MERCER
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REPORT ON THE

ACTUARIAL INVESTIGATION OF THE

- **STATE AUTHORITIES SUPERANNUATION SCHEME**
- **STATE AUTHORITIES NON-CONTRIBUTORY SUPERANNUATION SCHEME**
- **STATE SUPERANNUATION SCHEME**
- **POLICE SUPERANNUATION SCHEME**

AS AT 30 JUNE 2015

VOLUME I

SAS TRUSTEE CORPORATION

MARSH & McLENNAN COMPANIES

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1

Introduction and Summary of Results

1.1 Introduction

1.1.1 As requested by the SAS Trustee Corporation (STC or the Trustee) we have carried out an actuarial investigation of the following schemes in accordance with the relevant legislation governing each of the schemes:

- the State Authorities Superannuation Scheme (SASS)
- the State Authorities Non-Contributory Superannuation Scheme (SANCS)
- the State Superannuation Scheme (SSS)
- the Police Superannuation Scheme (PSS)

The above schemes are collectively known as the NSW Pooled Fund (Pooled Fund or the Fund).

The Schemes are not subject to the provisions of the Superannuation Industry (Supervision) Act (SIS), but under the Heads of Government Agreement with the Commonwealth, the New South Wales Government has agreed to conform with the principles of the Commonwealth superannuation legislation.

This report conforms to the requirements of *Professional Standard 400* of the Actuaries Institute applicable to a non-APRA-regulated public sector superannuation scheme.

The previous actuarial investigation of the NSW Pooled Fund was carried out by Martin Stevenson as at 30 June 2012 and the results were set out in a report dated 4 December 2012.

1.1.2 The purposes of the triennial investigation are:

(1) To determine the actuarial assumptions. The triennial investigation provides an opportunity to carefully consider recent experience and to modify the actuarial basis accordingly;

(2) To calculate the unfunded liability at a Scheme level, thereby determining the extent to which the Schemes and the Pooled Fund are funded;

(3) To investigate the funding status of the main employer groups within the Pooled Fund;

(4) To make contribution recommendations in respect of employers;

(5) To provide additional information based on the results of this valuation which can be used for other financial purposes such as detailed projections of future cash flows;

(6) To assess the sensitivity of the unfunded liability to changes in economic assumptions and to pensioner mortality.

1.2 Valuation Results

1.2.1 The total assets of each of the Schemes are as follows:

Scheme	Assets as at 30/06/2015 $ million			
	Employer Reserve	Contributor Reserve	Deferred Reserve	Total
SASS*	5,691.9	4,921.3	2,100.6	12,713.8
SANCS	1,487.7	50.3^	453.1	1,991.1
SSS	20,353.4	2,333.0	-	22,686.4
PSS	4,231.4	359.7	-	4,591.1
Total	**31,764.4**	**7,664.3**	**2,553.7**	**41,982.4**

*Excludes the SASS self-insurance reserve of $5.6 million at 30 June 2015 as it is subject to a separate actuarial investigation. The total assets above plus the SASS self-insurance reserve reconciles to the total assets of $41,988.0 million as disclosed in the Pooled Fund financial statements at 30 June 2015.
^*Members are not required to contribute to SANCS. SANCS Other Accounts, including accumulation-style benefits such as government co-contributions received, are disclosed as SANCS Member Reserves for the purposes of presentation in this valuation report.

Further information on the assets is provided in section 9.4.

1.2.2 The total past service liabilities by Scheme are as follows:

Scheme	Past Service Liabilities as at 30/06/2015 $ million			
	Employer	Contributor Reserve	Deferred Reserve	Total
SASS	7,562.9	4,921.3	2,100.6	14,584.8
SANCS	1,990.9	50.3	453.1	2,494.3
SSS	32,386.1	2,333.0	-	34,719.1
PSS	6,950.6	359.7	-	7,310.3
Total	**48,890.5**	**7,664.3**	**2,553.7**	**59,108.5**

The past service liabilities quoted above and in the rest of this report are not grossed up for contribution tax provisions.

1.2.3 The employer past service liabilities for each type of membership in each Scheme are as follows:

Scheme	Employer Past Service Liabilities as at 30/06/2015 $ million			
	Contributors	Deferred Members	Pensioners	Total
SASS	6,505.6	-	1,057.3	7,562.9
SANCS	1,990.9	-	-	1,990.9
SSS	2,852.8	399.9	29,133.4	32,386.1
PSS	1,160.3	18.4	5,772.0	6,950.6
Total	**12,509.6**	**418.3**	**35,962.7**	**48,890.5**

1.2.4 The employer unfunded liabilities by Scheme as at 30 June 2015 are as follows:

Scheme	Employer Past Service Liabilities $ million (1)	Employer Reserve $ million (2)	Employer Unfunded liabilities $ million (1) – (2)
SASS	7,562.9	5,691.9	1,871.0
SANCS	1,990.9	1,487.7	503.2
SSS	32,386.1	20,353.4	12,032.7
PSS	6,950.6	4,231.4	2,719.2
Total	**48,890.5**	**31,764.4**	**17,126.1**

For comparison, the employer unfunded liabilities by Scheme as at 30 June 2012 were:

Scheme	Employer Past Service Liabilities $ million (1)	Employer Reserve $ million (2)	Employer Unfunded liabilities $ million (1) – (2)
SASS	7,559.5	4,550.2	3,009.3
SANCS	2,202.5	1,373.3	829.2
SSS	28,016.5	15,922.7	12,093.8
PSS	6,398.2	3,351.7	3,046.5
Total	**44,176.7**	**25,197.9**	**18,978.8**

1.2.5 The employer unfunded liabilities by sector are as follows:

Sector	Employer Past Service Liabilities $ million (1)	Employer Reserve $ million (2)	Employer Unfunded liabilities $ million (1) – (2)
General Government	41,746.7	27,627.4	14,119.2
Universities	3,736.4	828.2	2,908.3
PTEs and others	3,407.4	3,308.8	98.6
Total	**48,890.5**	**31,764.4**	**17,126.1**

1.2.6 The asset coverage of past service liabilities (for employer funded liabilities and at total Scheme level) of each Scheme at 30 June 2015 and 30 June 2012 are:

Asset Coverage of Past Service Liabilities by Scheme				
Scheme	Employer Past Service Liabilities		Total Past Service Liabilities	
	At 30/6/2015	At 30/6/2012	At 30/6/2015	At 30/6/2012
SASS	75%	60%	87%	77%
SANCS	75%	62%	80%	67%
SSS	63%	57%	65%	61%
PSS	61%	52%	63%	55%
Total	**65%**	**57%**	**71%**	**65%**

The asset coverage of the past service liabilities has improved from 30 June 2012 to 30 June 2015 due to the following key items of positive experience:

- Better than expected investment return – the returns on the Fund's assets averaged 14.4% per annum in the three years to 30 June 2015 (based on the Fund's financial statements). This compared to 7.3% p.a. assumed for non-pensioner assets and 8.3% p.a. assumed for pensioner assets.
- Employer contributions were in excess of the cost of the benefit accrual in the three years to 30 June 2015.
- Pension indexations in the three years to 30 June 2015 were lower than expected.

The effect of the above positive experience items has been partially offset by a change in the valuation assumptions, most notably the reduced investment return/discount rate assumption reflecting current economic conditions.

Full details of the financial impact of the above items is outlined in section 2.6

1.2.7 The asset coverage of past service liabilities by sector at 30 June 2015 and 30 June 2012 are:

Asset Coverage of Past Service Liabilities by Sector				
Sector	Employer Past Service Liabilities		Total Past Service Liabilities	
	At 30/6/2015	At 30/6/2012	At 30/6/2015	At 30/6/2012
General Government	66%	56%	72%	64%
Universities	22%	32%	27%	38%
PTEs and others	97%	86%	98%	89%
Total	65%	57%	71%	65%

1.2.8 For the Pooled Fund, the past service liabilities are the key benefit measure used for the monitoring of funding and the determination of contribution programs.

1.2.9 For completeness, benefit coverages of other benefit measures as at 30 June 2015 for the Pooled Fund are provided below:

Scheme	Scheme Assets	Total Pooled Fund Vested Benefits		Total Pooled Fund Deferred Benefits	
		$ million	Asset Coverage	$ million	Asset Coverage
SASS	12,713.8	15,463.4	82%	15,821.4	80%
SANCS	1,991.1	2,906.1	69%	2,906.1	69%
SSS	22,686.4	34,632.7	66%	34,632.7	66%
PSS	4,591.1	7,025.8	65%	7,025.8	65%
Total	41,982.4	60,028.0	70%	60,386.1	70%

The total SG Minimum Benefits for the Pooled Fund as at 30 June 2015 is $52,217.8 million. The asset coverage is 80%. SG Minimum Benefits are the minimum benefits required under

Superannuation Guarantee legislation, as defined in the Benefit Certificate (also referred to as Minimum Requisite Benefits or MRBs).

Vested Benefits are the amounts payable as of right should all current contributors voluntarily resign or, if eligible, retire at the valuation date.

- For contributors over the early retirement age, the Vested Benefits are the same as their retirement benefits (including allowance for taking up pension if eligible).
- For contributors under the early retirement age, members can choose the **Deferred Benefits** that are retained in the Fund or receive the **Cash Resignation Benefits** (generally a lower benefit) transferred out of the Fund. For the calculation of the Vested Benefits, we have assumed a percentage of members will defer their benefits on resignation and the rest will choose cash resignation benefits. The assumed percentages preserving/deferring benefits at each age are detailed in Appendix B of Volume II of this report.

The Deferred Benefits in the table above assume all current contributors under early retirement age preserve their benefit entitlement in the Fund on resignation at the valuation date. For SSS and PSS the current basis assumes nil resignations, hence the vested and deferred benefits are the same.

For pensioners and deferred SSS and PSS members, their actuarial value of future pension payments is used as their SG Minimum Benefits, Vested Benefits and Deferred Benefits.

1.3 Key Assumptions

1.3.1 The key long-term economic assumptions for this valuation are as follows (2012 assumptions included for comparison):

		2015 Valuation	2012 Valuation
Rate of Investment Return / Discount Rate			
Assets supporting pensioner liabilities		7.8% p.a.	8.3% p.a.
Assets supporting non-pensioner liabilities		6.8% p.a.	7.3% p.a.
General Salary Increase Assumption*	Short term	4 years to 30 June 2019 3.0% p.a.	6 years to 30 June 2018 2.7% p.a. for SASS, SSS and SANCS, 3.5% p.a. for PSS
	Long term	3.5% p.a.	4.0% p.a.
Rate of CPI Increase		2.5% p.a.	2.5% p.a.

* Promotional salary increases are additional to the general salary increases assumed.

The reductions in the assumed rates of investment return and salary increases in the 2015 valuation reflect a lower growth outlook based on current economic conditions.

The assumed rate of CPI increase has been kept as the mid-point of the target range of the Reserve Bank of Australia.

1.3.2 The key demographic assumption changes for this valuation are:

- Continued improvements (i.e. reduction) in pensioner mortality rates are incorporated into the assumptions.
- Retrenchment assumptions have been revised after consultation with NSW Treasury.
- An increase in the assumed pension take up rate from 28% in 2012 to 50% in 2015 for eligible SASS members in line with Scheme experience.

- Increases to the assumed rates of preservation on resignation for SASS members in line with Scheme experience.
- Adjustments to the PSS Hurt on Duty assumptions and SASS Police members' assumed rates of disability in line with experience.

A detailed report on the analysis of the Pooled Fund demographic experience and the full 2015 demographic assumptions are included in Volume II of this report.

1.4 Sensitivity Results

1.4.1 Sensitivity runs were carried out, and the results are set out in the following tables:

Basis	Employer Past Service Liabilities $ million					
	SASS	SANCS	SSS	PSS	Total	Change in Past Service Liabilities
Standard	7,562.9	1,990.9	32,386.1	6,950.6	48,890.5	
Investment return / Discount rate plus 1%	7,058.2	1,891.3	29,338.5	6,185.4	44,473.5	-4,417.0
Investment return / Discount rate minus 1%	8,139.2	2,101.3	36,005.7	7,882.8	54,129.0	5,238.4
Salary increases plus 1%	7,970.5	2,101.5	32,496.2	7,011.2	49,579.5	689.0
Salary increases minus 1%	7,190.1	1,889.4	32,281.9	6,893.1	48,254.6	-636.0
CPI increases plus 1%	7,733.1	1,990.8	36,101.9	7,862.1	53,687.8	4,797.3
CPI increases minus 1%	7,415.3	1,991.2	29,208.6	6,189.8	44,804.8	-4,085.7
Higher pensioner mortality*	7,549.1	1,990.9	32,164.4	6,900.5	48,604.9	-285.7
Lower pensioner mortality**	7,584.2	1,990.9	32,656.1	7,035.3	49,266.4	375.8

* Assumes the long term pensioner mortality improvement factors for years post 2021 also apply for years 2015 to 2021.
** Assumes the short term pensioner mortality improvement factors for years 2015-2021 also apply for years post 2021.

Basis	Employer Past Service Liabilities % Variation from Standard Basis				
	SASS	SANCS	SSS	PSS	Total
Investment return / Discount rate plus 1%	-6.7%	-5.0%	-9.4%	-11.0%	-9.0%
Investment return / Discount rate minus 1%	7.6%	5.5%	11.2%	13.4%	10.7%
Salary increases plus 1%	5.4%	5.6%	0.3%	0.9%	1.4%
Salary increases minus 1%	-4.9%	-5.1%	-0.3%	-0.8%	-1.3%
CPI increases plus 1%	2.3%	0.0%	11.5%	13.1%	9.8%
CPI increases minus 1%	-2.0%	0.0%	-9.8%	-10.9%	-8.4%
Higher pensioner mortality	-0.2%	0.0%	-0.7%	-0.7%	-0.6%
Lower pensioner mortality	0.3%	0.0%	0.8%	1.2%	0.8%

The sensitivity results above show that:

- The investment return/discount rate assumption has the most impact on the funding position of the Pooled Fund;
- For SASS and SANCS, the rate of salary increase also has a material impact;

- For SSS and PSS, the rate of increase in CPI has a major impact because of the pension benefit design of these two Schemes. The rate of salary increase has much less impact because of the maturity of the contributory membership.
- In respect of pensioner mortality, extending the higher level improvements indefinitely increased the unfunded liability by less than 1%. Therefore, the impact of pensioner mortality assumptions has much less impact compared to the impact of the financial assumptions.

1.5 Summary of Membership

1.5.1 The number of members by member type for each Scheme at 30 June 2015 is as follows:

Scheme	As at 30/06/2015			
	Contributors	Deferred Members	Pensioners	Total
SASS	28,552	10,354	4,167	43,073
SANCS	36,933^	11,763	-	48,696
SSS	7,113	1,551#	53,498*#	62,162
PSS	1,275	114	6,555	7,944
Total	73,873	23,782	64,220	161,875

1.5.2 For comparison, the number of members by member type for each Scheme at 30 June 2012 is as follows:

Scheme	As at 30/06/2012			
	Contributors	Deferred Members	Pensioners	Total
SASS	38,004	10,530	3,888	52,422
SANCS	53,064^	12,479	-	65,543
SSS	13,405	2,302#	49,068*#	64,775
PSS	1,666	133	6,522	8,321
Total	106,139	25,444	59,478	191,061

^ All SASS, SSS and PSS contributors are also members of SANCS (with the exception of Sydney Grammar). There are no SANCS contributory members who are not members of SASS, SSS or PSS. Nearly all of the SANCS deferred members are also deferred members of SASS, SSS or PSS. Thus there is some double-counting in the totals.

* Exclude fully commuted pensioners who are not currently in receipt of a pension payment. There were 17,652 fully commuted pensioners at 30 June 2012 and 17,277 at 30 June 2015. The spouses of these fully commuted pensioner are eligible for a reversionary pension and the past service liabilities for SSS include a liability provision for these spouse reversions.

SSS deferred members who have not met a SIS condition of release but who are currently receiving pension payments into their deferred benefit accounts within the Pooled Fund are treated as current pensioners for the purposes of actuarial investigations. These members are excluded from the SSS deferred member counts and included in pensioner member counts above. There were 496 such SSS members at 30 June 2015 and 447 at 30 June 2012.

1.6 Recommended Contribution Rates

1.6.1 General Government sector

The 2014-15 Budget Statement included the comment "The Government has made a commitment to fully fund all general government sector liabilities by 2030…contributions are set to meet forecast benefit payments and to build sufficient assets over time to fully fund superannuation liabilities by 2030, in accordance with the *Fiscal Responsibility Act 2012*."

The Non-Crown General Government sector employers are assumed to continue to contribute at recent levels of contributions as a percentage of salaries of members. The contributions for the Crown are determined to fully fund the General Government sector by 30 June 2030.

The current funding plan for the General Government sector is to determine the contributions which, when increased at 5% per annum, will fully fund the sector by 30 June 2030. This is a reasonable strategy. At the present time this funding strategy results in relatively stable contributions from year to year, but in the years close to 2030 there is the potential for significant variation in the contribution level unless the investment strategy has relatively low volatility.

Based on the projected position to 2030 we believe the current contribution plan can be maintained. However, the contribution schedule should continue to be reviewed annually and adjusted if required.

1.6.2 Universities

The Commonwealth and NSW Governments entered into a Memorandum of Understanding (MoU) in December 2014 to provide financial assistance for the unfunded superannuation liabilities of the NSW Universities.

Under the agreement 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.

1.6.3 Public Trading Enterprises and other employers

As a group, Public Trading Enterprises (PTEs) and other employers have a deficiency on the funding basis of $0.1 billion. Funding plans for each of these entities are reviewed annually. Recommended individual funding plans for each employer are set out in section 9 of Volume II.

It is further recommended that:

- those employers that are not State backed be identified;

- the relevant legislation be altered so that contribution levels for non-State backed employers be determined by the Trustee; that is, there is no involvement of NSW Treasury in setting the contributions.
- for non-State backed entities the contribution recommendations should be adjusted (where necessary) to at least the level required if the superannuation arrangements were regulated by APRA.

2

Valuation Results by Scheme

This section summarises the following:

- Total past service liabilities for each Scheme at 30 June 2015;
- The asset coverage of employer funded past service liabilities at 30 June 2015 and 30 June 2012;
- A reconciliation of the movement in each Scheme's funding position from 30 June 2012 to 30 June 2015 and relevant commentaries;
- Information on the Schemes' total service liabilities presented in a "valuation balance sheet", and
- Calculation of future service employer contribution rates for the Schemes.

2.1 SASS

2.1.1 SASS Past Service Liabilities

Member Type		Past Service Liabilities as at 30/06/2015 $ million		
		Employer Past Service Liabilities	Member Reserve	Total
Contributors		6,505.6	4,921.3	11,426.9
Deferred Members		-	2,100.6	2,100.6
Pensioners	Retirement	895.1	-	895.1
	Disability	59.8	-	59.8
	Spouse	102.4	-	102.4
Total		7,562.9	7,021.9	14,584.8

2.1.2 SASS Funding Position – Employer Funded Liabilities Only

	As at 30 June 2015		As at 30 June 2012	
	$ million	Asset Coverage	$ million	Asset Coverage
Employer Assets	5,691.9		4,550.2	
Employer Past Service Liabilities	7,562.9	75%	7,559.5	60%
Employer Unfunded Liabilities	1,871.0		3,009.3	

2.2 SANCS

2.2.1 SANCS Past Service Liabilities

Member Type	Past Service Liabilities as at 30/06/2015 $ million		
	Employer Past Service Liabilities	Member Reserve	Total
Contributors	1,990.9	-	1,990.9
Deferred Members	-	453.1	453.1
Other contribution accounts	-	50.3	50.3
Total	1,990.9	503.4	2,494.3

2.2.2 SANCS Funding Position – Employer Funded Liabilities Only

	As at 30 June 2015		As at 30 June 2012	
	$ million	Asset Coverage	$ million	Asset Coverage
Employer Assets	1,487.7		1,373.3	
Employer Past Service Liabilities	1,990.9	75%	2,202.5	62%
Employer Unfunded Liabilities	503.2		829.2	

2.3 SSS

2.3.1 SSS Past Service Liabilities

Member Type		Past Service Liabilities as at 30/06/2015 $ million		
		Employer Past Service Liabilities	Member Reserve	Total
Contributors		2,852.8	2,333.0	5,185.8
Deferred Members		399.9	-	399.9
Pensioners	Retirement	21,137.4	-	21,137.4
	Disability	3,815.8	-	3,815.8
	Spouse	4,180.2	-	4,180.2
Total		32,386.1	2,333.0	34,719.1

2.3.2 SSS Funding Position – Employer Funded Liabilities Only

	As at 30 June 2015		As at 30 June 2012	
	$ million	Asset Coverage	$ million	Asset Coverage
Employer Assets	20,353.4		15,922.7	
Employer Past Service Liabilities	32,386.1	63%	28,016.5	57%
Employer Unfunded Liabilities	12,032.7		12,093.8	

2.4 PSS

2.4.1 PSS Past Service Liabilities

Member Type		Past Service Liabilities as at 30/06/2015 $ million		
		Employer Past Service Liabilities	Member Reserve	Total
Contributors		1,160.3	359.7	1,520.0
Deferred Members		18.4		18.4
Pensioners	Retirement	395.6	-	395.6
	Disability	4,691.2	-	4,691.2
	Spouse	685.2	-	685.2
Total		6,950.6	359.7	7,310.3

2.4.2 PSS Funding Position – Employer Funded Liabilities Only

	As at 30 June 2015		As at 30 June 2012	
	$ million	Asset Coverage	$ million	Asset Coverage
Employer Assets	4,231.4		3,351.7	
Employer Past Service Liabilities	6,950.6	61%	6,398.2	52%
Employer Unfunded Liabilities	2,719.2		3,046.5	

2.5 Total Pooled Fund

2.5.1 Past Service Liabilities

Member Type		Past Service Liabilities as at 30/06/2015 $ million		
		Employer Past Service Liabilities	Member Reserve	Total
Contributors		12,509.6	7,664.3	20,173.9
Deferred Members		418.3	2,553.7	2,972.0
Pensioners	Retirement	22,428.0	-	22,428.0
	Disability	8,566.9	-	8,566.9
	Spouse	4,967.8	-	4,967.8
Total		48,890.5	10,218.0	59,108.5

2.5.2 Funding Position – Employer Funded Liabilities Only

	As at 30 June 2015		As at 30 June 2012	
	$ million	Asset Coverage	$ million	Asset Coverage
Employer Assets	31,764.4		25,197.9	
Employer Past Service Liabilities	48,890.5	65%	44,176.7	57%
Employer Unfunded Liabilities	17,126.1		18,978.8	

2.6 Reconciliation of Funding Position from 30 June 2012

The table below sets out the key factors that contributed to the change in funding position for each Scheme from 30 June 2012 to 30 June 2015.

Item	SASS	SANCS	SSS	PSS	Total
Surplus/(Deficiency) at 1 July 2012	**-3,009.3**	**-829.2**	**-12,093.8**	**-3,046.5**	**-18,978.8**
Unwinding of discounting on the 2012 deficiency to 30 June 2015	-708.3	-195.2	-3,225.7	-812.6	-4,941.8
Actual investment return higher than assumed	969.5	316.9	4,183.7	874.9	6,345.0
Impact of additional Employer contributions in excess of benefit accruals	838.9	255.1	1,153.7	382.3	2,630.0
Salary experience different from assumed	-61.8	-19.0	-76.6	54.6	-102.8
Lower than assumed pension indexation	9.0	-	230.3	46.0	285.3
Pensioner experience – different mortality and commutation experience from assumed	5.4	-	-85.8	36.5	-43.9
Other experience items and rounding (further comments below)	110.0	37.9	51.4	91.0	290.3
Surplus/(Deficiency) at 30 June 2015 on 30 June 2012 valuation basis	**-1,846.6**	**-433.5**	**-9,862.8**	**-2,373.8**	**-14,516.7**
Changes in pensioner assumptions– including pensioner mortality rates and improvements, percentage married at death and spouse commutation rates	66.7	0.0	-588.3	-34.8	-556.3
Higher pension take up assumed for SASS and PSS	-8.1	0.0	0.0	-59.3	-67.4
Lower PSS Hurt on Duty assumptions	0.0	0.5	0.0	37.0	37.5
Lower short-term redundancies assumed for SASS and SSS (and their associated SANCS liabilities)	88.1	23.4	13.9	0.0	125.4
Changes in salary increase assumptions	77.3	18.4	-1.5	127.0	221.2
Reduction in investment return/discount rate assumption	-260.5	-51.1	-1,588.7	-400.9	-2,301.2
Other assumption changes	12.1	-60.9*	-5.3	-14.4	-68.5
Surplus/(Deficiency) at 30 June 2015 on 30 June 2015 valuation basis	**-1,871.0**	**-503.2**	**-12,032.7**	**-2,719.2**	**-17,126.1**

The “other experience items and rounding” include the following for each scheme:

- SASS – an improvement due to fewer retrenchment exits than assumed, partially offset by higher than expected pension take up by eligible SASS members;
- SANCS – an improvement due to fewer than assumed exits due to fewer retrenchments for SASS and SSS and fewer PSS Hurt on Duty exits;
- SSS – fewer than assumed retrenchment exits offset by earlier than assumed retirements of SSS contributors;
- PSS – an improvement due to fewer than assumed PSS Hurt on Duty exits, average Hurt on Duty pension lower than 100% of salary assumed.

*The SANCS’ “other assumption changes” item includes the impact of adopting SSS and PSS demographic assumptions for their associated SANCS liabilities. This brings forward the timing of the assumed retirements and leads to increased liabilities. In the 2012 valuation, SASS demographic assumptions were adopted for all SANCS members.

2.7 Valuation Balance Sheet

As at 30 June 2015	$ million				
	SASS	**SANCS**	**SSS**	**PSS**	**Total**
Employer Past service liabilities	7,562.9	1,990.9	32,386.1	6,950.6	48,890.5
Contributor Reserve	4,921.3	50.3	2,333.0	359.7	7,664.3
Deferred Reserve	2,100.6	453.1	-	-	2,553.7
Total Past Service Liabilities	**14,584.8**	**2,494.3**	**34,719.1**	**7,310.3**	**59,108.5**
Employer future service liabilities	1,138.0	455.4	200.4	163.1	1,956.9
Present value of future member contributions	1,108.9	-	331.4	39.0	1,479.4
Total Future Service Liabilities	**2,247.0**	**455.4**	**531.8**	**202.1**	**3,436.3**
Total Service Liabilities	**16,831.7**	**2,949.7**	**35,251.0**	**7,512.4**	**62,544.8**
Assets at 30 June 2015	12,713.8	1,991.1	22,686.4	4,591.1	41,982.4
Present value of future member contributions	1,108.9	-	331.4	39.0	1,479.4
Total Assets (including future member contributions)	**13,822.7**	**1,991.1**	**23,017.8**	**4,630.1**	**43,461.8**
Excess/(Deficit) of assets to total service liabilities	**-3,009.0**	**-958.6**	**-12,233.1**	**-2,882.3**	**-19,083.0**

2.8 Financing Method

There are various financing methods that could be used to calculate the theoretical Employer future service contribution rates. This valuation uses an “Attained Age Normal” method to determine the Employer normal contribution rates for all Schemes. This method determines the contribution rates required to fund future service benefit accruals over the future working life of the remaining contributors in the Fund.

The same financing method was used for SSS and PSS at the previous valuation.

For SASS and SANCS, the previous valuation used a “New Entrant Funding” method, which determined the contribution rates required to fund benefit accruals over the total service of a notional new entrant. Given the maturity of the Schemes’ membership, an average current contributor would be much older than a notional new entrant used in the calculation under the “New Entrant Funding” method. The “Attained Age Normal” method is therefore a more appropriate method as its calculation reflects the maturity of the current contributor membership.

For simplicity and uniformity between all Schemes, the theoretical Employer future service contribution rates for all Schemes are now expressed as a percentage of salary. At the previous valuation, SASS and SSS contribution rates were expressed as a multiple of member contributions.

2.9 Theoretical Employer Future Service Contribution Rates

The Employer future service contribution rates calculated under the "Attained Age Normal" method for each Scheme at 30 June 2015 and 30 June 2012 (restated using consistent methodology to 2015 where necessary) are:

Employer Future Service Contribution Rate	SASS	SANCS	SSS	PSS
2015 valuation	8.2%	2.7%	10.3%	26.5%
2012 valuation	8.9%	2.6%	11.2%	30.4%

2.9.1 SASS

The future service contribution rate for SASS reduced from 8.9% in 2012 to 8.2% of salaries in 2015 when calculated on a consistent methodology. The reduction is consistent with a maturing membership where more and more members are closer to maximum benefit accrual. There is minimal impact to the contribution rate due to the changes in assumptions. The impact of the reduced discount rate assumption between 2012 and 2015 on the future service contribution rate is largely offset by other factors such as reduced salary increase assumptions.

2.9.2 SANCS

The future service contribution rate for SANCS increased from 2.6% in 2012 to 2.7% of salaries in 2015 when calculated on a consistent methodology. This increase is consistent with a maturing membership.

Legislation changes since the 2012 valuation now require additional SANCS contributions to be paid to an accumulation account for eligible members. The amount payable will increase in line with Superannuation Guarantee (SG) rate increases. The impact of these additional SANCS benefits due to SG rate increases has been excluded.

2.9.3 SSS

The future service contribution rate for SSS reduced from 11.2% in the 2012 valuation to 10.3% of salaries in 2015 when calculated on a consistent methodology.

SSS employer funded liabilities are calculated as the difference between total benefit liabilities (accrued over member's total expected service) less the present value of expected member contributions with interest over the member's total expected service.

This method is used to calculate SSS employer future service liabilities due to the specific SSS benefit design that requires SSS members to continue to contribute for their units accrued until retirement age (otherwise the units become abandoned and the level of benefits reduced).

As the employer funded liabilities are calculated after the deduction of the total expected member reserve the employer future service liability is impacted by investment returns on the member reserve. The better than expected investment returns on member reserves for the three years to 30 June 2015 has therefore led to a lower than expected employer future service contribution rate in 2015 compared to 2012.

This reduction is partially offset by an increase in the future service contribution rate due to the reduced discount rate assumption.

2.9.4 PSS

The future service contribution rate for PSS reduced from 30.4% in the 2012 valuation to 26.5% of salaries in 2015 when calculated on a consistent methodology. The reduction is consistent with a maturing membership where more and more members are closer to maximum benefit accrual at 30 years of service. The assumption of fewer Hurt on Duty exits and the lower salary increase growth assumption also contributed to the reduction in the future service contribution rate. This is partially offset by the impact of a reduced discount rate assumption.

3

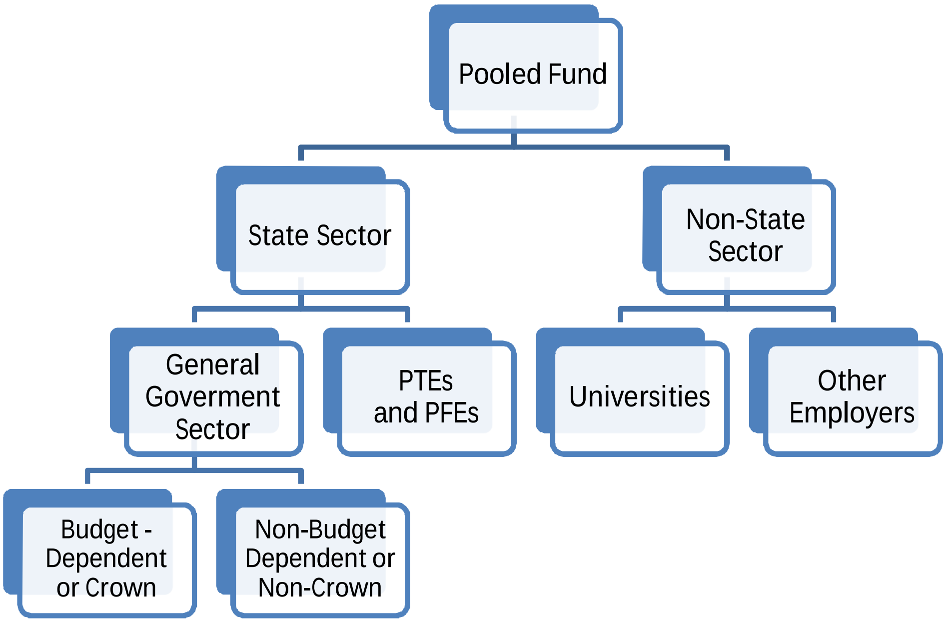
Valuation Results by Employer Groups

Valuation results are summarised for each Employer Group in this section.

This section also covers the classification of the Employer Groups, the legislative provisions for employer contributions and the current funding arrangements for each Employer Group.

3.1 Employer Grouping

Employer sponsors of the Pooled Fund are divided into the following employer groupings:



For the State Sector employers, the NSW Government has established a classification system that, in broad terms, categorises organisations according to their dependence on the public purse and on the level of competition with the private sector.

The **General Government Sector** agencies typically deliver public services or are regulatory in nature. They are further subdivided into:

- Budget Dependent General Government Agencies (or Crown agencies) – broadly, these are agencies that have more than half of their operating income funded from the Consolidated Fund. They are predominantly engaged in social (rather than commercial) activities and include all government departments.
- Non-Budget Dependent General Government Agencies (or Non- Crown General Government Agencies) –these agencies have less than half of their operating income funded from the Consolidated Fund. They source funds from regulatory and user charges and in some cases a grant from a Budget dependent agency.

The Non-General Government agencies consist of **Public Trading Enterprises (PTEs)** and **Public Finance Enterprises (PFEs)**. These agencies are generally commercially focused. They operate under the Commercial Policy Framework which aims to replicate disciplines and incentives that lead private sector businesses towards efficient commercial practices. They generally pay dividends and tax equivalent payments in accordance with normal commercial principles.

The results for PTEs, PFEs and Other Employers have been grouped into a single employer group called "PTE and Other Employers" in this valuation report.

3.2 General Government Sector

3.2.1 Past Service Liabilities

Scheme	General Government Sector Past Service Liabilities as at 30/06/2015 $ million			
	Employer Past Service Liabilities	Member Reserve	Deferred Reserve	Total
SASS	5,861.0	3,954.8	2,100.6	11,916.4
SANCS	1,664.3	-	503.4	2,167.7
SSS	27,270.8	2,062.6	-	29,333.3
PSS	6,950.6	359.7	-	7,310.3
Total	**41,746.7**	**6,377.1**	**2,604.0**	**50,727.8**

3.2.2 Asset Coverage of Employer Funded Liabilities Only

General Government Sector	As at 30 June 2015		As at 30 June 2012	
	$ million	Asset Coverage	$ million	Asset Coverage
Employer Assets	27,627.4		20,670.2	
Employer Past Service Liabilities	41,746.7	66%	36,703.2	56%
Employer Unfunded Liabilities	14,119.3		16,033.0	

3.3 Universities

3.3.1 Past Service Liabilities

Scheme	Universities Past Service Liabilities as at 30/06/2015 $ million			
	Employer Past Service Liabilities	Member Reserve	Deferred Reserve	Total
SASS	286.4	187.6	-	474.0
SANCS	73.5	-	-	73.5
SSS	3,376.5	86.3	-	3,462.8
Total	**3,736.4**	**273.9**	**-**	**4,010.3**

3.3.2 Asset Coverage of Employer Funded Liabilities Only

Universities	As at 30 June 2015		As at 30 June 2012	
	$ million	Asset Coverage	$ million	Asset Coverage
Employer Assets	828.2		1,142.4	
Employer Past Service Liabilities	3,736.4	22%	3,514.2	32%
Employer Unfunded Liabilities	2,908.2		2,371.8	

3.4 PTE and Other Employers

3.4.1 Past Service Liabilities

Scheme	PTE and Other Employers Past Service Liabilities as at 30/06/2015 $ million			
	Employer Past Service Liabilities	Member Reserve	Deferred Reserve	Total
SASS	1,415.5	778.9	-	2,194.4
SANCS	253.1	-	-	253.1
SSS	1,738.8	184.1	-	1,923.0
Total	**3,407.4**	**963.0**	**-**	**4,370.5**

3.4.2 Asset Coverage of Employer Funded Liabilities Only

PTE and Other Employers	As at 30 June 2015		As at 30 June 2012	
	$ million	Asset Coverage	$ million	Asset Coverage
Employer Assets	3,308.8		3,385.3	
Employer Past Service Liabilities	3,407.4	97%	3,959.4	86%
Employer Unfunded Liabilities	98.6		574.1	

3.5 Funding Arrangements by Employer Group

3.5.1 Legislative Provisions on Employer Contributions

Scheme	Legislative Prescribed Basis for Employer Contribution Rate
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. STC may determine that the contributions payable by an employer in respect of a contributor are to be determined, or are payable, on a basis other than that set out above. STC may only make such a determination with the concurrence of the Treasurer.
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.
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.
SSS	An employer 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. The specified multiple is a multiple that STC, with the concurrence of the Treasurer, periodically fixes in respect of the employer concerned.
PSS	No specific provisions on employer contributions.

* A list of current Part 1 employers can be found in Schedule 1 of the State Authorities Superannuation Act 1987.

3.5.2 Current Funding Arrangements for the General Government Sector

Scheme	Current Funding Arrangements for General Government Sector
SASS Part 1 (The Crown and other employers) and associated SANCS SSS and associated SANCS	Some employers make contributions at historical levels. The remaining cost is covered by the Crown funding plan.
SASS Part 3 (Public health organisations) and associated SANCS PSS and associated SANCS	Covered by the Crown funding plan.

3.5.3 Current Funding Arrangements for Universities

Scheme	Current Funding Arrangements for Universities
SASS	Jointly funded by the Commonwealth and NSW Governments and the university employers on a pay-as-you-go basis. Details set out in Section 1.6.2.
SANCS	
SSS	

3.5.4 Current Funding Arrangements for PTE and Other Employers

Scheme	Current Funding Arrangements for PTE and Other Employers
SASS	Individual funding plans are recommended for each employer.
SANCS	
SSS	

3.6 Legal Advice on the Existence of any Crown Guarantee of Benefits

Prior to the 30 June 2012 valuation, the STC Executive obtained legal advice on the following questions:

a) are the superannuation liabilities of all employers in the Pooled Fund covered by a guarantee of payment by the NSW Government?
b) If the answer to the first question is no, which employers are not covered?
c) If the sub-fund of an individual employer has no assets, may the Trustee continue to pay benefits to members of that sub-fund?
d) If the sub-fund of an individual employer has no assets, must the Trustee continue to pay benefits to members of that sub-fund?

A summary of the legal advice obtained by the Trustee is as follows:

a) PSS – covered
SSS – only in respect of privatised employers
SASS – only in respect of privatised employers and Part 3 (ie Public health organisations) employers
SANCS – only in respect of privatised employers and Part 3 employers.
b) PSS – not applicable
SSS – no employers are covered except privatised employers
SASS – no employers are covered except privatised employers and Part 3 employers
SANCS – no employers are covered except privatised employers and Part 3 employers
c) The Scheme Legislation does not empower the Trustee to continue to pay benefits (except for Part 3 employers)
d) The Scheme Legislation does not empower the Trustee to continue to pay benefits (except for Part 3 employers).

4

Key Risks and Sensitivity Results

4.1 Key Risks

4.1.1 Investment

Investment risk is the risk that investment returns will be lower than assumed. Adverse investment performance will result in lower assets to support the defined benefit liabilities requiring the Employers to increase contributions to offset the shortfall. The investment risk is borne by the Employers.

4.1.2 Salary

The risk is that wages or salaries (on which future benefit amounts will be based) will rise more rapidly than assumed, increasing benefit amounts and thereby requiring additional employer contributions. This risk is borne by the Employers.

4.1.3 Pension Indexation

The risk is that pensions (both current and future) may increase more rapidly than assumed, thereby increasing the cost of providing lifetime pensions and requiring additional employer contributions. This risk is borne by the Employers.

4.1.4 Pensioner Longevity

This risk is that pensioners live longer than assumed, thereby increasing the cost of providing lifetime pensions and requiring additional employer contributions. This risk is borne by the Employers.

4.2 Sensitivity Results by Schemes

The sensitivity scenarios illustrate the financial impact (increase or decrease to employer financed past service liabilities) of the key risks above for each Scheme and at the total Pooled Fund level. Please note that the actual experience in relation to each key risk may vary (positively or negatively) from the assumptions for this valuation by much more than the sensitivity scenarios below.

Please note that the “higher pensioner mortality” scenario assumes the long term pensioner mortality improvement factors for the years post 2021 also apply for the years 2015 to 2021, while the “lower pensioner mortality” scenario assumes the short term pensioner mortality improvement factors for the years 2015 to 2021 also apply for the years after 2021.

4.2.1 SASS

Basis	SASS Employer Past Service Liabilities ($ million)			
	Contributors	Pensioners	Total	Total Change
Standard	**6,505.6**	**1,057.3**	**7,562.9**	
Investment return / Discount rate +1%	**6,086.0**	**972.3**	**7,058.2**	**-504.6**
% variation from standard	*-6.4%*	*-8.0%*	*-6.7%*	
Investment return / Discount rate -1%	**6,983.2**	**1,156.0**	**8,139.2**	**576.3**
% variation from standard	*7.3%*	*9.3%*	*7.6%*	
Salary increases +1%	**6,913.3**	**1,057.3**	**7,970.5**	**407.7**
% variation from standard	*6.3%*	*0.0%*	*5.4%*	
Salary increases -1%	**6,132.8**	**1,057.3**	**7,190.1**	**-372.7**
% variation from standard	*-5.7%*	*0.0%*	*-4.9%*	
CPI increases +1%	**6,569.8**	**1,163.3**	**7,733.1**	**170.2**
% variation from standard	*1.0%*	*10.0%*	*2.3%*	
CPI increases -1%	**6,450.3**	**965.0**	**7,415.3**	**-147.6**
% variation from standard	*-0.8%*	*-8.7%*	*-2.0%*	
Higher pensioner mortality	**6,500.8**	**1,048.3**	**7,549.1**	**-13.8**
% variation from standard	*-0.1%*	*-0.9%*	*-0.2%*	
Lower pensioner mortality	**6,517.0**	**1,067.2**	**7,584.2**	**21.3**
% variation from standard	*0.2%*	*0.9%*	*0.3%*	

4.2.2 SANCS

Basis	SANCS Employer Past Service Liabilities ($ million)	
	Contributors	Change
Standard	**1,990.9**	
Investment return / Discount rate +1%	**1,891.3**	**-99.6**
% variation from standard	*-5.0%*	
Investment return / Discount rate -1%	**2,101.3**	**110.4**
% variation from standard	*5.5%*	
Salary increases +1%	**2,101.5**	**110.6**
% variation from standard	*5.6%*	
Salary increases -1%	**1,889.4**	**-101.5**
% variation from standard	*-5.1%*	
CPI increases +1%	**1,990.8**	**-0.1**
% variation from standard	*0.0%*	
CPI increases -1%	**1,991.2**	**0.3**
% variation from standard	*0.0%*	
Higher pensioner mortality	**1,990.9**	**-**
% variation from standard	*0.0%*	
Lower pensioner mortality	**1,990.9**	**-**
% variation from standard	*0.0%*	

4.2.3 SSS

Basis	SSS Employer Past Service Liabilities ($ million)				
	Contributors	Pensioners	Deferred	Total	Total Change
Standard	**2,852.8**	**29,133.4**	**399.9**	**32,386.1**	
Investment return / Discount rate +1%	**2,269.3**	**26,701.8**	**367.5**	**29,338.5**	**-3,047.6**
% variation from standard	*-20.5%*	*-8.3%*	*-8.1%*	*-9.4%*	
Investment return / Discount rate -1%	**3,580.0**	**31,979.2**	**446.5**	**36,005.7**	**3,619.5**
% variation from standard	*25.5%*	*9.8%*	*11.7%*	*11.2%*	
Salary increases +1%	**2,962.9**	**29,133.4**	**399.9**	**32,496.2**	**110.1**
% variation from standard	*3.9%*	*0.0%*	*0.0%*	*0.3%*	
Salary increases -1%	**2,748.6**	**29,133.4**	**399.9**	**32,281.9**	**-104.2**
% variation from standard	*-3.7%*	*0.0%*	*0.0%*	*-0.3%*	
CPI increases +1%	**3,468.7**	**32,187.4**	**445.8**	**36,101.9**	**3,715.8**
% variation from standard	*21.6%*	*10.5%*	*11.5%*	*11.5%*	
CPI increases -1%	**2,344.6**	**26,496.8**	**367.2**	**29,208.6**	**-3,177.6**
% variation from standard	*-17.8%*	*-9.1%*	*-8.2%*	*-9.8%*	
Higher pensioner mortality	**2,827.1**	**28,938.9**	**398.4**	**32,164.4**	**-221.8**
% variation from standard	*-0.9%*	*-0.7%*	*-0.4%*	*-0.7%*	
Lower pensioner mortality	**2,903.4**	**29,350.0**	**402.7**	**32,656.1**	**269.9**
% variation from standard	*1.8%*	*0.7%*	*0.7%*	*0.8%*	

4.2.4 PSS

Basis	PSS Employer Past Service Liabilities ($ million)				
	Contributors	Pensioners	Deferred	Total	Total Change
Standard	1,160.3	5,772.0	18.4	6,950.6	
Investment return / Discount rate plus 1%	**956.8**	**5,210.3**	**18.3**	**6,185.4**	**-765.2**
% variation from standard	*-17.5%*	*-9.7%*	*-0.4%*	*-11.1%*	
Investment return / Discount rate minus 1%	**1,414.8**	**6,449.5**	**18.5**	**7,882.8**	**932.2**
% variation from standard	*21.9%*	*11.7%*	*0.5%*	*13.4%*	
Salary increases plus 1%	**1,220.8**	**5,772.0**	**18.4**	**7,011.2**	**60.6**
% variation from standard	*5.2%*	*0.0%*	*0.0%*	*0.9%*	
Salary increases minus1%	**1,102.8**	**5,772.0**	**18.4**	**6,893.1**	**-57.5**
% variation from standard	*-5.0%*	*0.0%*	*0.0%*	*-0.8%*	
CPI increases plus 1%	**1,346.9**	**6,496.7**	**18.5**	**7,862.1**	**911.4**
% variation from standard	*16.1%*	*12.6%*	*0.5%*	*13.1%*	
CPI increases minus 1%	**1,005.7**	**5,165.8**	**18.3**	**6,189.8**	**-760.8**
% variation from standard	*-13.3%*	*-10.5%*	*-0.5%*	*-10.9%*	
Higher pensioner mortality	**1,152.5**	**5,729.5**	**18.4**	**6,900.5**	**-50.2**
% variation from standard	*-0.7%*	*-0.7%*	*0.0%*	*-0.7%*	
Lower pensioner mortality	**1,178.9**	**5,837.9**	**18.4**	**7,035.3**	**84.6**
% variation from standard	*1.6%*	*1.1%*	*0.0%*	*1.2%*	

4.3 Pension Liabilities on Market Value Basis

The basis used to value defined benefit pension entitlements for the purposes of this valuation is considered suitable taking into account the Fund's current circumstances, including the current investment policy and with ongoing support of the Employer sponsors.

If, instead, the pension liabilities were to be valued on a "market value" basis – that is, the amount which would be required to be paid to a third party (for example, a life office) to take on the liability – a higher pension liability value would be obtained. It is not possible to be precise about what the "market value" of the pension liabilities would be, as the market in Australia is currently very shallow at best. It is also highly unlikely that any one insurer would be able to take on pension liabilities the size of those held by this Fund.

In theory, it is likely that a third party would base its pricing on a discount rate around the level of long-term government bond yields. To provide an illustration of the order of magnitude of the potential impact, we have valued the pensioner liabilities at 30 June 2015 using a discount rate of 2.9% pa (based on the Commonwealth 10-year bond yield), but with other assumptions unchanged.

	Pensioner Liabilities as at 30/06/2015 ($M)
Standard - discount rate at 7.8% pa for pensioner liabilities	35,962.7
Discount rate at 2.9% p.a.	62,018.6
% variation from standard basis	172.5%
Dollar variation from standard basis ($M)	26,055.9

Valuing current pensioner liabilities on a Commonwealth government bond basis increased the liabilities at 30 June 2015 by $26.1 billion. SSS, PSS and some SASS contributors are eligible for lifetime pensions in the future when they retire. If these contributors' future pension liabilities are valued on a government bond basis, the Fund's liabilities will increase further.

5

Trustee Policies and Self-Insurance Arrangements

5.1 Investment

5.1.1 Asset Structure

The assets of the four Schemes in the Pooled Fund are pooled for investment and related purposes (including for tax calculations and tax return purposes). There is no separate portfolio of assets for each Scheme. However the administrator maintains a notional defined benefit employer asset account for each employer in each Scheme and thereby allows tracking of funding status and contribution requirements of each employer.

5.1.2 Investment Arrangements

From 15 June 2015, the NSW Treasury Corporation (TCorp) provides funds management services in relation to the Trustee Selection Strategy (the investment strategy for most employer defined benefit assets (excluding Universities) and SSS and PSS contributor assets). The services being provided by TCorp include undertaking functions such as recommending investment managers, conducting due diligence, funds administration and operations and reporting activities.

STC retains the responsibility for investment governance (including setting investment objectives and strategies, risk management and asset allocation) for all the STC investment strategies. STC will also continue to manage the four member investment choice strategies in which SASS contributor and deferred member assets are invested and the two Universities investment strategies (University Conservative Diversified and University Cash) in which the Universities' Employer reserves are invested.

5.1.3 Asset Allocation at 30 June 2015

The strategic asset allocation for the Fund's defined benefit assets at 30 June 2015 are:

Asset Class	Trustee Selection Strategy (%)	University Conservative Diversified (%)	University Cash (%)
Liquid Growth	**54.0**	**28.0**	**-**
Australian Equities	27.0	14.0	-
International Equities	27.0	14.0	-
Alternatives	**31.5**	**-**	**-**
Infrastructure	10.0	-	-
Property	9.0	-	-
Other Alternatives	12.5	-	-
Liquid defensive	**14.5**	**72.0**	**100.0**
Australian fixed interest	5.0	6.0	-
International fixed interest	2.0	2.0	-
Cash	7.5	64.0	100.0
Total	**100.0**	**100.0**	**100.0**
Growth	**85.5**	**28.0**	**-**
Defensive	**14.5**	**72.0**	**100.0**

5.1.4 Investment Policy

Derivatives – Derivatives, including futures and options, can be used by STC's investment managers. However, each manager's investment mandate clearly states that derivatives may only be used to facilitate efficient cash flow management or to hedge the portfolio against market movements and cannot be used for speculative purposes or gearing the investment portfolio.

Currency hedging policy – STC's policy for currency hedging at 30 June 2015 was:

- International equities are hedged from 0% to 80% into Australian dollars.
- International property, infrastructure and alternative assets are hedged from 0% to 100% into Australian dollars.
- International fixed interest assets (sovereign and corporate debt) are hedged from 0% to 100% into Australian dollars.

5.1.5 Actuarial Opinion

Given that it is not known when members will take their benefit with certainty, the exact term of the Fund's liabilities is unknown. However, despite the defined benefits being closed to new members, the projections carried out as part of this valuation indicated that it is expected to be a considerable number of years before the defined benefit assets reduce significantly.

The Trustee regularly reviews its investment strategy taking into account changes to the membership and how this may vary in the longer term as the Fund matures. Detailed asset liability modelling (ALM) will be carried out following this investigation to further inform decisions around long term funding and the level of investment risk taken.

The Fund's investments are expected to provide a high level of liquidity in normal circumstances.

We have reviewed the Fund's investment policy for the defined benefit assets taking into account the nature of the Fund sponsor and confirm we consider that the investment policy adopted is reasonable. In theory, alternative asset allocations may be more suitable for employers not backed by the NSW government. However the cost of changing these asset allocations may outweigh the benefits. This position will continue to be kept under review and examined further as part of the ALM.

5.2 Crediting Rate Policy

Crediting rates are used to attribute the Schemes' investment earnings to the various reserves (employer, member, etc) in an equitable manner as determined by the Trustee. They are also used to adjust a member's benefits in relation to periods of membership of the Schemes and the period between when they leave employment and when a benefit is paid. Separate crediting rates are calculated for each investment strategy reflecting the level of earnings achieved on the underlying assets as adjusted for expenses and tax.

We are aware that the Fund's crediting rate policy is currently under review. A full review of the Fund's crediting rate policy is outside the scope of this investigation.

5.3 Self-Insurance Arrangements

The Fund self-insures death and disability benefits. The table below sets out the self-insurance arrangements that exist in the Fund and the relevant actuarial monitoring process.

Arrangements	Description	Latest Actuarial Investigation	Next Actuarial Investigation
SASS Additional Benefit Reserve	Reserve to meet member component of Additional Benefit payments to SASS contributors.	Reviewed as at 31 March 2011, report by Martin Stevenson dated 22 June 2011. An interim review was conducted as at 30 September 2014, report by Chris Brown dated 13 March 2015.	30 June 2015 - valuation currently underway and results will be disclosed in a separate report.
Self-insurance within the Employer DB Reserve	Meets the cost of standard death and disability benefits of all Schemes and employer component of Additional Benefit payments to SASS contributors	Employer funding reviewed as at 30 June 2015 as part of this valuation.	30 June 2018

We consider that the Fund's current self-insurance arrangements and the actuarial monitoring processes are suitable.

6

Actuarial Assumptions and Fund Experience

The ultimate cost to the Employers of providing the Fund benefits is:

- the amount of benefits paid out; plus
- the expenses of running the Fund, including tax;

less

- members' contributions; and
- the return on investments.

The ultimate cost to the Employers will not depend on the actuarial investigation assumptions or methods used to determine the recommended Employer contribution rate, but on the actual experience of the Fund. The financing method and actuarial assumptions adopted will however affect the timing of the contribution requirements from the Employers.

The actuarial process includes projections of possible future Employer assets and benefit liabilities on the basis of actuarial assumptions about future experience.

These assumptions include investment returns, salary increases, crediting rates, rates at which members cease service for different reasons, pensioner mortality rates and various other factors affecting the financial position of the Fund.

It is not expected that these assumptions will be precisely borne out in practice, but rather that in combination they will produce a model of possible future experience that is considered a suitable basis for setting contribution rates.

6.1 Economic Assumptions

The most significant assumption made in estimating the cost of defined benefits is the difference between:

- the assumed rate of investment earnings or the discount rate; and
- the rate of salary and pension increases used in the projections of future benefit payments.

The key economic assumptions adopted for this valuation are:

		2015 Valuation
Rate of Investment Return / Discount Rate		
Assets supporting pensioner liabilities		7.8% p.a.
Assets supporting non-pensioner liabilities		6.8% p.a.
General Salary Increase Assumption*	Short term	3.0% p.a. for the 4 years to 30 June 2019
	Long term	3.5% p.a.
Rate of CPI Increase		2.5% p.a.

The assumption for investment returns/discount rate is based on the expected long-term investment return for the Fund's current benchmark investment mix, calculated using Mercer

Investment Consulting's assumptions of the means and standard deviations of returns from the various underlying asset classes and the correlations of returns between those asset classes.

The general salary increase assumption is based on long-term economic forecasts consistent with the expected investment return assumptions. Past experience and the expectations for short term future salary increases are also taken into account in setting the general salary increase assumption.

The expected rate of CPI increase (for pension indexation) is based on the target range of the Reserve Bank of Australia.

6.1.1 Economic Experience since Previous Valuation

Year to 30 June	3-year average (p.a.)	Assumed* for the 3 years to 30 June 2015 (p.a.)
Investment Returns	14.4%	7.3% pa for non-pensioner assets, 8.3% pa for pensioner assets
Salary Increase		
SASS	3.2%	2.9%
SSS	3.2%	2.7%
PSS	4.1%	5.3%
Pension Increase	2.2%	2.5%

* including assumed general and promotional salary increases.

6.1.2 Administration Expenses

The administration expenses are the same as the 2012 valuation. These are as follows:

SASS	1.0% of employee contributions (assumed deducted from member accounts) plus 1.0% of benefit payments.
SANCS	1.0% of benefit payments.
SSS	1.0% of employee contributions (not deducted from member reserves) plus 1.0% of benefit payments.
PSS	1.0% of benefit payments

6.2 Demographic Assumptions

6.2.1 Detailed analyses of demographic experience for the Pooled Fund were carried out as part of this valuation. The full report with the results of the analyses and relevant commentaries are included in Volume II of this report. Comments on the key demographic assumptions are provided below.

6.2.2 Pensioner Assumptions

The pensioner mortality experience has been mostly in line with that assumed in the 2012 valuation.

- For SSS, the pensioner mortality assumptions are based on the 2012 assumptions with 3 years of improvements applied and then adjusted and smoothed at specific ages to better align with experience.
- For SASS and PSS, we have simplified the pensioner mortality assumptions to be based on SSS rates with adjustment to reflect SASS and PSS specific experience.

The period of pensioner mortality rates subject to improvement based on short term improvement factors have been extended for 3 years to 2021 (compared to 2018 in the 2012 valuation), consistent with the approach adopted at previous valuations. The pensioner improvement factors have been updated to those from the latest Australian Life Tables 2010-2012.

The percentage with spouse at death assumptions have been adjusted in line with Fund experience and Australian population data from the Australian Bureau of Statistics.

6.2.3 SASS and SSS Retirement and Retrenchment Assumptions

For SASS and SSS, actual retirements (including retrenchments recorded as retirement exits) were higher than assumed. There were significantly fewer retrenchments than assumed for SASS and SSS contributors under the early retirement age.

For the 2015 valuation, retrenchment assumptions are distinguished for contributors over and under early retirement age, as members over early retirement age are more likely to accept redundancy packages. This is consistent with both the general expectation and past experience of the Fund. The retrenchment assumptions are set following consultations with the NSW Treasury. As a consequence, relatively high retrenchment rates have been introduced for the PTE’s, but reduced rates (from the 2012 valuation) for the General Government Sector.

To avoid allowing for expected redundancies over early retirement age twice, we have maintained the 2012 valuation retirement assumptions for SASS and SSS.

6.2.4 PSS Hurt on Duty and SASS Police Invalidity Assumptions

PSS had fewer Hurt on Duty exits than expected. The 2012 valuation assumptions are adjusted to better align with experience for the 2015 valuation.

SASS Police contributors had higher than expected total and permanent invalidity but lower than expected partial and permanent invalidity. Overall invalidity experience was lower than expected. Invalidity rates for SASS Police contributors have been adjusted based on PSS invalidity rates.

6.2.5 Other Demographic Assumption Changes

Other demographic assumption changes for the 2015 valuation include:

- SASS pension take up rate increased to 50% for eligible SASS contributors (28% was assumed in the 2012 valuation).
- A nil resignation rate is adopted for SSS contributors and all available optional units are assumed to be taken up immediately by SSS contributors.
- PSS pensioners are assumed not to commute any pensions into lump sum.

Full reports on the demographic experience analyses and 2015 valuation assumptions are included in Volume II of this report.

6.3 Recommendations in the Previous Valuation

The previous valuation at 30 June 2012 made recommendations in relation to employer contribution arrangements for each employer group in the Pooled Fund (including the General Government Sector, Universities and the PTE and Other Employers).

A funding arrangement has since been agreed by the Commonwealth and NSW Governments for the Universities (see section 1.6.2).

The employer contribution arrangements for the General Government Sector and PTE and Other Employers were reviewed by the Trustee and the NSW Treasury following the 2012 valuation. Employer contributions were paid in the inter-valuation period based on the agreed rates. The Trustee and NSW Treasury continue to regularly review the rates of employer contributions.

The 2012 valuation further recommended that:

- those employers that are not State backed be identified.
- the relevant legislation be altered so that contribution levels for non-State backed employers be determined by the Trustee; that is, there is no involvement of NSW Treasury in setting the contributions.
- for non-State backed entities the contribution recommendations should be adjusted (where necessary) to at least the level required if the superannuation arrangements were regulated by APRA.

These discussions are still ongoing.

7

Universities Results on Alternative Valuation Basis

7.1 Funding Arrangements

The Commonwealth and NSW Governments entered into a Memorandum of Understanding (MoU) in December 2014 to provide financial assistance for the unfunded superannuation liabilities of the NSW Universities.

Under the agreement, 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.

Information setting out year by year cash flow projections for each university is provided separately to the Trustee and Commonwealth and NSW Governments. This enables the pay-as-you-go mechanism to operate.

In addition, calculations are carried out once a year to determine any additional contributions payable by each university in relation to 'excess salary' increases that may have been made in accordance with the MoU.

7.2 University Assets

University Employers Only	Assets as at 30/06/2015 $ million			
	Employer Reserve	Contributor Reserve	Deferred Reserve	Total
SASS	293.6	187.6	0.0	481.2
SANCS	14.4	0.0	0.0	14.4
SSS	520.1	86.3	0.0	606.4
Total University	828.2	273.9	0.0	1,102.0

The University Employer Reserve assets are invested very conservatively. As at 30 June 2015, about 90% of University Employer Reserve assets are invested in the University Conservative Diversified investment option (28% growth/72% defensive) and 10% in the University Cash investment option (100% cash).

The assets held will gradually move towards 100% invested in the University Cash option. The current assets held in the University Conservative Diversified option are used first to pay benefits. Once the assets approach one-year's projected cash flow for each individual university the assets are transferred to the University Cash option and the pay-as-you-go funding commences.

7.3 University Liabilities on Alternative Valuation Basis

As the Universities are funded on a pay-as-you-go basis, we have valued the University liabilities on an alternative valuation basis assuming discount rates consistent with the long term investment returns expected for a 100% cash portfolio.

	2015 Valuation	Long Term Cash Basis
Rate of Investment Return / Discount Rate		
Assets supporting pensioner liabilities	7.8% p.a.	4.0% p.a.
Assets supporting non-pensioner liabilities	6.8% p.a.	3.4% p.a.

Valuing University liabilities on the long-term cash basis increases the liability value by around $1.6 billion, or a 40% increase to the Employer funded past service liabilities.

University Employers Only	Past Service Liability as at 30/06/2015 $ million			
	2015 Valuation Basis		Long Term Cash Basis	
	Total Liability	Employer Funded	Total Liability	Employer Funded
SASS	474	286.4	530.9	343.3
SANCS	73.5	73.5	86.2	86.2
SSS	3,462.8	3,376.5	4,981.5	4,895.2
Total	4,010.3	3,736.4	5,598.6	5,324.7

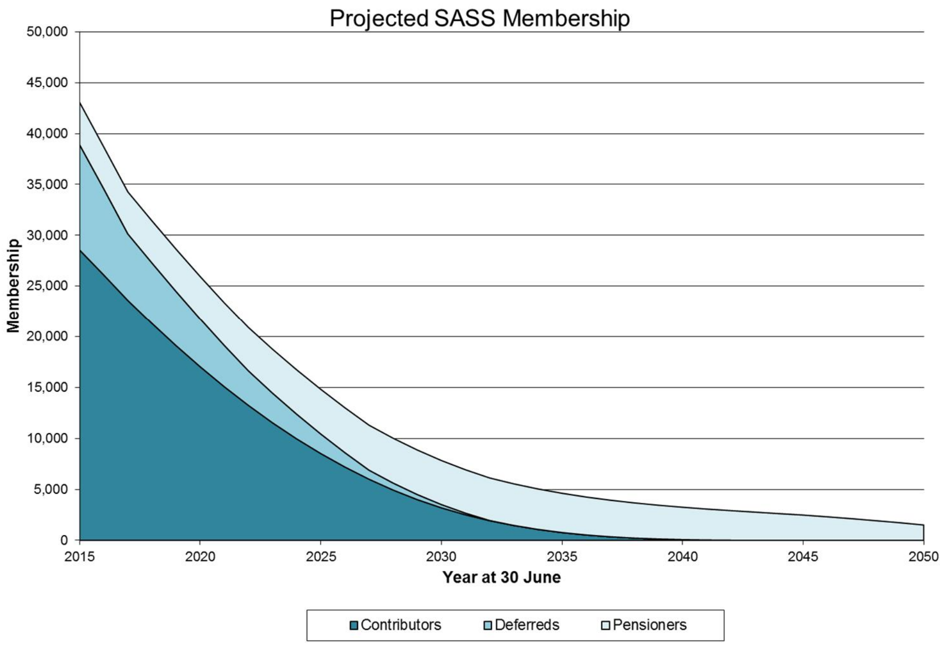
Given the benefits will be met on a pay-as-you-go basis these figures are for information only.

8

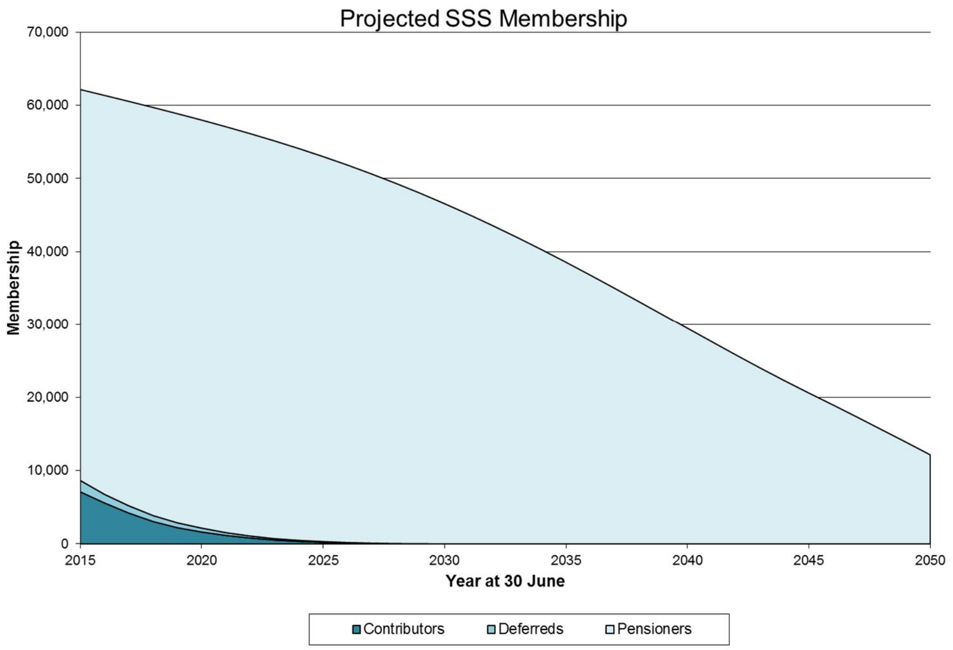
Membership Projections

The following graphs show how the membership profile of each Scheme and the Pooled Fund are expected to develop over time if the valuation assumptions are borne out in practice.

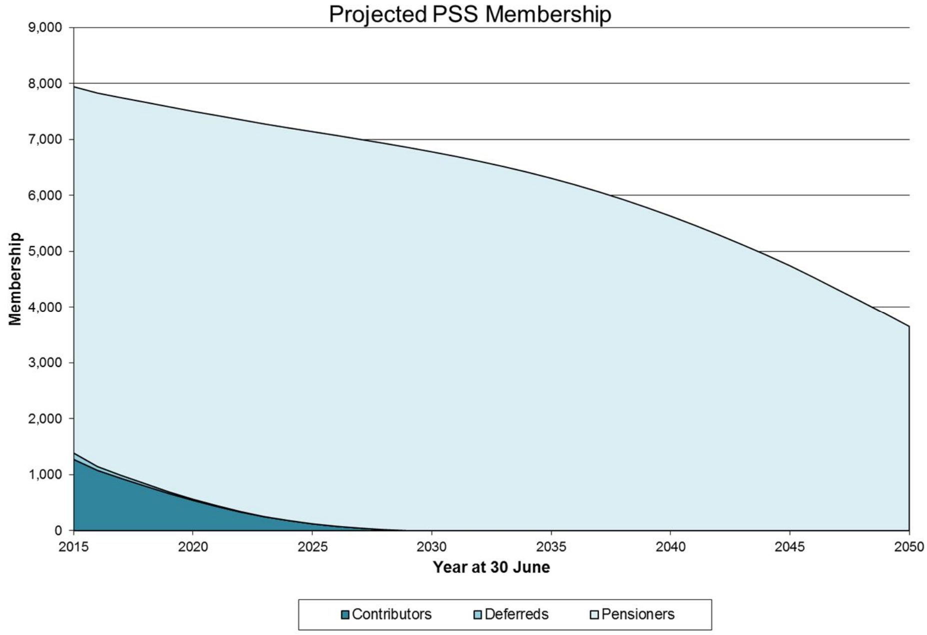
8.1 SASS



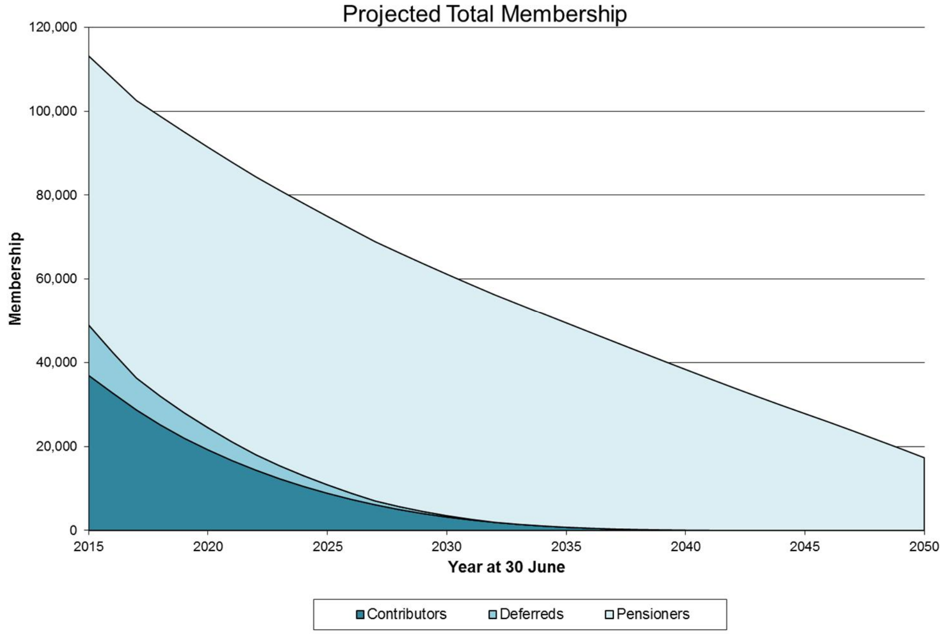
8.2 SSS



8.3 PSS



8.4 Total Pooled Fund



9

Background and Summary of Information Provided

9.1 Legislation

The Schemes are governed by the following legislation (and their relevant regulations):

Scheme	Legislation
SASS	State Authorities Superannuation Act 1987
SANCS	State Authorities Non-Contributory Superannuation Act 1987
SSS	Superannuation Act 1916
PSS	Police Regulation (Superannuation) Act 1906

STC has advised that there has been no change to member benefits since 2012 with the exception of additional SANCS contributions to an accumulation account for eligible members in line with Superannuation Guarantee rate increases. The Benefit Certificate for the Pooled Fund has been updated to reflect this change in the Minimum Requisite Benefit design.

The administrator is still in the process of setting up these additional SANCS benefits. This valuation report does not include the liabilities or the assets in relation to these additional SANCS benefits as at 30 June 2015.

9.2 Background

9.2.1 The Schemes within the NSW Pooled Fund are Exempt Public Sector Superannuation Schemes but complying superannuation funds for the purposes of the SIS legislation. The Schemes are taxed as complying superannuation funds.

9.2.2 The main characteristics of each scheme's benefit design are:

Scheme	Benefits
SASS	Lump sum of employee contributions accumulated with earnings; plus an employer financed lump sum defined benefit based on final average salary, membership period and level of employee contributions. Some members are eligible to receive the employer financed benefits as lifetime pensions due to membership of previous schemes.
SANCS	SASS, SSS and PSS members receive the SANCS benefit in addition to their main scheme benefit. The SANCS benefit is 100% employer-funded. The benefit is generally a lump sum of up to 3% of members' final salary or final average salary, for each year of service from 1 April 1988 (or if later, the employment commencement date).
SSS	On retirement a defined benefit (pension or lump sum), the level of which depends on the number of units purchased. Members contribute towards units of fortnightly pension throughout their membership.
PSS	On retirement, a defined benefit (pension or lump sum) the level of which depends on the member's final average salary and membership period. Due to the nature of the occupation specific benefits are payable if injury or death occurs on duty.

Detailed benefit provisions for each scheme are provided in Volume II to this Report.

9.2.3 Each of the schemes commenced and closed to new entrants on the following dates:

Scheme	Commencement	Closed to New Entrants
SASS	1 April 1988	19 December 1992
SANCS	1 April 1988	8 December 1992
SSS	1 July 1919	1 July 1985
PSS	1 February 1907	31 March 1988

9.3 Membership Data

Scheme	As at 30/06/2015							
	Contributors			Deferred Members		Pensioners		Total
	Number of Members	Average Age	Average Service (years)	Number of Members	Average Age	Number of Members	Average Age	Count
SASS	28,552	55.4	28.7	10,354	53.6	4,167	74.8	43,073
SANCS^	36,933	55.6	29.9	11,763	54.1	-	-	48,696
SSS	7,113	57.1	34.9	1,551#	56.4	53,498*#	70.6	62,162
PSS	1,275	52.8	30.9	114	54.2	6,555	62.8	7,944
Total	73,873	55.6	29.9	23,782	54.0	64,220	70.0	161,875

^ All SASS, SSS or PSS contributors are also members of SANCS (with the exception of Sydney Grammar). There are no SANCS contributor members who are not members of SASS, SSS or PSS. Nearly all of the SANCS deferred members are also deferred members of SASS, SSS or PSS. Thus there is some double-counting in the totals.

* Excludes 17,277 fully commuted pensioners who are not currently in receipt of a pension payment. The spouses of these fully commuted pensioners are eligible for a reversionary pension and the past service liabilities for SSS include a liability provision for these spouse reversions.

SSS deferred members who have not met a SIS condition of release but who are currently receiving pension payments into their deferred benefit accounts within the Pooled Fund are treated as current pensioners for the purposes of actuarial investigations. These members are excluded from the SSS deferred member counts and included in the pensioner member counts above. There were 496 such SSS members at 30 June 2015.

The membership data used for this valuation was taken from the database used to administer the Fund as provided by the Trustee. We have carried out reasonableness checks on the data and we are satisfied with the quality of the data and its suitability for this purpose.

More information on the membership data are provided in Volume II of this report.

9.4 Asset Data

We have been provided with the audited financial statements for the Pooled Fund as at 30 June 2015. The audited financial statements provide a breakdown of the Pooled Fund assets by Scheme and by reserve type (Member Reserves, Employer Reserves, Death or Invalidity Reserves and Deferred Benefits Reserves).

We have checked the asset information received for reasonableness and confirm its suitability for use in the report. In particular, we have checked the Member and Deferred Benefit Reserves asset information from the financial statements against the 30 June 2015 membership data received for consistency.

As at 30 June 2015	Net Asset Value from the Financial Statement ($millions)	Adjustment ($millions)	For Triennial Valuation Report ($millions)
Employer Reserves			
SASS	5,691.9		5,691.9
SANCS	1,538.0	(50.3)*	1,487.7
SSS	20,353.4		20,353.4
PSS	4,231.4		4,231.4
Total Employer Reserves	**31,814.7**		**31,764.4**
Member Reserves			
SASS	4,921.3		4,921.3
SANCS Other Accounts	-	50.3*	50.3
SSS	2,333.0		2,333.0
PSS	359.7		359.7
Total Member Reserves	**7,614.0**		**7,664.3**
Deferred Benefits Reserves			
SASS	2,100.6		2,100.6
SANCS	453.1		453.1
Total Deferred Benefits Reserves	**2,553.7**		**2,553.7**
Death or Invalidity Reserves			
SASS	5.6		5.6
Total Scheme			
SASS	12,719.4		12,719.4
SANCS	1,991.1		1,991.1
SSS	22,686.4		22,686.4
PSS	4,591.1		4,591.1
Total Pooled Fund	**41,988.0**		**41,988.0**

* The SANCS Other Accounts are accumulation-style benefits such as government co-contributions received for the contributors. They are paid in addition to employer-financed SANCS defined benefits. They have been excluded from the Employer Reserve assets supporting defined benefits and included as SANCS Contributor Reserve assets for presentation purposes in this triennial valuation report.

For the 30 June 2015 accounting disclosures, the administrator has provided us with the preliminary asset reserve information at 30 June 2015 for each individual employer and for each scheme in early July 2015 (prior to the finalisation of crediting rate and tax calculations for the purposes of the audited financial statements in September 2015).

We have used the proportion of assets from the preliminary individual employer asset information as a basis to allocate the financial statements' Employer Reserve assets to individual employer level by scheme at 30 June 2015. The allocated Employer Reserve assets have been used for the valuation results by employer group disclosed in this valuation report.

10

Actuarial Certification

10.1 Additional Information

Significant events since the valuation date – we are not aware of any significant events since the valuation date that would affect the recommendations of this report.

Next triennial actuarial investigation - Required at a date no later than as at 30 June 2018.

AAS25 Summary – Information for Australian Accounting Standard AAS25 purposes is provided separately to the Trustee.

Next Benefit Certificate – required at or before the expiry of the current Benefit Certificate (which expires on 31 March 2019). This certificate is required primarily by the Employers to demonstrate compliance with their Superannuation Guarantee obligations to employees who are members of the Fund. However the Trustee must ensure the benefits paid from the Fund are not lower than the minimum benefits specified in the Benefit Certificate.

10.2 Actuarial Certification

Professional standards and scope

This report has been prepared in accordance with generally accepted actuarial principles, Mercer internal standards, and the relevant Professional Standards of the Actuaries Institute, in particular PS400 which applies to *"...actuarial investigations of the financial condition of wholly or partially funded defined benefit superannuation funds."*

Use of report

This valuation report should not be relied upon for any other purpose or by any party other than the Trustee. Mercer is not responsible for the consequences of any other use. This report should be considered in its entirety and not distributed in parts.

The advice contained in this report is given in the context of Australian law and practice. No allowance has been made for taxation, accountancy or other requirements in any other country.

Actuarial Uncertainty and Assumptions

An actuarial investigation report contains a snapshot of the Fund's financial condition at a particular point in time, and projections of the Fund's estimated future financial position based on certain assumptions. It does not provide certainty in relation to the Fund's future financial condition or its ability to pay benefits in the future.

Future funding and **actual** costs relating to the Fund are primarily driven by the Fund's benefit design, the **actual** investment returns, the **actual** rate of salary inflation and any discretions exercised by the Trustee or the Employer. The Fund's actuary does not directly control or influence any of these factors in the context of an actuarial investigation.

The Fund's future financial position and the recommended Employer contributions depend on a number of factors, including the amount of benefits the Fund pays, the cause and timing of member withdrawals, Fund expenses, the level of taxation and the amount earned on any assets invested to pay the benefits. These amounts and others are uncertain and unknowable at the valuation date, but are predicted to fall within a reasonable range of possibilities.

To prepare this report, assumptions are used to select a single scenario from the range of possibilities. The results of that single scenario are included in this report.

However, the future is uncertain and the Fund's actual experience will differ from those assumptions; these differences may be significant or material. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different.

Actuarial assumptions may also be changed from one valuation to the next because of mandated requirements, Fund experience, changes in expectations about the future and other factors. We did not perform, and thus do not present, an analysis of the potential range of future possibilities and scenarios.

Because actual Fund experience will differ from the assumptions, decisions about benefit changes, investment policy, funding amounts, benefit security and/or benefit related issues should be made only after careful consideration of alternative future financial conditions and scenarios, and not solely on the basis of a set of valuation results.

Data and Fund Provisions

To prepare this report, we have relied on financial and participant data provided by the Fund's administrator. The data used is summarised in this report. We have reviewed the financial and participant data for internal consistency and general reasonableness and believe it is suitable for the purpose of this report. We have not verified or audited any of the data or information provided. We have also relied upon the documents, including amendments, governing the Fund as provided by the Trustee. The Trustee is ultimately responsible for the validity, accuracy and comprehensiveness of this information. If the data or Fund provisions are not accurate and complete, the valuation results may differ significantly from the results that would be obtained with accurate and complete information; this may require a revision of this report.

Further Information

If requested, the actuary is available to provide any supplementary information and explanation about the actuarial investigation.

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