded from the deferreds count and included in pensioners. There were 368 such members in 2021.
[2] Chart excludes the 16,217 SSS fully commuted pensioners.

STC Pooled Fund – Salary and pension increases

The average salary increases for contributors over the last three years was 2.8% p.a., which is slightly lower than the 3% p.a. expected increase. Pension increases were 0.9% p.a. which is lower than the 2.2% p.a. expected increases.

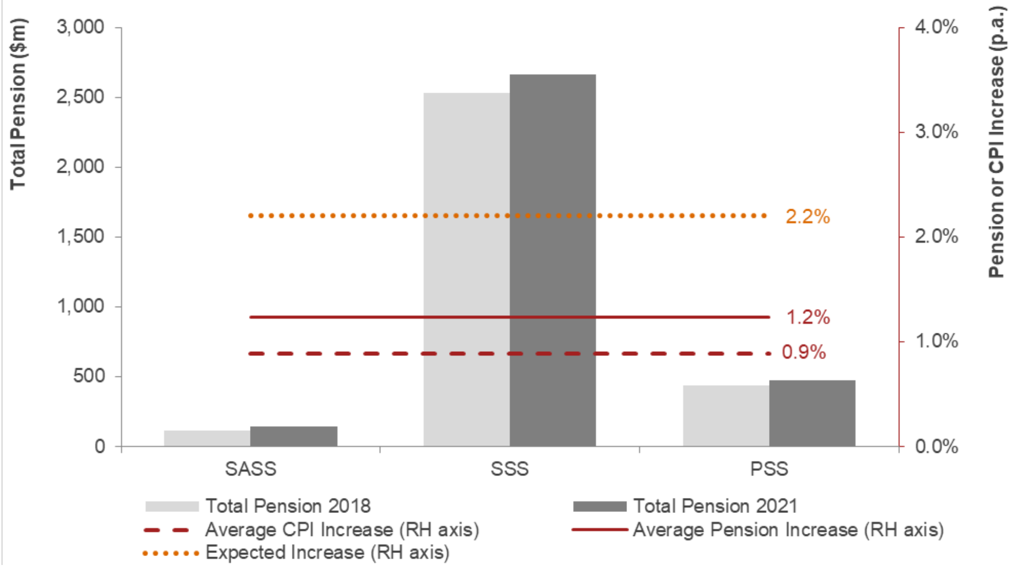
Contributor salaries[1]



- Average salary increases over the last three years for people who have remained in service have been 2.8% p.a. for SASS, 2.8% p.a. for SSS and 2.4% p.a. for PSS.
- This compares with expected salary increases of 3.0% p.a.
- The total salary role has decreased by 27% across all three Schemes as the number of contributors have decreased by 32% over the 3 years.

[1] Actual salary increases to 30 April 2021 plus 2 months roll forward: these are based on the average increase each year for people who remained contributors in the Scheme - this differs from the increase in the average salaries shown in the pages above.
Expected salary increases: for simplicity we have excluded the impact of the promotional salary scale when estimating the salary increase experience item above. This proportional scale only has a minor effect as over 99% of contributors are now above the age range that this promotional scale is applied for.

Pensions



- The average CPI increase over the last three years was 0.9%.
- Pension in each Scheme is indexed in line with the change in (June) CPI each year, except if the CPI decreases by less than 1.1% (i.e. between 0 and -1.1%) in which case no indexation adjustment is applied.
- If the pension was not adjusted during the year due to a decrease in CPI, this change is carried forward to offset any future pension increases.
- As CPI was negative 1%, no indexation adjustment was applied to the pensions in 2020.
- The average pension increase over the last three years was 1.2% as a result.
- We have allowed for the offsetting in the 2021 pension indexation assumption. See Section 7 for detail of the adjustment.

STC Pooled Fund membership movements

Overall membership decreased by 8.4% from 118,695 to 108,666, reflecting the closed nature of the Fund and members leaving

	Contributors	Deferreds	Pensioners[1]	Total
30 June 2018	25,036	10,557	83,102	118,695
Exits [2]	8,093 ^	2,334	5,453	15,879
New entrants	5 [3]	980	4,865 [4]	5,850
30 June 2021	**16,948**	**9,204**	**82,514**	**108,666**
Change	(32.3%)	(12.8%)	(0.7%)	(8.4%)

^ See breakdown of contributor exits on the right

	Contributor exits breakdown
Deaths	83
Disablement	497
Resignations	333
Retirements	6,969
Retrenchments	211
Total	**8,093**

- The table above shows the total membership movements.
- Overall there were 15,879 exits and 5,850 entries. This includes double counting where there were movements between membership category.
- Further details of membership movements by Scheme are shown in Appendix H.

[1] Includes SSS fully commuted pensioners.
[2] Includes projected Fund exits between data date (30 April 2021) and valuation date (30 June 2021), but does not include movements between membership types during this 2 month projection period.
[3] Analysis of data showed 5 new entrants into contributors. These relate to SASS members who have crystallised their benefit due to a salary reduction and subsequently joined SASS as new members to continue accruing benefits based on their lower salary, rather than genuine new entrants.
[4] New entrants into pensioners include spouse pensions commencing following the death of original pensioner.

6

Asset, investments and insurance

Asset values

The total assets for the Pooled Fund are $43,177.7m including the $9.2m SASS Additional Benefits Reserve.

Assets as at 30 June 2018 ($m)	Employer reserves	Member reserves	Deferred benefit reserves	Total excl. SASS Additional Benefits Reserve	SASS Additional Benefits Reserves	Total
SASS	5,147.9	4,480.3	2,916.5	12,544.7	9.2	12,553.9
SSS	23,000.8	619.1	-	23,619.9	-	23,619.9
PSS	5,002.6	254.8	-	5,257.4	-	5,257.4
SANCS	1,034.0^	106.4^	606.1	1,746.5	-	1,746.5
Total	**34,185.3**	**5,460.6**	**3,522.6**	**43,168.5**	**9.2**	**43,177.7**

^ See notes below on adjustment made to SANCS employer and member reserve

- The total net assets in the financial statements are $45,690m. This includes an allowance of $2,512m for an Employer Sponsor Receivable which relates to the PSS deficiency. The total net assets in the financial statements excluding this receivable are $43,178m.
- STC also provided us with a separate breakdown of the net assets (excluding the PSS receivable), broken down to Scheme and reserves. The total assets in this breakdown ($43,177.7m) are consistent with the assets in the financial statements reference above, after the PSS receivable is excluded.
- We have made the following further adjustments to the net assets for the purposes of our reporting, in addition to the exclusion of the PSS receivable:
  - For consistency with the liabilities, the total assets used in this report exclude the SASS Additional Benefits Reserve of $9.2m which is a self-insurance arrangement to cover the member's proportion of the SASS Additional Benefits (and this is subject to a further actuarial investigation). This results in total net assets of $43,168.5m.
  - We have adjusted the presentation of the assets above by moving the SANCS Other Accounts (estimated to be $42.1m) from the SANCS employer reserves to the SANCS members reserves. We presented the results in this way as the SANCS Other Accounts relate to accumulation-style benefits and do not count towards the funding of employer past service liabilities. The assets provided by STC shows SANCS employer reserves of $1,076.1m (which was reduced for the presentation above by $42.1m to give $1,034.0m), and SANCS member reserves of $64.3m (which was correspondingly increased for the presentation above by $42.1m to give $106.4m).

Investment strategy

The majority of the Fund assets are invested in the Trustee Selection investment option

- The Trustee has a documented Investment Policy Statement dated 15 June 2021. STC's primary investment objective is to achieve appropriate rate of returns within suitable risk parameters and to support the NSW Government to meet its funding goal.
- There are six investment options:

Investment options	% of Fund assets[1]
Trustee Selection (Defined Benefits – Growth)	80.8%
University – Cash[2]	1.0%
Defined Contribution – Growth	13.7%
Defined Contribution – Balanced	2.6%
Defined Contribution – Conservative	1.3%
Defined Contribution – Cash	0.6%

- The Defined Benefit (Employer, and SSS and PSS member) reserves (except for Universities) are primarily invested in the Trustee Selection investment option. See more details on the next slide.
- The University sector reserves are generally invested in a Cash option. This option target a lower level of returns but with more certainty. The investment strategy is set according to the objectives set in the Memorandum of Understanding between the NSW Universities, State Super, NSW Government and Commonwealth Government. See more details in Appendix F.
- The Defined Contribution (member) reserves are invested in one of the four options (Growth, Balance, Conservative, Cash) to provide a range of investment options that broadly cover the risk-return spectrum.
- We believe that the investment options are reasonable, considering the nature of the liabilities, the backing of NSW Government in addressing the shortfall, and also the Board's objectives.
- The Trustee's Investment Risk Appetite Statement states that as the Trustee strives to meet the objective to pay member benefits as they fall due, high tolerance for real return, medium to high tolerance for sequencing risk and low tolerance for liquidity risk is placed. The Trustee has controls in place to monitor the performance. We believe that this policy is reasonable.
- Crediting rates are used to attribute the Scheme's investment returns to the different reserves. The crediting rates are produced for each of the investment options above and the Trustee has an Asset Valuation Policy (dated June 2021), which includes a goal of ensuring valid crediting rates. Whilst we have not carried out a detailed review, we believe that the approach is reasonable.

[1] Fund splits by investment option above are based on total assets at 30 June 2020 in the STC 2019/20 Annual Report.
[2] Includes asset in the University Diversity Conservative option disclosed as at 30 June 2020 which was transferred to University Cash from 1 July 2020 as informed by STC.

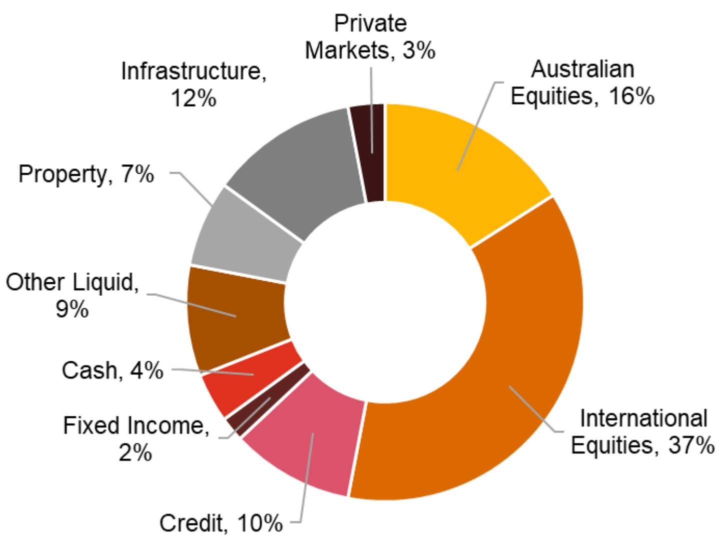
Investment Portfolio – Trustee Selection

In our opinion the investment strategy is reasonable and consistent with the Board's objectives, strategic asset allocation and the nature of the liabilities. The net return over the 3 year period was 7.5% p.a., which is higher than the expected return of 6.4% p.a. as at 30 June 2018.

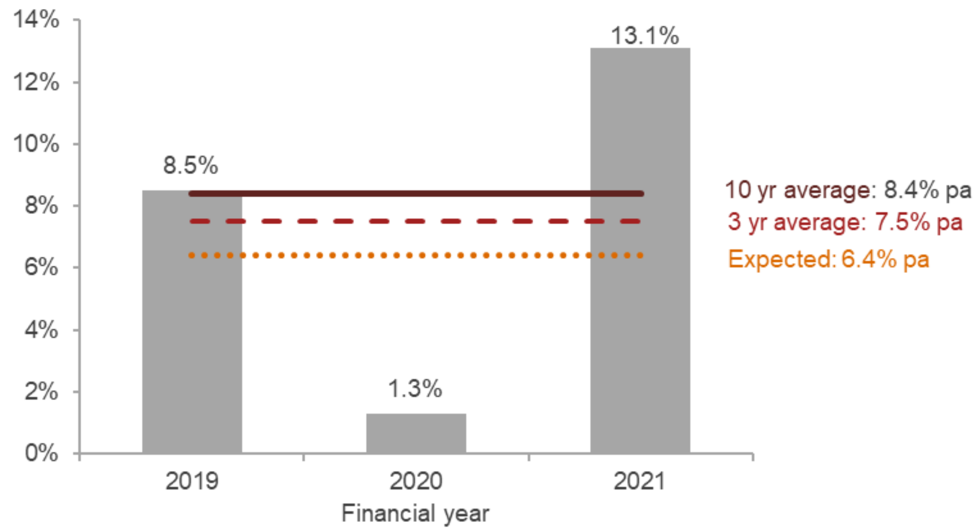
Investment Objectives [1]

- Return objective of CPI + 3.7% p.a. over rolling 10 year periods, net of tax and fees.
- Asset allocation mainly "growth" (approx. 75% as at 1 July 2021)
- As at 30 June 2021, the assumed returns are 5.7% p.a. net of fees and tax for contributors and deferreds, and 6.5% p.a. gross of tax and net of fees for pensioners. This is lower than the 30 June 2018 assumptions of 6.4% p.a. net of fees and tax, and 7.4% p.a. gross of tax and net of fees.

Strategic Asset Allocation as at 1 July 2021 [1]



Investment Returns (net of tax)[2]



- Return over the three year period (7.5% p.a. net of tax and fees) was higher than assumed long term return of 6.4% p.a. as at 30 June 2018.
- Over the last ten years returns have been 8.4% p.a. (net).

[1] Investment Policy Statement, as approved by the Board on 15 June 2021.
[2] Investment returns in this chart are net of superannuation tax and fees, and before any increase due to exempt current pension income (ECPI).

Self-insurance arrangements for death and disability benefits

The STC Pooled Fund self-insures death and disability benefits. Benefits are met from the reserves, with backing from the State government.

In our opinion, these arrangements are adequate and in the members' best interests.

Insured benefits

- Death and Disability benefits for all Schemes as well the SASS Additional Benefits are self insured within the Fund.
- The self-insured liability is determined as the cost of death and disability benefits less existing funding.

Funding and actuarial management

- STC has an insurance management framework in place (dated June 2020) which outlines STC's obligations and processes in relation to the self-insured death and disability benefits.
- Each triennial valuation considers the death and disability experience, impact on funding position and employer contributions.
- The cost of the insured benefits are funded by the employers through the Employer Reserves, including 75% of the SASS Additional Benefits. The remaining 25% of the SASS Additional Benefits are member funded through the SASS Additional Benefits Reserve.
- A Death and Disability Pooling transfer is conducted annually to support the pooling of the death and disability experience between employers. The actual cost of the self-insured portion of the death and disability benefits are shared between employers in proportion to their expected claims, rather than each employer meeting the cost of the death and disability claims of their particular members only.
- The review of the SASS Additional Benefits Reserve and member levy is subject to a separate valuation which will be carried out following the completion of this triennial report. The last full valuation was carried out as at 30 June 2018 and interim reviews are carried out annually.

Main risks

- Employer contributions include an allowance for expected claims.
- As such, normal variations in experience pose little risk.
- The main risk is high unexpected claims due to pandemics or other catastrophes.

Risk mitigants

- The benefits are underwritten by the State government, so little risk of genuine claims not being paid.
- The Fund has pensioners as well, who will also be impacted by pandemics etc and as such this liability would be reduced, releasing assets so acting as a hedge.

Impact of higher claims

- Total self-insured benefits = $18.8bn ($9.5bn death, $9.3bn disability).
- Expected annual cost of claims = $149m (0.8% of insurable liability).
- If claims for a year doubled the additional cost would be approximately $149m (representing a 0.3% increase in employer funded liabilities).
- This is immaterial compared to investment earning fluctuations.

7

Assumptions and methodology

Economic assumptions

The discount rate assumptions have been reduced to 6.5% (untaxed) and 5.7% (taxed) to reflect the reduction to STC's expected investment return target to CPI + 3.7% (taxed).

Assumption	30 June 2018 triennial valuation	30 June 2020 AASB1056 valuation	31 December 2020 AASB1056 valuation	30 June 2021 triennial valuation
Discount rate				
Non-pensioner (taxed)	6.4% p.a.	6.0% p.a.	6.0% p.a.	**5.7%p.a.**
Pensioner (untaxed)	7.4% p.a.	7.0% p.a.	7.0% p.a.	**6.5% p.a.**
Rate of CPI increase	2.2% p.a.	2.0% p.a.	2.0% p.a.	**2.0% p.a.**
Untaxed gap = pensioner discount rate less CPI	5.2% p.a.	5.0% p.a.	5.0% p.a.	**4.5% p.a.**
General salary increase				
Short term	2.7% p.a. to 30 June 2019	3.2% p.a.	1.7% p.a. to 30 June 2021 2.2% p.a. to 30 June 2024	**2.7% p.a. to 30 June 2026**
Long term	3.2% p.a.	3.2% p.a.	3.2% p.a.	**3.2% p.a.**
Expenses	1.0% of benefit payments			**1.0% of benefit payments**

- The table above shows the economic assumptions agreed by the Trustee. An experience review was carried out and reported on separately in order to inform the economic and demographic assumptions, which are set as a best estimate.
- Pension liabilities are assumed to be backed by assets which are exempt from investment tax. Non-pensioner liabilities are assumed to be subject to investment tax and so a lower return is used.
- In terms of the economic assumptions, the key driver of the valuation is the difference between the discount rate and CPI increases.
- This difference (untaxed gap) has decreased by 0.7% p.a. from 5.2% p.a. (based on the 30 June 2018 assumptions), to 4.5% p.a. (based on the 30 June 2021 assumptions).
- Overall these economic assumption changes resulted in a \$2.8bn (or 5.6%) increase[1] in the employer past service liabilities of \$49.9bn.
- As the change in CPI for 2020 was -1% no indexation was applied to the pensions in 2020 as per the Scheme legislation, however future pension increases will be calculated based on the change in CPI from when the pension was last indexed. The 2021 indexation will be calculated based on the change between the June 2019 and June 2021 CPI. We have allowed for this impact in our indexation of the pension for FY21 (which occurs in October 2021). In line with this, the CPI assumption of 2.0% p.a. results in a pension increase assumption of 1.0% in the first year and 2.0% p.a. thereafter.

[1] See page 15 for further details – amount shown is total of discount rate, salary and CPI changes (-\$3,655m, +\$114m and +\$765m impacts respectively on the unfunded employer liabilities).

Demographic assumptions

The table below shows the key demographic assumptions as well as brief commentary on some of the recent experience seen at the time of both valuations.

Assumption	2018 triennial valuation updates	2021 triennial valuation updates
Pensioner mortality All Schemes	Actual experience to 2018 was close to expected; Maintained 2015 valuation assumptions with the applicable mortality improvements from 2015 to 2018	Consolidate assumptions across all Schemes and align them to a percentage of ALT 2015-17 (with mortality improvements to 2021) based on experience
Invalidity pensioner mortality All Schemes	Actual experience was close to expected; Maintained 2015 valuation assumptions and applied 3 years of mortality improvements from 2015 to 2018	Align assumptions to a percentage of ALT 2015-17 based on experience
Pensioner mortality future improvements All Schemes	No change as ALT 2010-12 were the latest available; continued to apply 6 years of short-term and thereafter long-term improvement factors	Update assumption to ALT 2015-17 mortality improvement factors; continued to apply 6 years of short-term and thereafter long-term improvement factors[1]
Percentage married at death All Schemes	No change	Increase percentage married for males in line with experience
Retirements SSS and SASS contributors	Actual exits continue to be higher than expected; increase SASS retirement rates in line with experience but no change to SSS retirement rates	No change
Retirement and hurt on duty PSS contributors	No change	Extended hurt of duty invalidity retirements through to age 69 and adjust standard retirement rates accordingly
Retirement SASS deferreds	No change	Updated in line with recent experience to assume 100% retirement retirement at age 70
Retrenchment All Schemes	Used rates provided, based on NSW Treasury workforce planning	No allowance for retrenchments, given small proportion of membership that would be affected

- The changes in demographic assumptions above were made following the experience review, which was reported on separately. The table above summarises the changes to the demographic assumptions agreed by STC. Further details on the assumptions are shown in Appendix I.
- The demographic assumption changes above resulted in a $0.1bn (0.2%) increase in the employer past service liabilities of $49.9bn. See page 15 for further commentary.

[1] The pensioner mortality future improvement factors allow for mortality rates to continue to improve into the future. The rates used have been taken from the latest Australia Life Tables 2015-17 (ALT15-17) produced by the Australian Government Actuary. The following two scenarios are published and these are both used in our projections: short-term improvement rates which considered improvements seen over the past 25 years; and long-term improvement rates which considered improvements seen over the past 125 years. The short-term improvement rates have generally higher year-on-year mortality improvements than the long-term rates (with some differences by age). These short-term rates have been applied for the first 6 years, followed by the long-term rates thereafter.

Valuation methodology

There are two main measures of the Fund's liabilities, Past Service Liabilities and Vested Benefits.

Measure	Comments
Past Service Liabilities (Accrued Benefits)	• The Past Service Liabilities are valued using the present day, discounted value of the expected future benefit payments arising from membership completed prior to the valuation date. • The valuation of Past Service Liabilities is in respect of past service only, there is no account taken of benefits arising from future service or of any self-insured liabilities. • Past Service Liabilities have been calculated without applying a Vested Benefits minimum, consistent with the requirements of AASB1056 and Professional Standards.
Vested Benefits	• For contributors, the Vested Benefit is equal to the resignation/retirement benefit. For members under the early retirement age, we have allowed for a proportion will choose to defer their benefits rather than take a cash resignation benefit. This proportion is set out in the demographic assumptions for the Schemes. • For deferred benefits and pensioners, the Vested Benefit is the same as the Past Service Liabilities. That is, it is valued using the present day, discounted value of the expected future benefit payments arising from membership completed prior to the valuation date. • Not subjected to a minimum of the Minimum Requisite Benefit.

Details of approach	Comments
Approach to Apportionment of Benefits	• The valuation calculations project each benefit to the projected dates of exit, allowing for future accrual and salary increases. • These projected benefits are then multiplied by an apportionment factor in order to estimate the past service component, with the remainder used to estimate future service component. • The apportionment factor used allows for the service up to the valuation date, as a proportion of the projected of service up to the date of exit. • We have set out further details in Appendix A.
Roll forward methodology	• Membership data was provided by the Fund administrators as at 30 April 2021 and this has been relied on for our calculations. This data is summarised in Section 5. • We have rolled forward these results to 30 June 2021 allowing for expected experience in line with the triennial assumptions. We have also allowed for actual assets at 30 June 2021, as set out in Section 6.

- The method above is in line with that used in the previous actuarial investigation.
- When considering funding plans we have projected forward the Past Service Liabilities, allowing for future accrual as well as contributions and other projected movements in assets. We believe that the valuation methodology above is appropriate given the nature of the Fund and the funding arrangements.
- Detailed Past Service Liabilities and Vested Benefits result are provided in Section 8 and Appendix E.

8

Actuarial statements

Statements

The following statements are made in line with the STC Defined Benefit Matters Policy.

The STC Defined Benefit Matters Policy outlines STC Management's monitoring and review processes and funding arrangements for the Pooled Fund and its employers, to ensure the STC Schemes are maintained in accordance with their governing legislation and the Commonwealth's retirement principles. This policy considers Scheme legislation as well as relevant standards and guidance issued by APRA[1].

The information below is provided in line with Section 8 of the STC Defined Benefit Matters Policy.

- Summary of membership data – see Section 5.
- Overview of the STC Schemes – see Appendix A.
- Value of the assets and employer reserves – see Sections 1 and 6.
- Financial and demographic experience to date – see Sections 5 and 6, as well as the separate experience analysis report.
- Financial and demographic assumptions and funding method – see Section 7 as well as the separate experience analysis report.
- Value of the Past Service Liabilities (accrued benefits), Vested Benefits and minimum (SG) benefits by Scheme – see Section 1 as well as the next page.
- Projection of likely funding position during the three years following the valuation date by Scheme and employer – see Section 2 for General Government Sector projections. Projections by Scheme and Sector, as well as employer level funding results to be provided separately.
- Sensitivity of the valuation results to changes in key assumptions – see Section 3.
- Recommendation/s on the funding arrangements including the level of employer contributions for the three-year period immediately following the valuation date by Scheme and employer – see Section 4. We will also be carrying out a contribution review after this triennial valuation which will cover the Non Crown General Government Sector, PTEs and Other employers.

Additionally, the following statements are made in line with Section 8 of the STC Defined Benefit Matter Policy.

- In our opinion the assets of the Fund combined with the future contributions and earnings, as well as the backing from State Government, are sufficient to meet the liabilities of the Fund.
- In our opinion the funding arrangements for the Fund as a whole are adequate. Individual Non Crown General Government Sector entities, PTEs and Other employer funding plans will reviewed as at 30 June 2021 in October 2021 and recommendation will be provided separately.

[1] Specifically Prudential Standard SPS 160 – Defined Benefit Matters (dated July 2013) (SPS 160.0); APRA guidance contained in Prudential Practice Guide SPG 160 Defined Benefit Matters (dated November 2013) (SPG 160.0); Reporting Standard SRS 160.0 Defined Benefit Matters (dated July 2013) (SRS 160.0); and Reporting Standard SRS 161.0 Self-Insurance (dated July 2013) (SRS 161.0).
However the STC Defined Benefit Matters Policy also notes that as public sector superannuation fund that is not fully funded, STC is exempt from the certain SPS 160.0 provisions.

STC Pooled Fund – other funding measures

The asset cover for the total Vested Benefits has improved from 72% at 30 June 2018, to 73% at 30 June 2021.

Scheme	Employer Vested Benefits				Contributor Reserves ($m)	Deferred Reserves ($m)	2021 Vested Benefits ($m)	*2018 Vested Benefits ($m)*
	Contributors (m)	Deferred ($m)	Pensioners ($m)[1]	Total ($m)				
SASS	5,659.4	-	1,825.1	7,484.5	4,480.3	2,916.5	14,881.3	*15,221.0*
SSS	656.2	160.0	33,239.7	34,055.9	619.1	-	34,675.0	*34,538.7*
PSS	500.6	11.5	6,842.9	7,355.0	254.8	-	7,609.8	*7,097.3*
SANCS	1,539.1	-	-	1,539.1	106.4	606.1	2,251.7	*2,558.6*
Total Vested Benefits (A)	**8,355.4**	**171.4**	**41,907.7**	**50,434.4**	**5,460.6**	**3,522.6**	**59,417.7**	***59,415.7***
Total Assets (B)				**34,185.3**			**43,168.5**	***43,014.2***
Asset coverage (B/A)				**68%**			**73%**	***72%***

- The asset cover for the total Vested Benefit (excluding Minimum Requisite Benefits underpin) for the Fund has improved from 72% at 30 June 2018, to 73% at 30 June 2021. This is projected to decrease in the period to 30 June 2024 based on the current contribution level (mainly due to the Crown contribution holiday in FY22).
- Additionally we have estimated the **Minimum Requisite Benefits (MRB)**[2] for the Fund to be $55.5bn. The asset coverage of the MRB is 78%. The MRB split, where SANCS amounts have been included within the main Scheme values[3], is as follows: SASS $13.9bn, SSS $34.4bn, PSS $7.2bn.
- Total Vested Benefit with MRB underpin is estimated to be $59.45bn as at 30 June 2021 (estimated MRB impact of $0.03bn or 0.1% of Vested Benefit excluding underpin). The asset cover is 73%[4].
- We have also estimated the **market value of the pension liabilities**. We have done this by allowing for a discount rate of 1.5% p.a. (instead of 6.5% p.a. used for the main results). This discount rate based on the Commonwealth 10 year bond yield. This increases the pensioner liabilities by 71% from $41.9bn to $71.7bn. Note we have not considered the market value of liabilities relating to future pensioners.

[1] Vested Benefit for deferred and pensioners was taken to be the Past Service Liabilities.
[2] For contributors: the MRB is calculated by the Fund administrators but was not available at the time of writing this report. Instead we estimated the MRB for contributors by rolling forward the 30 June 2020 MRB values provided by the Fund administrators.
For deferred and pensioner: the MRB was taken to be the Past Service Liabilities.
[3] SANCS MRB is included in the main Scheme MRB, in line with MRB in administrative data provided ty the Fund administrators.
[4] We note that only approximately 90% of contributors (or 98% of all members) have Vested Benefits that are at least 20% higher than their MRB (or will never be lower than their MRB for deferreds and pensioners) as at 30 June 2020

Appendix A

Summary of benefit design

SASS benefit design

The benefits provided by SASS are set out in the State Authorities Superannuation Act 1987 and are summarised below:

Membership and contributions

- Many previously existing public sector schemes were transferred into SASS between 1988 and 1990. Some members retained benefits under previous fund, which differ from standard SASS benefits
- Closed to new members on 19 December 1992
- Benefit accrual ceases at age 70
- Members contribute between 1% – 9% of salary
- Members accrue 1/12th of a benefit point for every 1% of salary contributed for a whole month, up to an average of 6 benefit points for each year of membership and up to an overall maximum of 180
- SASS is a Hybrid scheme – the member's personal account is accumulation style. Employer financed benefit is a defined benefit

Retirement benefit

- Available from age 58 (some members age 55)
- Lump sum benefit consisting of:
  - Contributor Financed Benefit (CFB) (accumulation of members contributions adjusted with interest) +
  - Employer Financed Benefit (EFB) defined benefit lump sum calculated at FAS x accrued benefit points x 2.5% (3% for ex-SPSSF members)
- FAS is final average salary (using exit salary and previous 2 years annual review)
- Members of some previous schemes transferred into SASS have a pension option available on retirement on or after age 60

Resignation benefit

- For members with 10 years or more in SASS (i.e. all current contributors):
  - CFB + EFB calculated as up to 2.5% of the CFB for each year of scheme membership (limited to the maximum benefit that an average contribution rate of 6% attracts)
  - Paid immediately subject to preservation rules and other early release conditions
  - A member that resigns and does not wish for the benefit to be paid immediately has the option to defer the benefit, to be paid at a later date
- Deferral:
  - Option of either the resignation benefit above **or**
  - Deferred benefit consisting of CFB + EFB calculated as FAS x accrued benefit points x 2.5%, (3% for ex-SPSSF members) reduced by a discount factor (currently 0.99 or 1% pa) to take account of the period of time by which the date of exit precedes the retirement age
  - Deferral benefit payable from age 58, Death, TPI or other release conditions
  - Once deferred, the member may elect at any time to take their immediate lump sum benefit (resignation/withdrawal) adjusted with investment earnings and administration fees. If the immediate lump sum is paid, DB benefit is no longer payable
  - Member can elect what investment strategy to be applied to CFB and EFB portion of DB while deferred

Death and Invalidity benefits

- Lump sum consisting of:

  CFB + EFB calculated as FAS (subject to the minimum of final salary if before early retirement age) x accrued benefit points x 2.5% (3% for ex-SPSSF members)
- Benefit may be increased if member had Additional Benefit Cover and either die or becomes totally and permanently incapacitated before age 58 and prior to the reaching maximum 180 points
- Members of some of the previous schemes transferred into SASS have a pension option available if medically retired under Total and Permanent Invalidity (TPI) or upon death in service
- Child pensions are payable to eligible children of some of the previous schemes that transferred into SASS upon the death of the member in service

Retrenchment benefit

- At age 58 and over, retirement benefit paid
- If under age 58, lump sum consisting of:

  CFB + EFB calculated at higher of final salary or FAS x accrued benefit points x 2.5% (3% for ex-SPSSF members)

All benefits, except for the death benefit, are reduced for the impact of contribution tax for the period of service since the taxable date (1 July 1988). For more details, refer to the State Authorities Superannuation Act 1987 and SASS Factsheets on the State Super website.

All benefits are gross of any family law payments to non-member spouses.

SSS benefit design

The benefits provided by SSS are set out in the Superannuation Act 1916 and are summarised below:

Membership and contributions

- Closed to new members from 1 July 1985
- Benefit accrual ceases at age 70
- Members are entitled to units of pension based on salary and an allowance for CPI
- Compulsory contributions determined by salary at Annual Review Date. Units are picked up each year at a different rate depending on age and the sex of the member.

Pensions

- All pensions (aside from spouse/child pensions) are reversionary. Reversionary pension is two-thirds of the member's original pension (before any commutation) on the member's death adjusted with CPI
- Pensioners can commute all or part of their pension once, but have multiple chances to do so (at pension commencement if 55 or over and at 60)
- Commutation does not affect the spouse's entitlement to a reversionary pension (they still receive two-thirds of the member's original pension before any commutation)
- Pensions are paid fortnightly and are indexed every October in line with CPI at June. Special rules apply when CPI decreases, see the legislation for further details.

Retirement benefit

- Available from age 55
- Pension based on units
- For retirement between ages 55 up to 60 (except for females with a specified normal retirement age of 55) pension benefit is reduced based on service
- If a member has retired due to invalidity at any age, they are entitled to an immediate pension equivalent to the full retirement benefit they were contributing to as at their exit date

Death benefit

- Pension to eligible spouse equivalent to two-thirds of member's pension
- Child pensions paid to each eligible child/student
- Guaranteed minimum benefit of the lump sum resignation benefit applies (e.g. no spouse)

Retrenchment benefit

- If age 55 and over, retirement pension paid
- If under age 55:
  - Retrenchment lump sum benefit based on units (adjusted to reflect non-payment of contributions due to shorter service), service and age (no further benefit payable from the scheme if this option is taken)
  - Deferred pension based on units (adjusted to reflect non-payment of contributions due to shorter service) and service. Payable from age 55, death, TPI or other release conditions.
  - Retrenchment pension (s.37B option calculated by MAS) if aged between 50 – 55 (subject to agreement from the employer). Employer and employee agree to pay contributions up to age 55. Pension is paid from age 55

Resignation benefit

- If under age 55:
  - Immediate lump sum benefit of multiple of accumulation of personal contributions paid based on service
  - Deferred pension benefit based on units (adjusted to reflect non-payment of contribution due to shorter service) and service. Employer portion of pension indexed to CPI. Payable from age 55, death or TPI.
- If age 55 and over, retirement pension paid

All benefits are reduced for the impact of contribution tax for the period of service since the taxable date (1 July 1988). For more details, refer to the Superannuation Act 1916 and SSS Factsheets on the State Super website.

All benefits are gross of any family law payments to non-member spouses.

PSS benefit design

The benefits provided by PSS are set out in the Police Regulation (Superannuation) Act 1906 and are summarised below:

Membership and contributions

- Closed to new members on 1 April 1988
- Benefit accrual ceases at age 70
- Members contribute 6% of salary

Pensions

- All pensions (aside from spouse/child pensions) are reversionary, and spouse pension is 62.5% of the member's pension paid at the time of death (spouse is not entitled to any proportion of the member's pension that has been commuted previously)
- Pensioners can commute all or part of their pension once, but have multiple chances to do so (at pension commencement if age 55 and over and at age 60)
- HOD pensioners can also apply for a lump sum based on the prescribed portion of their pension under s.10C
- Pensions paid fortnightly and indexed every October in line with CPI at June. Special rules apply when CPI decreases and for child pensioners, see the legislation for further details.

Retirement benefit

- Available from age 55
- Pension benefit based years of service and final salary
- Retirement between age 55 up to 59, pension is reduced based on age

Invalidity benefit

- If not HOD and less than 20 years' service, lump sum paid equal to twice members salary at time of retirement
- If not HOD and more than 20 years service full time service, pension is a percentage of salary at exit (percentage based on years of service)
- If HOD, pension benefit is a percentage of final salary between 72.75% to 100% as determined by the Police Superannuation Advisory Committee (PSAC). Due to current legal considerations and for conservatism, we have assumed all HOD pensioners receive 100% of salary which is consistent with the assumption in 2015 Triennial Review

Death benefit

- Death in service not due to HOD, lump sum benefit based on final salary and years of service to age 55
- If death in service due to HOD, eligible spouse receives a pension benefit of a percentage of the member's salary between 55% and 62.5% at STC's discretion. For conservatism, we have assumed all death in service spouse pensions will be paid at 62.5% of salary which is consistent with the assumption in 2015 Triennial Review
- Additional child pensions paid to each eligible child
- A gratuity lump sum is paid to the deceased dependants in line with the Workers Compensation Act as determined by STC.

Resignation benefit

- Immediate lump sum benefit of accumulation of member's contributions plus interest
- Can opt to defer benefit until a later date.
- Deferred lump sum benefit calculated as the greater of 2.5 times member contributions without interest and early retirement benefit discounted for age at exit. This benefit is adjusted with CPI, payable from age 55 or upon death or TPI
- Once deferred, member can opt to take either the immediate lump sum or deferred lump sum benefit (if over age 55)

All benefits, except for the Not Killed on Duty death benefit, are reduced for the impact of contribution tax for the period of service since the taxable date (1 July 1988). For more details, refer to the Police Regulation (Superannuation) Act 1906 and PSS Factsheets on the State Super website.

All benefits are gross of any family law payments to non-member spouses.

SANCS benefit design

The benefits provided by SANCS are set out in the State Authorities Non-Contributory Superannuation Act 1987 and are summarised below:

Membership and contributions	Benefits	Minimum Requisite Benefit
• All members of SASS, SSS and PSS are also members of SANCS, with the exception of Sydney Grammar School • Members do not contribute towards SANCS • Other contributions (Government co-contributions, Additional Employer Contributions) are credited to the member's accumulation account	• SANCS benefits are paid or deferred at the same time as the member's SASS, SSS or PSS benefit. • SANCS benefit calculated at 3% of FAS for each year of service from 1 April 1988 • If exit under age 55 due to retrenchment, death or invalidity, lump sum benefit calculated at 3% of final salary for each year of service from 1 April 1988 • FAS is final average salary (exit salary and previous 2 years annual review) • Member's SANCS benefit is paid out on all exits and is subject to preservation rules • SANCS accumulation account (Government co-contributions, Additional Employer contributions) paid on all exits.	• Sum of SANCS and member's other fund benefits (SASS, SSS or PSS) are subject to the superannuation guarantee minimum. • Any shortfall due is paid from SANCS

All benefits, except for the death benefit, are reduced for the impact of contribution tax for the period of service since the taxable date (1 July 1988). For more details, refer to the State Authorities Non-Contributory Superannuation Act 1987 and factsheets on the State Super website.

Apportionment of benefits to employer past service liabilities

The approaches taken to apportion future benefit payments between employer past and future service liabilities are summarised below:

Scheme	Benefit	Employer past service liability component of benefit payable t years after valuation date	Notation
SASS	• All benefits	$\frac{ABP_0}{ABP_t}$ × (value of employer financed benefit payable at time t)	• ABP_0 = accrued benefit points at valuation date • ABP_t = accrued benefit points at time t
SSS	• Retirement • Retrenchment • Resignation	$\frac{PS_0}{PS_t}$ × (value of employer financed benefit payable at time t)	• PS_0 = years of service to valuation date, or normal retirement age if earlier • PS_t = years of service to time t, or normal retirement age if earlier • TS = years of service to normal retirement age
	• Death • Invalidity	$\frac{PS_0}{TS}$ × (value of employer financed benefit payable at time t)	
PSS	• Retirement • Resignation	$\frac{PS_0}{PS_t}$ × (value of benefit payable at time t)	• PS_0 = years of service to valuation date, or normal retirement age if earlier • PS_t = years of service to time t, or normal retirement age if earlier • TS = years of service to normal retirement age
	• Death • Invalidity	$\frac{PS_0}{PS_t} \times \frac{min(PS_t, 30)}{min(TS, 30)}$ × (value of benefit payable at time t)	
SANCS	• All benefits	$\frac{PS}{PS + t}$ × (benefit payable at time t) + $\frac{SGPS}{SGPS + t}$ × (SG top-up, if any)	• PS = years of service between 1 April 1988 and valuation date • SGPS = years of service between 1 July 1992 and valuation date

- The apportionment of benefits to employer past service liabilities is determined in accordance with Professional Standard 402 (PS402), noting the following:
  - The SSS benefit design is a non-standard design and a different approach to apportionment has been applied which is allowable under section 6.5 of PS402.
  - PSS apportionment factor could alternatively be prorated over the period in which the benefit accrues (i.e. 30 years) rather than the total service, however given the PSS contributor benefits are not material (1% of total employer past service liabilities), we have elected to retain the approach used by the previous actuary and are satisfied that this would not impact funding considerations.

Appendix B

Financial structure of Schemes and reserves

Financial structure of Schemes and reserves

The Fund assets are made up of the following reserves:

Reserve	Applicable Scheme	Description
Employer reserve	• All	• The administrator maintains a notional account for each employer[1] in each Scheme to allow tracking of funding and contribution requirements. • Balance of employer contributions and net investment return less benefits, employer contributions tax and administration fees paid. • For SSS and PSS, the balance of member reserve is transferred in on member ceasing employment in the public sector as all benefits are paid from this reserve.
Member reserve	• All	• For each member: Balance of member (contributor) contributions and net investment return less benefits paid or transferred (contributor financed portion). • For SASS, SSS and PSS, the account balance is paid on member ceasing employment to either the member, the employer reserve or the deferred reserve depending on the Scheme and exit type. • For SANCS, contributions includes government co-contributions (disclosed as member reserve for the purpose of this report) and Additional Employer Contributions (for eligible members in line with Superannuation Guarantee increases). • For SASS, the Scheme administration fee and member portion of the Additional Benefit levy is deducted (if applicable).
Deferred benefits reserve	• SASS • SANCS	• For each deferred member: Transfer in of employer and member reserves when a member defers benefit on ceasing employment. Balance accrues with net investment return less benefits paid.
Death or invalidity reserve	• SASS	• Balance of Additional Benefits member paid levies and net investment return less the member financed portion of Additional Benefits benefit payments.

- Assets of the Schemes in the Fund are pooled for investment and related purposes such as tax calculations.
- Member investment choice is applicable to the SASS member reserve and member and employer portion of SASS deferred benefits reserve.

[1] A single account is maintained for all Part 3 employers (public health organisations).

Appendix C Additional information on funding provisions and Crown guarantee

Legislative provisions covering employer contributions

There are legislative provisions covering employer contributions for each Scheme.

Scheme	Legislative provisions	Reference
SASS Part 1 (The Crown and other employers)	"…the employer shall pay to the Fund an amount equal to a multiple of the contributions payable to the Fund by the contributor, being a multiple determined by STC, in relation to the employer, with the concurrence of the Treasurer." "Despite any other provision of this Part, STC may determine that the contributions payable by an employer specified in Part 1 of Schedule 1[1] in respect of a contributor are to be determined, or are payable, on a basis other than that set out in this Part. STC may only make such a determination with the concurrence of the Treasurer."	• State Authorities Superannuation Act 1987 – Part 4, Section 31 • State Authorities Superannuation Act 1987 – Part 4, Section 34A
SASS Part 3 (Public health organisations)	"…the employer shall pay to the Fund an amount equal to 1.0 (or such higher number as may be prescribed with the concurrence of the Treasurer) times the contributions payable to the Fund by the contributor while employed by the employer."	• State Authorities Superannuation Act 1987 – Part 4, Section 33
SSS	"(1) An employer listed in Schedule 3[1] must pay to the Fund in respect of each contributor that the employer employs an amount equal to a specified multiple of the contributions payable to the Fund by that contributor. (2) The specified multiple referred to in subsection (1) is a multiple that STC, with the concurrence of the Treasurer, periodically fixes in respect of the employer concerned"	• Superannuation Act 1916 – Division 7, Section 10AJ
PSS	No specific provisions	
SANCS	"…the employer shall pay to STC an amount equal to a percentage of the salary of the employee, being a percentage determined by STC, in relation to the employer, with the concurrence of the Treasurer."	• State Authorities Non-Contributory Superannuation Act 1987 – Part 3, Section 14

[1] Schedule 1 of the State Authorities Superannuation Act 1987 and Schedule 3 of the Superannuation Act 1916 both list employers for the Fund, which all fall under Part 1 (The Crown and other employers) or Part 3 (Public health organisations) of these schedules.

Existence of Crown guarantee

Prior to the 30 June 2012 valuation, the STC Executive obtained legal advice on the existence of any Crown guarantee on benefits. We have set out specific questions and a summary of the legal advice obtained below.

Question	Summary of legal advice obtained by the Trustee
Are the superannuation liabilities of all employers in the Pooled Fund covered by a guarantee of payment by the NSW Government?	• SASS – only in respect of privatised employers and Part 3 (i.e. Public health organisations) employers • SSS – only in respect of privatised employers • PSS – covered • SANCS – only in respect of privatised employers and Part 3 employers.
If the answer to the first question is no, which employers are not covered?	• SASS – no employers are covered except privatised employers and Part 3 employers • SSS – no employers are covered except privatised employers • PSS – not applicable • SANCS – no employers are covered except privatised employers and Part 3 employers
If the sub-fund of an individual employer has no assets, may the Trustee continue to pay benefits to members of that sub-fund?	• The Scheme Legislation does not empower the Trustee to continue to pay benefits (except for Part 3 employers)
If the sub-fund of an individual employer has no assets, must the Trustee continue to pay benefits to members of that sub-fund?	• The Scheme Legislation does not empower the Trustee to continue to pay benefits (except for Part 3 employers)

Appendix D

Current actuarial certificates

Appendix D – Current actuarial certificates

Below is a list of current actuarial certificates for STC.

Certificate	Certificate date	Effective period	Replacement date
Benefit certificate	23 May 2019	1 April 2019 to 31 March 2024	To be signed before 15 May 2024
Income Tax Assessment Act **Section 295-390 Actuarial Certificate** **Exemption of proportion of income attributable to current pension liabilities**	30 July 2021	The year of income covered by certificate is 1 July 2020 to 30 June 2021	July 2022
Income Tax Assessment Act **Section 295-465(3) Actuarial Certificate** **Deduction for Cost of providing Death and Disablement Funds**	30 July 2021	The year of income covered by certificate is 1 July 2020 to 30 June 2021	July 2022

Appendix E

Funding position by Sector and Scheme

General Government funding position

Employer past service liabilities are $43.2bn. Asset coverage has remained at 70% from 30 June 2018 to 30 June 2021.

Scheme	Employer Past Service Liabilities (Accrued Benefits)				Contributor Reserve ($m)	Deferred Reserve[1] ($m)	Total ($m)
	Contributors ($m)	Deferred ($m)	Pensioners ($m)	Total ($m)			
SASS	4,111.6	-	1,410.4	**5,522.1**	3,589.5	2,916.5	**12,028.0**
SSS	525.4	123.4	28,413.1	**29,061.9**	527.8	-	**29,589.7**
PSS	660.1	11.5	6,842.9	**7,514.4**	254.8	-	**7,769.2**
SANCS	1,119.3	-	-	**1,119.3**	96.9[2]	606.1	**1,822.3**
Total Past Service Liabilities	6,416.4	134.8	36,666.4	**43,217.6**	4,469.0	3,522.6	**51,209.2**

Scheme	2021			
	Employer Past Service Liabilities ($m) A	Employer Reserve ($m) B	Employer Unfunded Liabilities ($m) B-A	Asset coverage B/A
SASS	5,522.1	3,771.2	(1,750.9)	68%
SSS	29,061.9	20,635.9	(8,425.9)	71%
PSS	7,514.4	5,002.6	(2,511.8)	67%
SANCS	1,119.3	795.6	(323.7)	71%
2021 Total	43,217.6	30,205.3	(13,012.3)	70%
2018 Total	*42,587.0*	*29,607.6*	*(12,979.3)*	*70%*

[1] All deferred reserves have been counted under General Government, consistent with treatment in 2018 Triennial Review
[2] Surcharge accounts have been included in SANCS Contributor Reserve

Universities funding position

Employer past service liabilities are $3.3bn. Asset coverage is 13% at 30 June 2021, reflecting the part pay-as-you-go funding approach backed by the Commonwealth and NSW governments.

Scheme	Employer Past Service Liabilities (Accrued Benefits)				Contributor Reserve ($m)	Deferred Reserve[1] ($m)	Total ($m)
	Contributors ($m)	Deferred ($m)	Pensioners ($m)	Total ($m)			
SASS	127.4	-	12.2	**139.6**	102.2	-	**241.8**
SSS	19.6	15.4	3,093.0	**3,128.0**	18.9	-	**3,146.8**
PSS	-	-	-	**-**	-	-	**-**
SANCS	32.0	-	-	**32.0**	0.3[2]	-	**32.3**
Total Past Service Liabilities	179.0	15.4	3,105.3	**3,299.6**	121.3	-	**3,420.9**

Scheme	2021			
	Employer Past Service Liabilities ($m) A	Employer Reserve ($m) B	Employer Unfunded Liabilities ($m) B-A	Asset coverage B/A
SASS	139.6	73.6	(66.0)	53%
SSS	3,128.0	312.9	(2,815.0)	10%
PSS	-	-	-	-
SANCS	32.0	31.7	(0.3)	99%
2021 Total	3,299.6	418.2	(2,881.4)	13%
2018 Total	*3,539.8*	*544.3*	*(2,995.5)*	*15%*

[1] All deferred reserves have been counted under General Government, consistent with treatment in 2018 Triennial Review
[2] Surcharge accounts have been included in SANCS Contributor Reserve

PTEs/Other funding position

Employer past service liabilities are $3.4bn. Asset coverage has improved from 100% at 30 June 2018, to 104% at 30 June 2021.

Scheme	Employer Past Service Liabilities (Accrued Benefits)				Contributor Reserve ($m)	Deferred Reserve[1] ($m)	Total ($m)
	Contributors ($m)	Deferred ($m)	Pensioners ($m)	Total ($m)			
SASS	980.0	-	402.4	**1,382.4**	788.6	-	**2,171.1**
SSS	80.3	21.2	1,733.5	**1,835.0**	72.5	-	**1,907.5**
PSS	-	-	-	**-**	-	-	**-**
SANCS	214.7	-	-	**214.7**	9.3[2]	-	**223.9**
Total Past Service Liabilities	1,275.0	21.2	2,135.9	**3,432.1**	870.4	-	**4,302.5**

Scheme	2021			
	Employer Past Service Liabilities ($m) A	Employer Reserve ($m) B	Employer Unfunded Liabilities ($m) B-A	Asset coverage B/A
SASS	1,382.4	1,303.1	(79.3)	94%
SSS	1,835.0	2,052.0	216.9	112%
PSS	-	-	-	-
SANCS	214.7	206.7	(8.0)	96%
2021 Total	3,432.1	3,561.7	129.6	104%
2018 Total	*3,411.1*	*3,412.8*	*1.7*	*100%*

[1] All deferred reserves have been counted under General Government, consistent with treatment in 2018 Triennial Review
[2] Surcharge accounts have been included in SANCS Contributor Reserve

Appendix F

Additional information relating to Universities

Alternative valuation for Universities

University liabilities valued on a long term cash basis instead of the valuation basis increases the employer past service liabilities by $1.5bn, or 47%.

Investment return/discount rate assumption	2021 valuation basis	Cash basis
Non-pensioner	5.7% p.a.	1.7% p.a.
Pensioner	6.5% p.a.	2.0% p.a.

Scheme	2021 Valuation basis		Alternative cash basis	
	Total Past Service Liabilities ($m)	**Employer Past Service Liabilities ($m)**	**Total Past Service Liabilities ($m)**	**Employer Past Service Liabilities ($m)**
SASS	241.8	139.6	274.0	171.8
SSS	3,146.8	3,128.0	4,644.7	4,625.8
SANCS	32.3	32.0	38.2	37.9
Total	3,420.9	3,299.6	**4,956.9**	**4,835.6**

- The University Sector is funded on a pay-as-you-go basis[1], as such the University Employer Reserve assets are currently invested in the University Cash investment option.
- The University Sector accounts for 7% of the total Employer Past Service Liabilities (based on the 2021 valuation basis). In the main reporting we have valued the liabilities using the same discount rate as the other Sectors at 5.7% p.a. for non-pensioners and 6.5% p.a. for pensioners.
- If we were to value the University employer past service liabilities using a discount rate consistent with a long term cash portfolio, the liabilities would increase by $1.5bn or 47%.
- However given that the liabilities are funded on a pay-as-you-go basis, this is provided for information only.

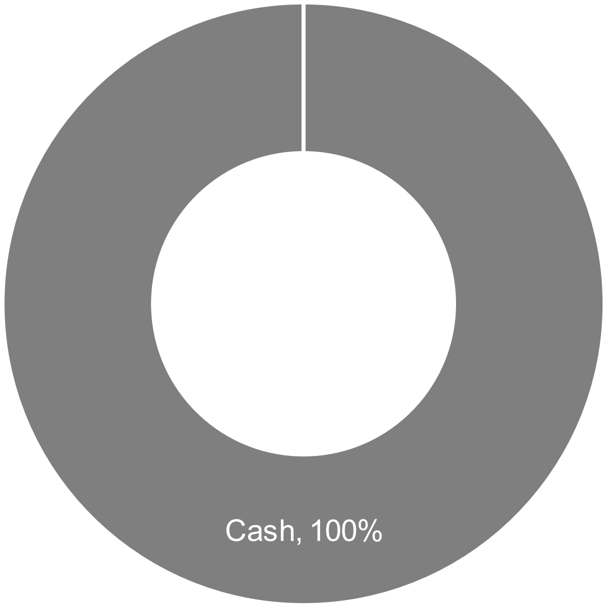
[1] The Commonwealth and NSW Governments entered into a Memorandum of Understanding (MoU) in December 2014. Under this the Commonwealth and NSW Governments have agreed to assist the universities with their unfunded superannuation liabilities through the provision of funds on a 78/22 per cent basis respectively. The universities will continue to contribute at their current rate of 17% of salaries per annum and further additional contributions in respect of 'Excess salaries' as set out in the MoU. The Commonwealth and NSW Governments will make payments to the Fund on a pay-as-you-go basis with the aim of maintaining a 1-year asset buffer at all times to meet expected benefit payments. A similar arrangement is in place for University of NSW (UNSW) Australian Defence Force Academy (ADFA), under which pay-as-you-go contributions are funded by UNSW, with the aim of maintaining a 3-year asset buffer.

Investment Portfolio – University Cash

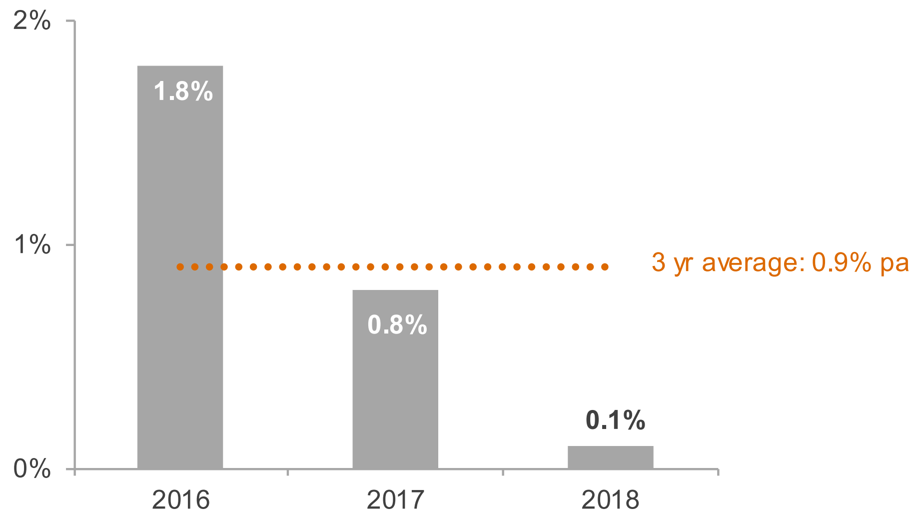
Investment Objectives

- Target is return of cash over a rolling 3 year period [1]

Strategic Asset Allocation as at 1 July 2021 [1]



Investment Returns (net of tax) [2]



[1] Investment Objectives at 1 July 2021 from Investment Policy Statement – Approved by Board 15.06.2021
[2] Investment returns in this chart are net of superannuation tax and fees, and before any increase due to exempt current pension income (ECPI).

Appendix G

Theoretical future service rates

Theoretical future service rates

The theoretical employer future service contribution rates as a percentage of salary calculated under the "Attained Age Normal" method and is set out below.

As at 30 June 2021		SASS	SSS	PSS	SANCS	Total
Employer Total Service Liability – contributors ($m)	**A**	5,601.5	645.9	703.0	1,572.4	8,522.9
Employer Past Service Liability – contributors ($m)	**B**	5,219.0	625.2	660.1	1,366.0	7,870.3
Employer Future Service Liability – contributors ($m)	**C = A - B**	382.5	20.7	43.0	206.4	652.5
Present value of 1% of future salary ($m)	**D**	85.2	3.2	1.7	90.1	
2021 employer future service contribution rate (% of salary)	**(C / D) /0.87[1] (%)**	**5.2%**	**7.5%**	**28.9%**	**2.6%**	
2018 employer future service contribution rate (% of salary)		**7.2%**	**8.7%**	**26.9%**	**2.6%**	

- The "Attained Age Normal" method determines the contribution rate required to fund future service benefit accrual over the future working life of the contributors in the Fund. The calculation of the employer future service rate is set out above.
- The employer future service contribution rates have decreased since 2012 for SASS, SSS and SANCS and increased for PSS. Items that influence the rate includes:
  - Changes in the profile of the members considered in the future service rate.
  - Maximum benefit accrual – the rate will tend to decrease as contributors get closer to their maximum benefit accrual.
  - Any change in assumptions which impact the future service liability and present value of 1% of future salary.
  - Changes in the member reserves – for SSS members, changes in the members reserves can impact the employer future service contribution rate.
- The employer deficit on the total service liabilities can be calculated as the deficit on the employer past service liabilities of $15,764.1m (see Section 1) plus the employer future service liability of $652.5m (above), to give a total of $16,416.6m.

[1] Division by 0.87 in order to gross the results up to be on a pre contribution tax basis. Contribution tax is assumed to be 13% as it is net of tax deductions for expenses and premiums.

Appendix H

Membership movements by Scheme

SASS membership movements

SASS membership decreased by 18.5% from 34,916 to 28,470

	Contributors	Deferreds	Pensioners	Total
30 June 2018	20,945	9,516	4,455	34,916
Exits[1]	5,850 ^	1,844	407	8,101
New entrants	5 [2]	887	763 [3]	1,655
30 June 2021	**15,100**	**8,559**	**4,811**	**28,470**
Change	(27.9%)	(10.1%)	8.0%	(18.5%)

^ See breakdown of contributor exits on the right

	Contributor exits breakdown
Deaths	72
Disablement	170
Resignations	313
Retirements	5,090
Retrenchments	205
Total	**5,850**

- The table above shows the membership movements for SASS.
- SASS has seen the largest decrease in membership (18.5% decrease) which is a result of SASS members generally receiving a lump sum at retirement and ceasing to be members of the Fund.

[1] Includes projected Scheme exits between data date (30 April 2021) and valuation date (30 June 2021), but does not include movements between membership types during this 2 month projection period.
[2] Analysis of data showed 5 new entrants into contributors. These relate to SASS members who have crystallised their benefit due to a salary reduction and subsequently joined SASS as new members to continue accruing benefits based on their lower salary, rather than genuine new entrants.
[3] New entrants into pensioners include spouse pensions commencing following the death of original pensioner.

SSS membership movements

SSS membership decreased by 4.3% from 76,174 to 72,866

	Contributors	Deferreds	Pensioners[1]	Total
30 June 2018	3,175	957	72,042	76,174
Exits [2]	1,865 ^	466	4,692	7,023
New entrants	-	93	3,622 [3]	3,715
30 June 2021	**1,310**	**584**	**70,972**	**72,866**
Change	(58.7%)	(39.0%)	(1.5%)	(4.3%)

^ See breakdown of contributor exits on the right

	Contributor exits breakdown
Deaths	10
Disablement	43
Resignations	21
Retirements	1,786
Retrenchments	5
Total	**1,865**

- The table above shows the membership movements for SSS.
- The contributor membership has decreased significantly by 1,310 or 58.7% p.a.

[1] Includes fully commuted pensioners.
[2] Includes projected Scheme exits between data date (30 April 2021) and valuation date (30 June 2021), but does not include movements between membership types during this 2 month projection period.
[3] New entrants into pensioners include spouse pensions commencing following the death of original pensioner.

PSS membership movements

Overall membership decrease of 3.6% from 7,605 to 7,330

	Contributors	Deferreds	Pensioners	Total
30 June 2018	916	84	6,605	7,605
Exits [1]	378 ^	23	354	755
New entrants	-	-	480 [2]	480
30 June 2021	**538**	**61**	**6,731**	**7,330**
Change	(41.3%)	(27.6%)	1.9%	(3.6%)

^ See breakdown of contributor exits on the right

	Contributor exits breakdown
Deaths	1
Disablement	284
Resignations	0
Retirements	93
Total	**378**

- The table above shows the membership movements for PSS.
- 75% of PSS contributor exits (284 out of 378) over the period from 30 June 2018 to 30 June 2021 were due to disablement.

[1] Includes projected Scheme exits between data date (30 April 2021) and valuation date (30 June 2021), but does not include movements between membership types during this 2 month projection period.
[2] New entrants into pensioners include spouse pensions commencing following the death of original pensioner.

Appendix I

Summary of demographic assumptions

Non age-based assumptions

Spouse age (exclude current spouse pensioners)

	Age difference (member age less spouse age)
Male member	4
Female member	-2

Commutation assumptions

	Proportion opting to take lump sum		Proportion opting to take pension
	SSS	PSS	SASS
Current contributor on becoming a new pensioner	5%	0%	40%*
Current deferred on becoming a new pensioner	5%	0%	N/A
Current original pensioner	5%	0%	N/A
Current and new spouse pensioner	40%	0%	0%

Note that for SASS members eligible for pension benefits, they forfeit pension rights if they chose to defer benefits.

* This is only applied to SASS contributors with pension option at retirement

Retrenchment assumptions

No allowance for retrenchments.

Other SASS assumptions

	After reaching maximum contribution rate
Maintain current current contribution rate	80%
Reduce contribution rate to 1%	20%

SASS contributor decrements

Age nearest	Death		TPI (non-police)		TPI (police)		PPI (non-police)		PPI (police)		Retirement (Part 1 employers)		Retirement (Part 3 employers)		Resignation (Part 1 employers)		Resignation (Part 3 employers)		Deferral on resignation	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85%	85%
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85%	85%
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85%	85%
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85%	85%
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85%	85%
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85%	85%
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85%	85%
33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85%	85%
34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85%	85%
35	0.0004	0.0002	0.0007	0.0002	0.0201	0.0201	0.0028	0.0006	0.0134	0.0134	-	-	-	-	0.0147	0.0161	0.0223	0.0292	85%	85%
36	0.0004	0.0002	0.0007	0.0003	0.0201	0.0201	0.0028	0.0009	0.0134	0.0134	-	-	-	-	0.0137	0.0151	0.0215	0.0268	85%	85%
37	0.0004	0.0002	0.0008	0.0003	0.0201	0.0201	0.0032	0.0009	0.0134	0.0134	-	-	-	-	0.0126	0.0144	0.0203	0.0244	85%	85%
38	0.0004	0.0002	0.0008	0.0003	0.0201	0.0201	0.0032	0.0009	0.0134	0.0134	-	-	-	-	0.0116	0.0137	0.0192	0.0221	85%	85%
39	0.0004	0.0002	0.0008	0.0003	0.0201	0.0201	0.0032	0.0009	0.0134	0.0134	-	-	-	-	0.0109	0.0130	0.0185	0.0202	85%	85%
40	0.0005	0.0003	0.0009	0.0003	0.0201	0.0201	0.0036	0.0009	0.0134	0.0134	-	-	-	-	0.0105	0.0123	0.0177	0.0186	85%	85%
41	0.0005	0.0003	0.0009	0.0004	0.0201	0.0201	0.0036	0.0012	0.0134	0.0134	-	-	-	-	0.0102	0.0116	0.0170	0.0175	85%	85%
42	0.0005	0.0003	0.0010	0.0005	0.0221	0.0221	0.0040	0.0015	0.0147	0.0147	-	-	-	-	0.0098	0.0109	0.0160	0.0168	85%	85%
43	0.0006	0.0003	0.0010	0.0005	0.0234	0.0234	0.0040	0.0015	0.0156	0.0156	-	-	-	-	0.0095	0.0102	0.0151	0.0165	85%	85%
44	0.0006	0.0004	0.0012	0.0007	0.0241	0.0241	0.0048	0.0021	0.0161	0.0161	-	-	-	-	0.0091	0.0095	0.0141	0.0161	85%	85%
45	0.0006	0.0004	0.0011	0.0008	0.0250	0.0250	0.0044	0.0024	0.0166	0.0166	-	-	-	-	0.0088	0.0095	0.0132	0.0161	85%	85%
46	0.0007	0.0004	0.0011	0.0010	0.0250	0.0250	0.0039	0.0025	0.0167	0.0167	-	-	-	-	0.0084	0.0095	0.0126	0.0161	85%	85%
47	0.0007	0.0005	0.0011	0.0011	0.0253	0.0253	0.0039	0.0028	0.0169	0.0169	-	-	-	-	0.0083	0.0096	0.0120	0.0161	85%	85%
48	0.0008	0.0005	0.0013	0.0013	0.0261	0.0261	0.0046	0.0033	0.0174	0.0174	-	-	-	-	0.0081	0.0097	0.0113	0.0161	85%	85%
49	0.0009	0.0005	0.0015	0.0015	0.0271	0.0271	0.0053	0.0038	0.0180	0.0180	-	-	-	-	0.0080	0.0099	0.0110	0.0161	85%	85%
50	0.0009	0.0006	0.0018	0.0018	0.0301	0.0301	0.0063	0.0045	0.0200	0.0200	-	-	-	-	0.0078	0.0101	0.0106	0.0161	85%	95%
51	0.0010	0.0006	0.0019	0.0021	0.0305	0.0305	0.0029	0.0024	0.0204	0.0204	-	-	-	-	0.0077	0.0103	0.0103	0.0161	85%	95%
52	0.0011	0.0007	0.0023	0.0025	0.0316	0.0316	0.0035	0.0029	0.0210	0.0210	-	-	-	-	0.0076	0.0105	0.0099	0.0161	85%	95%
53	0.0012	0.0007	0.0026	0.0028	0.0331	0.0331	0.0039	0.0032	0.0220	0.0220	-	-	-	-	0.0074	0.0109	0.0097	0.0161	90%	95%
54	0.0012	0.0008	0.0029	0.0032	0.0385	0.0385	0.0044	0.0037	0.0256	0.0256	-	-	-	-	0.0073	0.0119	0.0095	0.0161	95%	95%
55	0.0014	0.0008	0.0033	0.0036	0.0442	0.0442	0.0050	0.0041	0.0294	0.0294	-	-	-	-	0.0071	0.0130	0.0095	0.0161	95%	100%
56	0.0015	0.0009	0.0036	0.0039	0.0574	0.0574	0.0054	0.0045	0.0383	0.0383	-	-	-	-	0.0070	0.0140	0.0094	0.0161	100%	100%
57	0.0016	0.0010	0.0039	0.0043	0.0619	0.0619	0.0059	0.0049	0.0413	0.0413	0.0250	0.0500	0.0250	0.0250	0.0069	0.0140	0.0093	0.0161	100%	100%
58	0.0017	0.0011	-	-	-	-	-	-	-	-	0.0600	0.1100	0.0750	0.0750	-	-	-	-	100%	100%
59	0.0019	0.0012	-	-	-	-	-	-	-	-	0.0850	0.1100	0.1000	0.0750	-	-	-	-	-	-
60	0.0021	0.0013	-	-	-	-	-	-	-	-	0.1850	0.1850	0.1750	0.1750	-	-	-	-	-	-
61	0.0024	0.0015	-	-	-	-	-	-	-	-	0.1850	0.1600	0.1000	0.1250	-	-	-	-	-	-
62	0.0026	0.0016	-	-	-	-	-	-	-	-	0.1850	0.1600	0.1000	0.1250	-	-	-	-	-	-
63	0.0029	0.0018	-	-	-	-	-	-	-	-	0.1850	0.1600	0.1000	0.1250	-	-	-	-	-	-
64	0.0032	0.0019	-	-	-	-	-	-	-	-	0.3100	0.2850	0.2000	0.2500	-	-	-	-	-	-
65	0.0036	0.0021	-	-	-	-	-	-	-	-	0.4350	0.3850	0.4500	0.4000	-	-	-	-	-	-
66	0.0039	0.0023	-	-	-	-	-	-	-	-	0.3650	0.2350	0.2750	0.3000	-	-	-	-	-	-
67	0.0043	0.0025	-	-	-	-	-	-	-	-	0.2950	0.2350	0.2750	0.3000	-	-	-	-	-	-
68	0.0048	0.0028	-	-	-	-	-	-	-	-	0.2250	0.2350	0.2750	0.3000	-	-	-	-	-	-
69	0.0052	0.0031	-	-	-	-	-	-	-	-	0.5850	0.5850	0.7000	0.6000	-	-	-	-	-	-
70	-	-	-	-	-	-	-	-	-	-	1.0000	1.0000	1.0000	1.0000	-	-	-	-	-	-

Note: SANCS contributor decrements are assumed to be in line with those for the main Scheme for the member.

SSS contributor decrements

Age nearest	Death		Invalidity		Retirement			Resignation	
	Male	Female	Male	Female	Male	Female 55	Female 60	Male	Female
35	0.0004	0.0002	-	-	-	-	-	-	-
36	0.0004	0.0002	-	-	-	-	-	-	-
37	0.0004	0.0002	-	-	-	-	-	-	-
38	0.0004	0.0002	-	-	-	-	-	-	-
39	0.0004	0.0002	-	-	-	-	-	-	-
40	0.0005	0.0003	-	-	-	-	-	-	-
41	0.0005	0.0003	0.0058	0.0024	-	-	-	-	-
42	0.0005	0.0003	0.0063	0.0027	-	-	-	-	-
43	0.0006	0.0003	0.0067	0.0033	-	-	-	-	-
44	0.0006	0.0004	0.0075	0.0039	-	-	-	-	-
45	0.0006	0.0004	0.0084	0.0045	-	-	-	-	-
46	0.0007	0.0004	0.0086	0.0058	-	-	-	-	-
47	0.0007	0.0005	0.0091	0.0065	-	-	-	-	-
48	0.0008	0.0005	0.0105	0.0075	-	-	-	-	-
49	0.0009	0.0005	0.0123	0.0088	-	-	-	-	-
50	0.0009	0.0006	0.0144	0.0103	-	-	-	-	-
51	0.0010	0.0006	0.0151	0.0108	-	-	-	-	-
52	0.0011	0.0007	0.0156	0.0112	-	-	-	-	-
53	0.0012	0.0007	0.0179	0.0128	-	-	-	-	-
54	0.0012	0.0008	0.0201	0.0144	-	-	-	-	-
55	0.0014	0.0008	0.0224	0.0160	0.0390	0.6700	0.0300	-	-
56	0.0015	0.0009	0.0246	0.0176	0.0200	0.3300	0.0300	-	-
57	0.0016	0.0010	0.0268	0.0192	0.0275	0.1750	0.0300	-	-
58	0.0017	0.0011	0.0291	0.0208	0.0450	0.2400	0.0380	-	-
59	0.0019	0.0012	0.0313	0.0224	0.2700	0.2350	0.2300	-	-
60	0.0021	0.0013	-	-	0.7600	0.2950	0.7000	-	-
61	0.0024	0.0015	-	-	0.4200	0.2350	0.3400	-	-
62	0.0026	0.0016	-	-	0.2550	0.2900	0.2000	-	-
63	0.0029	0.0018	-	-	0.2350	0.0625	0.2000	-	-
64	0.0032	0.0019	-	-	0.3500	0.2500	0.3000	-	-
65	-	-	-	-	1.0000	1.0000	1.0000	-	-
66	-	-	-	-	1.0000	1.0000	1.0000	-	-
67	-	-	-	-	1.0000	1.0000	1.0000	-	-
68	-	-	-	-	1.0000	1.0000	1.0000	-	-
69	-	-	-	-	1.0000	1.0000	1.0000	-	-
70	-	-	-	-	1.0000	1.0000	1.0000	-	-

Note

- SANCS contributor decrements are assumed to be in line with those for the main Scheme for the member.
- Female 60 relates to female SSS members with a retirement age of 60. Female 55 relates to female SSS members with a retirement age of 55.

PSS and other contributor decrements

Age nearest	Death (not killed on duty)		Death (killed on duty)		PSS contributors Invalidity (not hurt on duty)		Invalidity (hurt on duty)		Retirement		Promotional salary scales (for all contributors)
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male & Female
35	-	-	-	-	-	-	-	-	-	-	2.4%
36	-	-	-	-	-	-	-	-	-	-	2.3%
37	-	-	-	-	-	-	-	-	-	-	2.2%
38	-	-	-	-	-	-	-	-	-	-	2.1%
39	-	-	-	-	-	-	-	-	-	-	2.0%
40	-	-	-	-	-	-	-	-	-	-	1.8%
41	0.0005	0.0003	0.0002	0.0002	0.0035	0.0035	0.0600	0.0600	-	-	1.6%
42	0.0005	0.0003	0.0002	0.0002	0.0043	0.0043	0.0650	0.0650	-	-	1.4%
43	0.0006	0.0003	0.0002	0.0002	0.0050	0.0050	0.0680	0.0680	-	-	1.2%
44	0.0006	0.0004	0.0002	0.0002	0.0062	0.0062	0.0680	0.0680	-	-	1.0%
45	0.0006	0.0004	0.0002	0.0002	0.0076	0.0076	0.0680	0.0680	-	-	0.8%
46	0.0007	0.0004	0.0002	0.0002	0.0077	0.0077	0.0680	0.0680	-	-	0.6%
47	0.0007	0.0005	0.0002	0.0002	0.0082	0.0082	0.0680	0.0680	-	-	0.4%
48	0.0008	0.0005	0.0002	0.0002	0.0095	0.0095	0.0680	0.0680	-	-	0.2%
49	0.0009	0.0005	0.0002	0.0002	0.0111	0.0111	0.0680	0.0680	-	-	-
50	0.0009	0.0006	0.0002	0.0002	0.0151	0.0151	0.0700	0.0700	-	-	-
51	0.0010	0.0006	0.0001	0.0001	0.0159	0.0159	0.0700	0.0700	-	-	-
52	0.0011	0.0007	0.0001	0.0001	0.0176	0.0176	0.0700	0.0700	-	-	-
53	0.0012	0.0007	0.0001	0.0001	0.0201	0.0201	0.0700	0.0700	-	-	-
54	0.0012	0.0008	0.0001	0.0001	0.0241	0.0241	0.0800	0.0800	-	-	-
55	0.0014	0.0008	0.0001	0.0001	0.0286	0.0286	0.0900	0.0900	-	-	-
56	0.0015	0.0009	0.0001	0.0001	0.0332	0.0332	0.1250	0.1250	-	-	-
57	0.0016	0.0010	0.0001	0.0001	0.0382	0.0382	0.1300	0.1300	-	-	-
58	0.0017	0.0011	0.0001	0.0001	0.0437	0.0437	0.1300	0.1300	-	-	-
59	0.0019	0.0012	0.0001	0.0001	0.0493	0.0493	0.1300	0.1300	-	-	-
60	-	-	-	-	-	-	0.1000	0.1000	0.2500	0.2500	-
61	-	-	-	-	-	-	0.1000	0.1000	0.5000	0.5000	-
62	-	-	-	-	-	-	0.1000	0.1000	0.5000	0.5000	-
63	-	-	-	-	-	-	0.1000	0.1000	0.5000	0.5000	-
64	-	-	-	-	-	-	0.1000	0.1000	0.5000	0.5000	-
65	-	-	-	-	-	-	0.1000	0.1000	0.5000	0.5000	-
66	-	-	-	-	-	-	0.1000	0.1000	0.5000	0.5000	-
67	-	-	-	-	-	-	0.1000	0.1000	0.5000	0.5000	-
68	-	-	-	-	-	-	0.1000	0.1000	0.5000	0.5000	-
69	-	-	-	-	-	-	0.1000	0.1000	0.5000	0.5000	-
70	-	-	-	-	-	-	-	-	1.0000	1.0000	-

Note: SANCS contributor decrements are assumed to be in line with those for the main Scheme for the member.

Deferred decrements

Age nearest	SASS retirements*		SSS retirements		PSS retirements	
	Male	Female	Male & F60	F55	Male	Female
55	0.0300	0.0300	-	1.0000	1.0000	1.0000
56	0.0600	0.0600	-	1.0000	1.0000	1.0000
57	0.1000	0.1000	-	1.0000	1.0000	1.0000
58	0.1500	0.1500	-	1.0000	1.0000	1.0000
59	0.1500	0.1500	-	1.0000	1.0000	1.0000
60	0.2000	0.2000	1.0000	1.0000	1.0000	1.0000
61	0.1500	0.1500	1.0000	1.0000	1.0000	1.0000
62	0.1500	0.1500	1.0000	1.0000	1.0000	1.0000
63	0.1500	0.1500	1.0000	1.0000	1.0000	1.0000
64	0.1500	0.1500	1.0000	1.0000	1.0000	1.0000
65	0.3000	0.3000	1.0000	1.0000	1.0000	1.0000
66	0.3000	0.3000	1.0000	1.0000	1.0000	1.0000
67	0.3000	0.3000	1.0000	1.0000	1.0000	1.0000
68	0.3000	0.3000	1.0000	1.0000	1.0000	1.0000
69	0.3000	0.3000	1.0000	1.0000	1.0000	1.0000
70	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

* These assumptions are new following the experience analysis, but do not affect the valuation of liabilities as SASS deferred benefits are purely accumulation in nature.

Note

- SANCS deferred decrements are assumed to be in line with those for the main Scheme for the member.
- F60 relates to female SSS members with a retirement age of 60. F55 relates to female SSS members with a retirement age of 55.

Pensioner decrements (1 of 2)

Age nearest	Mortality						Mortality improvements				Marital status	
	Standard		Invalidity*		Spouse (gender of spouse)		Short-term		Long-term		Proportion with spouse	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
40	-	-	-	-	-	-	-	-	-	-	80%	55%
41	-	-	-	-	-	-	-	-	-	-	80%	55%
42	-	-	-	-	-	-	-	-	-	-	80%	55%
43	-	-	-	-	-	-	-	-	-	-	80%	55%
44	-	-	-	-	-	-	-	-	-	-	80%	55%
45	-	-	-	-	-	-	-	-	-	-	80%	55%
46	-	-	-	-	-	-	-	-	-	-	80%	55%
47	-	-	-	-	-	-	-	-	-	-	80%	55%
48	-	-	-	-	-	-	-	-	-	-	80%	55%
49	-	-	-	-	-	-	-	-	-	-	80%	55%
50	0.0011	0.0010	0.0029	0.0018	0.0011	0.0010	0.0148	0.0141	0.0151	0.0154	80%	55%
51	0.0011	0.0011	0.0031	0.0020	0.0011	0.0011	0.0161	0.0150	0.0149	0.0152	80%	55%
52	0.0012	0.0011	0.0034	0.0021	0.0012	0.0011	0.0173	0.0158	0.0147	0.0150	80%	55%
53	0.0013	0.0012	0.0036	0.0023	0.0013	0.0012	0.0184	0.0165	0.0144	0.0149	80%	55%
54	0.0014	0.0013	0.0039	0.0024	0.0014	0.0013	0.0195	0.0173	0.0142	0.0149	80%	55%
55	0.0016	0.0014	0.0043	0.0026	0.0016	0.0014	0.0205	0.0180	0.0140	0.0148	80%	55%
56	0.0017	0.0015	0.0046	0.0028	0.0017	0.0015	0.0215	0.0187	0.0139	0.0148	80%	55%
57	0.0018	0.0016	0.0050	0.0030	0.0018	0.0016	0.0225	0.0194	0.0138	0.0148	80%	55%
58	0.0020	0.0018	0.0054	0.0032	0.0020	0.0018	0.0235	0.0201	0.0137	0.0148	80%	55%
59	0.0021	0.0019	0.0059	0.0035	0.0021	0.0019	0.0245	0.0209	0.0137	0.0147	80%	55%
60	0.0023	0.0020	0.0063	0.0037	0.0023	0.0020	0.0255	0.0216	0.0136	0.0147	80%	55%
61	0.0025	0.0022	0.0068	0.0040	0.0025	0.0022	0.0265	0.0224	0.0135	0.0147	80%	55%
62	0.0027	0.0023	0.0073	0.0043	0.0027	0.0023	0.0275	0.0231	0.0135	0.0146	80%	55%
63	0.0029	0.0025	0.0078	0.0046	0.0029	0.0025	0.0284	0.0236	0.0134	0.0146	80%	55%
64	0.0031	0.0028	0.0085	0.0050	0.0031	0.0028	0.0291	0.0240	0.0135	0.0146	80%	55%
65	0.0033	0.0030	0.0092	0.0055	0.0033	0.0030	0.0297	0.0243	0.0135	0.0146	80%	55%
66	0.0036	0.0033	0.0100	0.0061	0.0036	0.0033	0.0301	0.0244	0.0135	0.0145	80%	55%
67	0.0044	0.0037	0.0114	0.0070	0.0044	0.0037	0.0302	0.0244	0.0135	0.0144	79%	55%
68	0.0053	0.0041	0.0130	0.0082	0.0053	0.0041	0.0303	0.0242	0.0134	0.0142	78%	55%
69	0.0063	0.0045	0.0150	0.0095	0.0063	0.0045	0.0301	0.0241	0.0132	0.0139	77%	55%
70	0.0076	0.0051	0.0173	0.0110	0.0076	0.0051	0.0299	0.0240	0.0129	0.0137	76%	55%

*A select mortality rate is assumed for the first year of invalidity: 5% for ages up to 39 and 2.5% for ages 40 and older

Note: Short-term mortality improvements have been applied for the first 6 years from 2021, followed by the long-term rates thereafter.

Pensioner decrements (2 of 2)

Age nearest	Mortality						Mortality improvements				Marital status	
	Standard		Invalidity*		Spouse (gender of spouse)		Short-term		Long-term		Proportion with spouse	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
71	0.0091	0.0058	0.0192	0.0123	0.0091	0.0058	0.0295	0.0238	0.0127	0.0134	76%	51%
72	0.0108	0.0067	0.0214	0.0138	0.0108	0.0067	0.0291	0.0237	0.0124	0.0131	76%	47%
73	0.0128	0.0077	0.0238	0.0155	0.0128	0.0077	0.0287	0.0236	0.0121	0.0129	76%	43%
74	0.0152	0.0088	0.0266	0.0173	0.0152	0.0088	0.0282	0.0234	0.0119	0.0128	76%	39%
75	0.0180	0.0101	0.0297	0.0194	0.0180	0.0101	0.0277	0.0233	0.0116	0.0126	76%	37%
76	0.0212	0.0117	0.0333	0.0219	0.0212	0.0117	0.0271	0.0230	0.0113	0.0124	76%	35%
77	0.0251	0.0136	0.0374	0.0248	0.0251	0.0136	0.0264	0.0226	0.0109	0.0121	76%	33%
78	0.0297	0.0158	0.0422	0.0283	0.0297	0.0158	0.0256	0.0220	0.0105	0.0118	76%	31%
79	0.0352	0.0185	0.0477	0.0323	0.0352	0.0185	0.0246	0.0212	0.0100	0.0114	76%	28%
80	0.0417	0.0217	0.0542	0.0371	0.0417	0.0217	0.0235	0.0203	0.0095	0.0109	76%	26%
81	0.0474	0.0255	0.0617	0.0426	0.0474	0.0255	0.0222	0.0193	0.0090	0.0104	76%	24%
82	0.0541	0.0299	0.0703	0.0492	0.0541	0.0299	0.0208	0.0182	0.0084	0.0099	76%	22%
83	0.0617	0.0353	0.0802	0.0568	0.0617	0.0353	0.0193	0.0170	0.0079	0.0094	76%	20%
84	0.0703	0.0416	0.0914	0.0657	0.0703	0.0416	0.0177	0.0158	0.0074	0.0088	76%	18%
85	0.0800	0.0490	0.1040	0.0759	0.0800	0.0490	0.0161	0.0145	0.0068	0.0083	76%	16%
86	0.0909	0.0578	0.1182	0.0878	0.0909	0.0578	0.0144	0.0132	0.0063	0.0077	76%	14%
87	0.1030	0.0678	0.1340	0.1011	0.1030	0.0678	0.0128	0.0119	0.0058	0.0071	72%	12%
88	0.1163	0.0796	0.1512	0.1165	0.1163	0.0796	0.0114	0.0105	0.0054	0.0066	68%	10%
89	0.1305	0.0931	0.1697	0.1339	0.1305	0.0931	0.0100	0.0093	0.0049	0.0060	64%	9%
90	0.1453	0.1079	0.1889	0.1524	0.1453	0.1079	0.0089	0.0080	0.0045	0.0055	60%	8%
91	0.1592	0.1254	0.2070	0.1742	0.1592	0.1254	0.0079	0.0069	0.0042	0.0049	56%	7%
92	0.1735	0.1432	0.2256	0.1955	0.1735	0.1432	0.0072	0.0059	0.0039	0.0045	52%	6%
93	0.1881	0.1621	0.2446	0.2177	0.1881	0.1621	0.0065	0.0050	0.0036	0.0040	48%	5%
94	0.2031	0.1805	0.2640	0.2384	0.2031	0.1805	0.0058	0.0042	0.0033	0.0037	44%	4%
95	0.2185	0.2008	0.2731	0.2510	0.2185	0.2008	0.0052	0.0034	0.0031	0.0033	40%	3%
96	0.2342	0.2189	0.2811	0.2627	0.2342	0.2189	0.0045	0.0024	0.0028	0.0030	36%	2%
97	0.2505	0.2404	0.2880	0.2765	0.2505	0.2404	0.0037	0.0014	0.0025	0.0027	32%	1%
98	0.2671	0.2630	0.2938	0.2893	0.2671	0.2630	0.0028	0.0004	0.0023	0.0023	28%	0%
99	0.2842	0.2856	0.2984	0.2999	0.2842	0.2856	0.0018	-	0.0020	0.0020	24%	0%
100	0.3015	0.3083	0.3015	0.3083	0.3015	0.3083	0.0008	-	0.0017	0.0017	20%	0%
101	0.3188	0.3314	0.3188	0.3314	0.3188	0.3314	-	-	0.0015	0.0013	16%	0%
102	0.3348	0.3548	0.3348	0.3548	0.3348	0.3548	-	-	0.0012	0.0010	12%	0%
103	0.3507	0.3782	0.3507	0.3782	0.3507	0.3782	-	-	0.0010	0.0007	8%	0%
104	0.3666	0.4014	0.3666	0.4014	0.3666	0.4014	-	-	0.0007	0.0003	4%	0%
105	0.3822	0.4241	0.3822	0.4241	0.3822	0.4241	-	-	0.0004	-	0%	0%
106	0.3977	0.4461	0.3977	0.4461	0.3977	0.4461	-	-	-	-	0%	0%
107	0.4128	0.4671	0.4128	0.4671	0.4128	0.4671	-	-	-	-	0%	0%
108	0.4276	0.4870	0.4276	0.4870	0.4276	0.4870	-	-	-	-	0%	0%
109	0.4420	0.5054	0.4420	0.5054	0.4420	0.5054	-	-	-	-	0%	0%
110	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	-	-	-	-	0%	0%

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